

DOCUMENT RESUME

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IDENTIFIERS *Carl D Perkins Voc and Appl Techn Educ Act 1990; *Colorado

ABSTRACT

A survey was conducted of Colorado secondary career and technical programs in 1995 to gauge how the state has responded to mandates of the Carl Perkins Vocational and Applied Technology Act of 1990. Results were reported for the first three of nine standards developed by a statewide committee in 1992. The three standards require secondary programs to demonstrate student achievement in career and technical programs in the following areas: (1) basic and applied academic skills; (2) general occupational skills; and (3) specific occupational skills. Information was gathered through a survey questionnaire mailed to each secondary provider with a follow-up, resulting in returns from 92 percent. In the area of standard one, the survey results showed that programs use both commercial and locally developed instruments to measure attainment in this area. About half of the programs had results available, with about 65 percent of those gathered from exit data of program completers. For standard two, programs use a range of methods to assess general occupational skills, with most programs using more than one method of assessment. The most frequently occurring method is tests, followed by checklists, "other," portfolios, and skills profiles. Forty-two percent of secondary programs indicate that they use pre- and posttests to assess general occupational skills whereas the remainder use other methods. About 54 percent of the programs were able to document student general occupational skills attainment. For standard three, programs use a variety of methods to assess specific occupational skills. The most frequent method is locally-developed assessments, followed by successful completion of the program, certification examinations, commercial instruments, portfolios, and "other." Nearly 38 percent of secondary programs indicate that they use pre- and posttests to assess specific occupational skills whereas the remainder use other methods. About 56 percent of the programs had results available to document student specific occupational skills attainment. (KC)

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TO: Secondary Vocational Educators and Other
Interested Persons

FROM: Rick Voorhees 

RE: RESULTS, SECONDARY SURVEY OF VOCATIONAL
STANDARDS ONE THROUGH THREE

DATE: February 12, 1996

This reports the results of the survey conducted in 1995 of all CCCOES approved secondary career and technical programs in Colorado. The intent of the survey was to gauge how Colorado has responded to mandates under the Carl Perkins Vocational and Applied Technology Act of 1990. These requirements made it necessary to create and carry out a statewide system of standards and measures. This report deals with the first three of nine standards developed by a statewide committee in 1992.

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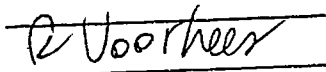
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Designed to allow flexibility at the local level, Colorado Standards One through Three require secondary programs to demonstrate student achievement in career and technical programs. They include 1) basic and applied academic skills, 2) general occupational skills, and 3) specific occupational skills. No statewide profile has been available prior to the results reported here.

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The survey questionnaire was mailed to each secondary provider in May 1995. A follow-up mailing to non-respondents was mailed in August 1995. CCCOES staff was involved in personally contacting non-respondents. By November 1995, 934 programs had returned questionnaires, representing 91.9% of all secondary career and technical programs in Colorado.

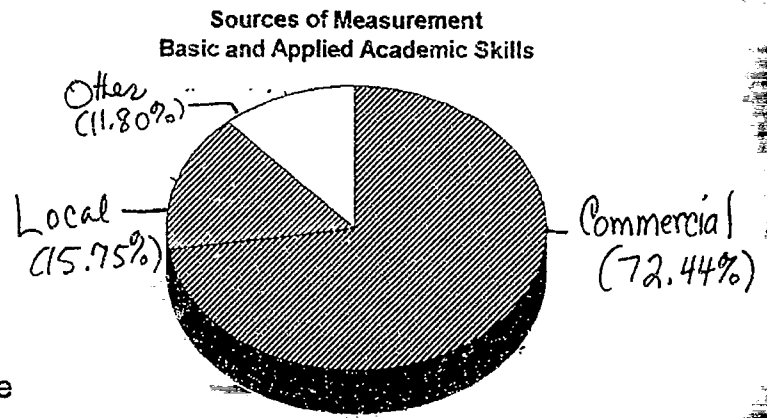
The pages immediately following are intended to provide highlights from this survey. The last section of this report contains more survey detail in spreadsheet form.

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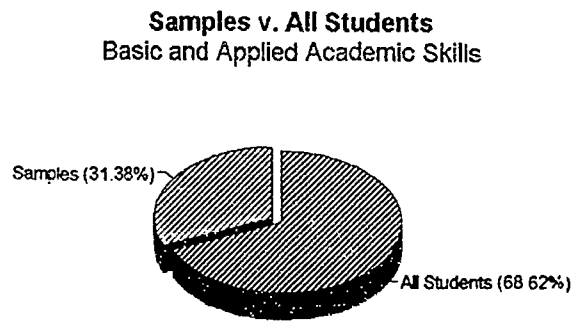
How have institutions responded to Standard One?

Standard One deals with demonstrating student gains in basic and applied academic skills. This standard deals with how well programs integrate basic skills within the career and technical curriculum.

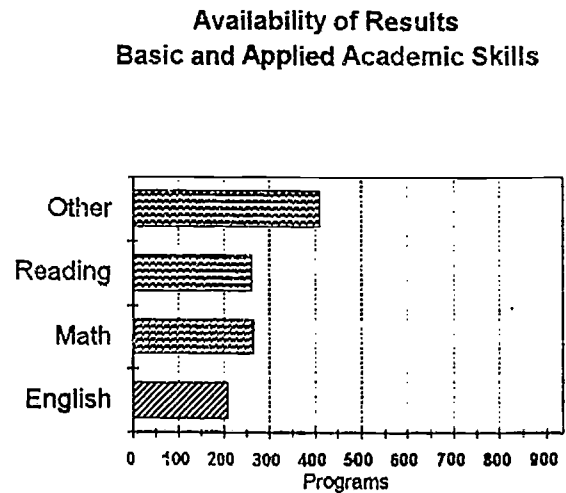
Programs use both commercial (72%) and locally-developed (16%) instruments or assessments to measure student attainment in this area. About 11% of programs report they use "other" sources of measurement to determine gains in basic and applied academic skills, a finding that is puzzling given that these programs did not specify alternative methods.



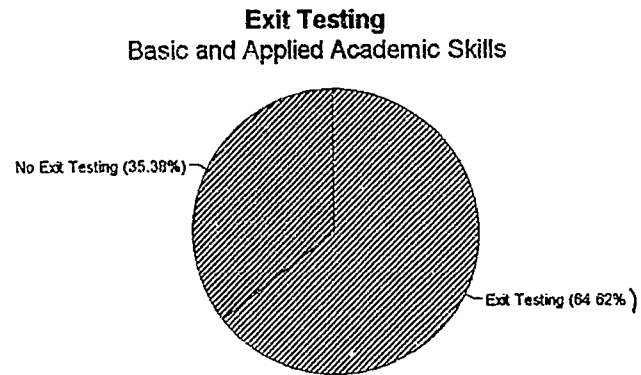
Programs also were asked whether they measured basic and applied academic skills of all students or samples of students. Responses suggest that secondary programs are more likely to assess all students (69%) than their postsecondary counterparts (51%).



According to this survey, under half of all secondary programs had results, either gain scores or other data, to report for Standard One. The basic skills area most frequently mentioned was "other," followed by reading, math, and English. It is not certain what programs mean when they indicate they have available results in "other" than traditional basic skills areas.



There are several techniques for demonstrating gain in basic and applied academic skills. Techniques for demonstrating gain utilize exit testing. Sixty-five (65) percent of secondary career and technical programs indicate they use exit testing. The survey was unable to determine what techniques programs not using exit testing utilize to demonstrate gain.

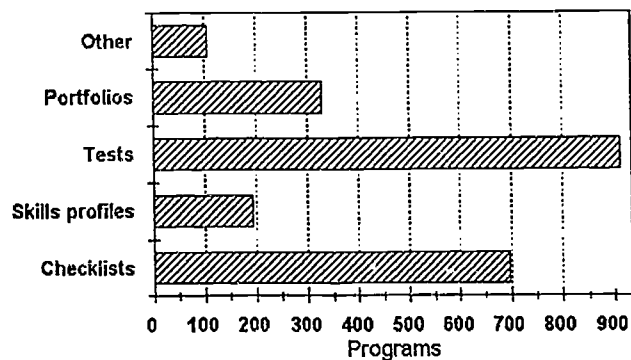


How have institutions responded to Standard Two?

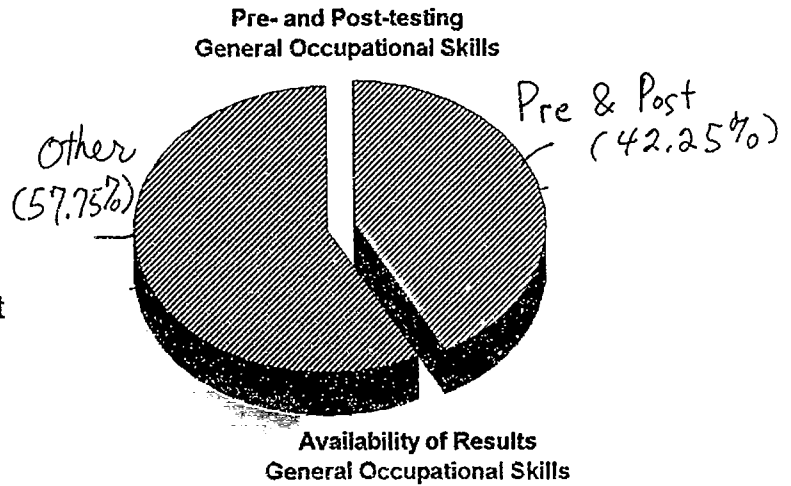
Standard Two deals with demonstrating student attainment in general occupational skills. General occupational skills are those skills needed for success in any workplace, no matter what career is chosen.

Programs use a range of methods to assess general occupational skills. Most programs use more than one method of assessment. The most frequently occurring method is tests, followed by checklists, "other," portfolios, and skills profiles. The category "other" may include demonstrations or other forms of rating.

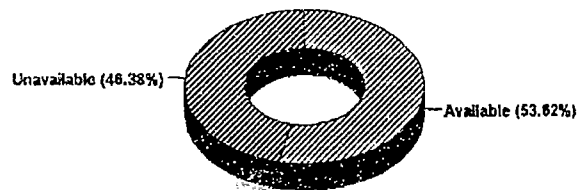
Sources of Measurement
General Occupational Skills



Forty-two percent of secondary programs indicate that they use pre- and post-tests to assess general occupational skills while the remainder use other methods. Unlike basic and applied academic skills (Standard One), this standard does not require that students demonstrate a *gain*. Nonetheless, many secondary programs suggest those gain scores for general occupational skills are in use.



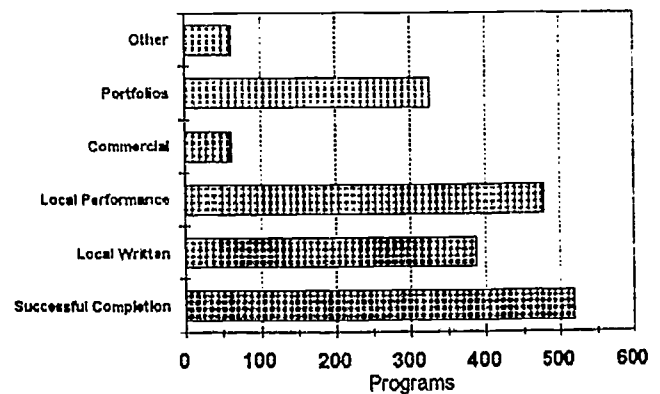
Programs were asked to specify whether results were available to document student general occupational skills attainment. Almost 54 percent of the programs indicate availability of results. Such results are required for program approvals granted after July 1, 1995.



How have institutions responded to Standard Three?

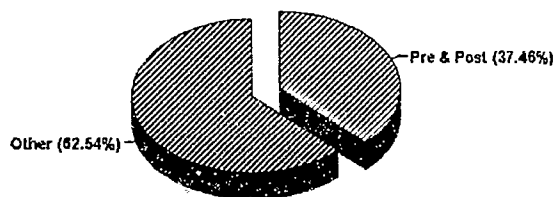
Programs use a variety of methods to assess specific occupational skills. By far, the most frequently occurring method is locally developed assessments, followed by successful completion (of the program), certification examinations, commercial instruments, portfolios, and "other."

**Sources of Measurement
Specific Occupational Skills**



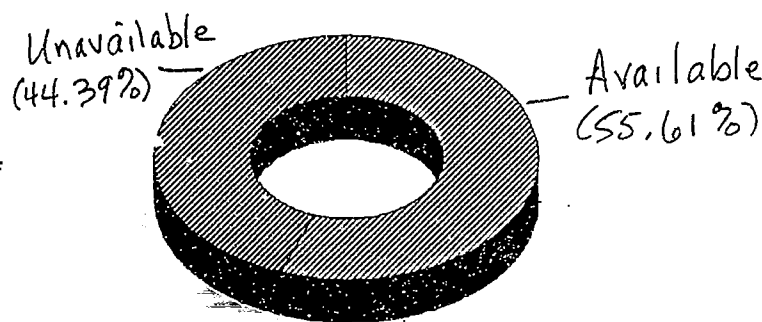
Nearly 38 percent of secondary programs indicate that they use pre- and post-tests to assess specific occupational skills while the remainder use other methods. Unlike basic and applied academic skills (Standard One), neither general or specific occupational skills standards require that students show a gain. Nonetheless, many secondary programs suggest that they produce gain scores for general and specific occupational skills.

Pre- and Post-testing
Specific Occupational Skills



Programs were asked to specify whether results were available to document student specific occupational skills attainment. Almost 56 percent of the programs responding indicated availability of results. Such results in this area are required for program approvals granted after July 1, 1995.

Availability of Results
Specific Occupational Skills



Colorado Secondary Vocational Standards, Survey Results

Colorado Department of Education, Office of Vocational Education

Sources of Measurement for Basic and Applied Academic Skills

% of total	n	
Commercially Available Assessments		
25%	234	American College Testing (ACT) Work Keys
8%	72	California Achievement Test (CAT)
8%	76	Comprehensive/California Test of Basic Skills (CTBS)
3%	26	High School Completion Test (HSCT)
44%	418	Iowa Test of Basic Skills (ITBS)
5%	45	Pre-/Post-CORD Materials
15%	140	Stanford Achievement Tests
17%	166	Test of Achievement and Proficiency (TAP)
11%	106	Test of Adult Basic Education (TABE)
Locally developed Assessments		
16%	156	Checklist of basic and applied academic skills
9%	84	Test of basic and applied academic skills
4%	39	Student portfolio demonstrating basic skills proficiency
22%	209	Other Sources of Measurement

Measurement Strategies for Basic and Applied Academic Skills

% of total	n	
Average of measurement scores		
31%	291	All students at program entry
37%	353	All students at program exit
17%	162	A sample of students at program entry
25%	234	A sample of students at program exit
Average change of gainful measurement scores		
23%	222	All students at program entry and exit
26%	250	Samples of students at program entry and exit
13%	122	Other measurement strategies

Availability of Results for Basic and Applied Academic Skills

% of total	n	
Results for program completers		
13%	128	Achieving English scores of [n] or better
19%	178	Achieving mathematics scores of [n] or better
18%	173	Achieving reading scores of [n] or better
6%	56	Achieving [other academic area] scores of [n] or better
21%	203	Other results for program completers
Results for program enrollees, no exit testing of completers		
8%	80	Achieving English scores of [n] or better
9%	87	Achieving mathematics scores of [n] or better
9%	87	Achieving reading scores of [n] or better
4%	35	Achieving [other academic area] scores of [n] or better
12%	115	Other results for program enrollees

Colorado Secondary Vocational Standards, Survey Results

Standard Two--General Occupational Skills

Sources of Measurement for General Occupational Skills

% of total	n	
64%	609	Competency checks (5 for each student)
9%	87	Locally-developed Standardized
20%	193	General occupational skills profiles from a commercial vendor
49%	469	Locally-developed tests/assessments
46%	442	Written Performance
34%	327	Student portfolios
11%	107	Other sources of measurement

Measurement Strategies for General Occupational Skills

% of total	n	
23%	216	Average of general occupational skills measurement scores
45%	428	All students at program entry
14%	137	All students at program exit
35%	332	A sample of students at program entry
		A sample of students at program exit
		Average change or gain in general occupational measurement scores
24%	227	All students at program entry and exit
18%	168	Samples of students at program entry and exit
15%	142	Other general occupational skills measurement strategies

Average Results for General Occupational Skills

Avg.	Results of program completers
83.6	% achieving [75.1] of general occupational skills
	Results of program completers on exit testing of completers
83.7	% achieving [76.0] of general occupational skills

Colorado Secondary Vocational Standards, Survey Results

Standard Three--Specific Occupational Skills

Sources of Measurement for Specific Occupational Skills

% of total	n	
61%	584	Competency benchmarks for each student
4%	37	Locally-developed Standardized
41%	387	Locally-developed direct assessments
50%	478	Written Performance
4%	42	Commercially-available assessments
2%	19	Written Performance
34%	325	Student portfolios
54%	519	Successful completion of vocational program
6%	61	Other specific occupational skills measurement

Measurement Strategies for Specific Occupational Skills

% of total	n	
21%	201	Average of general occupational skills measurement scores
50%	473	All students at program entry
13%	122	All students at program exit
35%	330	A sample of students at program entry
		A sample of students at program exit
		Average change or gain in general occupational measurement scores
22%	214	All students at program entry and exit
15%	143	Samples of students at program entry and exit
8%	77	Other specific occupational skills measurement strategies

Average Results for Specific Occupational Skills

Avg.	Results for program completers
84.4	% achieving [75.8]% of general occupational skills
35.0	% achieving [92.5] score on certification/licensure examinations
	Results for program enrollees (no exit testing of completers)
82.8	% achieving [77.2]% of general occupational skills

NOTE: Percentages may not sum to 100% because of multiple survey responses
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