Evaluation of the UNITE-LA School-to-Career Partnership:
PLUS Evaluation of LAUSD Career Academies

UNITE-LA
Los Angeles Unified School District

March 2002

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UNITE-LA SCHOOL-TO-CAREER PARTNERSHIP
CASE STUDY REPORT

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CORE Case Study Background

This report contains an analysis of data collected by Public Works, Inc. under contract to the UNITE-LA partnership as part of the State of California's Case Study Evaluation of School-to-Career implementation. UNITE-LA is one of thirteen partnerships participating in this evaluation. UNITE-LA is the largest school-to-career partnership and encompasses a vast geographic and densely populated region of the state. Institutional partners include the Los Angeles Unified School District with over 721,000 students and the Los Angeles Community College District, which serves over 120,000 students, and the City of Los Angeles.

Public Works, Inc. is in the third year of providing evaluation services to UNITE-LA. In addition to the case study, Public Works, Inc. has also conducted follow-up activities related to the three-year evaluation plan established with the partnership in 1998. As part of the case study evaluation, Public Works, Inc. has also participated in the PLUS study on behalf of UNITE-LA. This study involves the analysis of student outcomes related to participation in six career academies in the Los Angeles Unified School District (LAUSD). The results of this study can be found in a report titled *Evaluation of the UNITE-LA School-to-Career Partnership: PLUS Evaluation of LAUSD Career Academies.* The following four research questions guide the CORE evaluation:

(1) What is the status of STC implementation in California?

(2) How has STC affected student preparation for postsecondary education and career entry?

(3) To what degree and in what ways has STC contributed to systemic change?

(4) Have STC principles penetrated the community deeply enough to be sustainable?

Data collection for the CORE study took place during the 2000-01 school year and the fall of 2001. Note that a detailed description of study methods can be found in the body of the report. Quantitative methods included:

- A survey of a sample of seniors in high schools participating in the study
- A follow up survey of seniors conducted over the telephone in the fall after graduation
- A survey of *all* Kindergarten-12 schools in the partnership

The following methods were used to collect qualitative information from key stakeholders:

- Telephone interviews of employers and labor organizations involved in STC at the school level,
- An interview of the local partnership director
- Interviews of faculty involved in STC at all Los Angeles Community College District Campuses
- Site visits to participating high schools that included on-site interviews and focus groups of teachers, administrators and counselors and students

Highlights from the Report

- Over half of seniors had participated in career fairs or outside speakers and career interest assessments. Nearly a third had participated in a job shadowing experience.

- More seniors who had participated in all types of STC components had positive attitudes related to career preparation and the information and guidance that they had received from their school.

Study Findings and Recommendations

In short, STC implementation resides at the school level primarily in the programmatic approaches to career-focused education that have developed under the California Partnership Academies model and through career course sequences developed under Perkins funding. These often predate the UNITE-LA partnership and represent a key strategy employed by LAUSD to implement a school-to-career approach.

Despite the ongoing difficulty that UNITE-LA has had in penetrating LAUSD, the partnership can point to many ongoing initiatives that are garnering more broad-based support for STC in the community. In addition, UNITE-LA has demonstrated that it is interested in what the data show about partnership activities and how it can fine tune implementation. UNITE-LA can be commended as an organization that evolves to meet current circumstances and is committed to achieving its goals despite the difficulties it faces in reaching its vast geography and dense population.

- **UNITE-LA's vision for STC continues to need to be communicated at the school level**. Although the partnership has engaged in an extensive media campaign and developed a Web site that provides information and forum to connect to employers and community members, there continues to be a lack of awareness within schools related to what UNITE-LA is and what it is supposed to accomplish.

- **The transition to a focus on centralized functions and seasonal campaigns represents an important shift in thinking and priorities for UNITE-LA that will support its sustainability.** Having specific campaigns to associate with UNITE-LA is an important structural component that employers and other organizations can tap into. The seasonal campaigns, however, focus on one-time events and general awareness of STC. Despite the difficulties associated with the shift to seasonal campaigns in terms of building or improving on the overall system, it does provide a set of priorities and activities that are both "doable" and sustainable, especially if the support of large employers and industry sectors can continue to be leveraged.

- **Tapping into the existing network of academy and Perkins programs may provide an important strategy for UNITE-LA to build awareness and teacher and programmatic connections within LAUSD.** Again, while it is important for UNITE-LA to be strategic in its implementation strategies to ensure its sustainability, it is equally important for the partnership to develop new approaches to engaging personnel at the school level. By developing approaches to engage with and support academy and Perkins programs, UNITE-LA could build exemplary work-based learning and career exploration programs that are tied to curricular reforms. In turn, the partnership could help these programs to articulate a vision for STC that lessens their isolation and goes beyond their students and reaches out to the whole school.

- **Using UNITE-LA's visibility in the employer community could help build employer networks at the school level and increase work-based learning opportunities.** Many employers interviewed had experienced positive associations with both UNITE-LA and the schools with which they are involved. In fact, nearly all planned to stay as involved or increase their involvement, which indicates substantial engagement among involved employers. However, site visits indicated that many schools continue to struggle with making work-based learning connections. UNITE-LA could support these efforts by building capacity at the site level. It is important that UNITE-LA continues to communicate to the site level that it is not competing for these resources. Rather, it is serving to recruit more participation among employers.

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INTRODUCTION

This report contains an analysis of data collected by Public Works, Inc. under contract to the UNITE-LA partnership as part of the State of California's Case Study Evaluation of School-to-Career implementation. UNITE-LA is one of thirteen partnerships participating in this evaluation. The Case Study Evaluation has been conducted under the leadership of WestEd in San Francisco and MPR Associates, Inc. in Berkeley, California. WestEd and MPR Associates directed the overall evaluation design and methodologies employed in this study. Public Works, Inc. conducted all data collection and analysis using the instruments developed by WestEd and MPR Associates with the ongoing support and cooperation of UNITE-LA and participating schools.

Public Works, Inc. is in the third year of providing evaluation services to UNITE-LA. In addition to the case study, Public Works, Inc. has also conducted follow-up activities related to the three-year evaluation plan established with the partnership in 1998. As part of the case study evaluation, Public Works, Inc. has also participated in the PLUS study on behalf of UNITE-LA. This study involves the analysis of student outcomes related to participation in six career academies in the Los Angeles Unified School District (LAUSD). The results of this study can be found in a report titled *Evaluation of the UNITE-LA School-to-Career Partnership: PLUS Evaluation of LAUSD Career Academies.*

The Case Study Evaluation was designed to answer the following research questions:

- What is the status of STC implementation in California?
- How has STC affected student preparation for postsecondary education and career entry?
- To what degree and in what ways has STC contributed to systemic change?
- Have STC principles penetrated the community deeply enough to be sustainable?

The Case Study Evaluation design called for a series of data collection efforts during the 2000-01 school year and the fall of 2001. These included:

- a survey of a sample of seniors in high schools participating in the study,
- a follow up of these seniors in the fall,
- interviews of employers and labor organizations,
- an interview of the local partnership director,
- a survey of *all* participating schools in the partnership,
- interviews of participating community colleges and
- site visits to participating high schools that included on-site interviews and focus groups of teachers, administrators and counselors.[1]

[1] Note that Public Works, Inc. also included student focus groups in the site visits.

The report is organized in the following sections and contains an integrated analysis of the data collection methodologies listed above and includes the following sections:

- A detailed methodology section,
- Partnership composition, funding and roles and responsibilities
- Career awareness, exploration and development activities
- Career academies and career majors/pathways
- Curriculum integration strategies
- Work-based learning
- Principals, teachers and professional development
- New standards and certification
- Connections with business, labor organizations and postsecondary institutions
- Connections between STC Participation and outcomes for students involved in STC
- Sustainability of STC efforts

Each section incorporates a series of the data tables that are referred to in the text. These tables have been prepared using data collected through the senior survey, the follow-up survey and the administrator survey and include various demographic, school-to-career participation and school level variables. The report concludes with a summary of findings integrating each of the sections listed above.

A series of appendices are also attached to the report. These include:

- A table listing categories of people interviewed during the site visits (Appendix A),
- A list of employers and labor organizations interviewed during the summer (Appendix B),
- Narratives submitted during the course of the project (Appendix C),
- Instruments and Correspondence developed during the course of the project (Appendix D),
- Appendix tables with data from the student follow up and senior survey (Appendix E),
- Survey instruments used in the project (Appendix F) and
- A list of academies and career majors in LAUSD (Appendix G).

METHODOLOGY

Study Overview

The Case Study Evaluation was designed to provide consistent information from the thirteen partnerships participating in the study using common evaluation instruments and data collection methodologies. The study included several surveys (senior survey/follow-up and school survey) and telephone and on-site interviews of the local partnership director, secondary and postsecondary personnel, employers and labor organizations. In addition, the study design included an analysis of school-to-career implementation based on both school level implementation and student participation in school-to-career. In order to maintain consistency among partnerships participating in the study, the Request for Proposal (RFP) required that participants adhere to strict response rate requirements. For example, Public Works, Inc. was required to achieve an 80% response rate in the senior survey conducted in the Spring and a 75% response rate for the follow-up survey. Public Works, Inc. was also required to achieve a 70% response rate in the administration of the elementary, middle and high school surveys.

While the survey of elementary, middle and high schools (administrator survey) was administered partnership-wide, the other data collection methods focused on a random sample of schools in the partnership that agreed to participate in the study. As part of the RFP process, Public Works, Inc. provided a list of high schools in the partnership area, divided into two categories: "high STC implementation" and "other". Public Works, Inc. categorized schools based on criteria provided in the RFP and on existing knowledge from this and prior evaluation projects about the schools gained from other evaluation efforts. In order to be categorized as a high implementation STC school, schools had to meet the two criteria contained in the RFP, which are summarized in the following chart. Public Works, Inc. used background knowledge from previous projects and information on programmatic offerings from the district to determine which schools fell into each category.

"High" versus "Other" School Classification Criteria	
Criteria #1. *School-Based Curriculum Reforms. A high school must demonstrate* ***two or more*** *of the following to meet Criterion #1:*	***Criteria #2.*** *Contextual Learning Through Work-based Activities. A high school must demonstrate that 50% of 12th grade students have participated in* ***two or more*** *of the following to meet Criterion #2:*
a) Many teachers (25% or more) develop their own applied/contextual learning curriculum units or projects; b) Many teachers (25% or more) are implementing state-provided academic course materials/curricula that use contextual or project-based learning approaches; c) Many teachers (25% or more) have revised vocational or technical courses to cover issues and occupational pathways related to a particular industry or career area, including financial, management, technology, and environmental roles and responsibilities ("all aspects of the industry); d) In at least several instances, academic and vocational-technical teachers are paired for teach teaching in classrooms; and e) In at least several instances, teachers are grouped together to develop joint curricula that emphasize a specific career area.	a) Work site visits/job shadowing; b) Paid school year jobs related to the student's chosen career major/pathway; c) Unpaid school year work experience/internships related to the student's chosen career major/pathway; d) Paid summer jobs related to the student's chosen career major/pathway; e) Unpaid summer internships related to the student's chosen career major/pathway; and f) Community service/service learning/volunteer work related to the student's chosen career major or pathway.

Based on the list of schools provided by Public Works, Inc., fifteen Los Angeles Unified School District (LAUSD) high schools were randomly chosen to participate in the study. Public Works, Inc. then contacted these schools and secured their agreement to participate in the study.[2] Participating schools agreed to allow Public Works, Inc. to administer a survey of a sample of seniors at the school site, provide a list of employers and labor organizations that support STC efforts at their school and arrange for a one-day site visit by Public Works, Inc. staff. For their participation, schools received a $2,000 incentive.[3] Access to schools was gained through our ongoing work with LAUSD as local evaluators on a number of projects. In addition, as part of the three-year evaluation of UNITE-LA, Public Works, Inc. had already secured the cooperation of the district in the required data collection and evaluation processes. This district support was key to the participation and cooperation of schools in the project. In addition, Public Works, Inc. assigned several staff members to overseeing communication and data collection arrangements with a contact at each of the school sites. Letters, instruments and correspondence with school sites developed as part of this project are contained in Appendix D. The following chart lists participating schools by their classification as "high" implementation or "other".

[2] Note that funds for the CORE case study have been used to include 12 schools in the study. Funds from the third year UNITE-LA evaluation are supporting the inclusion of an additional 3 schools in the case study.

[3] Note that six of the high schools also participated in the "Plus" study and five schools participated in the third year follow up evaluation study conducted by Public Works, Inc. An additional incentive was provided to these schools for their participation.

School Classification Chart	
High Implementation	**Other**
Belmont	Birmingham
Crenshaw	Locke
Foshay	Los Angeles
Gardena	Palisades
Hollywood	South Gate
Manual Arts	Van Nuys
Monroe	Westchester
Wilson	

The following sections provide detailed descriptions of the data collection methods used in this study (surveys, site visits and interviews and telephone interviews of employers and labor organizations).

Surveys

Three surveys were conducted as part of this study. The first survey of a sample of seniors at each of the schools participating in the study occurred in the Spring 2001. The second was a follow up survey of these seniors, which occurred in the Fall 2001 and was conducted over the telephone. The third was a written survey of an administrator at each elementary, middle and high school in the partnership. This survey also occurred in the Fall 2001. For each of the surveys, Public Works, Inc. established a detailed record keeping and tracking process using Excel and a Filemaker Pro database. The following sections provide detailed information about this process and the administration of each of these surveys.

Senior Survey Administration

Identification and Selection of Seniors for the Survey

In the spring 2001, Public Works, Inc. surveyed 2,056 seniors in the Los Angeles Unified School District (LAUSD) and the UNITE-LA School-to-Career Partnership. Seniors were randomly selected from the fifteen schools participating in the study. Public Works, Inc. also collected contact information in order to administer the follow-up survey, which occurred in the Fall 2001.

In order to generate a random sample of students, Public Works, Inc. first requested a roster of seniors from each participating school. We also asked the school to identify students who had participated in extensive school-to-career experiences based on student enrollment in career-focused programs such as academies, career pathways and tech-prep.[4] LAUSD has focused programmatic efforts to implement

[4] A career major or career pathway is defined as a sequence of courses (program of study) designed around a theme, occupational area or interest area that students follow, including their selection of academic, and in some cases, occupational or technical courses. The choice of a career

STC on the California Partnership Academy model and Public Works, Inc. determined that enrollment in career academies provided the closest proximity to the guidelines provided by the study design team (West Ed and MPR Associates, Inc.) to identify "high implementation" students. After examination of these rosters and the number of students in each category (High versus Other), Public Works, Inc. determined an appropriate proportion of High versus "Other" students to be included in the sample randomly pulled from each participating high school.

After the proportion of high versus "other" students was determined, students were randomly selected from these lists until we had a total sample of between 150 to 200 students (exact numbers in the sample per school are contained in the chart that follows this discussion). A team of at least two Public Works, Inc. staff members then worked with each school site STC coordinator to determine the best date, time and place to administer the survey. Generally, students were called from their classrooms using call slips to complete the survey in an auditorium or library. At all schools, students were surveyed in one day and the required response rate of at least 80% was achieved (with an overall response rate of 83.5%).

Seniors completing the survey provided a range of demographic information including their age, sex, race-ethnicity, high school grades, highest level math taken and parent education. This information allowed Public Works, Inc. to analyze the student survey responses based on these student characteristics in order to find out if any of the characteristics appear to be associated with various levels of school-to-career participation.

In order to examine differences among students who participated in STC at higher levels, the sampling design and analysis allowed for a higher proportion ("over-sample") of high implementation students to be selected at each school. An analysis weight was then applied in the data analysis in order to examine differences between high implementation and "other" students. All tables included in this report use one of two analysis weights that account for the sampling design.

The general purpose of weighting is to compensate for the unequal probability of selection into the sample, and to adjust for respondent nonresponse to the survey. The weights are based on the inverse of the selection probabilities at each stage of the sample selection process and on nonresponse adjustment factors computed within weighting cells. The spring 2001 Senior Survey had two major components: the selection of high schools from among all comprehensive high schools served by the Local Partnership, and the selection of seniors, stratified by the intensity of STC activities (career academies, career pathways or tech prep) within each school. Nonresponse occurred during both of these data collection phases. Weights were computed that account for nonresponse during either phase (i.e., selection of schools and selection of students). In addition, schools and students were selected with disproportionate probabilities. To adjust for these factors, two weights were prepared.

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major/pathway may also influence students' involvement in workplace activities. Just choosing a vocational, occupational, or technical course is not equivalent to choosing a career major pathway.

Each weight is the product of school and student probabilities of selection, and the sum of the weights equals the total number of seniors in all high schools served by a Local Partnership. Since these population weights inflate the likelihood of finding statistical significance (e.g., the sum of the weights is equal to the total population of seniors in served by the LP, whereas the actual number of cases in the survey is substantially less), the weights were normed such that the sum of the weights was set equal to the actual number of students who responded to the survey. By using these normed weights, tests of significance computed using the weighted data (which correct for oversampling and nonresponse) accurately reflect the underlying sample data. The two weights differ in how they are normed. The first, COMPWT, norms within each stratum of student STC involvement, and is optimized for comparisons between seniors with high levels of STC participation (career academies, career pathways, and tech prep programs) and those not in high intensity programs. The second weight, UNIVWT, adjusts for the overall number of students. The sum of the weights calculated separately by level of STC involvement sum to the actual number of "high intensity" and other seniors in the LP sample, but the proportions are not adjusted for the oversampling of high intensity students compared to the actual distribution of these students across schools. With COMPWT, there appear to be many more high intensity seniors than there actually are. Using UNIVWT, on the other hand, the overall distributions correspond to the actual distribution of high and other STC intensity seniors among the schools in the LP. For population estimates and any comparisons other than between high and other intensity STC involvement, UNIVWT was the weight used.

Public Works, Inc. has also characterized the fifteen schools in the sample along several dimensions in order to examine whether particular school characteristics are associated with levels of school-to-career participation and opinions about preparation for their future education and career choices among seniors. School characteristics contained in the analysis include: urbanicity,[5] percent free and reduced meals, percent of families in CALWORKS, percent minority and school wide level of STC implementation (high versus low). The following chart shows the number of students included in the sample, the number of students completing a survey and the overall school response rate.

[5] Includes Urban, Mid-size city/fringe, Urban fringe, Rural/small town.

Senior Survey Administration and Response Rate Chart													
		Number of Seniors			Number in Sample			Number of Completed Surveys			Response Rates		
School	Date	# HI	# Other	Total	# HI	# Other	Total	# HI	# Other	Total	HI	Other	Total
Belmont*	5/15	248	479	727	42	138	180	25	121	146	59.5%	87.7%	81.1%
Birmingham	5/16	118	431	549	40	135	175	26	117	143	65.0%	86.7%	81.7%
Crenshaw*	5/10	16	235	251	16	135	151	8	117	125	50.0%	86.7%	82.8%
Foshay	4/9	129	0	129	129	0	129	109	0	109	84.5%	n/a	84.5%
Gardena	6/4	43	420	463	50	100	150	47	76	123	94.0%	76.0%	82.0%
Hollywood	5/31	123	137	260	90	90	180	75	73	148	83.3%	81.1%	82.2%
Locke	5/16	105	119	224	75	75	150	69	58	127	92.0%	77.3%	84.7%
Los Angeles	6/1	0	326	326	0	150	150	0	134	134	n/a	89.3%	89.3%
Manual Arts	5/29	362	0	362	150	0	150	135	0	135	90.0%	n/a	90.0%
Monroe	5/21	232	410	642	40	110	150	32	91	123	80.0%	82.7%	82.0%
Palisades	5/24	98	398	496	45	155	200	42	121	163	93.3%	78.1%	81.5%
South Gate	6/12	0	812	812	0	180	180	0	147	147	n/a	81.7%	81.7%
Van Nuys*	5/30	112	551	663	40	160	200	34	129	163	85.0%	80.6%	81.5%
Westchester	5/8	68	310	378	68	82	150	54	66	120	79.4%	80.5%	80.0%
Wilson	5/17	90	313	403	45	125	170	34	113	147	75.6%	90.4%	86.5%
Total		1744	4941	6685	780	1355	2135	643	1140	1783	82.4%	84.1%	83.5%

Note: Schools marked with an asterisk (*) are being evaluated utilizing UNITE-LA funds

Senior Follow-up Survey Administration

Survey Administration

Public Works, Inc. administered the Senior Follow-up survey in the Fall 2001 over the telephone. We determined that a telephone survey would be the most efficient and successful strategy given the data collection timeframe and the number of students we needed to contact. To prepare staff members for the follow-up survey, Public Works, Inc. held a training in September 2001. This training included background on STC, an overview of the survey instrument and telephone protocol and strategies for bolstering student response rate. Public Works, Inc. staffed a phone bank in the evening hours from 5:00 pm to 9:00 pm Monday through Thursday throughout the month of October and for two weeks in November. Several of our staff members are bilingual Spanish and English speakers, which allowed us to contact additional students and parents in our sample. For students who we were unable to contact during that timeframe, we also called in the mornings and afternoons.

In order to carefully track the administration of senior follow-up surveys, Public Works, Inc. assigned the students of specific schools to particular staff members for administration. Public Works, Inc. prepared a binder for each staff member that included a roster of student first name and last names, original survey number from the spring, phone number and alternate phone numbers (by school). The roster also included a column for staff members to record the new survey number so that these numbers could be matched for follow-up data analysis. The binder also included a copy of the student's contact information from the original survey in case more information was necessary to contact the student. In some cases, when telephone contact was unsuccessful, Public Works, Inc. contacted students via email. However, although we were able to contact many students, in most cases this strategy was not successful in terms of eliciting a survey response. As surveys were completed over the phone, the staff member also recorded the old survey number (from the spring) in the top right-hand corner for hand entry by NCS Pearson after scanning the surveys to prepare the data for analysis.

Follow-up Strategies

The phone bank process allowed Public Works, Inc. staff members the opportunity for multiple follow-ups via telephone. Public Works, Inc. also contacted students via email. However, these contacts did not result in completed surveys for these students. In some cases, the email was no longer valid. In other cases, though initial email contact was made, the survey was not completed. In many of the cases where we were unable to contact a student, all of the numbers on the contact sheet were incorrect or disconnected so these students were impossible to contact. In other cases, repeated telephone calls at different times of the day did not result in contact with the student or the parents. In some cases, we contacted parents or alternate contacts but they were either not willing or able to complete the questions for the students. In addition, several students did not graduate and were unwilling to complete the survey. Many parents felt uncomfortable answering questions about their children and were not willing to answer our questions. All follow up contacts were tracked and in some cases, staff left up to seven messages with no response.

Student Response Rates

We achieved an overall response rate of 73% for the partnership as a whole. The following table shows the response rate for each school.[6]

[6] No schools were below 55% (unacceptable data).

Student Follow Up Response Rates			
LAUSD Schools	**# of Surveys completed in Spring**	**# of Surveys completed in Fall**	**Response Rate from 2nd Survey**
Belmont	152	109	72%
Birmingham	143	107	75%
Crenshaw	125	94	75%
Foshay	109	82	75%
Gardena	133	99	74%
Hollywood	148	101	68%
Locke	128	85	66%
Los Angeles	134	91	68%
Manual Arts	135	101	75%
Monroe	124	87	70%
Palisades	163	125	77%
South Gate	149	111	74%
Van Nuys	167	128	77%
Westchester	120	82	68%
Wilson	147	112	76%
Total	**2077**	**1514**	**73%**

Barriers to Follow-Up Survey Data Collection

By administering the survey via a phone bank and having enough staff members to contact the large number of students in the follow up study, Public Works, Inc. achieved a high level of success in reaching students. Public Works, Inc. had several bilingual staff members available to talk to parents or students and this resulted in overcoming the potential of a language barrier. However, many students who we were unable to reach had phone numbers that were disconnected and alternate numbers that were either invalid or disconnected. In addition, email addresses were also invalid in many of these cases. Students were contacted during the phone bank hours (M-Th 5-9 pm) and during the morning and afternoons when we were unable to reach them during the phone bank. All students who were difficult to reach were contacted a minimum of seven times. We do not believe additional time would have resulted in higher response rates (e.g. students returning over the holiday break). In summary, we believe this was a very successful follow-up survey and in the few cases where the response rate is lower than the target rate of 75%, we believe we made as good an effort as was possible given the limitations presented by the follow-up information provided by the students.

Student Survey and Follow-Up Survey Discussion of Non-Response Effects

The following table provides demographic information for seniors who responded to the original survey in the spring and the follow-up survey in the fall. This demographic information is provided alongside information about the Los Angeles

Unified School District as a whole. Students who responded to the senior survey fall into roughly the same proportions when categorized by sex and race-ethnicity as seniors in LAUSD as a whole. Note that nearly 10% of the survey sample either indicated "other" or "decline to state" for their race-ethnicity. Demographic characteristics of students contacted in the follow-up survey also roughly match the original survey as well as the overall demographic characteristics of LAUSD. While African-American students are slightly over-represented and Asian-Pacific Islanders are slightly under-represented in the follow-up survey responses, it is important to understand that these students represent a smaller proportion of students in the district as a whole. Therefore, throughout the analysis, caution is recommended in interpreting differences based on race-ethnicity. This caveat is noted in the analysis where it is especially important.

Senior Survey and Follow-Up Respondent Demographic Information

	Senior Survey (Spring 2001)		Follow-Up Survey (Fall 2001)		LAUSD Seniors (28,066 total enrolled in 2000-01)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Sex						
Male	898	44.2%	665	45.2%	13,196	47.0%
Female	1135	55.8%	806	54.8%	14,870	53.0%
Total	**2033**	**100.0%**	**1471**	**100.0%**	**28,066**	**100.0%**
Race-ethnicity						
African-American	310	15.3%	274	18.7%	3,767	13.4%
Asian-Pacific Islander	155	7.7%	93	6.3%	3,111	11.1%
Hispanic/Latino	1202	59.4%	899	61.3%	16,814	59.9%
White	168	8.3%	91	6.2%	4,268	15.2%
American Indian/Alaskan Native	6	0.3%	6	0.4%	106	0.4%
Other	103	5.1%	59	4.0%	--	--
Decline to state	80	4.0%	45	3.1%	--	--
Total	**2024**	**100.0%**	**1467**	**100.0%**	**28,066**	**100.0%**

Note that 23 respondents did not identify their sex and 32 respondents did not identify their race-ethnicity and are not included in these totals.

In four instances during the follow-up survey, Public Works, Inc. contacted less than 70% of respondents at a particular school, which required further statistical analysis of possible non-response bias. In these schools (Hollywood, Locke, Los Angeles and Westchester), the response rate for the follow-up survey ranged between 66 and 68%. In an analysis of the demographic distribution of the responses in these schools, the follow-up survey yielded a higher proportion of females than males responding to the survey (approximately 60% of females versus 40% of males). However, an examination of the demographic distribution of the senior classes in

these schools showed that these proportions were within 1-2 percentage points of the actual gender distribution in these schools. In an examination of the respondents to the follow-up survey by race-ethnicity, for the most part the distribution of respondents by race-ethnicity roughly aligned with the distribution at the school. However, in several instances there were slight differences. For example, fewer white students from Hollywood High were contacted for the follow up survey. At Locke High School, a higher proportion of Hispanic/Latino students were contacted when compared to African American students. On the other hand, at Los Angeles High School, no white students were contacted during the follow-up, although they represent 5.1% of the senior class. And at Westchester High School, fewer African American and a higher proportion of white students were contacted in the follow-up study. To the extent that these groups experience school-to-career differently, these disparities in response rate by race-ethnicity may affect the analysis of the survey. Therefore, the caveat related to interpretation of results by race-ethnicity is repeated here. Note that three of these schools fall into the "other" category, while one falls in the "high" implementation category.

To further examine the possibility of non-response bias, Public Works, Inc. also examined the survey data by comparing the responses of follow-up survey respondents to non-respondents on the original survey. In addition, chi-square tests were performed in order to ascertain if any of these differences were of statistical significance. In this comparison, there were only a few instances of statistically significant differences. For example, there was a higher proportion of Hispanic/Latino students and slightly lower proportions of "other" and "decline to state" responding to the survey when compared to the original survey in the spring though these differences were slight. Again, there were statistically significant differences with regard to father's education with slightly fewer students whose fathers had less education responding to the survey. Because parental education is closely connected to a student's pursuit of further education this perhaps may slightly inflate the numbers of students enrolling in postsecondary education.

Statistically significant differences also existed between respondents and non-respondents with regard to participation in internships (fewer respondents indicated that they participated), knowledge about career-related activities (fewer respondents indicated that they knew), worrying about their career until after high school (fewer respondents agreed with this statement) and that high school had prepared them for a good job right after high school (fewer respondents agreed). Taking these questions together, responses to the follow up survey may slightly under-estimate participation in career-related or STC activities.

Administrator Survey Administration

Survey Administration

During the summer 2001, Public Works, Inc. created a detailed Filemaker Pro database that contained contact information for all of the schools in the partnership. UNITE-LA encompasses the entire Los Angeles Unified School District (LAUSD).

The database served as our primary organizing tool for administration and follow-up of the Administrator Survey.

In order to develop this database, Public Works, Inc. used the LAUSD school directory, which includes all schools in the district. To create the database, Public Works, Inc. used the following criteria:

- All traditional elementary (K-5 or 6), middle/junior and comprehensive high schools were included.
- Alternative programs located on a comprehensive high school campus were not included (e.g. magnet programs). Because these students are enrolled at the same school site, we instructed administrators to include these students in the completed survey for the campus as a whole.
- Continuation schools were not included (these programs vary in size, emphasis and population served and for the most part have not been involved in the UNITE-LA partnership).
- Alternative schools located at addresses different from the comprehensive high schools were included as a separate entry in the database and surveyed separately.
- Span schools (e.g. K-8, K-12, etc.) were not surveyed because a specific survey instrument was not developed and data would not be comparable to other schools surveyed.[7]

These criteria resulted in the inclusion of 423 elementary schools, 71 middle/junior high schools and 51 high schools in the database.

Because we are working with three partnerships for this project (UNITE-LA, Verdugo STC and Sonoma County STC), Public Works, Inc. put together a team of approximately 8 staff members for the data collection phase of this project. To ensure consistent administration of the administrator survey instrument and a smooth data collection process, Public Works held a mandatory training for all staff involved in the data collection and analysis for two days in September (administrator survey, senior follow-up survey and site visits and interviews trainings were held separately and included the relevant staff for each). The training for the administrator survey included an overview of STC content and background; a review of the survey instruments, tracking and follow-up process; and phone interview protocol and techniques to achieve the required response rate.

As soon as the Administrator Survey was released by WestEd and MPR Associates, Inc. Public Works, Inc. prepared a mailing of the survey to all schools, with the principal as the first contact. The mailing included a cover letter from the LP Director with instructions and a postage-paid return envelope in order to encourage as many responses by mail as possible. Public Works, Inc. then assigned a single staff member to be responsible for the tracking of returned surveys for all three partnerships. As surveys were returned by mail, they were checked off in the database by a staff person responsible for tracking survey responses.

[7] One exception is Foshay because it is a K-12 school organized by academies at the high school level. This school is included in the Plus study, therefore we felt it was important to survey.

After a three-week time period for schools to return the surveys, Public Works, Inc. then began the follow-up processes by phone and fax in order to achieve the required 70% response rate at each school level. In order to accommodate busy schedules and facilitate survey administration, Public Works followed up with the principal or secretary by telephone (as many times as was necessary) to find another appropriate administrator or staff member to complete the survey over the phone or via fax. This follow-up process is described in more detail in the next section.

Follow-up Strategies

After the administration of the survey by mail, Public Works, Inc. employed a variety of strategies to conduct the follow-up process. First, Public Works, Inc. prepared a binder for each staff member, containing a roster of schools assigned to each particular staff member. These schools then became that particular staff member's responsibility.

The follow-up process began approximately 3 weeks after surveys were administered. Staff training occurred in late September. All staff assigned to administrator surveys were given instructions and a script to follow in their follow-up telephone calls with each school. Follow-up included:

- a phone call to the principal,
- referral to appropriate person (if applicable),
- fax, re-mail or telephone administration of the survey
- follow-up or collection of survey as necessary (via telephone or on-site)

After approximately four weeks of telephone and fax follow-up, the required response rate by school level was achieved.

School Response Rates

As detailed in the following table, Public Works, Inc. achieved the minimum 70% response rate at each level in the partnership (elementary, middle and high school level) with an overall 71% response rate.

Administrator Survey Responses Rates by School Level			
LAUSD School Level	**Number Surveyed**	**Number of Responses**	**Response Rate**
Elementary	423	294	70%
Middle School	71	53	75%
High School	51	39	77%
Partnership Total	**545**	**386**	**71%**

Barriers to Administrator Survey Data Collection

While the survey collection process required substantial follow-up and a determined effort on the part of staff to their assigned schools, Public Works, Inc. was pleased to achieve the required response. No specific barriers to data collection arose, with the exception of high school surveys. The most common complaint of survey respondents was the length of the survey and request for detailed information on student participation that was either not available or not readily available. However, with persistent follow-up, this barrier was overcome and the 70% minimum response rate was achieved. Through this process, we were able to collect generally complete data on most, if not all of the surveys that were collected.

Administrator Survey Non-Responses Effects and Analysis Strategies

With the relatively high response rate at each level (over 70%), the information collected through this survey is likely to be representative of STC efforts throughout LAUSD. Thus, the survey responses represent the most complete data at the school level regarding STC that has been collected thus far. By including elementary and middle school data for the analysis, it is especially helpful. However, the survey instrument itself asks for detailed questions on enrollment and participation for students, seniors, employers and labor organizations. These numbers are not generally collected on a regular basis and the accuracy is reliant on the one or two people involved in completing the surveys. Therefore, Public Works, Inc. believes that we must be cautious in interpreting and comparing these numbers. The survey does, however, provide relatively accurate information with regard to the types of activities offered on campus and the kinds of professional development offered to teachers in implementing STC. Therefore, we do get a more complete picture of STC offerings at the partnership level.

In order to analyze the data collected through the administrator survey, various demographic characteristics of all schools in the partnership were collected using data from the California Department of Education's Dataquest Web site. A variable for each of the following school characteristics was created for each school in the partnership: percent of students in free and reduced lunch programs, percent of families in CALWORKS, percent minority and school type (e.g., urban, rural, etc.). These variables are used throughout the report to examine differences among school responses to survey items.

To differentiate among schools, Public Works, Inc. first ordered schools based on these demographic characteristics (i.e., from highest to lowest). These ranges were then divided into three levels (terciles) in order to analyze the data. Because each partnership works with a different set of schools and regional population characteristics, terciles will vary from partnership to partnership and cannot be compared. The following chart shows additional information about the terciles used in this report including the range and average percentages. To determine whether any of these characteristics could result in differences between survey respondents and non-respondents (response bias), statistical tests (T-tests) were performed comparing respondents to non-respondents. Based on this analysis, there were no

statistically significant differences between respondents and non-respondents to the administrator survey.

Administrator Survey Demographic Characteristics							
LAUSD Schools	Elementary		Middle		High		Total
	Range	Mean	Range	Mean	Range	Mean	Range
% Free and Reduced Lunch	.04-1.00	0.81	.31-.97	0.72	.11-.85	0.56	.04-1.0
% CALWORKS	.00-.60	0.24	.06-.50	0.23	.11-.85	0.56	.00-.85
% Percent Minority	.20-1.0	0.89	.57-1.0	0.9	.05-.36	0.17	.05-1.0

Secondary and Postsecondary Personnel Site Visit & Interview Administration

Identification of Participants

The CORE study for UNITE-LA included 15 high schools (LAUSD) and 9 community colleges in the Los Angeles Community College District (LACCD). At the secondary level, Public Works, Inc. sent a letter to principals and school-to-career contacts describing the purpose of the visit and instructions on how to develop an agenda and include appropriate participants. Public Works, Inc. conducted a one-day site visit to each of the 15 high schools. A copy of this letter is available in Appendix D. A Public Works, Inc. staff person then contacted the site via telephone to schedule a date, develop an agenda and answer questions. Several site visits were conducted during the Summer of 2001 at sites on a year-round calendar. All site visits were conducted by November 15, 2001.

At the community college level, Public Works, Inc. first contacted the LP Director's contact at LACCD to put together an initial list of contacts at each campus. A telephone interview was then scheduled and additional contact information with all relevant staff members was collected. Generally, Public Works, Inc. conducted approximately 2-4 interviews per LACCD site using the community college protocol. Interviews were usually conducted over the telephone, though in several instances interviews were conducted on site. These interviews were completed by November 19, 2001. A complete list of the titles of those interviewed at each site is contained in Appendix A.

Description of Site Visits/Interviews

Prior to the site visits, Public Works, Inc. held a training for all staff involved in the interview and focus group process. This training included information on STC content and background, site visit interview and focus group techniques and an overview of the write-up protocol and process. The training also included background information on school sites from prior studies and the Internet.

Once a site visit date at a high school was set, Public Works, Inc. sent one or two person site visit teams to the school to conduct all interviews and focus groups following the individual agenda designed for that school. Sign in sheets were used to keep track of interviewees and focus group participants. Public Works, Inc. used the interview protocols from the project to conduct all interviews and focus groups. Because we believe they provide a valuable data point and good insight into STC implementation and impact, we also set up one or two student focus groups at each site. These focus groups included both students who had and had not participated in extensive STC activities or programs. Following the site visit, any missing information was collected via telephone. At the postsecondary level, Public Works, Inc. conducted telephone and a few on-site interviews when necessary.

Interviewees

The list contained in Appendix A are organized by school and include the date of the site visit or telephone interview and position of the individuals interviewed for both high schools and community colleges. At the secondary level, a total of 170 individuals were either interviewed or participated in a focus group (plus 1-2 focus groups of students at each high school). At the postsecondary level, a total of 24 interviews were conducted.

Barriers to Data Collection at School Site Visits and Interviews

Other than site visit and data collection overload at the sites participating in the case study, the data collection process was a smooth one. In a few instances, there was reluctance to take yet more time from teacher and administrator schedules. However, we were eventually able to convince all sites to schedule the one-day site visit. With all qualitative data collection, there are limits to what can be collected in a one-day site visit. However, Public Works, Inc. staff has extensive experience in school-to-career, vocational education and other education reform efforts and was able to determine who on campus would have the most relevant information. We were also able to interview several of those who didn't have information, which in itself is valuable to the analysis.

Caveats Related to Data Analysis of School Site Visits and Interviews

The data from the site visits will provide a comprehensive qualitative picture of STC efforts at the high school level and at the community colleges. Because the design calls for a random sample of high schools, the data collected gives a picture of STC in general as well as specific connections made by the LP. However, the random selection of high schools (particularly those in the low implementation or "other" category) often made it difficult to elicit specific information about STC or the LP because of the various levels of involvement (in some cases extremely low). The selection of interviewees also is an important consideration in interpreting the data at each school site. In some cases, the combination of interviewees provided a relatively "whole" picture of STC at the school. In other cases, the combination of interviewees yielded more information about the lack of STC at the school. In

several instances, follow up information was required and we made calls to specific individuals at the school when necessary.

Specific caveats related to the analysis in LAUSD include the difficulty of talking to all principals, especially at the large high schools. Despite our attempts to schedule the principals at each school, several AP's stood in their place at the last minute. Repeated follow-ups yielded little direct information from the principals at these few schools. In one case, the principal left the day of the site visit and the administration was replaced the following week. In addition, we had difficulty in several LAUSD schools in speaking to the head counselors, though we were able to convene a focus group of counselors at each of the schools. Although the head counselors were scheduled to attend, in a few cases they were unable to attend at the last minute due to unexpected conflicts on campus. In many cases, we found that the counselors were not specifically knowledgeable about STC and were busy meeting the minimum scheduling requirements of their extremely large caseloads. Thus, the information they yielded regarding STC was often limited.

With regard to the selection of teachers for focus groups, we believe we achieved representation of both those teachers who are consciously implementing STC concepts in their courses and programs and those teachers are either indifferent or openly opposed to STC. Although we had to depend on the school sites for the selection of teachers, we believe that they were forthcoming in these efforts once they understood that the evaluation was of the LP as opposed to the specific efforts at their particular school.

At the postsecondary level, we generally had an agreeable and cooperative response from the deans in charge of the vocational area. In some instances, there was difficulty scheduling these interviews due to busy schedules and in a few cases, the interviews were canceled or further delayed. However, in general the information we received was thorough and responsive. Despite this, the interviews made the fragmentation of program responsibility at this level very apparent leading to a difficulty in constructing a cohesive picture of STC at the community colleges. Occasional confusion about funding streams and the collapsing of funding streams made it difficult to sort about what was implemented through STC, Tech Prep or other vocational programs.

Employer and Labor Interview Administration

Employer/Labor Organization Selection

In order to generate a list of employers and labor organizations to be interviewed as part of the Core Case study, each participating school was first asked to submit a list of five employers with whom they worked closely on STC implementation. Public Works asked for their "best" and "most involved" employers in order to collect information from employers who were more likely to have had a rich, extensive STC experience from which to draw from. Because of the relatively small number of employers that would be included in the interview stage of the evaluation, we

believed we would get the best information about STC from those employers who were closely involved (as opposed to employers with only a periphery experience in STC). In addition, these interviews were qualitative in nature and not dependent on a random sample of employers (of which we have found that there is generally an extremely low response rate). As part of this process, we also contacted the LP director who provided us with an extensive list of employers involved in UNITE-LA and the schools with whom they worked closely. Many of the employers we interviewed are large employers with multiple locations and involved in STC at different schools. In these cases, we associated each employer with the school with which they had primary involvement. The result of these two efforts was a list of at least 5 employers per school in the core sample (a total of 75 interviews). A list of interviews conducted is included in Appendix B. This process allowed Public Works to generate a list of employers representing a range of industries important to the Los Angeles region and employers of various sizes. Public Works also asked each of the schools in the UNITE-LA core case study to submit a list of *all* labor organizations with whom they worked on STC. However, there was an extremely limited response with regard to labor organization involvement. After repeated attempts, no schools in the sample provided labor organization contacts. The difficulty of this was confirmed in our interview with the LP director who provided the two contacts we were successfully able to interview.

Description of Interviews

The employer and labor organization interviews were conducted using the project employer/labor protocol. Public Works conducted these interviews over the telephone primarily to accommodate the employers' time constraints and to reach employers throughout the large geographic area that the partnership includes. Interviews were conducted over a four week period during July and August 2001. A limited number of Public Works employees were designated as interviewers and were trained in the use of the protocol in a telephone interview format. For this training, Public Works provided necessary background information and a script for introducing the interviewer and the goals of the interview. Public Works interview staff made the initial contact to all employers and labor organizations and followed up until all required interviews were completed. These interviews generally ranged from a minimum of approximately 15 minutes to over half an hour (depending on the time that the employer or labor organization could devote to the interview). Public Works staff input employer responses directly into a Word template using the STC Forum Web site employer/labor protocol in order to ease analysis.

Interview Data Analysis

After the completion of each interview, Public Works interview staff reviewed employer and labor organization responses and generated a printout for each interview. These printouts were compiled in a binder that was divided by school. A project manager conducted the analysis of the data for the entire partnership. In order to analyze the data, each question was examined separately to determine common patterns in the responses of employers and labor organizations. These common patterns were coded and compiled in a "tally" by question in order to keep track of all the interview responses and to provide a summary for each question. In

addition, responses were reviewed for language that typified employer responses and could be used as a quote or example to demonstrate a concept.

PART I. PARTNERSHIP COMPOSITION, FUNDING AND ROLES AND RESPONSIBILITIES

Partnership Background and Leading Partners

UNITE-LA received its California School-to-Career grant funding in October 1998. The partnership was formed prior to that and has roots back to 1995. The primary partners in UNITE-LA are the Los Angeles Unified School District (LAUSD), the Los Angeles Community College District (LACCD), and the City of Los Angeles Workforce Investment Board (formerly the Private Industry Council). UNITE-LA encompasses an immense and densely populated territory, including LAUSD's 721,000 students, LACCD's 120,000 students and a multitude of programs administered by the City of Los Angeles under WIA.

Prior to funding, according to the LP director, the partners were highly energized to bring the three large entities together. Primarily because of the size of these institutions, before UNITE-LA there was little coordination between these entities. School-to-Career provided an opportunity for these groups to come together to work systemically to improve student transitions from one education level to another or between programs in order to access all that is available in the region. Following the initial funding of UNITE-LA the focus shifted to creating a professional organization with a flurry of work to hire and retain staff, develop funding priorities and create sustainability, given the declining funding pattern of the STC grant. This section begins with a discussion of the main institutional partners in UNITE-LA and then focuses on how the partnership has been implemented.

Los Angeles Unified School District

With 721,000 students, the Los Angeles Unified School District (LAUSD) has been a driving force in determining the structure and staffing strategies employed by UNITE-LA. LAUSD includes 423 elementary, 71 middle or junior high schools and 51 high schools. During the first three years of the grant, UNITE-LA was structured into eleven regional consortia, which aligned with LAUSD's cluster structure. The cluster structure included three to seven senior high schools along with the schools' feeder elementary and middle schools. When LAUSD was broken into 11 mini-districts (beginning in the 2000-01 school year), UNITE-LA reorganized its structure to align with this new configuration.

LAUSD has served as the fiscal agent for this grant in addition to its participation in partnership oversight. LAUSD at the district level has received minimal funding from the UNITE-LA STC grant and provides in-kind contributions to the UNITE-

LA office in the form of supplies, copying and other office support.[8] It has also funded buses, substitute teachers and other contributions to support UNITE-LA initiatives. While it has received only a small portion of the STC grant at the district level, UNITE-LA has provided funds to LAUSD schools in the form of mini-grants, elementary programs such as KAPOW, student transportation, professional development activities and substitutes for teachers to participate in STC activities.

Because LAUSD is the only district in the UNITE-LA territory, all schools are considered partners. However, some schools (and school staff and administrators) participate in UNITE-LA sponsored activities at greater levels than others primarily due to the size of the partnership and the reality that reaching everyone in such a large district would be difficult, in many ways regardless of the amount of the funding and staffing. In addition, many STC activities and programs (such as academies) pre-date UNITE-LA and will continue to be implemented independent of the partnership. For example, LAUSD has been in the process of implementing a wide range of career academies, using the California Partnership Academies as a model for implementation. A complete list of academies available in LAUSD is provided in Appendix G.

LAUSD has many large, urban high schools and the district seized on partnership academies as a strategy to reach both students at risk of failing from high school and to incorporate a smaller learning environment within the larger school setting. In its efforts to implement career academies, LAUSD has been supported by various organizations such as the Los Angeles Police Department in sponsoring police academies at six high schools. In addition, the National Academies Foundation has been associated with the development of travel and tourism and finance academies in many high schools. New Media and transportation academies are also strongly supported by organizations outside of the district such as Workforce LA and the Metropolitan Transportation Authority.

Other strategies to improve both STC connections and vocational offerings in LAUSD center around Perkins (federal vocational education) funding, which is often used to fund a Perkins counselor at the high school. This counselor is usually in charge of developing, coordinating and implementing what are commonly referred to as "Perkins programs" on LAUSD campuses. These generally involve traditional vocational education and may involve ROP courses or programs on campus. A list of what the district terms "Career Cluster Pathways" is also included in Appendix G. From the district's perspective, Career Cluster Pathways are a sequence of courses taken toward a vocational field that incorporate all aspects of an industry. Perkins counselors serve as a focal point for the development of these efforts at the campus level, with the support of administrators who make decisions about the direction and goals of "Perkins" programs at that particular school.

While academies and Perkins programs are the programmatic approaches undertaken by LAUSD with regard to STC and vocational education, the UNITE-LA

[8] In the third year of the grant, UNITE-LA provided funds to support a district liaison to the implementation team.

partnership has evolved to offer specific STC activities (such as job shadowing as opposed to a career academy program) to as wide a range of students as it can reach rather than to support programmatic implementation of STC. In some instances, there is a close connection between the two and in other cases, Public Works, Inc. found very little connection between campus STC efforts and UNITE-LA campaigns.

Los Angeles Community College District

The Los Angeles Community College District (LACCD) is another large institutional partner that is a founding member of the UNITE-LA partnership. LACCD has been contracted with grant funds to hire work-based learning specialists to work with each of the nine college campuses and LAUSD high schools to develop a work-based learning system. LACCD has also been involved in other UNITE-LA projects such as the implementation of Pathfinders software, an Internet-based system to match students, teachers and employers to work-based learning activities.

While the evaluation of UNITE-LA in the first and second years showed a continued commitment to UNITE-LA at the LACCD district level, implementation at the local college level also varied, as it did with LAUSD. In interviews with community colleges, it appeared that as a general matter, the colleges seem to combine resources from STC and other programs such as Tech Prep to develop their programs. The ways in which the funds are used and coordinated appears to depend upon how the college has chosen to structure supervision of the programs. Two colleges, including the most vocationally oriented schools indicated that they had no Tech Prep program while two other colleges indicated Tech Prep involvement without a clear connection or coordination with STC. The other five colleges, which included both small and large schools, seemed to blur the Tech Prep and STC lines in supervision and programming.

City of Los Angeles

The City of Los Angeles is also a major partner in the UNITE-LA partnership and has been responsible for the implementation of Industry Consortia, which are aimed at organizing and involving employers in important economic sectors of the Los Angeles economy. Through a contract with UNITE-LA, the City of Los Angeles developed an RFP and oversight process to develop five Industry consortia in the following areas: entertainment, travel and tourism, manufacturing, health and biotechnology. In addition to this involvement, UNITE-LA has been involved in an advisory capacity in both the implementation of JTPA programs and now WIA programs. For instance, the LP director serves on the new Youth Council so that information can be shared among these groups.

UNITE-LA Structure and Implementation Strategies

Other partners include the American Federation of Labor AFL-CIO, the Los Angeles County Job Services Division, regional business and labor organizations, employers, community-based organizations, teachers and other school personnel, parents, caretakers and students and youth.

UNITE-LA operates out of an office located at the Los Angeles Chamber of Commerce, which is located within blocks of the LAUSD staff with whom they work the closest. As the largest organization involved in the partnership, LAUSD serves as the fiscal agent for the state STC grant. This office is also within relative proximity to both LACCD and the City of Los Angeles. The UNITE-LA office is staffed by the executive director, an assistant and several part time clerical staff where day-to-day decision making occurs.

Decision making for the UNITE-LA partnership was built into the original proposal design and has remained consistent throughout the grant period. The LP director is responsible for developing the policies and procedures under which the partnership operates. In addition, UNITE-LA's leadership board composed of a broad base of membership representation, an executive committee and an implementation team, combine to provide oversight to the partnership's decisions.

The Leadership Board provides broad oversight, while the executive committee provides primary direction to the LP director. The executive committee includes volunteers from the LA Area Chamber of Commerce, KCET television station, LAUSD, City of Los Angeles, IBM North America, LA Community College District, the Los Angeles City Council, Shell Oil and Workforce LA. The implementation team made up of staff members from LAUSD, LACCD and the City of Los Angeles provide staff support to carry out various LAUSD initiatives including contracts and other projects.

UNITE-LA is a state-funded STC partnership. Beyond this funding, UNITE-LA has encouraged the alignment of WIA funds, Perkins and Tech-Prep program funds at the institutional level (e.g. LAUSD, LACCD and LA City). However, it has no actual control over whether and to what extent this occurs. Because UNITE-LA functions as a separate entity from the larger institutions that make up its largest partners (i.e., LAUSD and LACCD), it recognizes that while it can make decisions with regard to policy and programs under the STC grant, it has limited control over policy and decision-making within the larger institutions. Therefore, UNITE-LA serves as a catalyst for change within these institutions and characterizes its implementation strategies as falling broadly under the following areas:[9]

- Coordinate activities of stakeholders throughout the region (as a partnership);
- Set and adjust policy to support STC programming and efforts (within individual institutions);

[9] Note that this information is summarized from the Public Works, Inc. Year 2 Evaluation of UNITE-LA, *Analysis of Grant Funding and Distribution Strategies.*

- Restructure and coordinate training, education and employment preparation (both as a partnership and within individual institutions);
- Provide professional/staff development and technical assistance (as a partnership); and
- Market the concepts, opportunities and benefits of the local STC system (as a partnership).

According to the LP director, private funding has also increased through monetary, materials and in-kind donations from the exposure of seasonal campaigns and marketing and promotion of UNITE-LA. The implementation of KAPOW (an STC program for elementary school students), the partnership with Junior Achievement, the expansion of College Career Fairs and the promotion of the College Career Planning guide have been key contributors to the marketing and promotion of UNITE-LA. From a sustainability perspective, the LP director believes that promotional activities need to occur on an on-going basis because private donations (either in-kind or monetary) are not guaranteed unless UNITE-LA continues to deliver.

Much of the grant has been dedicated to various types of personnel and contracts designed to carry out the priorities of the partnership. UNITE-LA has been staffed by a variety of personnel, including:

- area facilitators,
- work-based learning specialists,
- parent liaisons and
- industry consortia.

The most consistent of these personnel have been the Area Facilitators. There have been six full-time Area Facilitators throughout the funding period—each assigned to two areas (with one working on a part-time basis in one area). They currently are assigned to two local districts (one works with a single local district). Area Facilitators act as liaisons between local and partnership-wide efforts. Their primary responsibility is to facilitate communication between employers, educators and community members. During the first three years of the grant UNITE-LA also employed work-based learning specialists and parent liaisons, both part-time staff assigned to local Area Facilitators (to make a Local Area team).

Work-based learning specialists were responsible for expanding work-based learning opportunities for students and engaging employers. These specialists were assigned to a local area but were hired by each of the community colleges in LACCD. There were originally eight specialists. Because of declining funding and reorganization of UNITE-LA priorities, work-based learning specialists are no longer funded as part of the local area teams.

Parent liaisons were responsible for promoting student, parent, community and business/industry involvement. UNITE-LA assigned these personnel to local areas and many of them worked in local schools. However because of declining funding and the reorganization of UNITE-LA, parent liaison positions have also been cut

during the past two years of the grant. Any remaining staff from these positions has transitioned into support for UNITE-LA initiatives (known as campaigns), which provide school-to-career activities on a partnership-wide basis.

UNITE-LA has also supported the development of five partnership-wide industry consortia representing key industry sectors in the Los Angeles economy including Entertainment; Health and Biotechnology; Transportation; Manufacturing; and Hospitality, Travel and Tourism. The City of Los Angeles administers the industry consortia grants, whose role is to support both partnership-wide campaigns (such as Groundhog Job Shadow Day) and local efforts organized by the area facilitators through their connections to employers in particular industries.

More recently, UNITE-LA has recognized the need to reorganize its priorities to deal with declining grant funding and to continue to build its influence within partner institutions and organizations. Therefore, it has launched several initiatives that UNITE-LA staff is supposed to promote and staff. While the consortia structure remains in place (i.e. area facilitators are assigned to particular schools within the partnership), UNITE-LA has attempted to transition its priorities to initiatives that are more centralized in nature. These initiatives include:

- Season campaigns to bring visibility to the partnership and to engage large numbers of students and teachers in STC activities across Los Angeles (including Groundhog Job Shadow Day, Intern Summer, College is Yours and Educators in the Workplace).

- Marketing, public awareness and media campaign initiated by UNITE-LA in Los Angeles and in association with a consortium of partnerships In Southern California.

- Three-Year Evaluation Process to provide data and information to members regarding partnership activities and STC implementation in general

- Technology and Electronic Systems including a clearinghouse, Web site and Pathfinders software (an Internet-based employer and student work-based learning opportunity matching system).

While this shift makes sense given the vast geographic territory and densely populated region that UNITE-LA must serve, there is a tension between trying to influence STC programs at individual schools and attempting to launch centralized one-day events that focus on promotion of UNITE-LA and STC concepts more broadly.

In the second year of the UNITE-LA evaluation, Public Works, Inc. found that while the majority of grant money had been spent on the local consortia structure through salaries, contracts and seasonal campaigns (substitute release time and student transportation), each area facilitator was also in charge of developing a

structure for schools to have access to mini-grant funds ($50,000 in each of the first two years of the grant and $20,000 in the third year of the grant). In its analysis, Public Works, Inc. found that many facilitators had accessed a minimal amount of these funds and their mode of implementation varied. In some areas, facilitators had accessed existing structures (e.g., LAUSD clusters, Chambers of Commerce). In others, facilitators had established new consortia groups that met regularly to discuss STC and UNITE-LA projects and to fund initiatives through a mini-grant process. Projects funded through the local consortia structure range from new media technology to art projects to purchasing career materials or career development software. Thus, Public Works, Inc. found that while UNITE-LA could offer funding for school-level initiatives, there is very little in the way of systematic or programmatic support for STC programs at the school level (i.e. support for specific academies or programs). Because of the variation from local consortia to local consortia, the level of participation among schools was often uneven leading to a mixed level of understanding of UNITE-LA among school personnel.

Partnership Evolution and Development

The LP director believes that all goals need to be focused on systemic change to build sustainability, rather than programmatic change that will end when funding ends. According to the LP director, the most important goals of STC for UNITE-LA are to:

- impact student achievement,
- create systemic change through partnership wide strategies versus programs,
- involve employers and
- to change pedagogy by encouraging classroom practices to "engage and inspire."

Over time, staffing was fluid because of declining funding and the "downsizing" that was necessary. For example, the number of work-based learning specialists and parent liaisons declined and it was necessary for "specialists to become generalists." According to the LP director, the most difficult entity for UNITE-LA to penetrate has been LAUSD. He believes that the primary reason for this difficulty was its size. Despite this difficulty, the LP director believes that the amount of penetration accomplished thus far is a success.

The roles of the partners have remained fairly consistent with some changes, with each taking responsibility for different components of the grant. For example, LACCD has managed work-based learning specialists and the implementation of the Pathfinders software. LA City has been in charge of administering the grants for industry consortia. On the other hand, while the role of LAUSD was primarily as the fiscal agent in the first two years of the grant, in the last two years, LAUSD received a portion of the grant in order to support a staff person as a liaison to the Partnership.

The strategic and systemic aspects of UNITE-LA implementation strategies are most apparent in the seasonal "campaigns." The four campaigns are *California Intern Summer, College is Yours* (college visitation), *Educators in Workplace, and*

Groundhog Job Shadow day (in partnership with Junior Achievement). As these campaigns involved more and more people over time, they required more staffing. UNITE-LA decided to use its existing experts—the area facilitators—and added these seasonal campaigns to their job responsibilities. With the new workload, area facilitators needed to cut down their direct school contacts and focus on the overall systemic approach of UNITE-LA embodied in the idea of seasonal campaigns.

According to the LP director, the greatest changes he can attribute to the successful implementation of UNITE-LA are

- More business support, with local area support and small businesses being key to area facilitator work
- The increased role of the LA Chamber of Commerce during the years (including the donation of office space for UNITE-LA and promotion of the partnership)
- The development of the LA Economic Alliance in the San Fernando Valley

Institutional Participation in the Partnership

While the community college district is involved in UNITE-LA extensively at the district level, the level of involvement and understanding varied from campus to campus. The lack of clarity with which college administrators view the STC partnership is demonstrated by the fact that responses were so varied concerning its history. Some indicated that they had had programs in place since the sixties and others specifically tied their activities to the development of Tech Prep in the 1990s or STC in the mid-1990s.

While all the colleges indicated that they had vocational departments operating with advisory boards, most had experienced great difficulty getting high school counselors and teachers to participate on these boards. With respect to course sequences and articulation arrangements, some of the colleges referenced specific arrangements with high schools but most referenced the umbrella LAUSD/LACCD articulation agreement as the way in which articulation was structured between high schools and the college. The colleges all had some sort of dual enrollment program, which was the major outgrowth of the articulation agreements. However, generally this program was more focused on college preparation support than vocational training.

The impetus for several of the smaller colleges to be involved in the school-to-career partnership and taking a renewed look at high school relationships and development of focused vocational programs related to the need to increase student enrollment. This was the case with two colleges, one of which had increased enrollment to 18,000 from 12,000 about two years ago. The colleges that had felt pressure to increase enrollment thought that developing programming for the under-served majority at LAUSD high schools (e.g., the population Tech Prep was supposed to serve) was the best way to offer meaningful programs that would boost enrollment.

Awareness of UNITE-LA also varies tremendously from high school site to high school site. Those Perkins counselors or principals who had taken advantage of

various UNITE-LA activities were aware of the partnership. However, for the most part, the level of awareness among career academies and the high school community at large was limited. This may be due to the internal focus of many high schools as they are generally large, self-contained communities in LAUSD. In its evaluation of UNITE-LA, Public Works, Inc. has found that career academies, especially those that have been in existence prior to school-to-career funding and those that are aligned with specific industry or community support agencies (e.g. New Media or Transportation) do not necessarily see the need for the types of activities that UNITE-LA provides because these agencies provide the support they need.

While the involvement of LACCD at the district level has been supportive of UNITE-LA's initiatives (such as the seasonal campaigns), there was less of a sense at the individual colleges of how the particular programs and the relationships they developed with local high schools were part of a larger decision-making structure that related to the community college district as a whole. Since the "partnership" structures between colleges and high schools were so varied from college to college (with some high schools participating in programs of multiple community colleges), there appeared to be no single decision-makers at an LACCD level or even at an LAUSD level. With the exception of UNITE-LA's provision of transportation money for buses, the awareness of UNITE-LA was somewhat limited among most of the personnel interviewed at the community colleges.

Within the individual LACCD colleges, college deans with responsibility for Tech Prep, vocational programs, and STC programs such as career days tended to operate within a specific administrative sphere in which they directed and developed the direction of all workforce development programs based on overriding policy decisions made within the college. This was especially true in terms of building college enrollment through increased involvement with high schools. Many college vocational departments are currently reviewing their relationships with high schools and building their outreach programs. In some colleges, the workforce development departments had hired their own staff to do high school outreach while other colleges had a centralized high school relations department.

PART II. CAREER AWARENESS, EXPLORATION AND DEVELOPMENT ACTIVITIES

Implementation of Key Strategies

This section of the report describes information collected during the site visits and from the school surveys regarding the extent of career awareness, exploration and development activities. While the school surveys provide some basic information about what is offered at each school level (elementary, middle and high school), the site visits provide more information about specific activities in the high schools that may be associated with implementation under the UNITE-LA partnership. However, because of the size of the partnership and the institutions within it, it is difficult to ascertain the extent to which UNITE-LA has affected the career exploration and development system overall.

According to the LP director, the key strategies used by UNITE-LA to expand career development activities in a systematic way are through the seasonal campaigns including job shadowing, internships and college visitations.[10] In addition, UNITE-LA has partnered with KAPOW at the elementary school level and Junior Achievement (which together serve 60,000 LAUSD students). Through its area facilitators, UNITE-LA also promotes and encourages classroom speakers, which expand career development opportunities for students. The LP director has found that the most creative example of "leveraging" funds is the development of the Career and College Planning Student Guide. This guide provides 9th grade students with a sequence to follow in order to graduate High School and qualify for post-secondary options. UNITE-LA has conducted a high profile promotional campaign associated with these guides through LAUSD's 9th grade Life Skills (ECP) teachers. During the first year of this promotion, UNITE-LA purchased 12,000 copies. Now, in year two, UNITE-LA only pays for the cover and arranged for the guides to be stored in the LAUSD warehouse to make the ordering process easier for teachers.

Students gain access to career exploration and development opportunities in a variety of ways. First, all students are required to take the Basic Skills class at the high school lvel. In addition, students in Perkins or career academy programs explore specific career areas through these programs. In addition, the UNITE-LA campaigns are open to all students in the partnership according to the LP director. However, UNITE-LA staff must promote these activities through their contacts and those at the school level with whom they have built good relationships. Despite the individualized nature of planning, promoting and organizing the campaigns, promotion and outreach to special populations is also emphasized during the seasonal campaigns. This is done through alternative high schools, counselors, special education coordinators, and non-public schools. UNITE-LA Facilitators do

[10] The fourth seasonal campaign, *Educators in the Workplace* (teacher job shadowing), focuses on teacher STC awareness and professional development.

outreach through local agencies and CBOs. UNITE-LA is working with the Los Angeles County Office of Education's "Endurance" project that targets troubled juveniles. This program focuses on work readiness skills, SCANS, and career options.

Again, because of the size of LAUSD, UNITE-LA has organized itself to be systemic and hit all K-12 levels. The Seasonal Campaigns are an example of STC activities for the entire K-14 partnership. According to the LP director, the following activities are emphasized at each level of the partnership:

Elementary School
- Guest Speakers
- Project Based Learning
- KAPOW
- Junior Achievement
- Peer Speakers (Older Student/Alumni)

Middle School
- Guest Speakers
- High School Speakers

High School
- Student based enterprises
- Career Academies
- College Fairs
- Guest Speakers
- Internships
- Job Shadowing

Community College
- Classroom speakers
- Strong academic integrated courses
- Tech Prep

Elementary and Middle School Activities

The elementary, middle and high school administrator surveys provides specific information about the types of activities offered at each school level in the partnership. Elementary schools reported offering a number of career exploration activities. For instance, career awareness programs, curriculum units and outside speakers were offered by the most elementary schools (more than 60%) of the 294 responding to the survey. Field trips, films and career fairs were offered by a little less than a third of the elementary schools responding to the survey (Table II.1.a).

Table II.1.a -- Number of elementary schools providing career awareness and school-based learning activities, by selected characteristics

Elementary schools: Table II.1.a (Questions referenced: ES 1)

	Number of schools (N=294)	Elementary Schools Providing					
		Career awareness programs	Outside speakers	Field trips	Films	Career fairs	Curriculum units
Urbanicity**							
Urban	237	141	146	111	67	52	158
Mid-size city/fringe							
Urban fringe	55	34	42	26	11	12	33
Rural/small town							
Percent free and reduced meals							
Highest tercile	105	59	64	45	32	26	67
Middle tercile	99	62	67	47	22	26	66
Lowest tercile	90	56	59	46	25	12	60
Percent of families in CALWORKS							
Highest tercile	107	61	69	41	35	37	71
Middle tercile	97	64	63	49	25	16	60
Lowest tercile	90	52	58	48	19	11	62
Percent minority*							
Highest tercile	104	61	72	40	32	35	73
Middle tercile	102	62	61	48	25	19	66
Lowest tercile	88	54	57	50	22	10	54

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic
** Note that Urbanicity information was not available for 2 schools responding to the survey

Partnership name: UNITE-LA
Total number of elementary schools in partnership: 423

In general, the largest number of elementary schools (over one half) reported offering the integration of only a *few* work-related examples into academic curriculum. A much smaller proportion offered many work-related examples or extensive integration of work/career-related material into academic curriculum. On the other hand, a small number (37) of elementary schools reported that they *did not* integrate work/career-related material into academic curriculum (Table II.1.b). When this data was examined by various school characteristics (urbanicity, percent free and reduced meals, percent of families in CALWORKS and percent minority), no discernable patterns related to the integration of work/career-related material in academic curriculum were apparent. When the elementary school data was examined by various school characteristics, few patterns became apparent though more schools in the highest tercile of percent of families in CALWORKS offered career fairs. The elementary school survey indicates that there are many offerings of career exploration activities in many schools. However, there is little integration of career related ideas within academic curriculum indicating that further work in integrating STC at this level would be useful to building a spectrum of activities and a true continuum of offerings for all students.

Table II.1.b -- Number of elementary schools offering career awareness by integrating work/career-related material into academic curriculum, by selected characteristics

Elementary schools: Table II.1.b (Questions referenced: ES 2)

	Number of schools (N=294)	Elementary Schools Providing			
		No integration	Few work-related examples	Many work-related examples	Extensive integration
Urbanicity**					
Urban	237	33	118	53	25
Mid-size city/fringe					
Urban fringe	55	4	33	9	6
Rural/small town					
Percent free and reduced meals					
Highest tercile	105	12	59	22	9
Middle tercile	99	13	46	23	10
Lowest tercile	90	12	47	18	12
Percent of families in CALWORKS					
Highest tercile	107	10	60	21	12
Middle tercile	97	13	51	23	7
Lowest tercile	90	14	41	19	12
Percent minority*					
Highest tercile	104	11	58	23	10
Middle tercile	102	14	52	21	9
Lowest tercile	88	12	42	19	12

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

** Note that Urbanicity information was not available for 2 schools responding to the survey

Partnership name: UNITE-LA
Total number of elementary schools in partnership: 423

Integration of career related information in academic curriculum does not appear to be widespread in LAUSD. Nearly half of the middle schools responding to the survey reported that they offered only a *few* work-related examples in the curriculum. Only 16 out of the 53 middle schools responding to the survey reported offering *many* examples or *extensive* integration. The integration of work/career-related material into the curriculum was evenly distributed when the data was analyzed by various school characteristics (urbanicity, percent free and reduced meals, percent of families in CALWORKS and percent minority) (Table II.1.c). On the other hand, a fairly large proportion of middle schools reported offering various career awareness and exploration activities. For example, 40 offered outside speakers. Field trips (29), curriculum units (29), career self-exploration (26), teacher facilitated exploration (28) were the most common offerings reported by the middle schools responding to the survey (Table II.1.d). This survey data indicates that a continuum of career exploration offerings is occurring in about half of the middle schools responding to the survey.

While the differences were not great, a higher number of middle schools in the highest tercile of percent families in CALWORKS offered activities such as field trips, career fairs, curriculum units, integrated curriculum, career self-exploration, teacher-facilitated exploration and structured exploration. In addition, a slightly higher number of schools in the highest tercile of percent minority reported providing career awareness activities such as films, career fairs or curriculum units (Table II.1.d). While it is difficult to draw conclusions as to why offerings vary at this level, it is evident that more support may be necessary to ensure that a continuum of activities is offered to all students at the middle school level, similar to the findings from the elementary school survey.

Table II.1.c -- Number of intermediate/junior/middle schools offering career awareness by integrating work/career-related material into the curriculum, by selected characteristics

Middle schools: Table II.1.c (Questions referenced: MS 2)

		Number of Intermediate/Junior/Middle Schools Providing			
	Number of schools (N=53)	No integration	Few work-related examples	Many work-related examples	Extensive integration
Urbanicity					
Urban	43	6	25	7	5
Mid-size city/fringe					
Urban fringe	10	1	5	2	2
Rural/small town					
Percent free and reduced meals					
Highest tercile	18	1	12	2	3
Middle tercile	18	3	8	4	3
Lowest tercile	17	3	10	3	1
Percent of families in CALWORKS					
Highest tercile	19	2	9	5	3
Middle tercile	17	2	11	1	3
Lowest tercile	17	3	10	3	1
Percent minority*					
Highest tercile	20	2	11	3	4
Middle tercile	16	3	7	4	2
Lowest tercile	17	2	12	2	1

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Partnership name: UNITE-LA
Total number of intermediate/junior/middle schools in partnership: 71

Table II.1.d -- Number of intermediate/junior/middle schools providing career awareness and exploration activities, by selected characteristics

Middle schools: Table II.1.d (Questions referenced: MS 1)

		Intermediate/Junior/Middle Schools Providing								
		Career Awareness						Career Exploration		
	Number of schools (N=53)	Outside speakers	Field trips	Films	Career fairs	Curriculum units	Integrated curricula	Career self-exploration	Teacher facilitated exploration	Structured exploration
Urbanicity										
Urban	43	32	24	16	16	21	19	20	23	10
Mid-size city/fringe										
Urban fringe	10	8	5	4	5	8	6	6	5	2
Rural/small town										
Percent free and reduced meals										
Highest tercile	18	13	8	9	7	10	7	8	8	5
Middle tercile	18	14	12	8	7	13	11	10	9	4
Lowest tercile	17	13	9	3	7	6	7	8	11	3
Percent of families in CALWORKS										
Highest tercile	19	14	9	8	9	13	10	12	11	6
Middle tercile	17	15	11	8	8	9	8	9	9	4
Lowest tercile	17	11	9	4	4	7	7	5	8	2
Percent minority*										
Highest tercile	20	15	9	10	10	14	10	10	10	5
Middle tercile	16	13	9	6	5	8	8	9	8	4
Lowest tercile	17	12	11	4	6	7	7	7	10	3

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Partnership name: UNITE-LA
Total number of intermediate/junior/middle schools in partnership: 71

High School Activities and Student Participation

In order to examine the extent of career exploration and development activities that are offered by LAUSD high schools, information from the high school survey, site visit interviews and focus groups and the student survey provide important information. The high school survey gives an initial impression of offerings. High schools reported fairly high levels of career exploration activities. Between 33 and 39 high schools reported offering one-time events, career information, significant integration of academic and work-related curricula, teacher facilitated career exploration and structured career exploration. While 31 high schools reported coordinating activities with postsecondary institutions, only 15 reported coordination with middle schools indicating that this could be a useful avenue for faculty collaboration and professional development (Table II.1.e). When the data was examined based on various school characteristics, more schools in the lowest tercile of the percent of families in CALWORKS reported providing career exploration activities perhaps indicating a useful pattern for further exploration (Table II.1.e). There were no discernable patterns related to other school characteristics.

Table II.1.e -- Number of high schools providing career exploration activities and coordinating activities with intermediate/junior/and middle schools and postsecondary institutions, by selected characteristics

High schools: Table II.1.e (Questions referenced: HS 1)

		High Schools Providing						High Schools Coordinating Activities with	
	Number of schools (N=39)	One time events	Some career information	Significant integration	Career self-exploration	Teacher facilitated exploration	Structured exploration	Middle Schools	Post-secondary Institutions
Urbanicity									
Urban	33	33	33	30	32	31	28	10	25
Mid-size city/fringe									
Urban fringe	6	5	6	6	6	6	5	5	6
Rural/small town									
Percent free and reduced meals									
Highest tercile	13	13	13	13	13	12	12	7	12
Middle tercile	11	10	11	10	11	11	8	2	7
Lowest tercile	15	15	15	13	14	14	13	6	12
Percent of families in CALWORKS									
Highest tercile	9	9	9	9	9	8	8	5	6
Middle tercile	15	14	15	13	14	14	12	3	13
Lowest tercile	15	15	15	14	15	15	13	7	12
Percent minority*									
Highest tercile	11	10	11	11	11	10	9	7	9
Middle tercile	13	13	13	13	12	12	12	6	10
Lowest tercile	15	15	15	12	15	15	12	2	12

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Partnership name: UNITE-LA
Total number of high schools in partnership: 51

This information is supported by responses to the senior survey, which indicated that students in the sample of the fifteen high schools participating in the study had participated in a variety of career awareness and exploration activities (such as career fairs, outside speakers, career assessments and interest inventories and job shadowing). In fact, nearly one third of students reported participating in a job shadow (29.1%). Seniors have participated in a variety of career awareness and exploration activities at fairly high levels. Over one-half (54.3%) reported participating in a career fair or hearing outside speakers. Nearly the same proportion (53.3%) had completed a career assessment or interest inventory.

Responses to questions related to career awareness, exploration and development on the student survey were analyzed based on several student characteristics. Depending on the activity, student participation in various career awareness activities (completion of a career assessment or inventory, participation in a career fair or outside speakers and job shadowing) differed along a few dimensions including sex, race-ethnicity, high school grades, parents' education level and STC participation.

More females than males participated in career assessments or interest inventories and attended career fairs or heard outside speakers. There were also statistically

significant differences in participation in all three types of career awareness and exploration activities by student race-ethnicity. For instance, white seniors were the least likely to have participated in both career assessments or interest inventories and job shadowing. On the other hand, Hispanic/Latino seniors were the least likely to have participated in a career fair or listened to outside speakers. African-American and Hispanic/Latino seniors were equally likely to have participated in career assessments or interest inventories. However, African-American students were the most likely of all racial-ethnic groups to have participated in both career fairs or outside speakers and job shadowing (Tables II.4.a, II.4.b and II.4.c).[11]

Participation in two activities—career fairs or outside speakers and career assessments or interest inventories—also varied by high school grades, though these differences were slight with one exception. Students who reported getting mostly A or B+ grades were far more likely to have participated in a career fair or listened to outside speaker (60.6% versus 49.7% of B or C students and 42.9% of students with C- or less grades) (Table II.4.b).[12] Interestingly, there were no statistically significant differences with regard to participation in job shadowing by high school grades. Job shadowing has been a real focus of STC partnerships throughout the country and UNITE-LA is no exception.

Interestingly, high-level STC students were more likely to have participated in all three career awareness and exploration activities. However, the differences were slight, with the exception of attending a career fair or listening to outside speakers (62.2% of high implementation students versus 47.4% of low implementation students) (Table II.4.b).[13]

[11] Significant at the p<=.05 level.
[12] Significant at the p<=.05 level.
[13] Significant at the p<=.05 level.

Table II.4.a -- Percentage of high school seniors who participated in a career assessment or inventory during their junior or senior year, by selected student demographic and academic **characteristics**

High school seniors: Table II.4.a (Questions referenced: SS 2, 20-27)

	Participated in a career assessment or inventory		
	Yes	No	Don't Know
Sex			
Male	49.0	38.6	12.4
Female	57.0	33.9	9.1
p<=.05			
High school grades			
Mostly A or B+	53.8	39.0	7.2
B or C	53.4	34.8	11.8
C- or less	51.4	36.2	12.4
p<=.05			
Race-ethnicity[1]			
African-American	55.7	37.1	7.2
Asian/Pacific Islander	52.6	37.7	9.7
Hispanic/Latino	55.8	31.4	12.8
White	34.5	58.3	7.1
Other	45.0	48.6	6.4
p<=.05			
Mother's education			
High school or less	55.0	33.4	11.6
Some postsecondary	55.9	36.9	7.1
Bachelor's or advanced degree	46.5	44.5	9.0
p<=.05			
Father's education			
High school or less	55.2	32.7	12.1
Some postsecondary	59.0	33.3	7.6
Bachelor's or advanced degree	44.9	48.3	6.9
p<=.05			
Student participation level in STC activities			
High	50.7	40.1	9.2
Low	54.6	34.2	11.3
p<=.05			

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

Table II.4.b -- Percentage of high school seniors who attended a career fair or listened to outside speakers from businesses during their junior or senior year, by selected student demographic and academic characteristics

High school seniors: Table II.4.b (Questions referenced: SS 5, 20-27)

	Attended a career fair or listened to outside speaker		
	Yes	No	Don't Know
Sex			
Male	45.3	47.1	7.6
Female	58.2	37.9	3.9
p<=.05			
High school grades			
Mostly A or B+	60.6	37.2	2.2
B or C	49.7	43.9	6.4
C- or less	42.9	49.3	7.8
p<=.05			
Race-ethnicity[1]			
African-American	61.9	33.2	4.8
Asian/Pacific Islander	61.3	33.5	5.2
Hispanic/Latino	47.8	45.7	6.5
White	56.5	41.7	1.8
Other	54.2	43.0	2.8
p<=.05			
Mother's education			
High school or less	49.4	43.7	6.8
Some postsecondary	62.2	36.8	1.0
Bachelor's or advanced degree	57.4	38.5	4.1
p<=.05			
Father's education			
High school or less	50.7	42.5	6.8
Some postsecondary	56.3	40.9	2.8
Bachelor's or advanced degree	55.6	41.7	2.7
p<=.05			
Student participation level in STC activities			
High	62.2	34.5	3.4
Low	47.4	46.0	6.7
p<=.05			

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

Table II.4.c -- Percentage of high school seniors who participated in job shadowing during their junior or senior year, by selected student demographic and academic characteristics

High school seniors: Table II.4.c (Questions referenced: SS 1, 20-27)

	Participated in a job shadow		
	Yes	No	Don't Know
Sex			
Male	29.0	62.9	8.1
Female	29.0	63.4	7.5
NS			
High school grades			
Mostly A or B+	27.3	67.1	5.6
B or C	29.3	62.2	8.6
C- or less	31.2	59.2	9.6
NS			
Race-ethnicity[1]			
African-American	34.6	57.9	7.4
Asian/Pacific Islander	25.2	65.8	9.0
Hispanic/Latino	28.0	63.0	9.0
White	21.2	75.8	3.0
Other	44.0	52.3	3.7
p<=.05			
Mother's education			
High school or less	30.3	61.4	8.4
Some postsecondary	27.7	67.2	5.1
Bachelor's or advanced degree	26.6	67.2	6.2
NS			
Father's education			
High school or less	29.8	62.1	8.2
Some postsecondary	29.0	65.5	5.6
Bachelor's or advanced degree	25.5	68.1	6.4
NS			
Student participation level in STC activities			
High	32.2	59.9	7.9
Low	27.5	64.8	7.7
NS			

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

Site visit interviews provide another look at career awareness, exploration and development activities at LAUSD high schools. All students are required to take a one-semester Life Skills Class. Career exploration is one aspect of the curriculum for this course though how it is delivered varies tremendously from school to school. At some schools the course is taken seriously by both students and faculty, in others it is treated more as just another "requirement." Some students reported completing various career exploration instruments and hear from guest speakers. Several schools reported that career academies and Perkins programs use this course to recruit students to participate. Students in both career academies and the schools' Perkins programs tend to participate in these types of events at higher levels accounting for the slightly higher level of participation in the senior survey among high implementation students. Only a few schools reported participating in UNITE-LA campaigns such as job shadowing or the College is Yours events.

At most of the schools that were visited, separate career and college centers continue to exist, which reinforces the idea that these two functions are separate (i.e. that going to college is different from rather than integrated with career exploration). In addition, the quality of the information and staffing of these centers varied from site to site. In several schools, especially those without active academies, Perkins or ROP programs, it appeared that students had to take advantage of career exploration offerings (if they existed at all) based on their own initiative. Other than the required Life Skills Class, no school wide activities took place on a regular basis. In addition, the primary message that students receive in many schools is that they must enter college, not necessarily to explore their career options in a tangible way (e.g. through job shadowing or internships). Despite this separation, a few schools with active support for college entry among their students (e.g. AVID programs), there was some discussion about how college and career preparation are related and ideas that support each other.

One school reported extensive use of guest speakers in a variety of classrooms. Generally, the school recruited alumni who had completed college and had entered a profession. This school also organizes a group of students to serve as college peer counselors who receive training from the college counselor on a variety of college and career related topics. In schools or academies with extensive employer partnerships, career exploration and college entry is also emphasized.

Several schools hold career and/or college fairs. However, a few schools reported that they do not have the time or resources to organize these events, which offers a justification for UNITE-LA's College is Yours campaign. While this is an important first step, UNITE-LA continues to need to reach out to more schools so that participation is more widespread. In many instances, the college fairs are organized by the college center and do not necessarily integrate employer perspectives. In some instances, the schools had tried to integrate trade schools within the college fairs.

The extent to which all students have an opportunity to participate in these activities is further complicated by the multiple tracks that many high schools have. Because

career exploration is often tied closely to academies or Perkins programs, students in different tracks receive different kinds of exposure to activities such as guest speakers. However, several schools noted that WASC accreditation has forced the school to address career development needs in their plans. Whether this will translate into more school wide emphasis on a career exploration and development continuum remains an open question. In general, schools with the most comprehensive academy or Perkins program structures (which is generally associated with those directors or Perkins counselors who are the most devoted to the quality of their programs), provided the closest model of a spectrum of career exploration and development.

Postsecondary Connections to Career Awareness and Development

At the community college level, there has been a big push for internships and guest speakers according to the LP director. They are also trying to increase the awareness and usage of Job Track, a Internet-based matching system for employers and students that includes jobs listings and posted resumes.

The level of career awareness, exploration, and development activities between local high schools and colleges depends both upon the college and the particular high school. Due to increased competition in terms of college outreach efforts and the need to increase community college enrollment, at least half of the colleges noted the recent assignment of specific staff members to handling high school outreach. Some with pre-existing outreach programs have increased staffing. It appears that the role of high school outreach counselors is roughly the same in most cases. The counselors are to build relationships with the schools that will be sustainable despite the high level of staff turnover at the high schools.

Given the limitations on college faculty and administration time, without specific staff devoted to high school outreach, the colleges feel that they are not able to develop much of a presence at their local high schools despite the evidence from the high school survey that about two-thirds of high schools reported coordinating activities with postsecondary institutions (Table II.1.e). Many of the colleges indicate that high school faculty are not able to give the time to partner with the college and ensure that students understand the career pathways available. This may indicate that there are relationships between high schools and community colleges "on paper" without staff or faculty resources committed to building these relationships at the high school level. As a result, colleges feel that it is important that they get students onto the campus, let them see classrooms, training equipment, and program availability. They do this through career fairs and open houses at the college campuses. In addition, they encourage students to dual enroll so that they become comfortable with the idea of college. Some administrators feel that it is more important to have student come to the college for classes than to take college classes on the high school sites. They want high school students to become comfortable on the college campus. They feel it is important to demystify college for students and show them that it is different from high school, not merely an

extension of the same. Parent education is also viewed as an important component of student recruitment.

The colleges generally identify their goals with respect to STC and high school students as encouraging the broadest number of students possible to identify a career path for themselves and to begin to see themselves as life-long learners. Some of the community colleges view themselves primarily as "transfer" schools even though they may offer a variety of vocational programs. They see their clientele as largely one that intends to transfer to four-year colleges. Others see their role as related to the majority of students on a high school campus who are under-served by the college counselor and not provided any career or education guidance generally because they fall outside of the college prep path. Still other colleges view their goals in ways that are often inconsistent with the goals of their funding streams—that is, they see the college in the context of high school students and adult professionals who may drop in and drop out of the college for classes needed to build a single skill or for just enough classes in skills to enable them to find a good paying job without completing a full two-year program.

Effectiveness of Career Awareness and Exploration Systems

In general, seniors appear to be participating in a variety of career awareness, exploration and development activities and have access to services through LACCD outreach efforts. In addition, results from the elementary and middle school surveys indicate that there may be programmatic gaps at those levels as well.

With nearly a third of seniors reporting participation in job shadowing and about half participating in career fairs or outside speakers and career assessments or interest inventories, many students appear to be receiving a range of information and a continuum of activities appears to be offered. However, many students (about half) either did not know or were not sure about what career information their school offered. Furthermore, participation in all of the activities varied along several dimensions including sex, race-ethnicity, parent education levels and STC participation. Job shadowing, another area for further inquiry and an activity promoted heavily through the UNITE-LA school-to-career partnership, appears to be reaching many students, with nearly a third participating in that activity.

Students also responded to a series of questions with regard to the effectiveness of their schools in providing both information and preparing them for their future careers on the survey that provide an interesting perspective on career exploration. Only half of the seniors (45.9%) agreed that they know what career-related activities are available at their school. In addition, only about a third (36.3%) agreed that their school has provided them with useful guidance about choosing a possible career or agreed (37.5%) that they had the chance to learn many of the skills needed for the career(s) they are considering.

Site visit interviews and focus groups with students confirmed that the organization of many of these activities either occurs through the Basic Skills class or through

individual career academy or Perkins programs and courses. UNITE-LA campaigns reach students in a few schools but with the large number of students in LAUSD, it would be difficult for the partnership to have a substantial impact district-wide (or even school wide in the schools with whom it has engage). Various structures exist (e.g. the career and college centers), however, in order to expand these offerings to more students and to create more in-depth or a continuum of experiences, the district itself would have to provide additional support for these activities.

PART III. CAREER ACADEMIES AND CAREER MAJORS/PATHWAYS

Career Academies and Career Pathways/Majors

As described in the introduction to UNITE-LA contained in Part I, LAUSD has been engaged in a variety of strategies to implement career-focused education in its high schools. Career academies have been a primary strategy used to both appeal to students at risk of school failure and to create small learning environments in many of its large, urban high schools. LAUSD follows the California Partnership Academy model as closely as possible and many of its academies are currently or have been funded California Partnership Academies.

The following chart lists critical and desirable program elements supported by grants from the California Partnership Academies program. It is this model that is most commonly adapted to local high school conditions.

Elements of California Partnership Academies (www.cde.gov/partacad/)	
Critical Program Elements	**Desirable Program Elements**
• School-within-a-school structure • Three academic, one technical class, grades 10-11 • Technical class, grade 12 • Block Scheduling • Maximum of 30 students per class • Focus on at-risk students • Academic/vocational coordination • District (superintendent) and high school (principal) support • Volunteer teachers, teacher managed approach • Common teacher prep period • Sufficient teacher/coordinator planning and management time • Student recruitment/selection process, voluntary enrollment • Founded on school-business partnership • Steering Committee, with employer members • Mentor and summer work place training programs • Focus on graduation, career, and postgraduate training	• Additional class(es) in grade 12 • Class size limited to maximum of 25 • Academic/vocational curricular integration • Broad school staff support • Parental permission and involvement • Extra teacher prep periods • Strong student reward system • High quality facilities, equipment • Links to community college (tech prep) • Links to ROC/P • Links to social support agencies • Business speaker and field trip programs • Curriculum linked to employer driven standards • Use of authentic assessment

Other strategies employed by LAUSD to bring career-focused education is through its vocational education programs, federal Perkins funding and Tech Prep to ease

transitions to the community college level and other postsecondary education. Perkins funding provides for a Perkins counselor at most of the LAUSD high schools. Perkins counselors are generally responsible for implementing career sequences and developing and enhancing existing courses on campus. In addition, Perkins counselors are responsible for directly recruiting students into these sequences and for encouraging teachers to develop new industry-related and connected courses. While there was little awareness of a specific definition of a Perkins career cluster pathway at many of the sites visited, the district defines these as course sequences leading to a specific career area. The following chart was compiled from LAUSD information and lists career pathways and Perkins career clusters available at the high schools visited during the site visits.[14] See Appendix G for a complete list of academy offerings and Perkins career major or cluster programs offered by the district.

Note that California Partnership Academies are denoted by an asterisk

LAUSD Academies and Perkins Career Cluster Pathways		
LAUSD High School	**Career Academies**	**Career Cluster Pathways**
Belmont	Travel and Tourism Academy Academy of Finance Multimedia Academy* Arts & Humanities Performing Arts Law & Government	Accounting and Finance Graphic Communications Drafting Technology Hospitality, Tourism, and Recreation
Crenshaw	Fashion Design Academy Shell Youth Training Academy Graphic Arts Academy Office Technology Academy New Media Academy*	Electronics Technology Fashion Design, Manufacturing, and Merchandising Computer Science and Information Systems Graphic Communications
Foshay LC	Health Academy Academy of Finance Military Science Academy Technology Academy	
Gardena	Southern California International Business Academy*	Auto Mechanics Graphic Communications
Hollywood	New Media Academy* Performing Arts Academy	Food Service & Hospitality Transportation and Energy Technology Construction Technology Computer Science and Information Systems Fashion Design, Manufacturing, and Merchandising Graphic Communications
Locke	MTA Transportation Academy* JROTC Shell Youth Training Academy	Computer Science and Information Systems Construction Technology

[14] Note that the LAUSD lists did not include information for two sites included in the site visits (Birmingham and Westchester). Observations at the site indicate that Birmingham and Westchester do not have Perkins Programs or California Partnership Academies

LAUSD Academies and Perkins Career Cluster Pathways		
LAUSD High School	**Career Academies**	**Career Cluster Pathways**
Los Angeles	FAME Academy (Future American Multilingual Educators)	Food Service & Hospitality Graphic Communications Accounting and Finance Computer Science and Information Systems
Manual Arts	Academy of Finance Inner City Graphic Communications Academy* New Media Academy Shell Youth Training Academy	Computer Science and Information Systems Child Development and Education Drafting Technology Graphic Communications Transportation and Energy Technology
Monroe	Police Academy Magnet* Law & Justice Academy Magnet Firefighting Academy Magnet Humanitas Academy Invest Academy (insurance) Aviation Academy	Child Development and Education Drafting Technology/CAD Computer Science and Information Systems Transportation and Energy Technology Food Service & Hospitality Interior Design, Furnishings and Management Graphic Communications Health Careers Fashion Design, Manufacturing, and Merchandising Aviation
Palisades	New Media Academy	
South Gate		Graphic Communications Computer Science and Information Systems Food Service & Hospitality Drafting Technology
Van Nuys	Manufacturing* (Planning)	Office Occupations (pending) Drafting/Architecture (pending) Metal (pending) Automotive (pending)
Wilson	Police Academy* Natural Resources & Environmental Science Academy* Transportation Academy*	Drafting Technology Computer Science and Information Systems Accounting and Finance Child Development and Education Architecture & Computer Technology

School-to-career and Tech Prep at the community colleges have also supported the development of career pathways, primarily through the development of course sequences and articulation agreements that span grades 9 to 16. Most colleges indicated that these efforts focused on specific high schools in their area as opposed to district wide. These primarily consist of recommended coursework with some articulation agreements for particular courses.

The extent of these offerings varies from college to college. In one college, STC efforts have been underway since 1993. Extensive work was completed in the first

few years through the efforts of college faculty, high school teachers and business representatives to develop coordinated career paths that included curriculum tied to SCANS. At this college, fourteen career paths have been developed and published relating to grades 9-16. To complement this effort, an afternoon college of classes was developed at the college to which high school students were bussed. Finally, a non-credit Saturday program has been developed that is now being implemented in at least one other community college. This Saturday program includes both fire department training and robotics and was designed to deal with the difficulties, including transportation problems, of bringing high school students to the college for classes and of instituting meaningful classes on the high school campuses.

The college campuses identified a variety of areas in which they have developed career pathways in cooperation with local high schools. These include fire, administration of justice, child care/development, office applications, health/nursing, culinary, and drafting. Some schools have specific historical career programs such as an agriculture program that ties into the agricultural programs at one college. The depth of coursework offered to students in various fields and the high schools depends upon the availability of equipment, qualified teaching staff and student interest. From the college perspective, the high schools experience difficulties related to maintaining state of the art programs in career areas that rely on technology (e.g., machining/drafting) or that involve large capital expenditures to develop facilities (e.g. culinary).[15]

Many of the high schools visited during the site visits offer career academies, which are generally organized along traditional California Partnership academy lines. For example, students are clustered in career courses and several academic courses and usually enter in the tenth grade. They are often attracted by the idea of additional support from the academy director who is responsible for developing field trip, job shadowing and internship opportunities. Several academies described recruitment at the middle school level as well.

Many of the academies in LAUSD are aligned with different academy networks, such as the National Academies Foundation, which supports Travel & Tourism and Finance academies. LAUSD has also developed a network of police academies (supported by the Los Angeles Police Department), new media academies (supported by Workforce LA) and transportation academies (supported by the Metropolitan Transportation Authority). The majority of academies that were visited as part of this study had not participated in UNITE-LA events to any great extent although some connections had been made. This perhaps is due to the nature of the academy as a small school community that generally meets its own requirements for employer connections through contacts that have been made over time. Because UNITE-LA is relatively recent, Public Works, Inc. found that many of the academies operated as "self-contained units" that were only interested in their

[15] Note that high schools were asked to indicate types of student clustering and career pathways offered in their schools While there was a high overall response to this survey (over 70%), fewer than 50% of high schools provided information on this section of the survey. Therefore, these results are not included in this analysis. In addition, enrollment information in career academies from the district level was not available.

program's survival, without a greater connection to the STC system at large. While one would imagine that academies would make an ideal connection for UNITE-LA activities, we found that this was not always the case. In general, career academy coordinators must mix a teaching load with the substantial organizational requirements of a career academy. If activities are not easy to connect to, then these busy individuals often lose interest.

In some instances, the teachers in career academies only teach academy students but these teachers are rare. Generally, teachers teach both academy and non-academy students. In some cases, non-academy students are enrolled in academy classes either due to scheduling or student-teacher ratios. In some schools, a single counselor is assigned to all students in an academy in order to take care of the programming requirements necessary to cluster students in an academy. While some of the school sites had fully functioning academies, in several instances the academies provided little in the way of work-based learning or connections to employers or industry. This was primarily due to a lack of time or resources to make these connections. In some cases, the academies lacked the administrative support they needed to block students together or provide a true academy structure. In others, the academies were viewed as separate programs on the high school campus and not necessarily integrated with the school at large.

In the school sites visited, career majors and pathways are generally organized by the Perkins counselor and are referred to on campus as "Perkins programs." While some of these are designed along the academy model, many of the Perkins programs are designed to offer students a series of electives in a given industry or career area. Perkins programs can also simply refer to a single course or a course sequence that is not necessarily connected. In general, these programs do not incorporate student's academic programming. However, in schools with active Perkins counselors, the programs are well-organized and supportive of students. In some cases, the students receive more counseling services and are more informed of various opportunities open to them (e.g. job shadowing, work experience or internships). ROP offerings at campuses also provide additional exposure to career-oriented courses at the high schools. These include both site-based courses and courses offered in the ROP centers.

No single definition of a career pathway or major exists within the schools or at the district level. In addition, the number of students served by Perkins programs varies substantially from campus to campus. However, they usually serve approximately two to three hundred students (sometimes more). Because of the large size of most of the high schools in LAUSD, many students are not exposed to Perkins or to academies and the offerings vary from track to track. In general, we found that no one person on campus was necessarily responsible for STC. These responsibilities often fell to several people on campus.

Recruitment for STC offerings occurs in a variety of ways but generally has become part of the Life Skills class. Perkins counselors and academy directors visit these classes and provide applications or information about the offerings. While the schools may have many offerings, most of those interviewed on campus noted that

there is little connection between the offerings (e.g. the programs offered on Track A do not necessarily communicate with the programs on Track B or C). Thus, STC is not a single thrust of the high schools but has become blended with all of the high schools offerings (e.g. Advanced Placement, AVID, sports, clubs, etc.).

Several faculty members interviewed at the colleges indicated that they worked with schools that have academies, particularly fire and administration of justice programs. They noted that even in high schools with academies, the amount of career-oriented course work available to students within them may be limited to one or two courses. Therefore, the courses offered on college campuses provide additional offerings to high schools in these programs.

Another way for students to be exposed to career-related programs of study is through several magnet programs or the few schools that are organized entirely around academies. While most magnet programs are more "academically" oriented, several magnets (such as the Downtown Business Magnet and the Law and Justice or Journalism Magnets at several high schools) incorporate school-to-career concepts such as involving professionals from the industry or incorporating school-based enterprise. Although these magnets do not necessarily identify specifically with school-to-career, the students in these programs are exposed to both academics and career-related concepts in an integrated fashion.

High School Participation Levels and Follow Up Information

Student participation in career-related programs of study in their junior or senior year ranged from 14.0% for career academies to 25.7% reporting participating in a career pathway. A career pathway was explained on the survey as a "sequence of courses that students follow (which may include academic, occupational or technical courses) that prepare them for a career." A little over one in ten reported that they had participated in tech-prep (10.5%).

When student participation in career-focused programs was analyzed along a series of student demographic characteristics, several statistically significant differences were found. For example, more females than males reported participating in career academies (15.8% versus 11.9% of males)(Table III.4.a).[16]

[16] Significant at the p<=.05 level.

Table III.4.a -- Percentage of high school seniors who participated in a career focused programs in their junior or senior year, by selected student demographic and academic characteristics

High school seniors: Table III.4.a (Questions referenced: SS 7a-c, 20-27)

	Career academies			Career Pathways			Tech-Prep		
	Yes	No	Don't Know	Yes	No	Don't Know	Yes	No	Don't Know
Sex									
Male	11.9	83.1	5.0	24.9	68.1	7.0	12.2	78.2	9.6
Female	15.8	79.7	4.5	26.5	67.0	6.5	9.0	81.9	9.1
		p<=.05			NS			NS	
High school grades									
Mostly A or B+	12.6	82.9	4.5	22.4	73.5	4.1	8.6	82.4	9.0
B or C	15.3	80.1	4.6	28.6	63.7	7.8	11.2	79.7	9.1
C- or less	12.5	80.6	6.9	20.9	68.8	10.2	10.6	77.5	11.9
		NS			p<=.05			NS	
Race-ethnicity[1]									
African-American	17.0	78.4	4.6	27.7	66.0	6.3	9.8	81.4	8.8
Asian/Pacific Islander	9.7	87.7	2.6	20.8	74.7	4.5	8.4	81.8	9.7
Hispanic/Latino	15.6	78.0	6.4	28.2	63.4	8.4	11.6	77.3	11.1
White	4.1	94.7	1.2	16.9	83.1	0.0	5.4	91.1	3.6
Other	6.4	90.8	2.8	23.9	69.7	6.4	8.3	85.3	6.4
		p<=.05			p<=.05			p<=.05	
Mother's education									
High school or less	16.0	77.9	6.1	28.6	64.3	7.1	12.0	77.9	10.1
Some postsecondary	12.0	84.9	3.1	18.8	75.7	5.5	9.9	84.0	6.1
Bachelor's or advanced degree	8.8	89.1	2.1	21.4	73.4	5.2	6.5	84.7	8.8
		p<=.05			p<=.05			p<=.05	
Father's education									
High school or less	16.5	77.6	6.0	27.8	65.3	6.9	12.0	78.7	9.2
Some postsecondary	10.8	84.7	4.4	24.6	68.1	7.3	10.8	81.9	7.2
Bachelor's or advanced degree	7.2	91.9	1.0	18.7	76.3	5.0	4.9	87.4	7.7
		p<=.05			p<=.05			p<=.05	
Student participation level in STC activities									
High	30.4	65.4	4.2	37.0	56.8	6.3	15.7	73.9	10.5
Low	5.8	88.9	5.2	20.1	72.8	7.1	7.9	83.4	8.7
		p<=.05			p<=.05			p<=.05	

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

When analyzed by race-ethnicity, statistically significant differences existed with regard to participation in career focused programs. The largest difference was for both Hispanic/Latino and African American students who participated at higher rates in all three types of career focused programs (Table III.4.a).[17]

In addition, statistically significant differences in participation in all three types of career focus programs existed when the data was analyzed by Mother's and Father's education level. In general, students whose parents had the least education participated at higher levels in all three types of programs. For example 16.0% of

[17] Significant at the p<=.05 level.

students whose mother's had education levels of high school or less participated in a career pathway versus 8.8% of students whose mother had a Bachelor's or advanced degree (Table III.4.a).[18]

These statistics may reflected what was observed in interviews during the site visits. Administrators and teachers indicated that both academy and Perkins offerings on campus were intended to provide students with different options that may or may not relate to the academic coursework that is required. Academy teachers and directors emphasize college entry as do many Perkins counselors. However, at many of the high schools with large numbers of students not going directly to a four year college, these options are also intended to provide useful job and life skills upon completion of high school. The main goal of most of those interviewed is to keep students engaged in school, not necessarily associated with an over-riding philosophy or goal based on changing how the school as a whole is organized.

The senior follow-up survey asked students a series of questions about their enrollment in postsecondary education and employment. Extensive data tables related to the follow-up survey and for this section can be found in Appendix F. Interestingly, a higher proportion of high implementation students (academy students) were enrolled in postsecondary education (75.9% versus 67.9%). In addition more of these students were enrolled in 4-year colleges or universities (49.0% versus 31.2%) and were enrolled full time (83.6% versus 68.9%). "High implementation" students also indicated higher educational objectives (e.g. 53.0% indicated they wanted to complete a Bachelor's degree compared to 42.6% of "other" students.) (Appendix Table 1.c). A smaller proportion of "high implementation" students reported that they were working than "other" students (44.8% versus 50.3%) and fewer students reported that they had looked but were unable to find work (37.5% versus 50.7%). These are interesting findings potentially indicating a positive association between participating STC at high levels (e.g., career academies) and both postsecondary and workforce experiences after high school.

[18] Significant at the p<=.05 level.

PART IV. CURRICULUM INTEGRATION STRATEGIES

Key High School Strategies

Curriculum integration is a key component of STC program approaches. Integrating across academic and technical courses is a cornerstone of academy programs and many vocational courses and programs have been in the process of improving academic content through the emphasis on accountability included in the most recent reauthorizations of Perkins legislation. Information for this part was collected through the survey of high schools and the interviews and focus groups conducted during the site visits.

Results from the Administrator survey indicate that about half of high schools reported purchasing and/or implementing commercially available applied academics curricula and half of high schools reported individual teachers/schools developing their own contextual learning approaches.[19] About half of high schools also reported implementing state-provided materials/curricula that use contextual learning approaches. Slightly more than a third of high schools reported use of other strategies to promote STC curriculum such as revising vocational or technical courses and revising academic courses to integrate industries or career areas. In addition, slightly more than a third of high schools used strategies such as team teaching, grouping teachers in career areas, common planning periods and block scheduling (Table IV.1.a).

When these data were examined based on several school characteristics, there were relatively few differences by urbanicity and percent race-ethnicity. However, fewer schools in the middle tercile of students eligible for free and reduced meals reported employing several STC strategies (e.g. purchasing curricula, developing their own units, revising vocational and academic courses) (Table IV.1.c). On the other hand, more schools in the middle tercile of percent of families participating in CALWORKS reported individual teachers/schools developing their own contextual learning units or projects and implementing state-provided materials/curricula that use contextual learning approaches.

[19] Note that this section reports information collected at the high school level. Questions regarding curriculum integration were not included in elementary or middle school surveys.

Table IV.1.a -- Number of high schools following strategies to promote contextual learning, integrate academic and career-technical education, link secondary and postsecondary education and integrate school- and work-based learning, by urbanicity

High schools: Table IV.1.a (Questions referenced: HS 4)

	Urbanicity			
	Urban	Mid-size city	Urban fringe	Rural/small town
Total number of high schools in each urbanicity category (N=)	33		6	
Purchasing and/or implementing commercially available applied academics curricula	21		3	
Individual teachers/schools developing their own contextual learning units or projects	24		5	
Implementing state-provided materials/ curricula that use contextual learning approaches	24		6	
Revising vocational or technical courses to cover issues related to a particular industry or career area	17		6	
Revising academic courses to cover issues related to a particular industry or career area	14		4	
Pairing academic and vocational-technical teachers for team-teaching	13		3	
Grouping teachers together to develop joint curricula that emphasize a career area	14		5	
Providing common planning periods for teachers in the same career major or pathway	12		4	
Implementing block scheduling to create time for contextual learning	11		0	
Bringing high school and postsecondary faculty together to revise or develop new course units or materials	11		2	
Bringing faculty and employer representatives together to revise or develop new course units or materials	14		3	

Partnership name: UNITE-LA
Total number of high schools in partnership: 51

Table IV.1.b -- Number of high schools following strategies to promote contextual learning, integrate academic and career-technical education, link secondary and postsecondary education, and integrate school- and work-based learning, by percent minority

High schools: Table IV.1.b (Questions referenced: HS 4)

	Students in Racial/Ethnic Minority Groups*		
	Highest tercile	Middle tercile	Lowest tercile
Total number of high schools in each tercile (N=)	11	13	15
Purchasing and/or implementing commercially available applied academics curricula	7	10	7
Individual teachers/schools developing their own contextual learning units or projects	8	11	10
Implementing state-provided materials/ curricula that use contextual learning approaches	9	9	12
Revising vocational or technical courses to cover issues related to a particular industry or career area	7	10	6
Revising academic courses to cover issues related to a particular industry or career area	6	7	5
Pairing academic and vocational-technical teachers for team-teaching	7	4	5
Grouping teachers together to develop joint curricula that emphasize a career area	7	7	5
Providing common planning periods for teachers in the same career major or pathway	6	7	3
Implementing block scheduling to create time for contextual learning	2	3	6
Bringing high school and postsecondary faculty together to revise or develop new course units or materials	3	5	5
Bringing faculty and employer representatives together to revise or develop new course units or materials	4	4	9

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Partnership name: UNITE-LA
Total number of high schools in partnership: 51

Table IV.1.c -- Number of high schools following strategies to promote contextual learning, integrate academic and career-technical education, link secondary and postsecondary education, and integrate school- and work-based learning, by students eligible for free/reduced meals

High schools: Table IV.1.c (Questions referenced: HS 4)

	Students Eligible for Free/Reduced Meals		
	Highest tercile	Middle tercile	Lowest tercile
Total number of high schools in each tercile (N=)	13	11	15
Purchasing and/or implementing commercially available applied academics curricula	9	6	9
Individual teachers/schools developing their own contextual learning units or projects	12	7	10
Implementing state-provided materials/ curricula that use contextual learning approaches	11	8	11
Revising vocational or technical courses to cover issues related to a particular industry or career area	10	4	9
Revising academic courses to cover issues related to a particular industry or career area	9	4	5
Pairing academic and vocational-technical teachers for team-teaching	7	5	4
Grouping teachers together to develop joint curricula that emphasize a career area	11	4	4
Providing common planning periods for teachers in the same career major or pathway	8	4	4
Implementing block scheduling to create time for contextual learning	2	3	6
Bringing high school and postsecondary faculty together to revise or develop new course units or materials	3	4	6
Bringing faculty and employer representatives together to revise or develop new course units or materials	5	5	7

Partnership name: UNITE-LA
Total number of high schools in partnership: 51

Table IV.1.d -- Number of schools following strategies to promote contextual learning, integrate academic and career-technical education, link secondary and postsecondary education, and integrate school- and work-based learning, by families participating in CALWORKS

High schools: Table IV.1.d (Questions referenced: HS 4)

	Families Participating in CALWORKS		
	Highest tercile	Middle tercile	Lowest tercile
Total number of high schools in each tercile (N=)	9	15	15
Purchasing and/or implementing commercially available applied academics curricula	7	7	10
Individual teachers/schools developing their own contextual learning units or projects	6	15	8
Implementing state-provided materials/ curricula that use contextual learning approaches	7	13	10
Revising vocational or technical courses to cover issues related to a particular industry or career area	5	9	9
Revising academic courses to cover issues related to a particular industry or career area	5	8	5
Pairing academic and vocational-technical teachers for team-teaching	5	5	6
Grouping teachers together to develop joint curricula that emphasize a career area	5	8	6
Providing common planning periods for teachers in the same career major or pathway	5	8	3
Implementing block scheduling to create time for contextual learning	2	6	3
Bringing high school and postsecondary faculty together to revise or develop new course units or materials	2	5	6
Bringing faculty and employer representatives together to revise or develop new course units or materials	2	9	6

Partnership name: UNITE-LA
Total number of high schools in partnership: 51

Degree of Implementation at the High Schools

The survey of high schools indicated that at most only half reported following strategies to promote curriculum integration. Most teachers at schools included in the site visits focus groups indicated that the majority of curriculum integration is occurring through the academies or Perkins programs. Most of the integration is associated with integrating industry-related examples to academic curriculum as opposed to the integration of different subject areas around common projects or themes. However, in some cases teachers of different disciplines did coordinate units and projects across curricular areas.

Despite the nominal emphasis on integration found in many academies, teachers noted that the emphasis on "going to college" did not allow them the time they needed to develop integrated units or explore topics outside the college prep curriculum. In some schools, vocational teachers also teach academic classes (e.g. an auto shop teacher who teaches math, a graphics teacher teaching technology) allowing them to integrate across vocational and academic curriculum. In a few instances, project based learning was emphasized within an academy and students were engaged in developing hands-on applications of the subject matter central to the academy area. To overcome the many barriers to integrating curriculum, in general teachers noted that it takes a personal commitment and support for these strategies from the success that is demonstrated by students in meeting curriculum standards.

However, in the majority of the schools, focus groups of teachers indicated that very little curriculum integration was occurring. Although some teachers attempted to include guest speakers or other work-related examples in their curriculum, there was no overall goal or forum among the faculty or administration to do so. Most of the efforts to integrate occurred based on the interest of one or more faculty members to do so. Little overall planning time was allotted and common planning periods were rare. Further pressure from increasing scores on tests and the new exit exam present additional barriers to integration among teachers. This was especially true outside the academy and Perkins programs. Even within academies, many teachers found that it was difficult to integrate across disciplines because of the lack of common planning time.

From the college perspective, most colleges are working toward integrating academics into vocational courses. While this is not the standard, most colleges noted that at least a few successful efforts had occurred and that there was interest in pursuing such integration in the future. Examples given were "math for carpenters" and English skills for administration of justice classes to build crime report writing skills. In a few cases, colleges espoused the philosophy that it was important to develop academic skills needed for vocational success but that the reverse was not necessarily true (e.g. that academic classes were still separate and should remain that way).

PART V. WORK-BASED LEARNING

High School Work-Based Learning Offerings

Under STC partnerships, work-based learning strategies such as internships and job shadowing are organized with the intent to provide students with experiences that allow them to apply knowledge in context and to gain experience about the different kinds of workplaces and careers that exist. While students have experienced work-based learning experiences such as field trips or internships in the past, the STC legislation included work-based learning as a component of the educational system that needed to be "built." In other words, STC acknowledged that work-based learning and learning in context would be beneficial for all students and that was a need to implement these strategies systemically. However, the legislation offered little guidance of how this was to be accomplished. For example, from a programmatic perspective, work-based learning forms a key component of the career academy model, with the recommended component of an internship in the summer between the junior and student year. In addition, work-based learning is included in many schools' efforts to improve career exploration and development processes for students at large.

In its efforts to implement a systemic approach to work-based learning, UNITE-LA has launched several initiatives, two of which are associated with seasonal campaigns. UNITE-LA has promoted job shadowing widely through its involvement with Groundhog Job Shadow Day and Junior Achievement. In addition, UNITE-LA focuses on arranging and promoting internships during the summer. The internship campaign was launched in conjunction with the piloting of PathFinders software, which was intended to provide an Internet-based matching system for employers and students interested in work-based learning opportunities. Though the internship and PathFinders initiatives were intended to introduce a systemic approach to work-based learning, UNITE-LA is constrained by the amount of time and staffing required to run a full-fledged internship program. In the second of a three-year evaluation of UNITE-LA, Public Works, Inc. found that the partnership was able to place approximately 250 students in internships. On the other hand, UNITE-LA was able to build its job shadowing efforts from approximately 1,700 students in the first year to over 18,000 in the third year.

While Public Works, Inc. recognizes that developing internships and other work-based learning experiences requires a substantial staff, student and employer commitment, these numbers, while impressive, are far short of the need in the partnership. Therefore, work-based learning in the UNITE-LA partnership should build on efforts that are already in place in the high schools. For example, career academies and ROP programs in many high schools already have extensive employer networks to draw upon. However, they are not connected to a larger system. The key for UNITE-LA at this point is to build on these existing resources and add value through its own implementation efforts.

Information in this section provides additional details about work-based learning offered at the high school level. Data was collected through the site visit interviews and focus groups, the senior survey and the high school survey. High schools responding to the administrator survey reported providing a range of work-based learning activities(Table V.1.a). Between one half and two thirds of high schools reported providing work site visits, job shadowing, guest speakers and workplace mentoring. In addition, nearly half of the high schools reported providing work-based learning activities connected to career majors including paid and unpaid school year jobs, paid and unpaid summer jobs or internships. Nearly two-thirds of schools offered community service or work-based learning connected to school-based learning for students who are *not* involved in career majors or pathways. When these data were examined by various school characteristics, fewer schools in the middle tercile of percent free and reduced meals offered work-based learning activities to all students and work-based learning both connected and unconnected to career majors or pathways. No similar patterns in work-based learning could be discerned when the data was examined by percent of families in CALWORKS or Percent minority (Table V.1.a).

Table V.1.a -- Number of high schools offering work-based activities, by selected characteristics

High schools: Table V.1.a (Questions referenced: HS 6)

		Type of Work-based Learning Activity				Activities Connected to Career Majors				Activities **Not** Connected to Career Majors	
	Number of schools (N=39)	Work site visits	Job Shadowing	Guest Speakers	Workplace mentoring	Paid school year jobs	Unpaid school year jobs	Paid summer jobs	Unpaid summer internships	Community Service	WBL connected to curric.
Urbanicity											
Urban	33	27	22	29	20	21	18	16	16	28	14
Mid-size city/fringe											
Urban fringe	6	5	6	6	3	4	4	5	2	6	3
Rural/small town											
Percent free and reduced meals											
Highest tercile	13	12	11	13	8	10	9	9	5	12	8
Middle tercile	11	6	7	8	5	4	4	4	5	8	3
Lowest tercile	15	14	10	14	10	11	9	8	8	14	6
Percent of families in CALWORKS											
Highest tercile	9	8	8	8	8	9	6	9	7	8	5
Middle tercile	15	12	11	13	10	8	9	5	6	13	8
Lowest tercile	15	12	9	14	5	8	7	7	5	13	4
Percent minority*											
Highest tercile	11	9	10	10	8	10	7	10	7	10	6
Middle tercile	13	10	9	13	8	8	8	5	4	12	5
Lowest tercile	39	13	9	12	7	7	7	6	7	12	6

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Partnership name: UNITE-LA
Total number of high schools in partnership: 51

From the perspective of those interviewed during the high school site visits, work-based learning is offered primarily as an adjunct to existing programs on campus and is not connected to new efforts under UNITE-LA. For example, work-based

learning occurs through ROP or traditional work experience programs. In addition, many of the academies provided or arranged internships for their students, although in most cases this was not nearly for all students in the academy as the academy model would suggest.

One high school had instituted a community service requirement for graduation, which could be fulfilled through various positions available on the school campus. Students select their own activities with help from a parent volunteer. After completing the activity or project, students fill out a two page summary of their experiences and what they learned. Students generally liked the requirement, especially those who volunteered in the school's tutoring center. Community service was a work-based learning strategy mentioned by several schools, though it had become a requirement in only one school that was visited.

A few high schools indicated that students receive work-based learning experience through youth workforce training programs (funded by the Workforce Investment Act) that collaborate with the schools. School-based enterprises (such as an auto shop that charges for auto repair services) also exist though are not available in many of the high schools visited.

Despite the variety of work-based learning opportunities that students can participate in, there was little evidence of a comprehensive school wide program at any of the campuses visited. Again, like career exploration and development, work-based learning occurs with more regularity through the academy and Perkins programs though it is unclear what proportion of students actually participate. With the exception of internships arranged through an academy, little connection between traditional work experience and a student's high school program has been made explicitly.

The degree of participation in work-based learning is also dependent on the extent of employer partnerships that the school has developed and whether the resources exist to sustain these relationships. In some schools, large employers are able to offer many work-based learning opportunities. In others, internship opportunities are few and far between. A few schools mentioned that they had participated in UNITE-LA work-based learning activities such as job shadowing or internships though awareness of these opportunities varied from school to school.

Again, this variation of experience related to UNITE-LA is likely explained by the large size of many of the high schools visited and the general difficulty that UNITE-LA has experienced in penetrating LAUSD schools. For instance, in academy programs, employer connections are generally already established so a connection to UNITE-LA does not necessarily "add value." On the other hand, for UNITE-LA to make a connection, it must tap into a course or program that is amenable to work-based learning arrangements. Thus, we found that it was difficult to identify specific campuses (as a whole), teachers or programs who had been directly impacted by UNITE-LA's efforts, which does not necessarily mean that the attempt had not been made. It just exemplifies how difficult these connections have been to make.

In contrast, work-based learning appears to be an integral part of what is offered at the colleges that have strong Tech Prep and vocational programs. Schools with good ties to employers have developed internship programs for their students and good recruiting linkages that facilitate companies finding students or graduates from the college programs who have the skills to meet their labor needs. It was much less clear in discussions with colleges whether high schools had work-based learning programs in place or whether there was much coordination of work-based opportunities between the high schools and the colleges though it appeared that there was little coordination of these opportunities. Those interviewed generally recognized that while there has been lip-service given to developing integrated work-place learning paths between the high schools and community colleges, it is still in the future—"a work in progress" with not much concentrated work being put into it at present.

Student Participation

Another perspective on work-based learning is provided through information that estimates the numbers of students participating. High schools responding to the administrator survey provided estimates of the number of students participating in work-based learning. When these data are examined by various school characteristics, substantially more students in schools in the urban fringe and the lowest tercile of percent free and reduced meals had participated in guest speakers (over 20% versus less than 10%). For all other activities, high schools reported that very small numbers of students in grades 9-11 had participated (generally under 5% of students) and there were no patterns of different student participation by other school characteristics such as percent of families in CALWORKS or percent minority. In a few instances, schools reported between 5 and 10% of students participating in various activities (Table V.2.b). This information confirms the rather low levels of actual student participation reported during site visit interviews and focus groups.

Table V.2.b -- Percent of students, grades 9-11, participating in work-based learning activities, by selected characteristics

High schools: Table V.2.b (Questions referenced: HS 6)

		Type of Work-based Learning Activity				Activities Connected to Career Majors				Activities **Not** Connected to Career Majors	
	Number of students, grades 9-11 (N=107103)	Work site visits	Job Shadowing	Guest Speakers	Workplace mentoring	Paid school year jobs	Unpaid school year jobs	Paid summer jobs	Unpaid summer intern-ships	Community Service	WBL connected to curric.
Urbanicity											
Urban	85913	2.5	1.4	10.1	0.8	0.6	1.4	0.7	0.7	7.2	1.2
Mid-size city/fringe											
Urban fringe	21230	3.2	2.6	22.8	0.1	0.3	1.2	0.1	0.1	2.9	4.4
Rural/small town											
Percent free and reduced meals											
Highest tercile	37741	5.0	2.3	9.2	1.0	0.7	0.2	0.4	0.8	5.5	3.0
Middle tercile	32013	0.7	0.7	5.0	0.2	0.2	1.2	0.2	0.0	5.4	0.2
Lowest tercile	37389	1.9	1.7	22.6	0.8	0.7	2.7	1.1	0.9	8.1	2.0
Percent of families in CALWORKS											
Highest tercile	27259	2.7	2.1	12.1	0.7	0.7	1.6	0.7	0.6	7.3	0.4
Middle tercile	38053	2.9	1.6	15.0	1.0	0.4	1.8	0.6	0.8	10.5	2.3
Lowest tercile	41831	2.3	1.3	10.8	0.4	0.7	0.9	0.4	0.5	1.9	2.3
Percent minority*											
Highest tercile	35239	3.0	2.0	12.3	0.4	0.5	0.2	0.4	0.5	2.3	2.7
Middle tercile	36631	1.9	2.3	14.9	0.4	0.6	1.7	0.4	0.4	8.9	0.6
Lowest tercile	35273	3.0	0.6	10.5	1.2	0.7	2.3	0.9	0.9	7.8	2.1

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Partnership name: UNITE-LA
Total number of high schools in partnership: 51

On the student survey, respondents were asked several questions related to participation in work-based learning. Interestingly, about a quarter (23.1%) reported participating in an internship or work experience directly related to what they were learning in school though these numbers may include students who had worked during high school. An internship was described as "when a student works for an employer for a specified period of time to learn about a particular industry or occupation." Nearly one in twenty (16.6%) reported participating in a registered apprenticeship, which was explained on the survey as a "relationship between an employer and a worker during which the worker, or apprentice, learns an occupation in a program sponsored by employers and labor unions."

Participation in work-based learning was also examined based on a variety of student demographic characteristics on the student survey. Differences in participation in work-based learning existed based on a student's race-ethnicity. Hispanic/Latino students were the most likely to have participated in an internship directly related to learning in school, though the differences among racial-ethnic groups were slight (Table V.3.b).[20] African-American, Hispanic/Latino and "other" students were the mostly likely to have participated in a registered apprenticeship (Table V.3.c).[21]

[20] Significant at the p<=.05 level.
[21] Significant at the p<=.05 level.

Student participation in work-based learning also varied by parent education level, with students whose parents had the least education being more likely to have participated in both registered apprenticeships and internships directly related to what they learned in school (Table V.3.b and V.3.c).[22]

As one might expect (and hope), students who had participated in STC at high levels (indicated by enrollment in a career academy) were more likely to have participated in an internship.[23] More than one in four (28.4%) High implementation STC students reported participating in an internship directly related to what they were learning in school as compared to 20.5% of Low implementation STC students (Table V.3.b).[24] This data also confirms to some extent the connection between student programmatic participation in STC and their participation in work-based learning. While the differences in student characteristics (e.g., race-ethnicity and parent education level) are interesting findings, site visits interviews did not address why this might be occurring. Rather, site visit interviews and focus groups more strongly support the finding that high-level STC students participate in internships at higher rates than their peers. Again, as in career exploration and development, curriculum integration and other STC components examined in this evaluation, the connection between academies (and in some schools to Perkins programs) and student participation is the clearest connection that was made during the evaluation.

[22] Significant at the p<=.05 level.
[23] Significant at the p<=.05 level.
[24] Significant at the p<=.05 level.

Table V.3.a -- Percentage of high school seniors who participated in an internship or work experience not related to what they were learning in school, by selected student demographic and academic characteristics

High school seniors: Table V.3.a (Questions referenced: SS 3, 20-27)

	Participated in an internship **not** related to school		
	Yes	No	Don't Know
Sex			
Male	30.3	62.1	7.6
Female	29.8	63.7	6.5
NS			
High school grades			
Mostly A or B+	26.5	69.6	3.9
B or C	31.3	61.0	7.6
C- or less	33.0	54.9	12.1
p<=.05			
Race-ethnicity[1]			
African-American	32.5	61.6	5.9
Asian/Pacific Islander	27.7	66.5	5.8
Hispanic/Latino	31.5	59.8	8.7
White	28.1	71.9	0.0
Other	21.0	72.4	6.7
p<=.05			
Mother's education			
High school or less	30.3	61.3	8.4
Some postsecondary	27.5	68.7	3.8
Bachelor's or advanced degree	30.3	66.1	3.6
p<=.05			
Father's education			
High school or less	30.9	61.7	7.4
Some postsecondary	30.9	65.1	4.0
Bachelor's or advanced degree	27.1	67.7	5.2
NS			
Student participation level in STC activities			
High	33.1	61.7	5.1
Low	28.6	63.6	7.9
p<=.05			

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

Table V.3.b -- Percentage of high school seniors who participated in an internship or work experience related to what they learned in school, by selected student demographic and academic characteristics

High school seniors: Table V.3.b (Questions referenced: SS 4, 20-27)

	Participated in an internship related to school		
	Yes	No	Don't Know
Sex			
Male	21.0	69.2	9.7
Female	24.2	68.7	7.0
p<=.05			
High school grades			
Mostly A or B+	24.4	71.6	4.0
B or C	22.4	68.5	9.1
C- or less	21.9	62.6	15.5
p<=.05			
Race-ethnicity[1]			
African-American	22.4	69.5	8.1
Asian/Pacific Islander	22.6	72.9	4.5
Hispanic/Latino	24.5	66.1	9.5
White	19.9	77.7	2.4
Other	19.8	70.8	9.4
p<=.05			
Mother's education			
High school or less	25.2	65.7	9.1
Some postsecondary	18.1	77.8	4.1
Bachelor's or advanced degree	21.0	71.5	7.4
p<=.05			
Father's education			
High school or less	24.4	66.7	8.9
Some postsecondary	15.7	76.3	8.0
Bachelor's or advanced degree	22.8	71.8	5.4
p<=.05			
Student participation level in STC activities			
High	28.4	66.9	4.7
Low	20.5	69.6	9.9
p<=.05			

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

Table V.3.c -- Percentage of high school seniors who participated in a registered apprenticeship during their junior or senior years, by selected student demographic and academic characteristics

High school seniors: Table V.3.c (Questions referenced: SS 6, 20-27)

	Participated in a registered apprenticeship		
	Yes	No	Don't Know
Sex			
Male	16.7	71.1	12.2
Female	16.2	74.4	9.5
NS			
High school grades			
Mostly A or B+	11.8	81.2	7.0
B or C	18.7	69.1	12.1
C- or less	19.7	67.6	12.7
p<=.05			
Race-ethnicity[1]			
African-American	20.1	69.1	10.7
Asian/Pacific Islander	9.7	81.3	9.0
Hispanic/Latino	18.2	70.0	11.8
White	7.9	87.3	4.8
Other	17.6	70.4	12.0
p<=.05			
Mother's education			
High school or less	18.2	69.5	12.3
Some postsecondary	14.2	80.9	4.9
Bachelor's or advanced degree	13.1	77.2	9.7
p<=.05			
Father's education			
High school or less	17.7	70.1	12.2
Some postsecondary	16.7	76.8	6.5
Bachelor's or advanced degree	12.3	79.6	8.0
p<=.05			
Student participation level in STC activities			
High	14.8	75.1	10.1
Low	17.4	71.6	11.0
NS			

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

PART VI. PRINCIPALS, TEACHERS AND PROFESSIONAL DEVELOPMENT

Understanding of STC Among School Personnel

In most analyses of STC implementation, it is often observed that implementation is dependent on the level of understanding and support "on the ground" among teachers, counselors and administrators. In order to begin to assess the degree of support for STC among school personnel, this evaluation collected data using two strategies. At the elementary and middle school level, the administrator survey asked schools to indicate whether over 50% of their staff had a good understanding of STC. At the high school level, school site interviews and focus groups provided a perspective on faculty opinions, familiarity and knowledge related to STC.

Among elementary schools responding to the administrator survey, fewer than a third indicated that half their personnel had a good understanding of STC (107 schools). Among middle schools, the proportion was even lower, with only 14 middle schools reporting that at least half their staff had a good understanding of STC (Table VI.1.a). If UNITE-LA wants to build on STC articulation from elementary to middle to high school level and beyond, additional awareness building at these levels may be useful.

Table VI.1.a -- Number of elementary and middle schools in which at least half of teachers have a good understanding of STC, by selected school characteristics

Elementary and middle schools: Table VI.1.a (Questions referenced: ES 4, MS 4)

	Number of schools (N=422)	Teachers Understand STC	
		Elementary Schools	Middle Schools
Urbanicity**			
Urban	344	86	12
Mid-size city/fringe			
Urban fringe	76	20	2
Rural/small town			
Percent free and reduced meals			
Highest tercile	139	45	6
Middle tercile	143	34	7
Lowest tercile	140	28	1
Percent of families in CALWORKS			
Highest tercile	139	50	8
Middle tercile	143	33	5
Lowest tercile	140	24	1
Percent minority*			
Highest tercile	140	43	7
Middle tercile	140	36	4
Lowest tercile	142	28	3

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

** Note that Urbanicity information was not available for 2 elementary schools responding to the survey

Partnership name: UNITE-LA

Total number of elementary schools in partnership: 423

Total number of intermediate/junior/middle schools in partnership: 71

The level of support and understanding of STC among administrators at the high schools participating in the site visit portion of the study varied. For some, STC was integral to the strategies the schools employed in improving student test scores and keeping students engaged in school. Generally, these administrators were supportive of academy directors and Perkins counselors in charge of developing these programs. The administrators lent their support to such issues as facilities, scheduling and allowing time to develop connections to employers.

For other administrators, STC offerings were considered just another aspect of the high school program. In schools with high administrative and staff turnover, managing the facilities and often overcrowded conditions in the high schools did not allow for the time to step back and see how STC could be connected to overall school improvement. Still others viewed their school as primarily "college bound"

with STC fulfilling an option for students "in the middle" or those not necessarily destined for entry to a four-year college.

While most counselors were aware of STC offerings on campus, most were only peripherally involved and generally were more immersed in the scheduling of students and crisis management. In some schools, counselors were assigned to specific academies or magnet programs and students viewed this as a benefit to their involvement (i.e. they felt they received more counseling services than the population at large).

In general, both academic and vocational teachers were supportive of STC concepts. However, they cited many difficulties in the implementation of these activities in their curriculum. For example, the emphasis on test scores and the exit exam was a concern that was raised often in focus groups by both academic and vocational teachers. Generally, teachers acknowledge that there is a group of students who may not go to college directly and it is for these students that STC options are most relevant. Thus, it does not appear that the concept that STC is for "all" students has penetrated very deeply within the high school structure. However, there was widespread acknowledgement that specific programs that piqued student interest would go a long way toward ensuring that they stayed in school as opposed to the current emphasis on standards, testing and exit exams. For the academy directors and teachers whose students had benefited from the increased attention they received through the academy program, it was clear that it was student academic improvement and engagement was the key to the teachers continued involvement.

Among vocational teachers, support for STC is very prevalent. However, there is the realization among many of these teachers that vocational education is still separate from academic education for the most part. In addition, vocational educators feel the pressure of academic requirements and the emphasis on test scores. Many of them fear that vocational education will be further minimized because of the emphasis on accountability.

The degree of academic and vocational separation varies from school to school and in many cases, the separation occurs because of the departmental configuration of the traditional high school structure not because teachers do not want to integrate or work together. In programs like academies that try to break down this structure, teachers feel that they are able to work across disciplines and vocational and academic areas. Still, finding the time to integrate continues to be a barrier. In general, the faculty and administration of "high implementation" schools felt more positively about the degree of school-to-career implementation. They were more by and large supported in the facilities and logistics that are required in launching integrated academic and vocational programs or courses. However, the success of these programs continues to depend on a dedicated single or few personnel who are committed to improving the school's offerings. Thus, school-to-career is not necessarily embedded throughout the school, even in schools considered "high implementation."

Perhaps because of the ad-hoc structure of school-to-career implementation at most sites and the lack of connection to school-wide reform or improvement, little opposition to school-to-career or academies and other programs in particular was found. While some teachers may not consider themselves as part of STC or that they can remain distanced from these offerings, no teachers voiced an opinion that they would not like to see these options on campus. Most teachers admitted that the programs were important for students, especially those who may be on the brink of dropping out or are not engaged in the traditional college prep curriculum. Despite this support for vocational offerings or STC programs, there was a sense that teachers outside the school's STC programs (e.g., career academies and Perkins programs) continue to be isolated in their classrooms without much of a feeling of control over how school-wide reform or improvement strategies could be implemented under the STC umbrella. For instance, while teachers supported more "options" for students, they generally did not voice clear support for moving the entire school in that direction. Rather, they were satisfied with current offerings or had suggestions to improve particular courses or existing programs.

Professional Development

Elementary, middle and high schools responding to the administrator surveys provided a range of information about professional development offered at each level of the partnership in support of STC implementation. About a third of elementary schools offered teacher job shadowing or internships. Very few (18) offered SCANS skills training or general staff development about STC (56). About the same number (57) offered opportunities for staff to collaborate with employers or communicate with middle schools (51). About a quarter offered opportunities to develop curriculum about integration (96) (Table VI.4.a). Table VI.4.a shows these data broken down by urbanicity, percent free and reduced meals, percent of families in CALWORKS and percent minority. Slightly more elementary schools with the highest percent of families in CALWORKS offered general staff development about STC, opportunities to develop curriculum about integration and collaboration with employers. However, they were fewer that reported opportunities for communication with middle schools.

Table VI.4.a -- Number of elementary schools offering STC related professional development, by selected school characteristics

Elementary schools: Table VI.4.a (Questions referenced: ES 3)

		Elementary Schools Offering					
	Number of schools (N=294)	General staff development about STC	Teacher job shadowing/ internships	SCANS skills training	Opportunities to develop curriculum about integration	Collaboration with employers	Communication with middle schools
Urbanicity**							
Urban	237	44	111	14	77	44	42
Mid-size city/fringe							
Urban fringe	55	12	33	4	19	13	9
Rural/small town							
Percent free and reduced meals							
Highest tercile	105	18	53	5	37	19	14
Middle tercile	99	23	39	4	33	21	18
Lowest tercile	90	16	53	9	27	18	19
Percent of families in CALWORKS							
Highest tercile	107	23	49	6	42	22	14
Middle tercile	97	20	44	6	28	21	16
Lowest tercile	90	14	52	6	27	15	21
Percent minority*							
Highest tercile	104	20	46	7	36	19	11
Middle tercile	102	21	48	4	34	22	18
Lowest tercile	88	16	51	7	27	17	22

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic
** Note that Urbanicity information was not available for 2 schools responding to the survey

Partnership name: UNITE-LA
Total number of elementary schools in partnership: 423

Very few middle schools reported offering professional development related to STC. The highest number of schools reported offering teacher job shadowing/internships (16 out of 70) and only fourteen reported that they offered time related to communication with high schools. Ten middle schools reported offering both opportunities to develop curriculum about integration and collaboration with employers.

Teacher job shadowing/internships were the most common professional development activity reported by high schools (29). Fewer high schools offered opportunities to develop curriculum about integration (21), general staff development about STC (18) and opportunities to collaborate with employers (12) or communicate with middle schools (12). Less than 20% (9 schools) reported offering SCANS skills training. When the data is examined by various school characteristics, no patterns are apparent (Table VI.4.c).

Table VI.4.b -- Number of middle schools offering STC related professional development, by selected school characteristics

Middle schools: Table VI.4.b (Questions referenced: MS 3)

		Middle Schools Offering					
	Number of schools (N=53)	General staff development about STC	Teacher job shadowing/ internships	SCANS skills training	Opportunities to develop curriculum about integration	Collaboration with employers	Communication with middle schools
Urbanicity							
Urban	43	3	12	3	7	7	12
Mid-size city/fringe							
Urban fringe	10	2	4	0	3	3	2
Rural/small town							
Percent free and reduced meals							
Highest tercile	18	2	6	1	3	3	5
Middle tercile	18	2	5	1	5	6	6
Lowest tercile	17	1	5	1	2	1	3
Percent of families in CALWORKS							
Highest tercile	19	2	6	2	4	4	7
Middle tercile	17	2	5	0	4	4	4
Lowest tercile	17	1	5	1	2	2	3
Percent minority*							
Highest tercile	20	3	7	2	5	5	6
Middle tercile	16	0	5	1	5	4	6
Lowest tercile	17	2	4	0	0	1	2

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Partnership name: UNITE-LA
Total number of intermediate/junior/middle schools in partnership: 71

Information regarding professional development collected during the site visit interviews indicate that very few are participating in specific professional development activities. However, in schools with active and supported academies or Perkins programs, administrators supported faculty collaboration and attempted to provide time for developing integrated curriculum, arranging work-based learning experiences and the like. Again, the problem related to professional development that was cited most commonly by faculty members was the lack of time to participate. So, while opportunities had been offered very few teachers or counselors indicated that they had participated or that participation had influenced program development. The Employers in the Workplace Campaign implemented by UNITE-LA included over 300 teachers in a workplace job shadowing experience in its first year of full implementation and there is every indication that this participation will increase. Despite these efforts, professional development for STC faces the same constraints as all professional development—teachers do not have the time or feel comfortable leaving their classrooms. In addition, traditional school structures do not allow for much collaboration on curriculum development or instruction to take place. A concerted effort on the part of teachers and administrators is necessary for high quality professional development to occur.

Table VI.4.c -- Number of high schools offering STC related professional development, by selected school characteristics

High schools: Table VI.4.c (Questions referenced: HS 10)

		High Schools Offering					
	Number of schools (N=39)	General staff development about STC	Teacher job shadowing/ internships	SCANS skills training	Opportunities to develop curriculum about integration	Collaboration with employers	Communication with high schools
Urbanicity							
Urban	33	15	24	8	16	10	8
Mid-size city/fringe							
Urban fringe	6	3	5	1	5	2	4
Rural/small town							
Percent free and reduced meals							
Highest tercile	13	6	10	2	8	4	6
Middle tercile	11	4	9	2	4	3	1
Lowest tercile	15	8	10	5	9	5	5
Percent of families in CALWORKS							
Highest tercile	9	6	7	3	6	6	5
Middle tercile	15	5	10	3	7	3	2
Lowest tercile	15	7	12	3	8	3	5
Percent minority*							
Highest tercile	11	7	8	3	8	6	6
Middle tercile	13	6	9	2	6	4	4
Lowest tercile	15	5	12	4	7	2	2

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Partnership name: UNITE-LA
Total number of high schools in partnership: 51

Barriers to STC Implementation

From the high schools' perspective, time to plan and implement STC programs or curricular change remain the primary barriers. In addition, the traditional structure of the high schools and the lack of common planning time continue to be constraints to implementation of both STC components (such as internships) or programs (such as academies). Teachers in schools with active Perkins counselors and supportive administrators were generally more hopeful about overall STC implementation and had found ways to meet and discuss both individual students and program curriculum. In schools with functioning academies, the academy directors were dedicated to providing their subgroup of students with a comprehensive program related to the career area. However, the structure of the high school and the lack of time to make connections to the community continues to be a barrier.

From the colleges' perspective, gaining the cooperation of high schools remains a significant barrier. Six out of nine colleges indicated difficulty in getting significant

levels of cooperation from high schools. Both large and small colleges identified this as a problem, but small colleges particularly felt the personnel strain of finding the time to make consistent connections. The efforts made seemed to focus on high school vocational teachers and counselors, although some colleges have developed strategies that involve working with administrators and academic teachers. Colleges that have emphasized college track sciences in their STC/Tech Prep program have probably dealt more with academic teachers than vocational teachers at high schools. Some of the obstacles to involving even the high school vocational teachers in cooperative efforts are as follows:

- Time Constraints – Both high school and college faculty have limited time. When efforts have not been fruitful in the past and/or where there is no existing working dynamic, there seems to be a tendency not to make the time to become involved. Most colleges indicated difficulty in getting high school teachers to participate in college vocational advisory boards. Some felt that these forums would be the best place to get cooperative action going. Others felt these forums were generally not that valuable. There was significant variation among the colleges as to the role the advisory boards play and variation between departments in the colleges.

- Technology and Equipment Constraints – College staff feels that high schools do not have up-to-date technology in the schools and so collaboration is problematic. As a result, college faculty may resist cooperation.

- High School Staff Turnover – Staff turnover at the high schools makes it difficult to develop working relationships and build cooperative programs. Colleges feel that they are always starting over or reeducating the high schools about programming. Turnover makes it extremely difficult to build support from administrators and non-vocational teachers who generally have other priorities with which to deal.

- New Testing Priorities – Some colleges noted that, with the new exit exams and other testing requirements, many high schools are less interested and have less staff available to focus on developing ties and programming with the colleges.

Notwithstanding the historical difficulties, due to the need to build and maintain college enrollments, many of the colleges stated that they are expanding their high school outreach staff and focusing on building high school ties. Historical difficulties aside, many college administrators in the workforce field are being told to expand their high school efforts. Colleges with dormant Tech Prep programs are reevaluating Tech Prep involvement with a view to reintroducing elements into the program. From the perspective of high school teachers, students need the support offered by community colleges and as they continue to face the challenges of accountability requirements, it is important for the UNITE-LA partnership to continue to be involved in bringing these two institutional levels together. Bringing this involvement to the site level continues to be the challenge.

PART VII. NEW STANDARDS AND CERTIFICATION

Graduation Requirements and Certification

All high schools in LAUSD follow the requirements for graduation set at the district level, with one exception observed during the site visits in the charter high school that has established a community service requirement for graduation. LAUSD has established a requirement that students complete a portfolio for graduation though few details on how this has been implemented could be gathered during the site visits. While one school with a particularly high dropout rate hopes that the portfolio process will help students identify goals and how to achieve them, the degree of implementation and enforcement of this policy does not appear to be consistent from school to school. At this school, the principal noted that to help students develop their portfolios, students complete a portfolio checklist that includes a list of the SCANS competencies.

Another school mentioned a new LAUSD requirement that students attain 230 credits for graduation, of which 30 credits must be in career pathway courses. It is still unclear how this new district requirement will play out at the school level as it has only recently begun to be implemented.

One local district is implementing a Postsecondary Commitment Program beginning with the class of 2002. In order to walk in their graduation ceremonies, all students will be required to provide a document that they have either been accepted to a four year college or university, a community college, trade or vocational school or the military. There were very few details as to how this requirement would be implemented especially among students who were not interested in postsecondary education.

Implementation of industry skill standards or certifications appears to be occurring on a very limited basis among the interviewees contacted as part of the site visits. For instance, one Graphic Arts Academy is working on getting Printing Industry Association (PIA) certification for students through the Los Angeles Trade Tech campus. Another Business and Finance Academy wants to offer certification that is under development through the National Academy Foundation. Several interviewees referred to ROP course certificates in response to questions about skill standards and certificates. However, these generally relate to program or course completion, not an assessment of particular skills or standards. One school's Nursing Program offers a certificate of completion (for perfect attendance, GPA and Honor Students).

In college interviews, staff reported on some of the certification directions their colleges have taken but provided no insights into changes at the high schools.

Colleges are become involved with industry in more direct ways, developing certification programs such as CISCO or by industry standards such as A+ certification. Many occupational programs are driven by the testing standards imposed by state licensing boards. Others work with industry and attempt to keep current with local, regional or national standards as appropriate.

Colleges are talking more about developing programming that is skills or competency driven. In the culinary area, for example, specific classes in skills such as knife skills are provided to enable students to come and go from the program to build skills as needed for the workplace. It would seem that the move toward competency based programs drives the community colleges more in the direction of meeting the needs of adults working in industry. It is not clear whether such a focus will have a positive or adverse affect on getting high school students involved in the programs that exist. It is also not clear the extent to which those colleges moving in this direction have incorporated the high school student perspectives specifically into their thinking.

For the most part, teachers and other school personnel had not made the connection between STC implementation and standards and accountability measures with the exception that these new requirements were hampering the implementation of school-to-career. The need to "cover" the curriculum and to prepare students for the tests and improve scores was of over-riding concern to many people on these campuses. However, there was little connection to how STC could support these efforts. Rather, for the most part, STC in general was viewed as an add-on that encouraged career exploration, development and engagement in school without necessarily having an impact on the school's test performance. Teachers outside the academy or Perkins program structures do not generally associate student participation in STC with improved test scores, primarily because they are more focused on the test scores within their own subject areas and classes without necessarily making the connection to programs or school wide improvement. In addition, accountability and testing requirements are relatively recent phenomena and most schools concerned about their scores are just struggling to meet the requirements without taking a good, hard look at how the school itself may need to be re-organized.

PART VIII. CONNECTIONS WITH BUSINESS, LABOR ORGANIZATIONS AND POSTSECONDARY INSTITUTIONS

Employer, Labor Organization and Community-Based Organization Involvement

According to the LP director, employers and labor organizations should get involved in STC to increase visibility, meet philanthropic goals and realize that participation is in their own self-interest. The big push is making it easy to enter schools, since in his experience many employers and labor organizations have found that schools are hard to navigate. This section includes information collected through site visit interviews and focus groups, the survey of elementary, middle and high schools and telephone interviews with employers and labor organizations selected by the high school sites.

For employers, the LP director has found the following chief outcomes from their involvement in STC:

- Public education becomes more relevant
- Students understand the "real world" and get real work experience
- Students are better prepared for tomorrow's jobs (e.g., technical skills)
- Employers get credit for community involvement

For labor, the LP director has found the following chief outcomes from their involvement in STC:

- More apprenticeship and union members
- More recognition of value of union careers

Information from the administrator survey indicates that about a third of elementary schools reported that they had established a partnership with one or more employers. More elementary schools in the lowest tercile of percent free and reduced meals had established an employer partnership (55 versus 41 in the highest tercile). No patterns existed with regard to other school characteristics (urbanicity, percent of families in CALWORKS and percent minority) (Table VIII.4.a). Employers were most likely to provide donations (125), student awards (100), guest speakers (98), tours of businesses (91) and community service (82) to elementary schools with whom they had a partnership (Table VIII.4.c).

Table VIII.4.a -- Number of elementary schools responding to whether or not they established a partnership with one or more employers by selected characteristics

Elementary schools: Table VIII.4.a (Questions referenced: ES 5)

	Number of schools (N=286)***	Number of Elementary Schools	
		Yes	No
Urbanicity**			
Urban	230	113	117
Mid-size city/fringe			
Urban fringe	54	28	26
Rural/small town			
Percent free and reduced meals			
Highest tercile	101	40	61
Middle tercile	96	48	48
Lowest tercile	89	54	35
Percent of families in CALWORKS			
Highest tercile	104	47	57
Middle tercile	95	49	46
Lowest tercile	87	46	41
Percent minority*			
Highest tercile	102	47	55
Middle tercile	97	45	52
Lowest tercile	87	50	37

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic
** Note that Urbanicity information was not available for 2 schools responding to the survey
***Six schools did not answer this question resulting in an adjusted N for this item of 286

Partnership name: UNITE-LA
Total number of elementary schools in partnership: 423

Table VIII.4.c -- Number of elementary schools responding to whether or not they established partnership activities with one or more employers by selected characteristics

Elementary schools: Table VIII.4.c (Questions referenced: ES 6)

		Number of Elementary Schools	
	Number of schools (N=292)	Yes	No
Curriculum development	135	36	99
Teacher internships	135	18	117
Student Awards	138	100	38
Job Shadowing	135	41	94
Tours of businesses	138	91	47
Guest speakers	139	98	41
Community service	141	82	59
Mentoring	137	51	86
Donations	143	125	18

Partnership name: UNITE-LA
Total number of elementary schools in partnership: 423

On the other hand, less than a third of middle schools (21 out of 70) reported that they had established a partnership with one or more employers. There was little variation when this data was examined by various school characteristics (Table VIII.4.b). The most common activities that employers engaged in with middle schools include guest speakers (17), donations (16), tours of businesses (15), student awards (13) and community service (11). Very few schools reported that employers engaged in curriculum development, student or teacher internships, job shadowing or mentoring (Table VIII.4.d).

Table VIII.4.b -- Number of intermediate/junior/middle schools responding to whether or not they established a partnership with one or more employers by selected characteristics

Middle schools: Table VIII.4.b (Questions referenced: MS 5)

		Number of Intermediate/Junior/Middle Schools	
	Number of schools (N=53)	Yes	No
Urbanicity			
Urban	43	17	26
Mid-size city/fringe			
Urban fringe	10	4	6
Rural/small town			
Percent free and reduced meals			
Highest tercile	18	6	12
Middle tercile	18	7	11
Lowest tercile	17	8	9
Percent of families in CALWORKS			
Highest tercile	19	6	13
Middle tercile	17	7	10
Lowest tercile	17	8	9
Percent minority*			
Highest tercile	20	7	13
Middle tercile	16	5	11
Lowest tercile	17	9	8

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Partnership name: UNITE-LA
Total number of intermediate/junior/middle schools in partnership: 71

Table VIII.4.d -- Number of intermediate/junior/middle schools responding to whether or not they established partnership activities with one or more employers by selected characteristics

Middle schools: Table VIII.4.d (Questions referenced: MS 6)

	Number of schools (N=)	Number of Intermediate/Junior/Middle Schools	
		Yes	No
Curriculum development	18	6	12
Student internships	18	2	16
Teacher internships	18	1	17
Student Awards	19	13	6
Job Shadowing	19	8	11
Tours of businesses	21	15	6
Guest speakers	20	17	3
Community service	19	11	8
Mentoring	18	7	11
Donations	20	16	4

Partnership name: UNITE-LA
Total number of intermediate/junior/middle schools in partnership: 71

High schools responding to the administrator survey reported a range of numbers of employers and labor organizations providing work-based activities for career exploration. High schools reported that providing guest speakers was the activity in which the highest average number of employers and labor organizations were involved ranging from an average of 8 up to an average of 69. The highest average number of employers and labor organizations were involved with schools in the urban fringe, the highest and lowest terciles of both percent free and reduced lunch and percent of families in CALWORKS and the middle tercile of percent minority (Table VIII.3.a).

Table VIII.3.a -- Mean numbers of employers and labor organizations providing work-based activities for career exploration to high school students, by selected school characteristics

High schools: Table VIII.3.a (Questions referenced: HS 6)

	Number of schools (N=39)**	Employer and Labor Organizations Offering			
		Work site visits	Job shadowing	Guest speakers	Workplace mentoring
Urbanicity					
Urban	33	8.6	6.3	17.8	7.5
Mid-size city/fringe					
Urban fringe	6	4.0	12.5	61.3	0.0
Rural/small town					
Percent free and reduced meals					
Highest tercile	13	13.0	3.6	33.3	13.7
Middle tercile	11	6.7	7.0	19.3	0.0
Lowest tercile	15	3.3	12.0	33.6	0.0
Percent of families in CALWORKS					
Highest tercile	9	27.0	3.5	33.3	38.0
Middle tercile	15	8.2	9.6	18.0	1.2
Lowest tercile	15	3.4	5.6	38.5	0.0
Percent minority*					
Highest tercile	11	13.5	9.0	36.3	19.0
Middle tercile	13	6.3	3.6	69.5	2.0
Lowest tercile	15	6.6	8.5	8.4	0.0

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

**Twelve of the responding schools responded that their students were clustered but did not indicate whether it applied to some or all students and are not included in the table.

Partnership name: UNITE-LA

Total number of high schools in partnership: 51

Urban high schools reported the highest numbers of employers and labor organizations providing work-based activities related to majors and pathways when compared to high schools in the urban fringe. For example, the average number of employers and labor organizations offering unpaid summer internships was 26 compared to none in the urban fringe. Urban high schools reported an average of 33 employers and labor organizations offering community service or service learning compared to an average of 4 employers in schools in the urban fringe. Schools in the middle tercile reported the fewest average number of employers and labor organizations involved in all activities. High schools in the lowest terciles of percent minority, percent of families in CALWORKS and percent free and reduced meals reported substantially higher average numbers of employers and labor organizations offering community service/service learning (Table VIII.3.b).

Table VIII.3.b -- Mean numbers of employers and labor organizations providing work-based activities to high school students, by selected school characteristics

High schools: Table VIII.3.b (Questions referenced: HS 6)

		Employer and Labor Organizations Offering					
		Work-based activities related to majors/pathways				Work-based activities NOT related to majors/pathways	
	Number of schools (N=39)	Paid school year jobs	Unpaid school year jobs	Paid summer jobs	Unpaid summer internships	Community Service/Service Learning	WBL for students not in career major
Urbanicity							
Urban	33	3.9	14.4	3.1	26.3	33.4	0.6
Mid-size city/fringe							
Urban fringe	6	2.0	6.7	1.3	0.0	4.5	11.7
Rural/small town							
Percent free and reduced meals							
Highest tercile	13	3.7	2.4	2.4	26.9	3.6	8.6
Middle tercile	11	0.0	0.0	0.0	0.0	1.0	0.0
Lowest tercile	15	7.5	32.5	4.4	25.7	111.5	0.0
Percent of families in CALWORKS							
Highest tercile	9		0.0	6.0	0.0	4.0	2.3
Middle tercile	15	1.0	1.7	0.1	23.9	4.7	7.2
Lowest tercile	15	5.8	27.9	5.0	22.5	45.0	0.0
Percent minority*							
Highest tercile	11	0.0	0.0	3.0	0.0	4.0	1.8
Middle tercile	13	2.2	4.6	1.1	26.9	3.4	5.1
Lowest tercile	15	5.0	29.2	4.6	25.7	74.0	0.0

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Partnership name: UNITE-LA
Total number of high schools in partnership: 51

Site visits provide some context for the administrator survey results. Of the 15 schools visited, all had some employer networking in place. As was the case with other STC components, high schools attributed the development of their employer relationships and networking to the following programs: Academies, Perkins, Career Center work experience and ROP.

Out of the 15 high schools that were visited, many indicated that an active successful networking strategy was in place, while most indicated their employer network was weak and lacking. The difference in the strength of the employer participation is remarkable between those with a successful network and the schools that indicated a weak network. Using the existing school programs as a predictor of future employer involvement and support for STC activities, it appears that the strategy of aligning recruitment to academy, ROP program, Perkins Program, or Work experience programs will continue to yield successful employer involvement in the schools.

From the employers' perspective, the most frequent activities were: job shadows, internships, hiring students for jobs, apprenticeships, and field trips and tours. A consistent attitude of providing students with relevant experience to enhance their purpose in academic work is present throughout interviews of employers involved in STC activities.

Three goals were of overarching importance for the majority of employers that were interviewed, all of which can be characterized as generally altruistic goals for their involvement. These responses are altruistic in the sense that employers are not involved for an immediate benefit to their company (e.g. to recruit employees). First, most employers indicated that they were involved in STC to help prepare students for the *future* workforce. Responses in this category referred to the workforce in general and did not focus on a particular industry or occupation. Thus, the tenor of most of these kinds of responses was a focus on helping students in whatever way possible for them to make connections to the workplace in order to help them succeed in the future. While improvements in the workforce was desired, most employers were willing to continue their involvement for the long term without necessarily tying it to seeing immediate improvements.

A second set of responses, also altruistic in nature, indicated that employers were involved in STC because of the positive community relations that that their participation generated. The third most common set of responses indicated that employers were involved to help students prepare for the workplace but also to learn something about their industry. Like employers who are involved because they want to improve the workforce generally or because they want to improve community relations, employers responding in this way tended to refer to their goals for STC to be achieved by the future workforce, not necessarily to solve current workforce issues. On the other hand, a small minority indicated that their goals for participating in STC was to hire employees through their participation. Several employers were involved in STC because of their interest in improving education. A few employers were involved in STC specifically because of the opportunity to work with low income or at-risk students.

A few employers talked more generally about their involvement in STC planning and implementation (for example serving on advisory committees or boards). Many of the employers also indicated that they had been involved in "brokering" activities rather than directly involved in the activities themselves. These employers were also involved in STC advisory boards, either at the school level, with academies or within the UNITE-LA structure (such as involvement with one of the local areas and a particular area facilitator). This brokering involved communications to branches (in the case of a bank) or to members (in the case of an employer association and a Chamber of Commerce). To a much lesser extent, employers are involved in fund raising, providing funds for STC or working in public relations for STC. However, several employers indicated that they were involved in these "sustainability" aspects of STC.

The LP director has found that the toughest group to get sustained involvement from has been labor organizations and this was also apparent in the colletion of

information from labor organizations involved with LAUSD high schools. He has found that their focus is on mobilization and apprenticeship based on their own organizational needs and priorities. The LP director noted that currently, UNITE-LA is trying to break this wall by working with the Teamsters to promote STC to union parents. The hope is for parents to begin going to schools and requesting school participation in seasonal campaigns. The LP director believes this strategy will be more successful at involving parents because it is a strategic approach to parent involvement. This is opposed to the original parent liaison concept, which he described as "programmatic" rather than strategic.

CBOs have increasingly become part of the partnership. According to the LP director, CBOs have reached out and want to get involved with UNITE-LA because they see it as a way to get involved with schools. CBO participation has been consistent and the LP director believes there have been no problems in involving CBOs. Some of UNITE-LA Leadership and Executive board members come from CBOs with the LP director himself serving on several CBO boards.

Postsecondary Connections

The administrator survey asked high schools to respond to a series of questions regarding connections to postsecondary institutions. The survey results indicate a moderate level of connection to postsecondary institutions. Nearly three-quarter of high schools reported offering dual enrollment (37 out of 51). About two-thirds of high schools had articulation agreements granting college credits (31) and granting advanced standing (25). Fewer high schools reported sharing employer networks and contacts (19), equipment (12) or labor market information (11). Fewer than ten high schools reported having joint advisory committees, joint staff development or common standards for cooperative education (Table VIII.7.a). There were no visible patterns when the data was dis-aggregated by various school types.

Table VIII.7.a -- Number of high schools with connections to postsecondary education or training institutions, by selected school characteristic

High schools: Table VIII.7.a (Questions referenced: HS 7)

		Type of Connection								
	Number of schools (N=39)	Dual enrollment	Articulation agreements granting college credit	Articulation agreements granting adv standing	Sharing labor market information	Sharing employer networks and contacts	Joint advisory committees	Shared equipment	Joint staff development	Common standards for coop. education
Urbanicity										
Urban	33	31	25	20	9	15	7	11	6	4
Mid-size city/fringe										
Urban fringe	6	6	6	5	2	4	1	1	1	0
Rural/small town										
Percent free and reduced meals										
Highest tercile	13	13	12	11	4	8	1	4	3	1
Middle tercile	11	10	7	7	1	3	4	2	1	1
Lowest tercile	15	14	12	7	6	8	3	6	3	2
Percent of families in CALWORKS										
Highest tercile	9	9	7	9	2	4	3	3	2	2
Middle tercile	15	14	13	9	4	9	2	3	3	0
Lowest tercile	15	14	11	7	5	6	3	6	2	2
Percent minority*										
Highest tercile	11	11	9	10	2	5	2	2	1	1
Middle tercile	13	13	12	9	4	7	5	6	3	1
Lowest tercile	15	13	10	6	5	7	1	4	3	2
Level of STC Implementation										
High	12	9	9	8	1	4	2	3	1	0
Low	27	27	22	17	10	15	6	9	6	4

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Partnership name: UNITE-LA
Total number of high schools in partnership: 51

Teachers, counselors, administrators and students were asked about their school's connection to postsecondary institutions during site visit interviews. Only a few of the high school campuses described strong connections to postsecondary institutions. For example, one high school with an adult learning center located on campus had articulation agreements with three colleges to teach courses on their campus in the evenings and on weekends. Most referenced articulation agreements with local community colleges when asked about postsecondary connections. Some students were taking courses both during the week and on Saturdays and received dual credit. In a few instances, students enrolled in academies had unique opportunities to take classes both on community and four year college campuses. For example, this is required of travel and tourism and finance academies under the National Academies Foundation. Personnel at one school mentioned a program in which community college staff come to the campus to help students with the enrollment process on a regular basis. In turn, students take classes in order to gain academic advantage, fulfill college requirements or for personal interest. One area that this college focuses on is in media and theater classes. Specific involvement in Tech Prep pathways were mentioned only sporadically during the site visits.

Several high schools mentioned special programs with universities to encourage direct enrollment in a four-year college. For example, one high school was involved in a partnership with USC that gives students an opportunity to receive scholarships. Students in grades 7 to 12 attend English and Math courses on the USC campus and return in the afternoon for other campuses. Students are also offered after-school tutoring and inter-session courses. Students who successfully complete all program requirements and are admitted to USC are entitled to a full scholarship for four years. UCLA also offers the College-Bound Opportunity Program (CBOP) program at several of the high schools visited as part of this study. UCLA provides information about the application process and students visit the campus. In addition, tutoring services are also provided to participating students.

In interviews with community college personnel, some schools have focused on developing classes at high school sites, while other colleges indicate that classes at high school sites have had limited success. One with an enrollment of approximately 18,000 has used both Tech Prep and STC funding to create an extensive catalog of classes at high schools and now at community venues such as churches. A smaller college has used Tech Prep funding to create a partnership with three high schools with large numbers of at risk students through which courses are offered on the high school sites. Some of the colleges indicate that their most effective relationships with high schools related to independent high schools that have been developed on the college sites. Some of these high schools are called "middle colleges" because they encourage the transition from high school to community college by providing a program that is tailored to the needs of high schools.

In some of the colleges with more of an emphasis on college transfer, Tech Prep programs tended to have an academic focus with students coming to the college to work in the NASA laboratory, for example. This college site also provides academic courses on the high school campus providing a link between the high school and college that is both academic and technical in nature.

Developing working college/high school relationships has been a struggle from the college perspective and these relationships were rarely mentioned in site visit interviews of high school faculty. According to college personnel, some college faculty members resist working with high school teachers because they take an "ivory tower" approach to college versus high school education. In other situations, college faculty have been energized by STC programming developments to work with high school faculty, but have been met with resistance, disinterest and staff turnover that has limited meaningful follow-through. High school teachers, while often invited, have been inconsistently involved in most college vocational advisory boards. Exceptions to this situation probably relate to college administrators with sufficient persistence and vision to continue to pursue their involvement. For example, one college early in the 1990s began coordinating a series of meetings that involved industry, college and high school staff through which 14 career paths (courses and curriculum outlines) were developed and published. This level of dialogue, especially involving curriculum development, is the exception, but it does show that working relationships can be developed with the right energies at work.

Durability of STC Connections

STC and Tech Prep have provided a mechanism through which high schools can strengthen their ties to local colleges and vice versa. It has provided colleges with a vehicle to build recruitment efforts and given colleges a service niche broader than merely serving transfer students. Given the decline of vocational programming in high schools in the early 1990s, the existence of Tech Prep offered both high schools and colleges a way to develop programs that would meet the needs of students who were not likely to pursue four-year college programs. Even those colleges that have not actively pursued the development of vocational ties with high schools have benefited because STC funding has been used to drive dual enrollment course development, which has attracted high students to the college campus. The connection to students continues to be unclear. While the opportunities exist, there is little data available to find out the extent of student participation in secondary and postsecondary partnerships.

From the perspective of employers, the most durable connections appear to be associated with specific programs on campus (e.g. academies, ROP or Perkins programs) and rely on positive communication and relationships to specific individuals. In addition, the partnership itself has garnered the support of many large corporations in the implementation of its seasonal campaigns thus raising the awareness of STC in the community at large. While there are a growing number of students (and faculty) participating in these events, it is not clear the degree to which these campaigns are generating school partnerships at the local level based on information collected from the schools. These successful partnerships appear to continue to depend on school staff and other support mechanisms for particular programs.

PART IX. CONNECTIONS BETWEEN STC PARTICIPATION AND OUTCOMES FOR STUDENTS INVOLVED IN STC

Student Involvement in STC

According to the LP director, many teachers believe that STC helps students become more engaged in school, particularly students who are disruptive or achieving at lower levels. In addition, teachers believe that reinforcing the concept of academics is important and STC in general helps to bring additional public support to schools. In general, this contention is supported by interviews at the site level though the explicit connection to STC is not always made. Rather, teachers identify with successful programs on campus that offer a real alternative to the traditional high school program.

The LP director believes that students experience paid employment, have a fun learning experience and are more engaged in school when they participate in STC. They also see better the purpose and relevance of their education and learn that education can be more student-centered and tailored to their own interests. Many of those interviewed during site visits also referred to academy and Perkins programs as essential for maintaining or encouraging school engagement among students who were at risk of dropping out. While most of this evidence is anecdotal, it is interesting to note that no one who was interviewed asserted that academy or Perkins participation had made postsecondary education less likely.

Because of the size of the school district and the multitude of STC activities that occur both through UNITE-LA and independently in schools and through CBOs, it is important to distinguish the successes and challenges of UNITE-LA with regard to student outcomes from STC activities in general. For example, the STC director has found the following strategies to be the most effective in maximizing UNITE-LA's impact on students:

- Directing Area Facilitators to work closely with counselors, teachers and other school staff
- Providing high value activities (e.g., seasonal campaigns)
- The willingness of UNITE-LA to do all the labor intensive work in order to make involvement easy
- Raising funds through activities that employers and other organizations can sponsor
- Identify already existing STC efforts and capitalizing on these by pushing to work with staff members (e.g., Academies)
- Working through the life skills (ECP) course and promoting Career and College planning
- Getting in tune with school staff priorities and anchoring STC activities around these priorities

On the other hand, the LP director has found that UNITE-LA has been least effective in getting academic teachers and many administrators to accept the value of STC and to understand that is for all students, not only for at-risk students. In addition, the LP director has found it difficult to get school staff to reach out to community, business and other employers to become involved at the school level.

Despite these difficulties, site visit interviews with teachers, administrators and counselors were generally optimistic with regard to student participation in STC-related activities or programs. The strongest effects seemed to be associated with students who had participated in academies and who had experienced a range of activities (e.g. field trips, internships, etc.). Many students interviewed in the focus groups had a high degree of support for their programs and were engaged in various forms of learning that was encouraging them to pursue further education. None of those interviewed felt that STC engagement had limited student options. In fact, most teachers and students acknowledged that their participation had both encouraged them academically and prepared them with "real" skills that could be used in the workplace. On the other hand, among students and teachers in schools without strong academy or Perkins programs, there seemed to be less of a connection between STC participation and the potential effect on encouraging postsecondary education or work skills.

Results from the senior survey about their participation in STC support many of these contentions. Of those students who reported participating in STC activities, about eight in ten (82.5%) believed that their participation had helped them understand the importance of doing well in school (IX.2.a). There were statistically significant differences by both student sex and race-ethnicity. Female students were more likely to believe that participating in career-focused programs or activities helped them understand the importance of doing well in school (85.7% versus 78.6% of males)(Table IX.2.a). Hispanic/Latino and African-American seniors were also the most likely to agree with that statement (88.0% of Hispanic/Latino and 82.9% of African-American seniors compared to 76.7% of Asian/Pacific Islanders and 67.1% of white students) (Table IX.2.a).[25]

[25] Significant at the p<=.05 level.

Table IX.2.a -- Percentage of high school seniors who believe or do not believe that participating in career-focused programs helped them understand the importance of doing well in school, by selected student demographic and academic characteristics

High school seniors: Table IX.2.a (Questions referenced: SS 8a)

		STC improved understanding	
		Believe	Do not believe
All Students		82.5	17.5
	p<=.05		
Sex			
Male		78.6	21.4
Female		85.7	14.3
	p<=.05		
High school grades			
Mostly A or B+		83.4	16.6
B or C		83.1	16.9
C- or less		80.7	19.3
	NS		
Race-ethnicity[1]			
African-American		82.9	17.1
Asian/Pacific Islander		76.7	23.3
Hispanic/Latino		88.0	12.0
White		67.1	32.9
Other		70.0	30.0
	p<=.05		

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

Eight in ten (82.5%) believed that their participation in STC helped them to set future career goals. Again, there was a statistically significant difference between female and male students responding to this question—more females than males agreed with the statement (86.4% versus 78.1%)(Table IX.2.b).[26] Students also responded differently depending on their race-ethnicity. Hispanic/Latino and African-American students believed STC encouraged them to set future goals related to their education or career at higher levels than other racial-ethnic groups (86.1% and 83.5% versus 79.1% of Asian/Pacific Islanders and 67.1% of white students)(Table IX.2.b).[27] High school grades were also a factor in the way students answered this question—the higher the grades the more likely the student believed that participating in STC encouraged them to set future goals related to their education or career (86.1% of A and B+ students versus 74.7% of students with C- or less) (Table IX.2.b).[28]

[26] Significant at the p<=.05 level.
[27] Significant at the p<=.05 level.
[28] Significant at the p<=.05 level.

Table IX.2.b -- Percentage of high school seniors who believe or do not believe that participating in career-focused programs helped them understand to set future career goals, by selected student demographic and academic characteristics

High school seniors: Table IX.2.b (Questions referenced: SS 8b)

		STC helped set career goals	
		Believe	Do not believe
All Students		82.5	17.5
	p<=.05		
Sex			
Male		78.1	21.9
Female		86.4	13.6
	p<=.05		
High school grades			
Mostly A or B+		86.1	13.9
B or C		83.1	16.9
C- or less		74.7	25.3
	p<=.05		
Race-ethnicity[1]			
African-American		83.5	16.5
Asian/Pacific Islander		79.1	20.9
Hispanic/Latino		86.1	13.9
White		67.1	32.9
Other		75.0	25.0
	p<=.05		

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

The vast majority believed that their participation in STC had made school more meaningful and interesting (67.1% agreed with the statement in comparison to 32.9% who did not).[29] More females than males (70.3% versus 63.0%) believed their participation had made school more meaningful and interesting as did both Hispanic/Latino (74.2%) and African American (65.5%) students compared to other racial-ethnic groups (54.1% of Asian/Pacific Islanders and 44.0% of white students) (Table IX.2.c).[30] In addition, students with average grades (B or C) (often considered the "target" group for STC reforms) were the mostly likely to believe that participation in STC had made school more meaningful or interesting (70.3% versus 65.0% of students with above average grades and 58.5% of students with below average grades) (Table IX.2.c).[31]

[29] Significant at the p<=.05 level.
[30] Significant at the p<=.05 level.
[31] Significant at the p<=.05 level.

Table IX.2.c -- Percentage of high school seniors who believe or do not believe that participating in career-focused programs made school more meaningful and interesting, by selected student demographic and academic characteristics

High school seniors: Table IX.2.c (Questions referenced: SS 8c)

		School is more meaningful	
		Believe	Do not believe
All Students		67.1	32.9
	p<=.05		
Sex			
Male		63.0	37.0
Female		70.3	29.7
	p<=.05		
High school grades			
Mostly A or B+		65.0	35.0
B or C		70.3	29.7
C- or less		58.8	41.2
	p<=.05		
Race-ethnicity[1]			
African-American		65.5	34.5
Asian/Pacific Islander		54.1	45.9
Hispanic/Latino		74.2	25.8
White		44.0	56.0
Other		52.5	47.5
	p<=.05		

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

About a third of students (37.5%) agreed with the statement that they have had the chance to learn the skills needed for careers they are considering. When this question was examined by various demographic factors, there was a slight, but statistically significant difference, by high school grades. There was a more substantial difference when this question was analyzed by race-ethnicity. Hispanic/Latino and African American students agreed at higher rates than Asian/Pacific Islanders and white students (Table IX.5.a).[32] Again, Hispanic/Latino and African American students were more likely to agree that their school has provided them with useful guidance about choosing a possible career (40.3% and 39.1% versus 29.7% of Asian/Pacific Islanders and 22.0% of white students) (Table IX.5.b).[33]

High school seniors are very confident that they will be able to reach their career goals. The vast majority (82.2%) agreed that they are confident they will be able to reach their career goals. There were statistically significant differences by sex, race-ethnicity and high school grades. Females were more likely to agree that they are confident they will be able to reach their career goals (85.2% versus 78.8% of males). Students who reported grades of C- or less were far less like to agree with the statement (70.4% versus 81.1% of B or C students and 89.5% of Mostly A or B+ students) (Table IX.5.c).[34] African American and white students were more likely to

[32] Significant at the p<=.05 level.
[33] Significant at the p<=.05 level.
[34] Significant at the p<=.05 level.

agree that they are very confident they will be able to reach their career goals than Hispanic/Latino and Asian/Pacific Islander students (Table IX.5.c).[35]

Table IX.5.a -- Percentage of high school seniors who agreed or disagreed that they have had the chance to learn the skills needed for careers they are considering, by selected student demographic and academic characteristics

High school seniors: Table IX.5.a (Questions referenced: SS 11, 21, 23-24)

	Percentage		
	Agree	Disagree	Don't know
All Students	37.5	46.2	16.3
p<=.05			
Sex			
Male	38.5	45.8	15.6
Female	36.0	47.1	16.9
NS			
High school grades			
Mostly A or B+	38.9	47.7	13.3
B or C	35.9	47.3	16.8
C- or less	38.0	40.3	21.8
p<=.05			
Race-ethnicity[1]			
African-American	37.3	53.9	8.8
Asian/Pacific Islander	28.9	51.3	19.7
Hispanic/Latino	39.6	41.6	18.7
White	26.8	61.3	11.9
Other	40.7	46.3	13.0
p<=.05			

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

[35] Significant at the p<=.05 level.

Table IX.5.b -- Percentage of high school seniors who agree or disagree that their school has provided useful guidance about choosing a career, by selected student demographic and academic characteristics

High school seniors: Table IX.5.b (Questions referenced: SS 17, 21, 23-24)

	Percentage		
	Agree	Disagree	Don't know
All Students	36.3	47.5	16.2
p<=.05			
Sex			
Male	33.8	49.9	16.3
Female	38.4	45.8	15.8
NS			
High school grades			
Mostly A or B+	36.9	49.5	13.6
B or C	36.4	46.1	17.5
C- or less	33.8	49.3	16.9
NS			
Race-ethnicity[1]			
African-American	39.1	50.0	10.9
Asian/Pacific Islander	29.7	52.9	17.4
Hispanic/Latino	40.3	40.4	19.3
White	22.0	71.4	6.5
Other	27.1	59.8	13.1
p<=.05			

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

Table IX.5.c -- Percentage of high school seniors who agreed or disagreed that they are confident they will be able to reach their career goals, by selected student demographic and academic characteristics

High school seniors: Table IX.5.c (Questions referenced: SS 15, 21, 23-24)

		Percentage		
		Agree	Disagree	Don't know
All Students		82.2	4.8	13.0
	p<=.05			
Sex				
Male		78.8	7.1	14.1
Female		85.2	3.0	11.8
	p<=.05			
High school grades				
Mostly A or B+		89.5	1.6	8.9
B or C		81.1	5.7	13.3
C- or less		70.4	8.8	20.8
	p<=.05			
Race-ethnicity[1]				
African-American		89.5	4.3	6.3
Asian/Pacific Islander		75.3	1.9	22.7
Hispanic/Latino		80.6	5.1	14.3
White		86.3	7.7	6.0
Other		80.7	4.6	14.7
	p<=.05			

Note - 1: Respondents who declined to state their ethnicity were excluded (4.0%)

Impact of Participation in Various STC Components

Student attitudes and participation in career exploration activities

Students who attended a career fair, participated in a career assessment or interest inventory and participated in job shadowing agreed that they have had the chance to learn the skills needed for careers they are considering at higher rates than those who had not participated. The biggest difference existed between those who had participated in a job shadow (44.7% versus 34.4% of students who had not participated in a job shadow) (Table IX.4.a).[36] Students who had participated in all three career awareness and exploration activities (career fair or outside speakers, career assessment or interest inventory and job shadowing) were also more likely to agree that their school has provided useful guidance about choosing a career. For example, 40.8% of students who attended a career fair agreed with that statement versus 30.3% of students who had not. Again, 43.3% of students who had participated in a job shadow agreed with the statement compared to 34.2% of those who had not (Table IX.4.b).[37] Students who participated in these three career awareness and exploration activities also agreed with the statement that they are confident they will be able to reach their career goals at higher rates than students who had not. However, these differences were generally slight (Table IX.4.c).[38]

Student attitudes and participation in career-focused programs

More students who participated in a career academy agreed that they have had the chance to learn the skills needed for careers they are considering (52.6% versus 33.8% of students who had not participated in a career academy) (Table IX.4.a).[39] There was a similarly large difference in the responses to this question of students who had participated in a career pathway and those who hadn't (50.2% agreed versus 31.5% of students who had not participated in a career pathway) as did students who participated in tech-prep (52.6% versus 34.7% of students who had not participated in Tech-Prep) (Table IX.4.a).[40] Students who participated in a career academy were more likely to agree with the statement that their school has provided useful guidance about choosing a career (47.7% versus 34.1% of students who had not participated in a career academy) (Table IX.4.b).[41] Career pathway and tech-prep students were also more likely to agree with that statement (48.2% of career pathway students versus 30.8% of students who had not participated in a career pathway and 46.7% of tech-prep students versus 33.3% of those who had not participated in tech-prep) (Table IX.4.b).[42]

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[36] Significant at the p<=.05 level.
[37] Significant at the p<=.05 level.
[38] Significant at the p<=.05 level.
[39] Significant at the p<=.05 level.
[40] Significant at the p<=.05 level.
[41] Significant at the p<=.05 level.
[42] Significant at the p<=.05 level. There were no statistically significant differences with regard to students who agreed that they are confident they will be able to reach their career goals with regard

Student attitudes and participation in work-based learning

For students who participated in internships, more agreed with the statement that they have had the chance to learn the skills needed for careers they are considering (Table IX.4.a).[43] Students who participated in a registered apprenticeship were also more likely to agree with the statement (48.1% versus 34.9% of students who had not participated in a registered apprenticeship) (Table IX.4.a).[44] Students who had participated in internships (school-related or not) were also more likely to agree with the statement that their school has provided useful guidance about choosing a career (47.3% of those who had an internship related to school versus 32.5% of those who had not). (Table IX.4.b).[45]

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to participation in career academies or tech-prep. However, there was a slight but statistically significant difference between students who participated in a career pathway versus students who hadn't with regard to this question.

[43] Significant at the p<=.05 level. There were no statistically significant differences with regard to students who agreed that they are confident they will be able to reach their career goals with regard to participation in internships related to school. However, there was a slight but statistically significant difference between students who participated in internships not related to school and registered apprenticeships versus students who hadn't with regard to this question.

[44] Significant at the p<=.05 level.

[45] Significant at the p<=.05 level.

Table IX.4.a -- Percentage of high school seniors who agreed or disagreed that they have had the chance to learn the skills needed for careers they are considering, by participation in career focused programs and career-related activities

High school seniors: Table IX.4.a (Questions referenced: SS 1-6, 11, 7a-c)

	Percentage		
	Agree	Disagree	Don't know
In career academy			
Yes	52.6	34.4	13.0
No	33.8	49.6	16.7
Don't know	50.0	31.0	19.0
p<=.05			
In career pathway			
Yes	50.2	36.7	13.1
No	31.5	52.7	15.8
Don't know	42.6	22.8	34.6
p<=.05			
In Tech-Prep			
Yes	52.6	33.6	13.7
No	34.7	49.9	15.5
Don't know	41.3	32.1	26.6
p<=.05			
Participated in a job shadow			
Yes	44.7	43.0	12.2
No	34.4	48.6	17.1
Don't know	36.5	37.8	25.6
p<=.05			
Career Assessment			
Yes	39.8	45.7	14.5
No	35.1	49.0	15.9
Don't know	34.7	38.0	27.3
p<=.05			
Internship not related to school			
Yes	40.2	44.5	15.3
No	35.4	48.9	15.7
Don't know	42.6	29.8	27.7
p<=.05			
Internship related to school			
Yes	52.5	34.2	13.3
No	32.3	51.5	16.2
Don't know	38.2	36.4	25.5
p<=.05			
Attended a career fair			
Yes	38.8	48.5	12.7
No	35.5	44.5	19.9
Don't know	39.3	36.6	24.1
p<=.05			
Registered apprenticeship			
Yes	48.1	38.0	13.9
No	34.9	48.7	16.5
Don't know	35.4	42.2	22.3
p<=.05			

Table IX.4.b -- Percentage of high school seniors who agree or disagree that their school has provided useful guidance about choosing a career, by participation in career focused programs and career-related activities

High school seniors: Table IX.4.b (Questions referenced: SS 1-6, 17, 7a-c)

	Percentage		
	Agree	Disagree	Don't know
In career academy			
Yes	47.7	39.9	12.5
No	34.1	50.3	15.6
Don't know	42.0	23.0	35.0
p<=.05			
In career pathway			
Yes	48.2	36.0	15.7
No	30.8	54.5	14.7
Don't know	45.6	24.3	30.1
p<=.05			
In Tech-Prep			
Yes	46.7	41.4	11.9
No	33.3	51.1	15.6
Don't know	47.0	28.6	24.3
p<=.05			
Participated in a job shadow			
Yes	43.3	43.4	13.3
No	34.2	50.1	15.8
Don't know	28.7	40.8	30.6
p<=.05			
Career Assessment			
Yes	40.5	43.6	15.9
No	31.6	55.5	12.9
Don't know	31.2	40.9	27.9
p<=.05			
Internship not related to school			
Yes	40.8	44.4	14.8
No	33.6	50.9	15.4
Don't know	39.3	33.6	27.1
p<=.05			
Internship related to school			
Yes	47.3	38.1	14.6
No	32.5	52.5	15.0
Don't know	34.9	34.3	30.7
p<=.05			
Attended a career fair			
Yes	40.8	46.6	12.6
No	30.3	50.6	19.0
Don't know	38.0	32.4	29.6
p<=.05			
Registered apprenticeship			
Yes	44.9	40.6	14.5
No	34.6	51.8	13.7
Don't know	34.0	32.5	33.5
p<=.05			

Table IX.4.c -- Percentage of high school seniors who agreed or disagreed that they are confident they will be able to reach their career goals, by participation in career focused programs and career-related activities

High school seniors: Table IX.4.c (Questions referenced: SS 1-6, 15, 7a-c)

	Percentage		
	Agree	Disagree	Don't know
In career academy			
Yes	79.9	4.6	15.5
No	82.9	4.8	12.3
Don't know	77.8	4.0	18.2
NS			
In career pathway			
Yes	81.1	6.4	12.5
No	83.6	4.2	12.2
Don't know	73.7	4.4	21.9
p<=.05			
In Tech-Prep			
Yes	80.2	7.5	12.3
No	82.2	4.6	13.2
Don't know	84.9	2.7	12.4
NS			
Participated in a job shadow			
Yes	85.8	3.8	10.4
No	81.4	5.3	13.3
Don't know	78.2	3.8	17.9
p<=.05			
Career Assessment			
Yes	84.1	4.3	11.5
No	82.2	4.6	13.2
Don't know	73.0	7.0	20.0
p<=.05			
Internship not related to school			
Yes	83.8	4.1	12.1
No	82.7	4.9	12.3
Don't know	70.7	5.7	23.6
p<=.05			
Internship related to school			
Yes	84.2	4.9	10.9
No	82.2	4.7	13.1
Don't know	77.1	5.4	17.5
NS			
Attended a career fair			
Yes	86.9	3.7	9.4
No	78.8	6.1	15.1
Don't know	66.4	4.5	29.1
p<=.05			
Registered apprenticeship			
Yes	82.1	6.2	11.7
No	83.9	3.7	12.4
Don't know	74.4	6.6	19.0
p<=.05			

School and Program Impact of STC on Attitudes and Preparation for Postsecondary Education and Careers

College administrators perceive their goals for students in several ways. Overall, they see STC as a means for encouraging students to see an educational future or path that stretches beyond high school. They see the value of STC programs, be they student visits to the college, high school student enrollment in college courses, or college personnel visibility on the high school site, as ways of ensuring that the broadest number of high school students possible becomes comfortable with the notion of attending a community college. They seek to demystify the college experience and at the same time differentiate it from the high school experience that has resulted in a lack of motivation among many students. They seek to get information to high school students so that they understand the wide range of program offerings and the flexibility that college offers in terms of scheduling and dealing with work and school conflicts. As college programs are successful in initiating students, especially at-risk students, into the college experience, college administrators feel that young people who would have otherwise ended their education may become lifelong learners. The building of a community of young lifelong learners is a significant goal.

To a lesser extent, some community colleges had a stronger vision for STC as bridging the education gap with the greater community of adults and potential students. These administrators saw their work, not only in terms of high school students, but in terms of working adults who need to train for new career paths, who seek recreational outlets and who need skill building within existing career paths. They see distinct benefits for high school students as well in offering programs in which high school students sit side-by-side with adults of all ages in classes. Through these experiences, high school students see adults as role models for lifelong education. They also respond to the education

According to the LP director, UNITE-LA and STC in general have had an impact on several dimensions of education in LAUSD with some of these components resulting in policy changes at the district level (thus, impacting all students in the district) and other components implemented in different ways and to different extents at the school level (thus, impacting students differently depending on the school they attend). For example, UNITE-LA and STC have had an impact on the development of workplace readiness skills, a push for academic/vocational integration and a longer life skills course in high school. In addition, a new graduation policy related to career pathway units and portfolios and the Life skills course (which has been required for more than 5 years) (ECP) may result in more widespread implementation of STC concepts. The LP director also believes that the seasonal campaigns have raised the profile of career development at all levels. At the community college level, the use of SCANS has been an influential strategy for incorporating STC in postsecondary education.

Responses from seniors support the above contention of the LP director that impact from STC varies from school to school depending on how STC has been

implemented. Student responses to the survey were also examined based on the characteristics of the school that the student attended. Students in high STC implementation schools were more likely to agree that they have had the chance to learn the skills needed for the careers they are considering and that their school has provided useful guidance about choosing a career (46.1% versus 34.0% of students in low STC implementation schools and 45.0% versus 32.7% of students in low STC implementation schools) (Table IX.5.d and IX.5.e).[46]

Students who were in schools with above average free and reduced meals were more likely to agree that they have had a chance to learn the skills needed for the careers they are considering (57.1% versus 32.3% of students in below average schools and 40.3% of students in average schools) (Table IX.5.d).[47] Students in these schools were also more likely to agree that their school has provided useful guidance about choosing a career (60.0% versus 31.4% of students in below average schools and 38.3% of students in average schools) (Table IX.5.e).[48] Students in schools with above average percent minority were also more likely to agree that they have had a chance to learn the skills needed for the careers they are considering (43.6% versus 33.5% of students in below average schools and 35.1% of students in average schools) (Table IX.5.d).[49] They were also more likely to agree that their school has provided useful guidance about choosing a career (41.5% versus 32.8% of students in below average schools and 34.3% of students in average schools) (Table IX.5.e).[50]

[46] Significant at the p<=.05 level.
[47] Significant at the p<=.05 level.
[48] Significant at the p<=.05 level.
[49] Significant at the p<=.05 level.
[50] Significant at the p<=.05 level. There was no statistically significant difference between high and low implementation STC schools with regard to the percentage of seniors who agreed they are confident they will be able to reach their career goals (Table IX.5.f).

Table IX.5.d -- Percentage of high school seniors who agreed or disagreed that they have had the chance to learn the skills needed for careers they are considering, by selected school characteristics

High school seniors: Table IX.5.d (Questions referenced: SS 11)

	Percentage		
	Agree	Disagree	Don't know
Urbanicity			
Urban	36.8	46.6	16.5
Mid-size city/fringe	0.0	0.0	0.0
Urban fringe	40.2	44.6	15.3
Rural/small town	0.0	0.0	0.0
NS			
Percent free and reduced meals[2]			
a	32.3	52.6	15.1
b	40.3	42.6	17.1
c	57.1	28.6	14.3
p<=.05			
Percent of families in CALWORKS[2]			
a	33.4	51.9	14.7
b	38.4	44.9	16.7
c	40.8	42.1	17.1
NS			
Percent minority*[2]			
a	33.5	51.5	15.0
b	35.1	47.7	17.2
c	43.6	40.3	16.1
p<=.05			
Level of STC Implementation			
High	46.1	38.3	15.6
Low	34.0	49.4	16.6
p<=.05			

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Note - a=Below Average; b=Average; c=Above Average

Note - 2:Data used to determine if school was Above/Below or Average obtained from DataQuest, for 00-01.

Table IX.5.e -- Percentage of high school seniors who agree or disagree that their school has provided useful guidance about choosing a career, by selected school characteristics

High school seniors: Table IX.5.e (Questions referenced: SS 17)

	Percentage		
	Agree	Disagree	Don't know
Urbanicity			
Urban	35.8	48.8	15.3
Mid-size city/fringe	0.0	0.0	0.0
Urban fringe	38.3	41.7	20.1
Rural/small town	0.0	0.0	0.0
p<=.05			
Percent free and reduced meals[2]			
a	31.4	52.9	15.7
b	38.8	44.8	16.4
c	60.0	20.0	20.0
p<=.05			
Percent of families in CALWORKS[2]			
a	31.3	51.9	16.8
b	37.3	46.6	16.1
c	40.8	43.4	15.8
NS			
Percent minority*[2]			
a	32.8	50.9	16.3
b	34.3	49.8	16.0
c	41.5	42.1	16.3
p<=.05			
Level of STC Implementation			
High	45.0	39.1	15.9
Low	32.7	51.0	16.3
p<=.05			

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

Note - a=Below Average; b=Average; c=Above Average

Note - 2:Data used to determine if school was Above/Below or Average obtained from DataQuest, for 00-01.

Post High School Student Experiences

In conclusion, there is a consistent association between high school participation in STC components such as career exploration and work-based learning. This association is even greater among STC program participants (in particular, academies). Follow up results are also positive with respect to STC participation. Results from the student follow up survey indicate positive educational and employment results with regard to participation in career-focused programs. Students identified as "high implementation" STC students had enrolled in postsecondary education at statistically significantly higher rates than their "other" counterparts (75.9% versus 67.9%). In addition, more "high implementation"

students were enrolled in 4-year colleges or universities (49.0% versus 31.2%) and more were enrolled full time (83.6% versus 68.9%)(Appendix Table 1.c). These students also had higher educational objectives (53.0% of "high implementation" students indicated a Bachelor's degree as their objective compared to 42.6% of "other" students). These tables and additional detailed tables from the follow-up survey can be found in Appendix E.

"High implementation" students were slightly less likely to be employed (44.8% versus 50.3% of other students). However, fewer "high implementation" students had looked but were unable to find work (37.5% compared to 50.7% of "other" students) (Appendix Table 2.b). While "high implementation" students were more likely to be working part-time, they were slightly less likely to be in a job not related to their high school classes (Appendix Table 3.b). While high school vocational-technical classes were only slightly more likely to have prepared "high implementation" students for their current job, these students were more likely to have indicated that high school academic classes had prepared them for further education (Appendix Table 4.b).

PART X. SUSTAINABILITY OF STC EFFORTS

STC Penetration, Sustainability and Promising Practices

With the large geographic and densely populated region that UNITE-LA serves, the partnership continues to struggle with achieving "coverage" among student participants. Though the partnership continues to evolve in order to develop the best structure for implementing school-to-career systematically both from within and outside its large institutional partners, data collected during this evaluation continues to support the notion that there is a division between what occurs at the higher levels of the partnership (e.g. among institutional partners and large employers and community organizations) and at the school level, particularly among high schools and STC programs on campus.

While the shift to a more strategic use of UNITE-LA staff through the seasonal campaigns is an important step in using resources effectively, there continues to be a need to promote STC through the programs that are in place in LAUSD schools. For example, there is a large network of academies that exist on high school campuses. These are largely unconnected to each other and appear to operate in isolation of an overall vision for STC on the campus or beyond the campus to the district level. With the shift to mini-districts within UNITE-LA, one can only imagine that an overall vision for STC will be further diluted.

Among high schools that responded to the administrator survey, the highest number of high schools (18 out of 51) reported that creating or expanding academies, majors or pathways is a key practice in sustaining the STC effort. Several high schools (12) reported seeking funding outside the district and developing alternative funding sources with the school district (10) as key practices in sustaining STC. Fewer than 10 schools reported developing alternative scheduling (6), restructuring teacher schedules (7), establishing partnerships with business, labor and community organizations (9) and building STC activities into graduation requirements (8) (Table X.1.a). However, a much higher number of high schools reported limited to no involvement in these strategies to sustain the STC effort (ranging from between 18 to 28) (Table X.1.a). While no patterns were apparent related to key practices used to sustain STC when the data was analyzed by other school characteristics, more schools in the highest and middle terciles of percent minority reported creating or expanding academies, majors or pathways as a key practice (Table X.1.e). This may indicate that STC programs are a key strategy to improving connections between large urban institutions and the high proportion of minority students who attend them. In addition, a higher proportion of High Implementation high schools reported developing alternative scheduling, restructuring teacher schedules and establishing partnerships with business, labor and community organizations as key strategies to sustain STC when compared to Other high schools (Table X.1.f).

From the college perspective and similar to the high schools, successful vocational/STC programs that demonstrate effective coordination between community colleges and local high schools seem to be driven primarily by the vision and drive of individuals on local college sites. Where comprehensive and/or innovative programs exist, they differ in kind or focus based on the skills, contacts and working habits of the college administrators in charge. Again, sustainability is not dependent on STC funding as the amount of the grant provided to the community colleges was a small amount relative to most college's vocational and technical or workforce development budgets.

As to the specific methods colleges use to develop relationships with high schools and ensure sustainability of their STC programs, colleges have undertaken the following efforts and are promising practices in the development of secondary and postsecondary connections that could be widely adopted by other partnerships:

- College administrators develop relationships with the Perkins counselors on high school sites. This is a challenge when there is only one coordinator assigned to work on STC or Tech Prep issues. As indicated below, several colleges indicated recent or upcoming staff growth in high school outreach positions.

- Colleges attempt to work with high schools to create programs that the high schools want and that will meet the needs of high school students.

- Some colleges have specific departments or offices devoted to high school outreach and coordination.

- College workforce development departments have added high school outreach counselors to their staffing ranks. There is an attempt to assign certain counselors to certain schools to build visibility on campus and rapport with school staff.

- Colleges try to create college site visitation opportunities for students that include career days at which high school students can meet with business and college program representatives and campus open houses.

- Colleges invite high school faculty members to participate in advisory boards. They are also taking new steps at relationship building that include hosting faculty breakfasts for both high school and college faculty and planning conferences.

- Colleges pay high school teachers stipends to work as program advisors (e.g., Valley College's Saturday program advisors) and then become advocates for the college programs as well as recruiters of high school students.

- Colleges develop "afternoon college" and "middle college" programs on their sites, i.e., courses or entire high school programs designed to meet student needs.

It is not clear why some colleges have historically developed stronger, effective relationships with high schools, while others have let these relationships languish. The challenges are clearly many and include

- high school teachers who are too busy to participate,
- limited funds at high schools that prevent high schools from acquiring state of the art equipment in different vocational fields,
- transportation difficulties related to high school students,
- limited textbook funding for courses organized on high school sites,
- lack of focus or staffing at high schools that is dedicated to fostering integrated vocational/career path program development, and
- high staff turnover at high schools that makes developing and sustaining working relationships difficult.

It is possible that the colleges that have invested energy in developing STC programming to date have done so both because of forward-looking management that recognized the need to build an enrollment base from local high schools and because of strong vision and commitment from administrators who supervise the STC/Tech Prep programs. One of the driving forces now for colleges that have let high school relationships wither is the need to maintain and grow college enrollment levels. Several schools noted that renewed looks at high school relationships and Tech Prep programming were underway for such reasons or that there had been recent growth in high school outreach staffing. It appears that the sustainability of any program over time depends upon the interest of high school students in sufficient numbers and, at minimum, lack of resistance by high school personnel. It is also dependent upon committed college administrative staff.

Table X.1.a -- Number of high schools pursuing various strategies to sustain the STC effort, by selected characteristics

High schools: Table X.1.a (Questions referenced: HS 11)

	Level of Involvement with a Strategy	
	Key Practice	Limited to No Involvement
Developing alternative scheduling	6	28
Restructuring teacher schedules	7	28
Establishing partnerships with business, labor, and community organizations	9	27
Creating or expanding academies, majors, or pathways	18	18
Developing alternative funding sources within school districts	10	25
Seeking funding outside the district	12	23
Building STC activities into graduation requirements	8	26

Partnership name: UNITE-LA
Total number of high schools in partnership: 51

Table X.1.e -- Number of high schools pursuing various strategies to sustain the STC effort, by percentage of minority students

High schools: Table X.1.e (Questions referenced: HS 11)

	Percent Minority*					
	Highest tercile (N=11)**		Middle tercile (N=13)**		Lowest tercile (N=15)**	
	Key Practice	Ltd to No Involvement	Key Practice	Ltd to No Involvement	Key Practice	Ltd to No Involvement
Developing alternative scheduling	3	8	2	10	1	10
Restructuring teacher schedules	4	7	1	11	2	10
Establishing partnerships with business, labor, and community organizations	5	6	3	10	1	11
Creating or expanding academies, majors, or pathways	9	2	7	6	2	10
Developing alternative funding sources within school districts	4	7	3	9	3	9
Seeking funding outside the district	4	6	5	8	3	9
Building STC activities into graduation requirements	3	7	3	10	2	9

* Minority includes African-American, American Indian/Alaska Native, Asian, Pacific Islander, Filipino, Hispanic

** Total number of high schools in each tercile

Partnership name: UNITE-LA

Total number of high schools in partnership: 51

Table X.1.f -- Number of high schools pursuing various strategies to sustain the STC effort, by level of School-to-Career implementation

High schools: Table X.1.f (Questions referenced: HS 11)

	Level of STC Implementation			
	High (N=12)*		Low (N=27)*	
	Key Practice	Ltd to No Involvement	Key Practice	Ltd to No Involvement
Developing alternative scheduling	1	8	5	20
Restructuring teacher schedules	2	7	5	21
Establishing partnerships with business, labor, and community organizations	3	6	6	21
Creating or expanding academies, majors, or pathways	5	4	13	14
Developing alternative funding sources within school districts	2	6	8	19
Seeking funding outside the district	2	6	10	17
Building STC activities into graduation requirements	1	6	7	20

* Total number of high schools in each implementation level

Partnership name: UNITE-LA
Total number of high schools in partnership: 51

The administrator survey suggests that in LAUSD schools, STC is sustained primarily through programmatic offerings such as the academies and Perkins programs that exist throughout the district. While the overall quality and depth of STC implementation varies from school to school, the ability to sustain the programs is often dependent on a small group of school staff dedicated to their own programs. STC implementation occurs sometimes with and sometimes without the support of the administration. In more successful Perkins programs, an energetic Perkins counselor with administrator support is often responsible for re-energizing faculty and students to participate in these programs. This is also true in the case of Academies that receive outside funding and organizational support from other agencies or a key employer partner. In some instances, academies appear to operate in isolation, operating under constraints such as a lack of common planning time, counselor support in scheduling students or the ability to block students in key academy courses. Despite these constraints, academy directors and teachers continue to be committed to the academy model as a successful approach for their students. Because of this isolation and the lack of school wide vision for STC that exists in many high schools, there is little connection between the network of academies in LAUSD and UNITE-LA.

For the most part, high schools have not received STC funding from the UNITE-LA partnership to develop programs (though there are a few exceptions). Rather, UNITE-LA funds have been used to support transportation, curriculum, supplies and other small grants based on needs identified primarily by area facilitators and school staff. Therefore, sustainability is not necessarily dependent on the STC funding stream. Rather, it is dependent on the continued implementation of the various programs that have been funded campus to campus. In some instances, these programs receive additional funding through the California Partnership Academies or other organizations. In others, programs have been implemented through district Perkins funding.

The end of STC funding, however, will be most evident in the seasonal campaigns that UNITE-LA sponsors. These represent the most visible connection of the partnership to schools, students and teachers. These have grown over the years and involve students from the elementary, middle and high school levels. While it is unclear from site visits the extent of involvement of various schools in these campaigns, they do provide an image of STC involvement system wide that promotes these activities and awareness to the broader community. Because of the partnership's emphasis on community awareness of STC through its media campaign, Web site and other visible aspects of the partnership, the focus on campaigns represents an important shift in priorities to sustaining partnership activities in a centralized fashion, which represents a promising practice for UNITE-LA and one that could be replicated by other partnerships struggling with meeting the needs of large numbers of students. While this strategy does not necessarily improve programmatic offerings on high school campuses, it does maintain a high level of visibility and one-day events that easily connect a range of people.

Among the employers interviewed, there is strong support for STC. Nearly all employers indicated that their involvement in school-to-career will either stay the

same (approximately 45%) or increase (approximately 45%). For example, one employer indicated their involvement will "increase—we are going to probably be involved more with high schools as well as elementary schools. We will probably have more internships, mentorships and career days." Only one employer indicated that they would no longer participate and only five employers felt they could not answer the question.

For the most part, the extent of employer involvement was dependent on the availability of the employer's own staff. Although many indicated they would like to increase involvement, they had to contend with limited resources. Many employers also indicated that their continued involvement in STC was the result of their personal commitment to the activities they had engaged in. Several employers viewed their involvement in STC in light of other community service commitments and their desire to stay connected with the community. Another factor that was important to the continued commitment of employers to STC was attributed to the level of communication they had received from the schools with whom they had partnered. The following response is a typical example: "It's dependent on the school itself because we respond to the needs of the school. If their intentions were to expand the program, then it would be our intention to support that. It depends on how committed to the program they are because we are definitely committed."

Thus, UNITE-LA's partnership is identified as a number of institutions coming together with employers and other organizations to support various activities. Rather than supporting the development of programs through the school district, UNITE-LA has created a separate entity that may be sustained through outside funding. However, this structure means that it will continue to be difficult for UNITE-LA to exert any policy or direct influence on either secondary or postsecondary district policies, programs and requirements. At best, it will serve to convene these vast institutions and hopefully, influence the direction of the partners. With the shift in emphasis to media campaigns, promotion and seasonal events, UNITE-LA continues to keep STC "in the news" so that employers, students and parents are aware of STC and push institutional partners to implement programs. While this is probably a realistic strategy for UNITE-LA to pursue, it is a more indirect way to actually influence the day to day educational programming of students.

CONCLUSION

Guided by the four research questions included in the CORE case study evaluation, information collected from the UNITE-LA school-to-career partnership begins to provide some answers to these questions from the local level.

- What is the status of STC implementation in California?
- How has STC affected student preparation for postsecondary education and career entry?
- To what degree and in what ways has STC contributed to systemic change?
- Have STC principles penetrated the community deeply enough to be sustainable?

In short, STC implementation resides at the school level primarily in the programmatic approaches to career-focused education that have developed under the California Partnership Academies model and through career course sequences developed under Perkins funding. These often predate the UNITE-LA partnership and represent a key strategy employed by LAUSD to implement a school-to-career approach. While district level support for the partnership does exist, there continues to be a lack of vision with respect to how UNITE-LA specifically and STC broadly fits within the district's overall agenda. The district struggles to meet the needs of students in large, urban high schools and academies show particular promise for students. However, they do not generally represent an approach that is taken on a school wide basis and that reflects consensus with regard to how STC fits within an overall vision for reform at the school level.

Despite the ongoing difficulty that UNITE-LA has had in penetrating LAUSD, the partnership can point to many ongoing initiatives that are garnering more broad-based support for STC in the community. In addition, UNITE-LA has demonstrated that it is interested in what the data show about partnership activities and how it can fine tune implementation. The partnership structure, which is separate from the institutions that make up the partnership, has evolved over time based on a model of reflection and its ability to make quick decisions and change priorities. Because of the large size and bureaucracies of the institutions involved in the partnership, UNITE-LA can be commended as an organization that evolves to meet current circumstances and is committed to achieving its goals despite the difficulties it faces in reaching its vast geography and dense population.

UNITE-LA's vision for STC continues to need to be communicated at the school level. Although the partnership has engaged in an extensive media campaign and developed a Web site that provides information and forum to connect to employers and community members, there continues to be a lack of awareness within schools related to what UNITE-LA is and what it is supposed to accomplish. While there were some instances of direct connections to the partnership among some teachers and administrators, it was difficult to gauge the extent of awareness of

UNITE-LA in general. Of particular concern was the continued lack of awareness of UNITE-LA among academy directors and teachers.

The transition to a focus on centralized functions and seasonal campaigns represents an important shift in thinking and priorities for UNITE-LA that will support its sustainability. Having specific campaigns to associate with UNITE-LA is an important structural component that employers and other organizations can tap into. The seasonal campaigns, however, focus on one-time events and general awareness of STC. Without an implementation component that continues to work on the penetration of both LAUSD and LACCD, it will be difficult for UNITE-LA to demonstrate positive student outcomes related to STC and that it has contributed to systemic change within and between these institutions. Despite these difficulties associated with the shift to seasonal campaigns in terms of building or improving on the overall system, it does provide a set of priorities and activities that are both "doable" and sustainable, especially if the support of large employers and industry sectors can continue to be leveraged.

Tapping into the existing network of academy and Perkins programs may provide an important strategy for UNITE-LA to build awareness and teacher and programmatic connections within LAUSD. Again, while it is important for UNITE-LA to be strategic in its implementation strategies to ensure its sustainability, it is equally important for the partnership to develop new approaches to engaging personnel at the school level. By developing approaches to engage with and support academy and Perkins programs, UNITE-LA could build exemplary work-based learning and career exploration programs that are tied to curricular reforms. In turn, the partnership could help these programs to articulate a vision for STC that lessens their isolation and goes beyond their students and reaches out to the whole school.

Using UNITE-LA's visibility in the employer community could help build employer networks at the school level and increase work-based learning opportunities. Many employers interviewed had experienced positive associations with both UNITE-LA and the schools with which they are involved. In fact, nearly all planned to stay as involved or increase their involvement, which indicates substantial engagement among involved employers. However, site visits indicated that many schools continue to struggle with making work-based learning connections. UNITE-LA could support these efforts by building capacity at the site level. It is important that UNITE-LA continues to communicate to the site level that it is not competing for these resources. Rather, it is serving to recruit more participation among employers.