

FEEDBACK

Austin Independent School District

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SCHOOL-TO-CAREER PROGRAM

INTRODUCTION

School-to-Career describes a system of integrated school-based and work-based learning that integrates academic and occupational learning. Students are trained through a series of organized educational programs designed to prepare students for careers and postsecondary education and training. School-to-Career (STC) or Career and Technology Education (CATE) students are grouped into the following categories according to level of participation:

- CATE Elective - indicates a student completed an “incidental” (not part of a coherent sequence) CATE course;
- CATE Coherent - reflects completion of a coherent sequence of course work which is focused on developing occupational knowledge and skills within a career pathway; and
- Tech Prep - reflects completion of a coherent sequence of course work within a pathway that includes state-approved articulation agreement (college credit) courses.

The purpose of this report is to document and present demographic and evaluative STC data for the 1998-99 school year. This report also is designed to suggest areas for expanded STC reporting in future years.

Demographic data were drawn from AISD’s School-to-Career file in May 1999. Spring 1998 TAAS results were utilized to examine academic outcomes, and dropout data were used to examine retention of CATE students. Also, postsecondary institution enrollment and employment data for the 1996-97 school year senior cohort were presented to examine aggregated college enrollment and employment outcomes for former CATE students. In addition, course failures and suspensions were used to evaluate the newly-implemented Grade 9 *Connections* course, which integrates career exploration and high school transition skills curriculum.

DISCUSSION

The District received \$4,219,474 in CATE funding for the 1998-99 school year. This funding was based on 1,200.276 full-time equivalents (FTEs). The FTEs represent the number of CATE student contact hours, where 1 FTE receives a 1.37 funding weight. More specifically, one student in a 3 hour class for 180 days equals .5 FTE, a 2 hour class for 180 days equals .333 FTE, and a 1 hour class for 180 days equals .167 FTE.

The \$4,219,474 that AISD received in 1998-99 compares to an amount of \$5,335,212 received in 1997-98, which was based on 1,517.660 FTEs. School-To-Career program personnel have stated that the decrease in FTEs might indicate a PEIMS reporting system error because CATE course enrollment in 1998-99 was, in fact, greater than that of the previous school year.

Also, although the CATE program generates these amounts, the actual budget for the program is determined by the District. The CATE program budget allotments for 1997-98 and 1998-99 were \$2.6 million and \$1.4 million, respectively.

School-to-Career Student Demographics

Between August 1998 and May 1999, 18,261 students were enrolled in CATE courses. The majority (n=11,766 or 64.4%) of these students were enrolled in high school. Further, 64.8% of AISD's 18,167 high school students were enrolled in CATE courses. This enrollment percentage includes students who were enrolled in a coherent sequence of CATE courses, as well as students enrolled in a CATE elective or incidental course.

Table 1 shows CATE student enrollment by high school. Bowie has the greatest number of students enrolled in CATE courses (n=1,641). Anderson is next, with 1,447 students enrolled in CATE courses. Anderson has the largest percentage (82.6%) of students enrolled. Also, at least 70% of the students at Johnston, L.B.J., McCallum, and Reagan are enrolled in CATE courses.

Table 1: Number and Percentage of AISD Students Enrolled in CATE Courses by High School in April 1999

School	# of Students	# of CATE Students	% of CATE Students	% of District CATE Students at School.
Anderson	1,751	1,447	82.6	12.3
Austin	2,005	1,132	56.5	9.6
Bowie	2,880	1,641	57.0	13.9
Crockett	2,221	1,386	62.4	11.8
Garza	314	136	43.3	1.2
Johnston	1,530	1,193	78.0	10.1
Lanier	1,543	767	49.7	6.5
L.B.J.	1,417	1,081	76.3	9.2
McCallum	1,613	1,189	73.7	10.1
Reagan	1,339	1,016	75.9	8.6
Travis	1,554	777	50.0	6.6
Total	18,167	11,765	64.8	100.0

Further demographic data for CATE students show that:

- 54% were male;
- 40% were Hispanic;
- 39% were Anglo/Other;
- 21% were African American;
- 12% were enrolled in Special Education;
- 6% were LEP; and
- 39% were economically disadvantaged.

STC personnel have stated that additional demographic data, such as CATE participation by cluster, work-based course enrollment, and courses eligible for articulation credit, are needed to better determine the effectiveness of individual STC programs. The gathering of such data were attempted during this report period. However, being able to electronically determine if a student is enrolled in or has completed a coherent sequence of

courses requires merging current and historical course enrollment data. A request for this data has been made and Application Programming personnel are in the initial stages of developing programs and procedures to produce these data.

Further, in April 1999 STC data from the PEIMS file indicated that there were no *Tech Prep* students for the 1998-99 school year, although this is not accurate. The source of this data error is being investigated and corrected. The aforementioned data questions are representative of the types of data issues that need to be resolved before more in-depth reporting can be done for the STC program.

It is recommended that AISD personnel resolve questionable issues regarding the CATE database and CATE PEIMS data and ensure that these sources contain relevant and reliable information. It is also recommended that CATE participation by cluster, work-based course enrollment, and courses eligible for articulation credit be included in future School-To-Career reports. Student enrollment counts in intermediate and advanced level CATE courses should also be reported.

TAAS Outcomes

Figures 1, 2, and 3 show exit-level TAAS passing rates by grade and by CATE participation. *CATE Elective*, *CATE Coherent*, and *Tech Prep* students are included in the *CATE Participation* category. Spring 1998 TAAS results and school year 1997-98 CATE data, which are the most current data available, were used for this evaluation.

Figures 2 and 3 demonstrate that for *all students* on the TAAS reading and writing, students who participate in CATE have a higher TAAS passing percentage than do students who do not participate in CATE. The difference in passing percentages between CATE students and non-CATE students for *all students* on TAAS mathematics is only 0.2%.

For TAAS reading the passing percentages for *all students* were 82.5% for CATE students and 78.7% for non-CATE students. The TAAS writing had passing percentages of 81.8% for CATE students and 78.6% for non-CATE students. The passing percentages for TAAS mathematics were 77.6% for CATE students and 77.4% for non-CATE students. The TAAS reading passing percentages showed the greatest difference (3.8%) between CATE participants and non-CATE students.

Further examination of Figures 2 and 3 reveals that the higher TAAS passing percentages for CATE students occur only at grades 11 and 12 for TAAS reading and writing. Grade 12 CATE students also have a higher passing percentage for TAAS mathematics; however, the difference is only 0.6%.

Students who retake the TAAS make up a majority of the grade 11 and 12 categories. Consequently, students who pass the TAAS the first time are not included in these categories. Therefore, it appears that CATE has a particularly positive influence on TAAS passing percentages for students who did not pass the TAAS on their first attempt. However, it might also be possible that the full effects of the CATE program are not completely evident until grades 11 and 12 when students are enrolled in intermediate, advanced, and work-based CATE courses.

Examining TAAS passing rates separately by *CATE Elective*, *CATE Coherent*, and *Tech Prep* students would provide more detailed data. Therefore, it is recommended that in future STC reports TAAS outcomes be examined by individual levels of CATE participation rather than grouping all levels into one category.

Figure 1: AISD Percent Passing for Students Taking the Spring 1998 Exit-Level TAAS Mathematics by CATE Participation and Grade

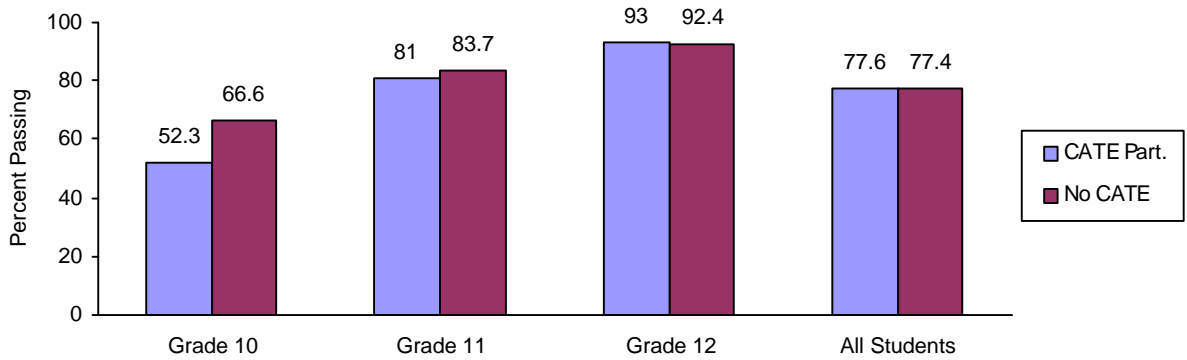


Figure 2: AISD Percent Passing for Students Taking the Spring 1998 Exit-Level TAAS Reading by CATE Participation and Grade

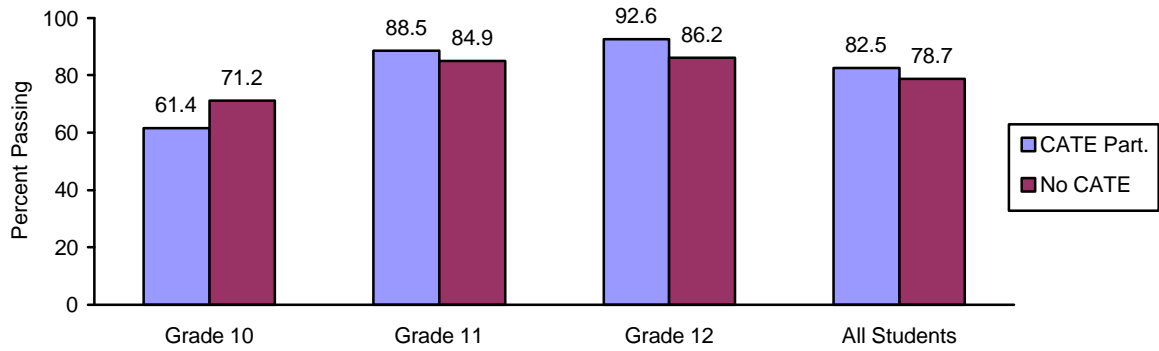
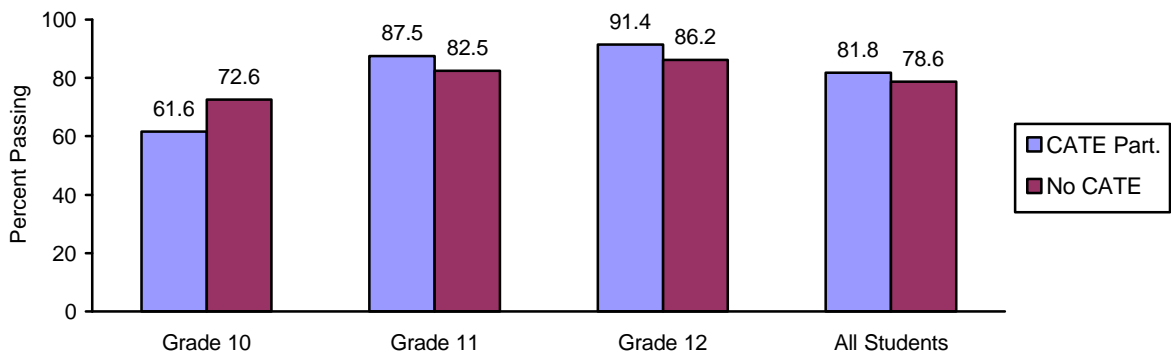


Figure 3: AISD Percent Passing for Students Taking the Spring 1998 Exit-Level TAAS Writing by CATE Participation and Grade



Dropout Data

Table 2 shows dropout rates by CATE participation and grade. The dropout and CATE indicator data are from AISD's 1996-97 PEIMS submissions and are the most recent dropout data available. Also, note that these data do not include adjustments that may have been made during the Texas Education Agency's recovery process.

Overall, *Tech Prep* students have the lowest dropout rate (1.8%) and *CATE Coherent* students have the highest dropout rate (5.4%). Of particular interest in Table 2 is the *Tech Prep* and *CATE Elective* dropout rates at grade 12, where the dropout rates are 0.8% and 0.9%, respectively. These rates compare to a 2.4% dropout rate for *No CATE* students in grade 12. As mentioned previously in the TAAS Outcomes section of this report, it might be expected that the CATE program does not produce its full effect on academic achievement and student retention until the latter stages of program involvement when students are enrolled in intermediate, advanced, and work-based CATE courses.

Table 2: AISD 1996-97 Cohort Dropout Numbers and Percentages by CATE Participation and Grade

Grade	No CATE			CATE Elective			CATE Coherent			Tech Prep		
	#*	# Drop out	% Drop out	#	# Drop out	% Drop out	#	# Drop out	% Drop out	#	# Drop out	% Drop out
9 (N=7,365)	5,688	129	2.3	1,495	50	3.3	65	5	7.7	117	6	5.1
10 (N=4,461)	2,578	48	1.9	1,455	31	2.1	122	11	9.0	306	9	2.9
11 (N=3,599)	1,683	25	1.5	981	13	1.3	219	12	5.5	716	14	2.0
12 (N=3,074)	1,266	31	2.4	792	7	0.9	261	8	3.1	755	6	0.8
Total (N=18,499)	11,215	233	2.1	4,723	101	2.1	667	36	5.4	1,894	35	1.8

Note: The dropout data in this table are from AISD's 1996-97 PEIMS submission. The data do not include adjustments that may have been made after the Texas Education Agency's recovery process.

*This indicates the number of students who participated in each program.

Postsecondary Enrollment

Texas State Occupational Information Coordinating Committee (TSOICC) data were used to determine postsecondary enrollment status for former AISD students. The most current data available are from the 1996-97 senior cohort. TSOICC used the Automated Student and Adult Learner Follow-Up System, a process that uses electronic record linkages, to determine college enrollment in Texas public universities, types of employment, and quarterly wages for former students. PEIMS records were linked by social security numbers with the Texas Higher Education Coordinating Board's (THECB) master enrollment files and with the Texas Workforce Commission's (TWC) Unemployment Insurance wage records.

The AISD data in Table 3 are based on 1,954 former students who were located using follow-up data. Consequently, the data include only persons who are employed in Texas or enrolled in a postsecondary institution in the state. (See AISD *Texas State Occupational Information Coordinating Committee* report, Office of Program Evaluation publication number

97.23, for a more detailed description of the Automated Student and Adult Learner process, as well as a more detailed description of the data's limitations.)

Table 3 categorizes AISD and Texas postsecondary enrollment by CATE participation. The state-level data were derived from the *Report Card on Texas Public Education, 1996-1997 Exit Cohort*. The AISD and state-reported percentages of located individuals enrolled in public postsecondary institutions in Texas represent a minimum percentage because employed students who are enrolled in private postsecondary institutions in Texas are categorized as *working only*. For example, a student enrolled at Baylor University who is also employed would be located through unemployment insurance wage records but would not be located through the THECB records and would, therefore, be listed as *working only* in the TSOICC data.

As can be seen in Table 3, AISD's *Tech Prep* (56.4%) and *CATE Elective* students (55.8%) have the highest percentages of postsecondary enrollment, while *CATE Coherent* students have the lowest percentage (37.2%). Both *Tech Prep* (56.4%) and *CATE Elective* (55.8%) percentages are above the district's 52.9% overall postsecondary enrollment.

Comparing AISD and state data, Table 3 shows that AISD's *Primary Academic*, *CATE Coherent*, and *Tech Prep* postsecondary enrollments are lower than the state's postsecondary enrollments for each of the groups. This might be expected since AISD's overall postsecondary enrollment is lower than the state's overall postsecondary enrollment. However, the difference between AISD and state percentages for *Tech Prep* students is only 1.1%, which is lower than the differences between AISD and state percentages for both *Primary Academic* and *CATE Coherent* students.

Table 3: Number and Percentage of 1996-97 AISD and Texas Senior Cohort Enrolled in a Postsecondary Institution and Working Only by CATE Indicator

CATE INDICATOR	Enrolled in a Postsecondary Institution				Working Only			
	AISD		Texas		AISD		Texas	
	#	%	#	%	#	%	#	%
Primary Academic	389	52.6	56,412	55.5	351	47.4	45,178	44.5
CATE Elective	278	55.8	N/A*	N/A*	220	44.2	N/A*	N/A*
CATE Coherent	71	37.2	13,354	49.7	120	62.8	13,503	50.3
Tech Prep	296	56.4	9,370	57.5	229	43.6	6,925	42.5
Total	1034	52.9	79,136	54.7	920	47.1	65,606	45.3

*Note: The state's data, which are taken from the Report Card on Texas Public Education, 1996-97 Exit Cohort, do not present CATE Elective as a separate CATE category. CATE Elective students in the state-level data are included in the Primary Academic category.

SOICC data can also be used to determine college majors of former students. Therefore, it is possible to compare student participation in particular career pathways or clusters by college majors.

Determining whether students who completed coherent sequences in the High Tech Cluster at AISD are actually majoring in a high tech field at a postsecondary institution, for example, would provide valuable evaluative information. Therefore, it is recommended that college majors of former CATE students be examined in future School-to-Career reports.

Connections

Connections is a newly-implemented, one-semester ninth grade course that is coordinated through the STC department. The course was rewritten and renamed from the previous *Career Connections* course. The *Connections* curriculum, which was developed by a 20-person, AISD multidisciplinary writing team including School-to-Career personnel, focuses on both career exploration and high school transition skills. Acclimation, Leadership, Teamwork, Survival Skills, Careers, and Employability are examples of units that are covered in the course. An evaluation of the *Connections* course is particularly relevant because the course addresses an obvious need for grade 9 transition skills in light of the large numbers of ninth grade students being reported as dropouts at the district and state levels. As stated in the *1996-97 Texas Public School Dropout Report*, “students in ninth grade consistently represent the largest number of dropouts (i.e., the highest percentage of total dropouts).” (Texas Education Agency, 1998, p. 14)

At present the effects that the course might have on dropout rates cannot be directly ascertained because dropout status is not determined for approximately two years. Therefore, course failure and suspension rates were used as indicators of positive transition and engagement in high school and to determine more immediate effects of the *Connections* course.

Tables 4 and 5 compare failure and suspension rates for students who took *Connections* to those of students who did not take *Connections* at Reagan, McCallum, and Crockett high schools. These schools were used for the evaluation because the *Connections* course is mandatory and adequate numbers of students enrolled in *Connections* are available for comparison purposes. At Reagan 56.9% (N=340) of the ninth grade students were enrolled in *Connections* during the first semester. McCallum had a 35.5% first semester *Connections* enrollment (N=196), and Crockett enrolled 26.7% (N=237) of its ninth grade students in *Connections*.

Travis and Anderson high schools were not used in the evaluation because *Connections* was taught as part of grade 9 mathematics classes at these schools. The remaining high schools were not included in the evaluation because *Connections* was offered as an elective at Johnston, Lanier, and LBJ and was not offered at all at Austin and Bowie.

Table 4: AISD 1998-99 First-Semester Course Failure Numbers and Percentages for Grade 9 Students Enrolled in Connections and Grade 9 Students Not Enrolled in Connections at Reagan, McCallum, and Crockett High Schools

School	Grade 9 Students Enrolled in Connections First Semester 1998-99			Grade 9 Students Not Enrolled in Connections First Semester 1998-99		
	# of Courses Attempted	# of Failed Courses	% Failed Courses	# of Courses Attempted	# of Failed Courses	% Failed Courses
Reagan	2,378	655	27.5	1,577	635	40.3
McCallum	1,407	346	24.6	2,579	836	32.4
Crockett	1,240	257	20.7	2,823	796	28.2
Total	5,025	1,258	25.0	6,979	2,267	32.5

Table 5: AISD 1998-99 First-Semester Discipline Numbers and Percentages and Grade 9 Students Enrolled in Connections to Grade 9 Students Not Enrolled in Connections at Reagan, McCallum, and Crockett High Schools

School	Grade 9 Students Enrolled in Connections First Semester 1998-99			Grade 9 Students Not Enrolled in Connections First Semester 1998-99		
	# of Students	# of Students Disciplined	% Disciplined	# of Students	# of Students Disciplined	% Disciplined
Reagan	340	49	14.1	258	47	18.2
McCallum	196	9	4.6	360	34	9.4
Crockett	237	13	5.5	650	35	5.4
Total	773	71	9.2	1268	116	9.1

As Table 4 shows, the overall fall 1998 course failure rate for grade 9 students who took *Connections* is 25%, compared to a 32.5% failure rate for grade 9 students who did not take *Connections*. Also, all three schools individually have significantly lower course failure rates for ninth grade students who took *Connections* during the first semester [significance determined by chi-square (1, $N = 3,955$), $p < .001$; chi-square (1, $N = 3,986$), $p < .001$; and chi-square (1, $N = 4,063$), $p < .001$] for Reagan, McCallum, and Crockett, respectively. Reagan has the largest percentage difference between failure rates for students who took *Connections* (a 27.5% failure rate) compared to a 40.3% failure rate for students who did not take *Connections*.

In Table 5 the *Number of Students Disciplined* includes suspensions, removals, and expulsions. Overall, the total percentage of *Connections* and non-*Connections* students disciplined is nearly the same (9.2% and 9.1%, respectively). However, *Connections* students at both Reagan and McCallum have lower discipline rates than their counterparts, and a chi-square test [significance determined by chi-square (1, $N=556$), $p < .05$] revealed a significant difference between the percentages of *Connections* and non-*Connections* students disciplined at McCallum.

Repeater grade 9 students were included in the failure and discipline data in Tables 4 and 5, and it is possible that the inclusion of these students might have some effect on failure rate and discipline rate outcomes. However, all three schools had grade 9 repeaters both enrolled and not enrolled in *Connections*, which is why repeaters were not removed from the data.

Another issue that might affect failure and discipline percentages is that Reagan High School enrolled all of its grade 9 Special Education students whose course schedules permitted it in *Connections* during the first semester. This means that Reagan's *Connections* enrollment had a disproportionate Special Education representation compared to the group of grade 9 students who did not take *Connections*. Both the Special Education issue and the issue of including repeater grade 9 students in the analysis require more in-depth investigation to determine their effects.

It is recommended that a more extensive evaluation of the *Connections* course be completed so effects of grade 9 repeaters and Special Education enrollment percentages need to be determined. Also, comparing current failure and discipline percentages to those data before

the course was implemented at schools where the course is now mandatory would be helpful in determining the effectiveness of the intervention. Additionally, qualitative data such as student and teacher interviews would provide a more complete look at the program and its effectiveness.

Focus Group Results

A Career Counseling focus group was conducted in May 1999 to gather evaluative, qualitative, student-perspective data about the career counseling program. (See AISD *Student Advisory Committee Career Counseling Focus Group*, Office of Program Evaluation publication number 98.07, for a detailed description of the participants, methodology, and discussion.) Students responded to questions about their individual postsecondary education plans, as well as to questions about their knowledge of career options and career planning strategies. Students also discussed district and school-level programs and resources related to college, career planning, and financial aid.

More research is needed to supplement and support the focus group findings. However, salient issues brought forward in the focus group include:

- the extent to which focus group participants were knowledgeable about how interests, abilities, and work-related values relate to career options;
- Austin High School students' appreciation of the Career Day/Site Visits event;
- the students' request for more career information during their freshman year;
- the students' request for more individualized scholarship counseling; and
- focus group participants' lack of understanding of graduation plan options.

It is recommended that AISD consider Career Day/Site Visits for high schools that do not have this program. It is also recommended that students receive more information on how graduation plan options relate to postsecondary education goals rather than just the knowledge that there are three graduation plans. Further, it is recommended that more qualitative and quantitative research be conducted to adequately address the evaluation of the Career Counseling program.

SUMMARY

Review of the data in this report shows the following key programmatic findings:

- Between August 1998 and May 1999, 18,261 students (grades 7-12) were enrolled in CATE courses.
- Sixty-five percent of AISD's 18,167 high school students are enrolled in CATE courses.
- Bowie has the greatest number of students enrolled in CATE courses (N=1,641).
- Anderson has the largest percentage (82.6%) of students enrolled in CATE courses.
- In grades 11 and 12, students who participated in CATE have a higher TAAS reading and writing passing rate than non-CATE participants do.
- *Tech Prep* students have the lowest dropout rate (1.8%) and *CATE Coherent* students have the highest rate (5.4%) for the AISD 1996-97 cohort.

- *Tech Prep* students have the highest postsecondary enrollment (56.4%) for the AISD 1996-97 cohort.
- The fall 1998 course failure rate for grade 9 students at Reagan, McCallum, and Crockett high schools who took *Connections* was 25%, compared to a 32.5% failure rate for grade 9 students who did not take *Connections* at these schools.
- The fall 1998 course failure rate for grade 9 students at Reagan who took *Connections* was 27.5%, compared to a 40.3% failure rate for students at Reagan who did not take *Connections* that semester.

Several recommendations were made to improve the evaluative process of the School-To-Career program. First, problems with the STC data such as the issue of April 1999 PEIMS data showing no *Tech Prep* students need to be resolved. Also, quality assurance measures need to be put in place to ensure the accuracy of the data and to ensure that CATE files can support local and state-level data reporting requirements.

Further, more in-depth examinations of the STC program are recommended in several areas, such as achievement outcomes, evaluation of the *Connections* course, and evaluation of the Career Counseling program. Data are also needed on enrollment by cluster and pathway and enrollment in intermediate, advanced, work-based, and articulated credit courses. A future report containing these data would provide information that supports continuous program improvement, enabling STC personnel to pinpoint relevant trends and patterns in enrollment, achievement results, and effectiveness of program services.

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