IOWA NEEDS ASSESSMENT FOR VOCATIONAL EDUCATION

(Supplemental)

Bureau of Technical and Vocational Education
Iowa Department of Education

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State of Iowa
DEPARTMENT OF EDUCATION
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I. Background

Vocational education legislation has long had an important effect on Iowa's vocational programs. With the reauthorization of the Carl D. Perkins Vocational and Applied Technology Education Act of 1990, several important changes occurred which had an impact on Iowa. One of those changes was the requirement that all states conduct a needs assessment to identify where their greatest needs were in vocational education. The Iowa Department of Education contracted with the Center on Education Employment and Training for Employment (CETE), the Ohio State University to conduct this assessment. A team came to Iowa in January, 1991, and met with a sample of LEAs, AEAs, and community colleges in three different areas of the state. The team submitted its report to the Department of Education in February, 1991. The findings were used to develop the Iowa Three-Year State Plan for Vocational Education which was sent to the Office of Vocational and Adult Education (OVAE), United States Department of Education.

The original assessment did not include quantitative data and only addressed eight of the twelve areas outlined in the legislation. In addition, a significant portion of the assessment focused upon requirements of the State Vocational Standards. The State Board of Education decided to conduct a new needs assessment as a condition for full approval of the State Plan for Vocational Education by the United States Department of Education. As a result, Iowa conducted a new needs assessment using quantitative methods and a larger sample. A Department team was assembled to draft a supplemental needs assessment. This team used the Perkins law to ascertain the specific areas to be assessed. The design of the assessment instrument went through several drafts, which included input from various representatives of secondary and postsecondary institutions, CETE, and Department staff prior to distribution. Two survey instruments were developed, one for secondary schools and one for postsecondary institutions, and sent to all local education agencies and community colleges at the end of January, 1992. The two instruments were nearly identical in the questions that were asked. CETE was contracted to run a computer analysis of the data and send the report to the Iowa Department of Education for analysis and interpretation.

The computer analysis provided by CETE consisted of the frequency percent tables (see Appendix E). The report of results provided limited analysis and combined secondary and postsecondary results to determine criteria ranking. The analysis left questions concerning the unique needs of secondary and postsecondary institutions. As a result, a Department team was organized to examine the computer analysis of data. Although the assessment instrument was structured to collect data by vocational program area from each local education agency and community college in the state, CETE was unable to provide the Iowa Department of Education with specific service area breakdowns. It did provide printouts that contained overall information. The Department team had to extract data manually from the printouts to obtain service area information in the state, and to separate secondary and postsecondary data. This provided for a better picture of what was happening in the vocational programs.

II. Purpose Statement

The Carl D. Perkins Vocational and Applied Technology Act of 1990 required that each state conduct an assessment using measurable objective criteria to assess program quality. The needs assessment conducted in January 1991 by the Center for Education and Training for Employment of the Ohio State University provided some qualitative information, but did not provide quantifiable information regarding the status of programs related to the criteria within the law. In providing technical assistance to the State of Iowa, the United States Department of Education (USDE) indicated that the state did not provide data that would provide a status report on the quality of programs at the secondary and postsecondary levels. The Act required that several specific factors be considered in the development of criteria for assessing programs. Consequently, the State Board of Education directed the Department of Education to conduct a supplemental needs assessment to collect quantifiable data. The results of this assessment will supplement the information which is part of the current plan and may require the review and modification of vocational goals established in 1991. The needs assessment will provide quantifiable data to support future directions.

Upon the approval of the State Plan for Vocational Education in April 1991, the State Board and the Director determined that it was essential to establish a vision for vocational-technical education in Iowa. This action became an integral part of the strategic planning process established by the Board. A 10-member task force of both secondary and postsecondary practitioners, the State Council on Vocational Education, and a teacher preparation institution representative was established. After review and consideration of current issues, including work force changes in composition and skill requirements, the task force recommended a vision and paradigm to the State Board in the report, **A New Vision for Technical-Vocational Education in Iowa.** With the adoption of this new paradigm, vision, mission, and related goals, one major objective within the state strategic plan, **Education is Iowa's Future: The State Plan for Educational Excellence in the 21st Century,** was accomplished. The state strategic plan recognizes the differences in the statutory mission of the secondary schools and the community colleges, although some issues are common to both.

The purposes of the supplemental needs assessment were:

- to assess program quality in terms of the ability of programs to meet the labor market needs and training needs of secondary, postsecondary, and adult students. For purposes of this study, quality is defined as whether or not institutions are using selected indicators (criteria) rarely, sometimes, or usually;

- to determine state needs for program improvement and for supportive services necessary for the successful participation of special populations in vocational education;

- to assist the State Board of Education in developing state goals for leadership and for secondary and postsecondary program improvement, based upon factors outlined in the Carl Perkins Act;

- to determine priorities for the use of funds based upon identification of greatest need;

- to establish recommendations for the use of federal (Carl D. Perkins Act) funds; and

- to determine a basis for evaluation of programs for improvement.

III. Assessment Methodology

Department staff were charged to incorporate suggestions from the field and to design the methodology to facilitate the generation and analysis of the required data as per the Carl D. Perkins Vocational and Applied Technology Education Act of 1990. To accomplish this charge, a methodological process was initiated to complete the Supplemental Vocational Needs Assessment, which included five focal areas: (1) Assessment Research and Design; (2) Field Input Forums; (3) Assessment Instruments; (4) Sample; and (5) Data Analysis

A. Assessment Research and Design

After an extensive review of the Perkins Act requirements, state law requirements, and vocational surveys implemented by other states, the Department staff designed preliminary assessment instruments for secondary and postsecondary institutions respectively. Criteria from Perkins and indicators from state vocational standards law were incorporated into the assessment instrument. Thus, using these resources as a basis, Department staff identified the items within those areas that reflect best practice (refer to Appendix B and C). This review and design occurred during December 1991 and January 1992.

B. Field Input Forums

The Department mailed to field representatives a preliminary copy of the assessment instruments in December 1991 for review and comments. Field representatives were from the following organizations: Area Education Agency Directors Association; Iowa Association of Community College Presidents; Iowa Association of Community College Trustees; Iowa Association of School Boards; Iowa Council of Local Administrators; Iowa State Education Association; Iowa Vocational Association; Legislative Caucus Staff; Rural Schools of Iowa; School Administrators of Iowa; State Council on Vocational Education; and the Urban Network.

Draft instruments and associated instructions were completed based upon comments received. On January 17, 1992, the Department conducted two forums to offer field representatives the opportunity to provide additional suggestions and/or comments. The attending field representatives assisted Department staff in formatting the surveys, developing language consistency, determining appropriate time framing for completion of surveys, and designing an optimal dissemination process. This activity produced the final copy of both secondary and postsecondary instruments as found in Appendix D.

C. Assessment Instrument

The assessment instruments were designed to include the twelve criteria outlined in Section 116 of the Carl Perkins Act of 1990 and indicators from Iowa's Vocational Education Standards. Two separate instruments were prepared for secondary and postsecondary institutions. The instruments were identical in content except for one question pertaining to support services offered to ninth grade students, which appeared exclusively on the secondary survey. The consistency of both assessment instruments in design and language was a paramount consideration in their construction. As a result, secondary school personnel were given a procedure for converting individual courses to represent programs. Postsecondary institutions were provided with program data which was previously collected.

The assessment instrument was designed to include twelve criteria. Indicators (question items) were developed and included under each criterion to assess the frequency with which vocational programs incorporated specific practices related to each criterion. The twelve criteria and the number of indicators utilized in the instruments are as follows:

I. Integration of Academic and Vocational Education (6 indicators)

II. Sequencing of Courses Leading to the Attainment of Both Academic and Vocational Competencies (4 indicators)

III. Student Work Skill Attainment (2 indicators)

IV. Vocational and Guidance Counseling (3 indicators)

V. Ability of the Vocational Program to Provide Job Placement Service(s) (6 indicators)

VI. Linkages Between Secondary and Postsecondary Institutions (3 indicators)

VII. Instruction and Experience, to the Extent Practicable, in All Aspects of the Industry the Students are Preparing to Enter (2 indicators)

VIII. Ability of the Eligible Recipients to Meet the Needs of Special Populations with Respect to Vocational Education (8 secondary indicators and 7 postsecondary indicators)

IX. Raising the Quality of Vocational Education Programs in Schools with High Concentrations of Low Income and Low Achieving Students (4 indicators)

X. Relevance of Programs to the Workplace/Occupations for Which Students are to be Trained and Extent to Which Such Programs Reflect a Realistic Assessment of Current and Future Labor Market Needs (Including Needs in Areas of Emerging Technologies) (3 indicators)

XI. Ability of Vocational Programs to Meet the Needs of the Work Force (4 indicators)

XII. Basic and Higher Order and Current and Future Workplace Competencies that will Reflect the Hiring Needs of Employers (2 indicators)

All 423 school districts and 15 community colleges were asked to complete the assessment instruments for each vocational program offered at their site (i.e., high school buildings and community college campuses). The instrument was completed by respondents rating the percentage of time that they perceived their programs were incorporating the indicators within each of the 12 criteria based on the 1990-91 school/academic year. The frequency responses were defined as "Usually" (100 to 75 percent of time), "Sometimes" (74 to 26 percent of time), and "Rarely" (25 to 0 percent of time).

The assessment instruments were mailed to all secondary superintendents and community college presidents on January 30, 1992. On February 11, 1992, technical assistance workshop were held in Des Moines for secondary and postsecondary vocational educators to assist with the completion of the surveys. The surveys were discussed thoroughly in reference to directions for completion and the deadline for completion (February 28, 1992). Forty (40) secondary and 18 postsecondary representatives attended these workshop.

D. Sample

The entire "universe" of all secondary school districts and community colleges with vocational programs were included as the assessment sample. Small, medium, and large school districts and community college sizes were represented. Since all school districts were included, secondary districts that offer vocational education through shared agreements were a part of the sample. In addition, each universe included the vocational service areas offered at the responding district and college. The six areas include: (1) Agricultural Education; (2) Business/Office Education; (3) Health Occupations Education; (4) Home Economics Education; (5) Industrial Education; and (6) Marketing Education. Three hundred fifty (350) of 423 school districts responded. Of the 73 non-respondent districts, 47 are involved in whole grade sharing and do not offer individual vocational programs. Fourteen (14) community colleges with 28 campuses responded from the universe of 15 colleges with a total 30 campuses. Response rate was 93 percent for secondary and 93 percent for postsecondary.

E. Data Analysis

The analysis was completed as follows:

1. The rated frequency with which each of the criterion indicators is present in the programs was calculated separately for secondary and postsecondary programs. (See tables 1 and 2)

2. The rated frequency with which each of the criteria is present in the programs was calculated separately for secondary and postsecondary programs. This frequency was based on all the indicators for each criterion.

3. Criteria were then assigned three rankings.

    a. The first ranking was based upon the percent of the "rarely" rated frequency, with a rank of "1" indicating the highest frequency percentage, and a rank of "12" indicating the lowest frequency percentage.

    b. The second ranking was based upon the percent of the "usually" rated frequency, with the rank of "1" indicating lowest frequency percentage and a rank of "12" indicating the highest frequency percentage.

    c. The third ranking was based upon a ratio of the number of indicators with the highest percentage ranked as "rarely" to the total number of indicators. The ratios were then inverted so that the criterion with the highest ratio received the lowest ranking and the criterion with the lowest ratio received the highest ranking when the three rankings were summed.

4. After the three rankings were assigned to each criterion, the rankings were totalled and a final ranking was assigned per the formula below, describing the extent to which the major criteria are being incorporated in programs. The lower the rank, the greater the need. (See tables 3 and 4)

Formula For Ranking Criteria

Rarely Rank[1] + Usually Rank[2] + Inverted

Percentage of Indicator Ratio[3] = Sum[4] = Rank[5]

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[1]**Rarely Rank** - Ranking of average percent of respondents that reported that they rarely incorporate the indicators under the criterion. (The higher the percentage, the lower the rank.)

[2]**Usually Rank** - Ranking of the average percent of respondents that reported that they usually incorporate the indicator under the criterion. (The lower the percentages, the lower the rank.)

[3]**Indicator Ratio** - Number of indicators that 50% or more of the respondents rarely incorporate the measure divided by the number of indicators under criterion.

[4]**Sum** - Total Raw Score

[5]**Rank** - The lower the sum, the lower the rank, the greater the need.

Table 1

Summary of Secondary Frequency and Percent by Criterion						
Criterion	**Usually[1]**		**Sometimes[2]**		**Rarely[3]**	
I. Integration	7,615	29.7%	8,146	31.8%	9,884	38.5%
II. Sequencing	9,660	26.1%	10,849	29.3%	16,568	44.7%
III. Skill Attainment	4,558	30.9%	3,625	24.6%	6,569	44.5%
IV. Counseling	8,925	29.3%	9,550	31.3%	11,988	39.4%
V. Job Placement	4,384	13.0%	8,016	23.8%	21,259	63.2%
VI. Linkage	3,167	12.6%	4,597	18.3%	17,362	69.1%
VII. Aspects of Industry	14,528	28.2%	17,387	33.7%	19,642	38.1
VIII. Special Populations	38,112	31.2	32,058	26.2%	52,089	42.6%
IX. Low Income, low Achieving	6,047	53.2%	2,638	23.2%	2,674	23.5%
X. Program Relevance	10,007	21.0%	15,125	31.7%	22,530	47.3%
XI. Needs of Work Force	10,263	19.1%	14,216	26.4%	29,369	54.5%
XII. Basic and Higher Order Competencies	24,840	39.5%	21,286	33.8%	16,760	26.7%

[1]The Number of Programs and Percentage that incorporate the indicators 100-75 percent of the time.

[2]The Number of Programs and Percentage that incorporate the indicators 74-26 percent of the time.

[3]The Number of Programs and Percentage that incorporate the indicators 25 percent or less of the time.

Table 2

Summary of Postsecondary Frequency and Percent by Criterion						
Criterion	**Usually[1]**		**Sometimes[2]**		**Rarely[3]**	
I. Integration	491	8.7%	2,365	41.8%	2,801	49.5%
II. Sequencing	401	5.5%	3,023	41.2%	3,907	53.3%
III. Skill Attainment	443	14.8%	1,237	41.3%	1,316	43.9%
IV. Counseling	280	4.5%	2,772	45.0%	3,112	50.5%
V. Job Placement	595	8.8%	2,875	42.6%	3,286	48.6%
VI. Linkage	120	2.4%	1,484	29.2%	3,472	68.4%
VII. Aspects of Industry	784	7.7%	3,741	36.9%	5,625	55.4%
VIII. Special Populations	645	2.9%	7,016	31.2%	14,861	66.0%
IX. Low Income, low Achieving	260	11.5%	1,240	55.0%	756	33.5%
X. Program Relevance	2,042	21.3%	5,168	53.9%	2,379	24.8%
XI. Needs of Work Force	1,266	11.8%	3,778	35.3%	5,667	52.9%
XII. Basic and Higher Order Competencies	509	4.1%	4,815	39.0%	7,036	53.9%

[1]The Number of Programs and Percentage that incorporate the indicators 100-75 percent of the time.

[2]The Number of Programs and Percentage that incorporate the indicators 74-26 percent of the time.

[3]The Number of Programs and Percentage that incorporate the indicators 25 percent or less of the time.

Table 3

Ranking of Secondary Criterion					
Criterion	**Rarely**	**Usually**	**Indicator Ratio**	**Sum**	**Rank**
I. Integration	38.5% (9)	29.7% (8)	3/6 = (.50)	17.50	9
II. Sequencing	44.7% (5)	26.1% (5)	2/4 = (.50)	10.50	5
III. Skill Attainment	44.5% (6)	30.9% (9)	2/2 = (.50)	15.50	6
IV. Counseling	39.4% (8)	29.3% (7)	$1/3 = (.33)^{66}$	15.66	7
V. Job Placement	63.2% (2)	13.0% (2)	$6/6 = (1.0)^{0}$	4.00	2
VI. Linkage	69.1% (1)	12.6% (1)	$3/3 = (1.0)^{0}$	2.00	1
VII. Aspects of Industry	38.1% (10)	28.2% (6)	$0/2 = (1.0)^{0}$	16.00	8
VIII. Special Populations	42.6% (7)	31.2% (10)	5/8 = (.625)	17.625	10
IX. Low Income, low Achieving	23.5% (12)	53.2% (12)	$1/4 = (.25)^{.75}$	24.75	12
X. Program Relevance	47.3% (4)	21.0% (4)	$2/3 = (.66)^{33}$	8.33	4
XI. Needs of Work Force	54.5% (3)	19.1% (3)	$3/4 = (.75)^{25}$	6.25	3
XII. Basic and Higher Order Competencies	26.7% (11)	39.5% (11)	$0/2 = (0)^{1.0}$	23.00	11

Table 4

Ranking of Postsecondary Criterion					
Criterion	**Rarely**	**Usually**	**Indicator Ratio**	**Sum**	**Rank**
I. Integration	49.5% (8)	8.7% (7)	2/6 = (.33 to .66)	15.66	7
II. Sequencing	53.3% (5)	5.5% (5)	3/4 = .75 to .25	10.25	5
III. Skill Attainment	43.9% (10)	14.8% (11)	2/2 = 1 to 0	21.00	11
IV. Counseling	50.5% (7)	4.5% (4)	1/3 = .33 to 66	11.66	6
V. Job Placement	48.6% (9)	8.8% (8)	2/6 = .33 to .66	17.66	9
VI. Linkage	68.4% (1)	2.4% (1)	3/3 = 1 to 0	2.00	1
VII. Aspects of Industry	55.4% (4)	7.7% (6)	2/2 = 1 to 0	10.00	4
VIII. Special Populations	66.0% (2)	2.9% (2)	6/7 = .85 to .15	4.15	2
IX. Low Income, low Achieving	33.5% (11)	11.5% (9)	1/4 = .25 to .75	20.75	10
X. Program Relevance	24.8% (12)	21.3% (12)	0/3 = 0 to 1	25.00	12
XI. Needs of Work Force	52.9% (6)	11.8% (10)	2/4 = .50 to .50	16.50	8
XII. Basic and Higher Order Competencies	65.9% (3)	4.1% (3)	2/2 = 1 to 0	6.00	3

IV. Limitations of the Study

A. This assessment was designed to determine the perceptions of secondary and postsecondary personnel of the incorporation of selected quality criteria in current vocational program offerings. For the purposes of this study, quality was defined as whether or not institutions are using selected indicators rarely, sometimes, or usually.

B. The data do not permit generalization that need for incorporation of one criterion is of greater value than need for incorporation of another criterion.

C. These data cannot be construed in any other way than to determine quality as defined above.

D. Percentages are used to determine program need rather than student need or percentage of students served.

E. This study does not discriminate based upon differences in geographic area, i.e. rural or urban.

F. The Likert scale used to gather data was designed on a hundred point scale; however the three categories were of unequal value, e.g. usually 25%; sometimes 50%; and rarely 25%. This created limitations in ability to determine more completely the need based upon percentage of incorporation of criteria in programs.

G. Each administrative site was used to determine the incidence of programs at each site.

H. Incorporation of criteria, rather than enrollment in programs, was assessed .

I. The data provide information on existing programs only and does not account for current or future programmatic needs.

J. While postsecondary institutions deliver discrete programs under each vocational service area, those programs were all clustered and reported as a single vocational program service area.

K. The small size of the sample of community colleges related to the size of the sample of school districts only permits generalizability of needs within sector, i.e. secondary or postsecondary.

L. The data do not reflect differences between the mission of vocational education in the secondary and postsecondary sectors.

V. Secondary Findings and Interpretation

A. Assessment of Linkages Between Secondary and Postsecondary Educational Institutions (VI)

Indicator (Secondary)	Usually		Sometime		Rarely	
A. Articulation agreements which result in advanced placement or standing have been established between the secondary and postsecondary institutions.	364	12.8%	438	15.4%	2045	71.8%
B. Tech-prep programs which lead to specific two-year associate degrees have been established between secondary and postsecondary institutions.	208	7.3%	253	8.9%	2376	83.8%
C. Support services are provided to special population students assisting in the transition to postsecondary vocational education programs.						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged (includes potential dropouts and dropouts)	*397*	*14.1*	*688*	*24.5%*	*1728*	*61.4%*
b. economically disadvantaged (includes foster children and JTPA)	*407*	*14.5%*	*657*	*23.4%*	*1746*	*62.1%*
c. limited English proficient (including migrant)	*277*	*10.1%*	*423*	*15.3%*	*2056*	*74.6%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*443*	*15.9%*	*584*	*21.0%*	*1754*	*63.1%*
3) non-traditional (gender)	*391*	*14.1%*	*539*	*19.4%*	*1852*	*66.6%*
4) displaced homemakers, single/teen parents, and single pregnant women	*361*	*13.0%*	*529*	*19.0%*	*1888*	*68.0%*
5) offender	*319*	*11.7%*	*486*	*17.9%*	*1917*	*70.4%*
Subtotal for Indicator C	2595	13.3%	3906	20.1%	12941	66.6%
Total for Criterion	3167	12.6%	4597	18.3%	17362	69.1%

1. *Description*

This criterion provided the basis for assessing the extent to which vocational programs are providing opportunities for students to transition from secondary vocational education programs to postsecondary vocational programs based upon the following indicators: (a) the use of formalized articulation agreements which results in advanced placement or standing; (b) the availability of tech-prep programs which lead to specific two-year associate degrees.

2. *Findings*

Respondents indicated that:

- 71.8 percent of programs rarely have articulation agreements which result in advanced placement or standing.

- 83.8 percent rarely had established tech-prep programs which lead to specific two-year associate degrees.

- The percentage of vocational programs rarely provided support services to any of the targeted special population groups ranged from 61.4 percent to 74.6 percent.

There are no inconsistencies between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked first.

There is a need to expand formal linkages between secondary and postsecondary educational institutions, particularly in the area of tech-prep programs. All three indicators under this criterion support this funding.

Formal linkages between secondary and postsecondary institutions have only recently been mandated by State law in 1989 to go into effect July 1, 1992. Prior to 1989, there were various forms of articulation agreements which have been in effect between secondary and postsecondary institutions for sometime. However, there is a high need to strengthen program linkages between secondary schools and community colleges by establishing tech-prep programs and formal articulation agreements.

B. Ability of the Vocational Program to Provide Job Placement Service(s) (V)

Indicator (Secondary)	Usually		Sometime		Rarely	
A. Students are provided comprehensive vocational job market information.	532	18.4%	1139	39.4%	1218	42.2%
B. Students are referred for job interviews and provided assistance in finding jobs after graduation.	255	8.9%	728	25.3%	1896	65.9%
C. Employers surveys of former students' performance are conducted on an **annual** basis.	102	3.6%	318	11.1%	2440	85.3%
D. Information from student and employer follow-up studies is shared with appropriate audiences.	133	4.7%	483	17.0%	2227	78.3%
E. Counseling, instructional services, and job placement services are provided to special populations listed below to facilitate their transition from school to further schooling or post-school employment.						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged (includes potential dropouts and dropouts)	*540*	*19.2%*	*868*	*30.8%*	*1410*	*50.0%*
b. economically disadvantaged (includes foster children and JTPA)	*537*	*19.0%*	*825*	*29.2%*	*1468*	*51.9%*
c. limited English proficient (including migrant)	*310*	*11.3%*	*497*	*18.1%*	*1944*	*70.7%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*507*	*18.2%*	*763*	*27.3%*	*1521*	*54.5%*
3) non-traditional (gender)	*453*	*16.3%*	*743*	*26.8%*	*1576*	*56.9%*
4) displaced homemakers, single/teen parents, and single pregnant women	*437*	*15.7%*	*574*	*20.9%*	*1769*	*64.4%*
5) offender	*404*	*14.7%*	*574*	*20.9%*	*1769*	*64.4%*
Subtotal for Indicator E	3188	16.3%	4950	25.4%	11363	58.3%
F. Placement data are collected annually to determine the percentage of students who obtain jobs in the occupational area or related field for which they are prepared.	174	6.5%	398	14.8%	2115	78.7%
Total for Criterion	4384	13.0%	8016	23.8%	21259	63.2%

1. *Description*

This criterion provided the basis for assessing the extent that occupational information and job placement services provided for students before, during and upon completion of a vocational program. The following indicators were used to assess this criterion: (a) the extent to which students are provided job market information; (b) the extent to which students are referred for job interviews; (c) the extent to which students are provided follow-up information; and (d) the extent to which counseling and placement services are provided to special populations.

2. *Findings*

Respondents indicated that:

- 65.9 percent of the vocational programs rarely referred students to job interviews and provided assistance in finding jobs after graduation.

- 78.3 percent of the vocational programs rarely shared information from student and employer follow-up studies with appropriate audiences.

- 85.3 percent of the vocational programs rarely conduct employer surveys of former students' performance on an annual basis.*

- Counseling, instructional services, and job placement services are not provided to special populations. The measures under this indicator showed a range from 50 percent to 70.7 percent of the programs rarely providing these services.

- 78.7 percent of the vocational programs rarely collected placement data annually to determine the percentage of students who obtain jobs in the occupational area or related field for which they are prepared.

There are no inconsistencies between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion ranked second.

There is a need to improve job placement services to assist students in the transition from school to work. Of the six indicators for this criterion, five support this finding.

Much emphasis needs to be given to collecting information pertaining to former students' performance on the job and the placement of students after graduation. In addition, emphasis must be given to counseling and instructional services to provide students with this information as a part of providing assistance and setting up job interviews to enhance the transition of each student, including special populations, from school to work.

*See Criterion XI. Ability of Vocational Programs to Meet the Needs of the Work Force for interpretation.

C. Ability of Vocational Programs to Meet the Needs of the Work Force (XI)

Indicator (Secondary)	Usually		Sometime		Rarely	
A. Vocational programs meet the needs of business, industry, and labor through:						
1) curriculum content based on objectives and competencies	*1205*	*42.1%*	*1109*	*38.8%*	*545*	*19.1%*
2) instructional materials and supplies	*1022*	*35.6%*	*1283*	*44.7%*	*566*	*19.7%*
3) equipment	*805*	*28.1%*	*1285*	*44.9%*	*775*	*27.1%*
4) staff development	*748*	*26.1%*	*1169*	*40.8%*	*951*	*33.2%*
Subtotal for Indicator A	3780	33.0%	4846	42.3%	2837	24.7%
B. Vocational advisory committees review the program for relevancy including:						
1) instructional content based on competencies	*558*	*19.5%*	*727*	*25.5%*	*1570*	*55.0%*
2) adequacy of materials	*528*	*18.5%*	*911*	*31.9%*	*1419*	*49.7%*
3) adequacy of equipment	*529*	*18.5%*	*920*	*32.2%*	*1405*	*49.2%*
4) adequacy of facilities	*528*	*18.5%*	*909*	*31.8%*	*1422*	*49.7%*
Subtotal for Indicator B	2143	18.8%	3467	30.3%	5816	50.9%
C. Procedures are in effect that provide special populations below and their family members direct input into the development of vocational education programs.						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged (includes potential dropouts and dropouts)	*255*	*9.0%*	*594*	*21.0%*	*1985*	*70.0%*
b. economically disadvantaged (includes foster children and JTPA)	*229*	*8.1%*	*584*	*20.6%*	*2027*	*71.4%*
c. limited English proficient (including migrant)	*139*	*5.0%*	*431*	*15.6%*	*2191*	*79.4%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*242*	*8.6%*	*546*	*19.5%*	*2010*	*71.8%*
3) non-traditional (gender)	*234*	*8.4%*	*564*	*20.1%*	*2002*	*71.5%*
4) displaced homemakers, single/teen parents, and single pregnant women	*189*	*6.8%*	*512*	*18.3%*	*2098*	*75.0%*
5) offender	*163*	*6.0%*	*449*	*16.5%*	*2116*	*77.6%*
Subtotal for Indicator C	1451	7.4%	3680	18.8%	14429	73.8%
D. In addition to classroom instruction, vocational education programs include the following:						
1) field experience	*572*	*20.1%*	*681*	*23.9%*	*1599*	*56.1%*
2) laboratory experience	*1770*	*61.7%*	*716*	*25.0%*	*382*	*13.3%*
3) on-the-job training	*361*	*12.7%*	*449*	*15.7%*	*2042*	*71.6%*
4) clinical experience	*186*	*6.6%*	*377*	*13.3%*	*2264*	*80.1%*
Subtotal for Indicator D	2889	25.3%	2223	19.5%	6287	55.2%
Total for Criterion	10263	19.1%	14216	26.4%	29369	54.5%

1. *Description*
This criterion provided the basis for assessing the extent to which vocational programs are meeting the needs of the work force based upon the following indicators: (a) adequacy of curriculum content, instructional materials, equipment, and staff development; and (b) the extent to which advisory committees review programs for relevancy.

2. *Findings*

Respondents indicated that:

- 55 percent of programs rarely have vocational advisory committees review instructional content based on competencies, and 50.9 percent of the programs rarely have vocational advisory committees review the adequacy of facilities.

- Overall, 73.8 percent of the vocational programs rarely have procedures in effect which provide special population students and their family members direct input into the development of vocational programs. This indicator showed that programs rarely had procedures in place to facilitate direct input to any of the targeted special population groups; the measures for these groups ranged from 70.0 percent to 79.4 percent..

- 56.1 percent of programs rarely provide opportunities for field experience, and 71.6 percent of the programs rarely provide opportunities for on-the-job training.

There is agreement between indicators under this criterion and an indicator under Criterion III (Student Work Skill Attainment) where respondents indicated that 58.8 percent of the vocational programs rarely met the program needs of business, industry and labor through curriculum based competencies, and in Criterion III, 70.7 percent of the programs rarely document student skill attainment on state validated competencies and 63.6 percent of the programs rarely document student skill attainment on locally validated lists. On this criterion, respondents indicated 55 percent of the vocational programs rarely have the advisory committee review the curriculum content based on competencies.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked third.

There is a need for improvement in the ability of programs to meet the needs of the work force. Three of the four indicators under this criterion support this need.

In regard to vocational programs meeting the needs of the work force, educators are not actively using advisory committees to help assure quality vocational offerings by having an impact in instructional content and the adequacy of facilities. There is a need to establish and put into effect procedures so that special population students and their family members will have direct input into the development of vocational education programs. And finally, to bring vocational program content and facilities closer to the eventual work environment, there is a need to incorporate into the vocational program opportunities for field experience and on-the-job training.

It is to be noted that there is state legislation (Chapter 258, Code of Iowa) requiring advisory committees for state board approved vocational programs. Beginning July 1, 1992, in order to meet the state standard for vocational education, all vocational programs will be required to have advisory committees/councils.

D. Relevance of Programs to the Workplace/Occupations for Which Students Are to be Trained and Extent to Which Such Programs Reflect a Realistic Assessment of Current and Future Labor Market Needs (Including Needs in Areas of Emerging Technologies) (X)

Indicator (Secondary)	Usually		Sometime		Rarely	
A. The following sources of information are used to determine vocational program offerings:						
1) local surveys	*453*	*16.4%*	*837*	*30.2%*	*1479*	*53.4%*
2) Job Service of Iowa	*262*	*9.4%*	*701*	*25.2%*	*1823*	*65.4%*
3) business patterns	*498*	*17.8%*	*1015*	*36.3%*	*1286*	*45.9%*
4) national labor market information	*314*	*11.3%*	*856*	*30.7%*	*1621*	*58.1%*
5) State Occupational Information Coordinating Committee (SOICC) data	*143*	*5.1%*	*528*	*19.0%*	*2106*	*75.8%*
6) student interest	*1527*	*53.5%*	*846*	*29.7%*	*480*	*16.8%*
7) program placement and follow-up	*350*	*12.5%*	*805*	*28.8%*	*1643*	*58.7%*
8) advisory committee input	*700*	*24.8%*	*880*	*31.2%*	*1241*	*44.0%*
9) chamber of commerce input	*138*	*4.9%*	*446*	*15.9%*	*2213*	*79.1%*
10) want ad counts	*258*	*9.2%*	*571*	*20.3%*	*1977*	*70.5%*
Subtotal for Indicator A	4643	16.6%	7485	26.7%	15869	56.7%
B. The following strategies are used to determine vocational program offerings:						
1) advisory council input	*710*	*24.7%*	*899*	*31.3%*	*1263*	*44.0%*
2) contacts with business, industry, and labor representatives	*587*	*20.4%*	*1124*	*39.1%*	*1165*	*40.5%*
3) instructor experience in related business/industry	*1163*	*40.4%*	*1033*	*35.8%*	*686*	*23.8%*
4) instructor review of professional journals	*895*	*31.0%*	*1268*	*43.9%*	*728*	*25.2%*
5) contacts with other vocational instructors	*1097*	*38.0%*	*1306*	*45.2%*	*485*	*16.8%*
6) school board input	*614*	*21.4%*	*1016*	*35.4%*	*1239*	*43.2%*
Subtotal for Indicator B	5066	29.3%	6646	38.5%	5566	32.2%
C. Program enrollment correspond with the labor demand and supply for each occupation.	298	12.5%	994	41.6%	1095	45.9%
Total for Criterion	10007	21.0%	15125	31.7%	22530	47.3%

1. *Description*

This criterion provided the basis for assessing the extent that programs for which students are to be trained are relevant to the workplace and reflect realistic, current, and emerging labor market needs. The following indicators were used to assess this criterion: (a) sources of information used to determine vocational program offerings; (b) strategies used to determine vocational program offerings; and (c) enrollment correspondence to labor demand.

2. *Findings*

Among sources of information listed in one indicator as generally used to determine program offerings, respondents indicated the following:

- Of the programs assessed, 53.4 percent rarely use local surveys; 65.4 percent rarely use information from Job Service of Iowa; 59.5 percent rarely use information on business patterns; 58.7 percent rarely use national labor market information; 75.8 percent rarely use State Occupational Information Coordinating Committee (SOICC) data; 58.7 percent rarely use program placement and follow-up data; 79.1 percent rarely use input from the chamber of commerce; and 70.5 percent rarely use want ad counts to determine vocational program offerings.

There are no inconsistencies between selected indicators within this criterion or with indicators of other criteria in the assessment instrument. There is an agreement between one of the eight items referred to in the aforementioned indicator and an indicator in Criterion V (Ability of the Vocational Program to Provide Job-placement Services). In Criterion V, 85.3 percent of the respondents indicated they rarely conduct employer follow-up of students on an annual basis; whereas, in this criterion, it is reported that 58.7 percent of the vocational programs rarely use program placement and follow-up data.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked fourth.

There is a need for vocational programs to increase the relevance to the workplace/occupations which students are preparing to enter and the extent to which such programs reflect a realistic assessment of current and future labor market needs. One of the three indicators supports this finding.

In spite of the fact that slightly more than one-half of the respondents indicated that their vocational program enrollments correspond with the labor demand and supply for each occupation, they indicated that they often do not use the available data in planning vocational programs.

The data show that the Iowa State Occupational Information Coordination Committee data system developed as a part of a vocational system intended to meet the needs for data upon which to base vocational programs is used less than other sources of data such as local surveys, information from Job Service of Iowa, want ads, and placement and follow-up data.

Because of a de-emphasis in data collection requirements at the federal level pertaining to placement and employer satisfaction, the state discontinued the collection of these data. The collection and use of placement data has not been prevalent at the local school level.

E. Sequencing of Courses Leading to the Attainment of Both Academic and Vocational Competencies (II)

Indicator (Secondary)	Usually		Sometime		Rarely	
A. Within the vocational program, sequential courses have been developed which integrate academic and vocational competencies.	937	33.0%	885	31.2%	1017	35.8%
B. Vocational programs require prerequisites from:						
1) academic course(s)	132	4.6%	226	7.9%	2496	87.5%
2) vocational course(s)	663	23.2%	942	33.0%	1249	43.8%
3) academic skill(s) (e.g., GPA, reading level, math level, etc.)	*155*	*5.5%*	*337*	*11.9%*	*2342*	*82.6%*
Subtotal for Indicator B	950	11.1%	1505	17.6%	6087	71.3%
C. Vocational courses taught by competency-based instruction include the following areas:						
1) new and emerging technologies	*938*	*32.3%*	*1090*	*37.5%*	*875*	*30.1%*
2) job seeking, job keeping, job adaptability, and other employment skills	*1033*	*35.9%*	*978*	*34.0%*	*864*	*30.1%*
3) employment skills that reflect current industry standards and labor market needs	*920*	*32.2%*	*1073*	*37.6%*	*864*	*30.1%*
4) leadership skills	*963*	*33.6%*	*986*	*34.4%*	*920*	*32.1%*
5) entrepreneurial skills	*615*	*21.6%*	*886*	*31.1%*	*1345*	*47.3%*
6) basic academic skills	*1186*	*41.7%*	*.996*	*35.0%*	*665*	*23.4%*
7) sex equity	*1362*	*48.1%*	*650*	*23.0%*	*818*	*28.9%*
Subtotal for Indicator C	7017	35.0%	6659	33.3%	6351	31.7%
D. Students are given pre and post-tests to determine their gains.						
1) academic	*259*	*9.2%*	*777*	*27.5%*	*1788*	*63.3%*
2) vocational	*497*	*17.5%*	*1023*	*36.0%*	*1325*	*46.6%*
Subtotal for Indicator D	756	13.3%	1800	31.8%	3113	54.9%
Total for Criterion	9660	26.1%	10849	29.3%	16568	44.7%

1. *Description*

This criterion provided the basis for assessing the degree to which courses that integrate academic and vocational competencies have been defined and sequenced. The following indicators were used to assess this criterion: (a) the extent to which sequential courses that integrate academic and vocational competencies have been developed; (b) the extent to which vocational programs require prerequisites; (c) the extent to which vocational courses taught by competency-based instruction include a variety of skills; and (d) the extent to which students are given pre- and post-tests to determine their gains.

2. *Findings*

Respondents indicated that:

- 87.5 percent of the vocational programs rarely have academic courses as prerequisites and 82.6 percent of the programs rarely have academic skills as prerequisites.

- 63.3 percent of the vocational programs rarely include the administration of pre- and post-tests to determine academic gains.

There are no inconsistencies between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked fifth.

The data indicated that a high percentage of the vocational programs rarely include academic courses or skills prerequisites in the sequencing of courses and that there is a need for assessing academic gain. Two of the four indicators support this funding.

Even though the data indicate that a high percentage of the programs rarely require prerequisites, this should not be identified as a need area, as programs should provide flexibility. Perkins legislation mandates the measurement of learning and competency gains, including student progress in the achievement of basic and more advanced academic skills.

F. Student Work Skill Attainment (III)

Indicator (Secondary)	Usually		Sometime		Rarely	
A. Vocational instructors use the following to document student job skill attainment:						
1) state validated competency list	*380*	*13.5%*	*444*	*15.8%*	*1989*	*70.7%*
2) locally validated competency list	*450*	*16.0%*	*574*	*20.4%*	*1788*	*63.6%*
3) specific task list	*781*	*27.7%*	*875*	*31.0%*	*1163*	*41.3%*
4) other	*157*	*24.6%*	*84*	*13.2%*	*397*	*62.2%*
Subtotal for Indicator A	1768	19.5%	1977	21.8%	5337	58.8%
B. Vocational instructors use the following measures to determine if students have achieved the job skill competencies required for successful employment.						
1) written measures	*1363*	*48.1%*	*821*	*29.0%*	*651*	*23.0%*
2) performance measures	*1427*	*50.3%*	*827*	*29.2%*	*581*	*20.5%*
Subtotal for Indicator B	2790	49.2%	1648	29.1%	1232	21.7%
Total for Criterion	458	30.9%	3625	24.6%	6569	44.5%

1. *Description*

This criterion provided the basis for assessing the extent to which student work skill performance is measured and documented. The following indicators were utilized to assess this criterion: (a) the extent competency lists are utilized; and (b) the extent instructors utilize written and performance measures to determine if students have acquired job skill competencies.

2. *Findings*

Respondents indicated that:

- 70.7 percent of the vocational programs rarely document student job skill attainment on state validated competency lists, and 63.6 percent of the vocational programs rarely document student job skill attainment on locally validated competency lists.

There are no inconsistencies between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked number six.

There is a need for documentation of student job or work skills attainment based upon validated competencies. One of the two indicators supports this finding.

While competency-based education has been the basis for quality vocational programs, only recently has it been mandated by State and Federal legislation. Based upon the data, vocational instructors have limited their use of competency lists to measure and document job skill achievement.

G. Vocational and Guidance Counseling (IV)

Indicator (Secondary)	Usually		Sometime		Rarely	
A. Career planning to assist students to be successful in their vocational program is provided by:						
1) certified counselors	*1181*	*41.5%*	*875*	*30.7%*	*792*	*27.8%*
2) faculty	*1106*	*38.7%*	*1174*	*41.1%*	*575*	*20.1%*
3) career information delivery system	*471*	*17.0%*	*912*	*33.0%*	*1383*	*50.0%*
Subtotal for Indicator A	2758	32.6%	2961	35.0%	2750	32.5%
B. Guidance and counseling services that help vocational students become successful in their vocational programs are offered.	698	28.9%	907	37.6%	807	33.5%
C. Vocational guidance and counseling services responsive to the needs of special populations cited below are provided/available by professionally trained counselors:						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged (includes potential dropouts and dropouts)	*1004*	*35.0%*	*1090*	*38.0%*	*774*	*27.0%*
b. economically disadvantaged (includes foster children and JTPA)	*964*	*33.8%*	*997*	*35.0%*	*890*	*31.2%*
c. limited English proficient (including migrant)	*529*	*19.4%*	*542*	*19.8%*	*1661*	*60.85*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*841*	*30.0%*	*800*	*28.6%*	*1158*	*41.4%*
3) non-traditional (gender)	*822*	*29.5%*	*857*	*30.7%*	*1110*	*39.38%*
4) displaced homemakers, single/teen parents, and single pregnant women	*686*	*24.5%*	*753*	*26.9%*	*1357*	*48.5%*
5) offender	*623*	*22.7%*	*643*	*23.4%*	*1481*	*53.9%*
Subtotal for Indicator C	8925	29.3%	9550	31.3%	11988	39.4%
Total for Criterion	8925	29.3%	9550	31.3%	11988	39.4%

1. *Description*

This criterion provided the basis for assessing the degree to which vocational guidance and counseling services are being provided to assist students. The following indicators were utilized to assess this criterion: (a) the extent career planning assistance is provided to students; (b) the extent to which guidance and counseling services are offered; and (c) the degree to which vocational guidance and counseling services responsive to the needs of special populations are provided by professionally prepared counselors.

2. *Findings*

Respondents indicated that:

- 50 percent of the vocational programs rarely use a career information system to assist students in making career decisions.

- There is a need to expand and improve vocational guidance and counseling services responsive to the needs of members of special populations provided by professionally trained counselors. The data indicated a range from 53.9 percent to 60.8 percent for the various special populations group.

There are no inconsistencies between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked seventh.

There were no indicators that document a need for improvement for this criterion. However, three items within two indicators showed some need for improvement as noted above.

The findings do not support this as a priority area of need for improvement.

H. Instruction and Experience, to the Extent Practicable, In All Aspects of the Industry the Students are Preparing to Enter (VII)

Indicator (Secondary)	Usually		Sometime		Rarely	
A. Competencies in each of the following aspects of industry (for which students are preparing to enter) are incorporated into the curriculum of each vocational program:						
1) planning	*956*	*33.7%*	*1002*	*35.3%*	*882*	*31.1%*
2) management	*797*	*27.8%*	*1005*	*35.1%*	*1062*	*37.1%*
3) finances	*727*	*25.4%*	*952*	*33.2%*	*1185*	*41.4%*
4) technical and production skills	*1091*	*38.1%*	*980*	*34.2%*	*794*	*27.7%*
5) underlying principles of technology	*828*	*29.0%*	*1047*	*36.6%*	*985*	*34.4%*
6) labor	*736*	*25.8%*	*1005*	*35.1%*	*1119*	*39.1%*
7) community issues	*644*	*22.4%*	*940*	*32.7%*	*1287*	*44.8%*
8) health and ecology	*619*	*21.6%*	*962*	*33.6%*	*1283*	*44.8%*
9) safety	*1349*	*47.4%*	*740*	*26.0%*	*758*	*26.6%*
Subtotal for Indicator A	7750	30.1%	8633	33.5%	9355	36.3%
B. Within the vocational programs, students are assessed on their understanding of each of the following aspects of industry (for which students are preparing to enter):						
1) planning	*800*	*27.8%*	*1077*	*37.5%*	*997*	*34.7%*
2) management	*648*	*22.5%*	*1035*	*36.0%*	*1192*	*41.5%*
3) finances	*636*	*22.2%*	*986*	*34.4%*	*1247*	*43.5%*
4) technical and production skills	*1086*	*37.9%*	*1020*	*35.6%*	*760*	*26.5%*
5) underlying principles of technology	*746*	*26.0%*	*1047*	*36.5%*	*1078*	*37.5%*
6) labor	*623*	*21.7%*	*978*	*34.1%*	*1268*	*44.2%*
7) community issues	*503*	*17.5%*	*902*	*31.4%*	*1469*	*51.1%*
8) health and ecology	*520*	*18.2%*	*915*	*32.0%*	*1428*	*49.9%*
9) safety	*1216*	*42.5%*	*794*	*27.8%*	*848*	*29.7%*
Subtotal for Indicator B	6778	26.3%	17387	33.9%	10287	39.8%
Total for Criterion	14528	28.2%	17387	33.7%	19642	38.1%

1. *Description*

This criterion provided the basis for assessing the extent to which vocational program curricula provide instruction and experience in all aspects of industry. The following indicators were utilized to assess this criteria: (a) the extent competencies related to all aspects of the industry are incorporated into the curriculum; and (b) the extent to which students in vocational programs are assessed on their understanding of a variety of aspects of the industry which they are preparing to enter.

2. *Findings*

Respondents indicated that:

- 51.1 percent of the vocational programs rarely include instructional content on community issues.

There are no inconsistencies between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the date, this criterion was ranked eighth.

There were no indicators that document a need for improvement for this criterion. However, one item in one indicator showed some need for improvement as noted below.

The findings do not support this as a priority area of need for improvement.

I. Integration of Academic and Vocational Education (I)

Indicator (Secondary)	Usually		Sometime		Rarely	
A. Vocational instructors use curriculum guides, instructional materials, and instructional strategies designed to integrate academic (e.g., math, science, etc.) and vocational education.	1473	51.5%	995	34.8%	392	13.7%
B. The following four applied subjects are integrated into vocational education programs:						
1) principles of technology (academic/ vocational)	*1077*	*37.8%*	*898*	*31.5%*	*872*	*30.6%*
2) applied communications (academic/ vocational)	*1047*	*36.9%*	*1083*	*38.1%*	*711*	*25.0%*
3) applied mathematics (academic/ vocational	*1053*	*37.2*	*1128*	*39.8%*	*653*	*23.0%*
4) applied biology (academic/vocational)	*396*	*14.2%*	*566*	*20.3%*	*1821*	*65.4%*
Subtotal for Indicator B	3573	31.6%	3675	32.5%	4057	35.9%
C. Academic competencies (e.g., math, science, etc.) are identified and integrated into vocational courses.	852	29.7%	1150	40.1%	869	30.3%
D. Vocational instructors teach related academic competencies in vocational courses.	1110	38.7%	1188	41.5%	869	30.3%
E. Vocational instructors have received inservice training on methods of integrating academic competencies into vocational classes.	480	16.7%	698	24.3%	1695	59.0%
F. Vocational instructors team with academic instructors to teach related academic competencies in vocational courses.	127	4.4%	440	15.3%	2304	80.3%
Total for Criterion	7615	29.7%	8146	31.8%	9884	38.5%

1. *Description*

This criterion provided the basis for assessing the degree to which vocational programs contain an academic component which serves to ensure the achievement of academic as well as vocational competencies. The following indicators were utilized to assess this criterion: (a) the extent that vocational instructors use curriculum guides, materials, and strategies designed to integrate academics into vocational education; (b) the extent applied academics are integrated into vocational programs; (c) the extent that academic competencies as identified and integrated into vocational programs; (d) the extent that vocational instructors teach related academic skills in vocational courses; (e) the extent that vocational instructors have received inservice training on methods of integrating academic skills into vocational courses; and (f) the extent that vocational instructors team with academic instructors to teach related academic skills in vocational courses.

2. *Findings*

Respondents indicated that:

- Instructors who teach in 59 percent of the programs rarely received inservice training on methods of integrating academic competencies in vocational courses.

- In 80.3 percent of the programs, academic and vocational instructors do not team with each other to teach related academic competencies in vocational courses.

There are no inconsistencies between selected indicators within the criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked ninth.

There is a need for further integration of academic and vocational instruction. Two of the six indicators support this finding. The major emphasis of need pertains to teaming vocational with academic instructors to teach related academic competencies in vocational courses.

The results of the assessment point to the fact that vocational and academic instructors rarely team up to teach related academic competencies in vocational courses. A partial solution to this problem, based on assessment results, is the fact that instructors need inservice training on methods of integrating academic competencies in vocational courses.

J. Ability of the Eligible Recipients to Meet the Needs of Special Populations With Respect to Vocational Education (VIII)

Indicator (Secondary)	Usually		Sometime		Rarely	
A. Information on vocational programs is provided to each of the following members of special populations and their parents prior to the 9th grade						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged (includes potential dropouts and dropouts)	*842*	*30.%*	*723*	*25.8%*	*1242*	*44.2%*
b. economically disadvantaged (includes foster children and JTPA)	*825*	*29.3%*	*698*	*24.8%*	*1293*	*45.9%*
c. limited English proficient (including migrant)	*620*	*22.8%*	*502*	*18.4%*	*1600*	*58.8%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*787*	*28.4%*	*648*	*23.3%*	*1341*	*48.3%*
3) non-traditional (gender)	*793*	*28.7%*	*661*	*23.5%*	*1323*	*47.8%*
4) displaced homemakers, single/teen parents, and single pregnant women	*680*	*24.6%*	*610*	*22.0%*	*1478*	*53.4%*
5) offender	*652*	*24.0%*	*573*	*21.1%*	*1496*	*55.0%*
Subtotal for Indicator A	5199	26.8%	4405	22.7%	9773	50.4%
B. Each of the special populations listed below are recruited into all vocational programs.						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged (includes potential dropouts and dropouts)	*1121*	*39.2%*	*921*	*32.2%*	*815*	*28.5%*
b. economically disadvantaged (includes foster children and JTPA)	*1104*	*38.7%*	*887*	*31.1%*	*861*	*30.2%*
c. limited English proficient (including migrant)	*807*	*29.0%*	*648*	*23.3%*	*1323*	*47.6%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*912*	*32.3%*	*831*	*29.5%*	*1078*	*38.2%*
3) non-traditional (gender)	*1073*	*38.1%*	*769*	*27.3%*	*976*	*34.6%*
4) displaced homemakers, single/teen parents, and single pregnant women	*899*	*31.9%*	*703*	*25.0%*	*1212*	*43.1%*
5) offender	*855*	*31.0%*	*679*	*24.6%*	*1227*	*44.4%*
Subtotal for Indicator B	6771	34.4%	5438	27.6%	7492	38.0%

J. Ability of the Eligible Recipients to Meet the Needs of Special Populations With Respect to Vocational Education (VIII)

Indicator (Secondary)	Usually		Sometime		Rarely	
C. Each individual of the special populations listed below is assessed upon entry to determine her/his needs to be successful in vocational programs in the most integrated setting possible:						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged (includes potential dropouts and dropouts)	*415*	*14.5%*	*798*	*27.9%*	*1648*	*57.6%*
b. economically disadvantaged (includes foster children and JTPA)	*357*	*12.5%*	*727*	*25.4%*	*1776*	*62.1%*
c. limited English proficient (including migrant)	*313*	*11.3%*	*523*	*18.8%*	*1944*	*69.9%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*417*	*14.7%*	*676*	*23.9%*	*1741*	*61.4%*
3) non-traditional (gender)	*347*	*12.4%*	*622*	*22.3%*	*1819*	*65.2%*
4) displaced homemakers, single/teen parents, and single pregnant women	*319*	*11.3%*	*586*	*20.8%*	*1912*	*67.9%*
5) offender	*295*	*10.6%*	*521*	*18.8%*	*1954*	*70.5%*
Subtotal for Indicator C						
D. Support services for special populations are accomplished by means of:						
1) curriculum modification and materials	*900*	*31.4%*	*1165*	*40.6%*	*801*	*27.9%*
2) equipment modification	*474*	*16.6%*	*862*	*30.2%*	*1523*	*53.3%*
3) environment modification	*463*	*16.2%*	*898*	*31.4%*	*1496*	*52.4%*
4) support personnel	*802*	*28.0%*	*1021*	*35.7%*	*1038*	*36.3%*
5) instructional aids and devices	*770*	*26.9%*	*1066*	*37.2%*	*1028*	*35.9%*
6) instructional methodologies	*934*	*32.7%*	*1060*	*37.2%*	*858*	*30.1%*
Subtotal for Indicator D	4351	52.0%	2126	25.4%	1886	22.6%

J. Ability of the Eligible Recipients to Meet the Needs of Special Populations With Respect to Vocational Education (VIII)

Indicator (Secondary)	Usually		Sometime		Rarely	
E. The progress of each of the following special populations is monitored in all vocational programs.						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged (includes potential dropouts and dropouts)	*1176*	*41.4%*	*850*	*29.9%*	*817*	*28.7%*
b. economically disadvantaged (includes foster children and JTPA)	*1014*	*35.5%*	*761*	*26.7%*	*1079*	*37.8%*
c. limited English proficient (including migrant)	*772*	*28.1%*	*614*	*22.3%*	*1364*	*49.6%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*1009*	*36.0%*	*721*	*25.7%*	*1071*	*38.2%*
3) non-traditional (gender)	*952*	*33.9%*	*675*	*24.0%*	*1182*	*42.1%*
4) displaced homemakers, single/teen parents, and single pregnant women	*855*	*30.4%*	*667*	*23.7%*	*1295*	*46.0%*
5) offender	*783*	*28.5*	*633*	*23.0%*	*1336*	*48.5%*
Subtotal for Indicator E	6562	53.1%	5561	28.2%	5084	25.7%
F. The special populations listed below are given opportunities to successfully complete their vocational education career objectives (e.g., opportunities could program availability, support services, advising, etc.):						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged (includes potential dropouts and dropouts)	*1495*	*52.0%*	*899*	*31.3%*	*479*	*16.7%*
b. economically disadvantaged (includes foster children and JTPA)	*1470*	*51.0%*	*888*	*30.8%*	*524*	*18.2%*
c. limited English proficient (including migrant)	*1083*	*39.3%*	*704*	*25.5%*	*970*	*35.2%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*1299*	*46.1%*	*814*	*28.9%*	*703*	*25.0%*
3) non-traditional (gender)	*1364*	*48.2%*	*806*	*28.5%*	*659*	*23.3%*
4) displaced homemakers, single/teen parents, and single pregnant women	*1246*	*43.9%*	*724*	*25.5%*	*867*	*30.6%*
5) offender	*1147*	*41.6%*	*726*	*26.4%*	*882*	*32.0%*
Subtotal for Indicator F	9104	46.1%	5561	28.2%	5084	25.7%

J. Ability of the Eligible Recipients to Meet the Needs of Special Populations With Respect to Vocational Education (VIII)

Indicator (Secondary)	Usually		Sometime		Rarely	
G. Vocational instructional staff have received inservice training on methods of working with the following special populations.						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged (includes potential dropouts and dropouts)	*508*	*17.7%*	*857*	*29.9%*	*1505*	*52.4%*
b. economically disadvantaged (includes foster children and JTPA)	*364*	*12.7%*	*741*	*25.8%*	*1767*	*61.5%*
c. limited English proficient (including migrant)	*163*	*5.8%*	*433*	*15.3%*	*2233*	*78.9%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*330*	*11.6%*	*742*	*26.0%*	*1783*	*62.5%*
3) non-traditional (gender)	*433*	*15.2%*	*655*	*23.0%*	*1756*	*61.7%*
4) displaced homemakers, single/teen parents, and single pregnant women	*300*	*10.5%*	*610*	*21.4%*	*1941*	*68.1%*
5) offender	*170*	*6.1%*	*508*	*18.3%*	*2104*	*75.6%*
Subtotal for Indicator G	2268	11.4%	4546	22.8%	13089	65.8%
H. Vocational instructional methods are responsive to the diverse learning styles of the following special populations:						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged (includes potential dropouts and dropouts)	*1068*	*37.2%*	*1246*	*43.4%*	*555*	*19.3%*
b. economically disadvantaged (includes foster children and JTPA)	*973*	*33.8%*	*1183*	*41.1%*	*722*	*25.1%*
c. limited English proficient (including migrant)	*653*	*23.6%*	*853*	*30.8%*	*1265*	*45.7%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*857*	*30.3%*	*1100*	*38.9%*	*874*	*30.9%*
3) non-traditional (gender)	*949*	*33.5%*	*1053*	*37.1%*	*834*	*29.4%*
4) displaced homemakers, single/teen parents, and single pregnant women	*798*	*28.2%*	*994*	*35.1%*	*1038*	*36.7%*
5) offender	*643*	*23.4%*	*957*	*34.8%*	*1147*	*41.8%*
Subtotal for Indicator H	5941	30.1%	7386	37.4%	6435	32.6%
Total for Criterion	38112	31.2%	32058	26.2%	52089	42.6%

1. *Description*

The criterion provided the basis for assessing the degree to which school districts meet the needs of special populations. Indicators used to assess this criterion included: (a) recruitment; (b) entry assessment; (c) support services; (d) progress monitoring; (e) successful completion opportunities; (f) vocational instructor inservice; and (g) diverse instructional methods.

2. *Findings*

Respondents indicated that:

- There is a need to provide information on vocational programs to members of special populations and their parents prior to the ninth grade. Responses showed that from 50.4 percent to 58.8 percent of the programs rarely provide this information.

- There is a need to expand and improve the process of assessment of special population students upon entry into a vocational program in order to determine their individual needs so that they can be served in the most integrated setting. The data indicated that 57.6 percent to 70.5 percent of the programs rarely provide this for the various special population groups.

- There is a need to provide support services for special populations; 53.3 percent of the vocational programs rarely provide equipment modification; and 52.4 percent rarely provide environmental modifications.

- There is a need for expanded opportunities for instructor inservice training for working with the various special groups. The range of responses showed that 52 percent to 78.9 percent of the programs rarely provide such inservice opportunities, depending upon the special populations category.

Respondents indicated in related items in other criterion that:

- There is a need to improve counseling, instructional, and job placement services provided to members of special populations to assist them with the transition from school-to-work or continuing education opportunities (Criterion V, indicator E). The range of responses showed that 50.0 to 70.4 percent of special population groups rarely receive these services.

- There is a need to improve support services to members of special populations to assist them with the transition from secondary to postsecondary vocational programs (Criterion VI, indicator C). The range of responses showed that 61.4 to 74.6 percent of special population groups rarely receives such supportive services.

- There is need to improve the procedures to provide members of special populations and their families direct input into the development of vocational programs. The range of responses showed that 70.0 to 77.6 percent of special population groups were rarely provided a procedure for such input.

There are no inconsistencies. The indicators in the other criteria assessing special populations support this finding.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked tenth.

There is a need to place additional emphasis on meeting individual needs of special population students with respect to vocational education. Four of the eight indicators and three related indicators in other criteria support this finding.

In order to meet the needs of the members of special populations with respect to vocational education, there is a need to provide individuals and their families with information about vocational education prior to the ninth grade. This is a requirement of the Carl Perkins legislation. Emphasis must be given to providing instruction to these persons in the most integrated setting possible. This will require that the needs of each student be assessed and that each individual will be provided with support services as his/her situation warrants. As the data show, there is a need to provide instructors with inservice in regard to working with members of special populations if the aforementioned are to be accomplished.

In previous federal vocational legislation, there were funding categories for serving special populations. The current Perkins legislation requires that the focus of programs, activities and services be placed on assisting student success in vocational education programs. The state plan must contain measurable goals for meeting the needs of individuals who are members of special populations.

Included in the state needs assessment was a census form that asked each site (secondary and postsecondary) to provide the Department a breakdown on their special needs population. The census asked for a break down by special population category of the total enrollment. In addition, data were requested on the enrollment and the number that received supportive services of special populations by category in specific vocational program areas (Appendix G).

The information was inconclusive for the secondary schools. The total number of academically disadvantaged students for the state was listed only 592. The results of the survey appear to be both under reported and inaccurate. For example, after indicating that there were 592 academically disadvantaged students in the state, the survey respondents answered that there were 1156 academically disadvantaged students enrolled in vocational programs. In some cases, vocational programs showed more special populations served than were enrolled in vocational programs.

Based on an interpretation of the census data, it appears that secondary schools are not keeping accurate records on members of special populations. More effort needs to be committed by secondary schools in identifying, tracking, assessing, and monitoring their special populations.

K. Basic and Higher Order Current and Future Workplace Competencies That Will Reflect the Hiring Needs of Employers (XII)

Indicator (Secondary)	Usually		Sometime		Rarely	
A. The following basic and higher order current and future workplace competencies have been incorporated into vocational and technology curricula through competency specific objectives.						
1) listening skills	*1332*	*46.6%*	*877*	*30.7%*	*649*	*22.7%*
2) oral communication skills	1228	42.8%	931	32.5%	708	24.7%
3) problem-solving skills	*1559*	*54.4%*	*844*	*29.4%*	*463*	*16.2%*
4) creative thinking skills	*1308*	*45.8%*	*967*	*33.8%*	*582*	*20.4%*
5) interpersonal skills	*1317*	*46.0%*	*888*	*31.0%*	*661*	*23.1%*
6) team work	*1334*	*46.7%*	*891*	*31.2%*	*634*	*22.2%*
7) goal setting	*1233*	*42.9%*	*930*	*32.3%*	*712*	*24.8%*
8) negotiation skills	*602*	*21.0%*	*968*	*33.7%*	*1302*	*45.3%*
9) leadership skills	*1073*	*37.6%*	*969*	*33.9%*	*815*	*28.5%*
10) organizational effectiveness	*1164*	*40.6%*	*963*	*33.6%*	*739*	*25.8%*
11) job retention skills	*981*	*34.2%*	*1055*	*36.8%*	*833*	*29.0%*
Subtotal for Indicator A	13131	41.7%	10283	32.6%	8098	25.7%
B. Vocational instructors assess students' ability to perform higher order current and future workplace competencies in the areas listed below:						
1) listening skills	*1197*	*42.0%*	*1002*	*35.2%*	*650*	*22.8%*
2) oral communication skills	*1089*	*38.1%*	*1028*	*36.0%*	*738*	*25.8%*
3) problem-solving skills	*1453*	*50.8%*	*908*	*31.8%*	*498*	*17.4%*
4) creative thinking skills	*1190*	*41.6%*	*1022*	*35.7%*	*649*	*22.7%*
5) interpersonal skills	*1160*	*40.6%*	*951*	*33.3%*	*749*	*26.2%*
6) team work	*1125*	*39.4%*	*1026*	*35.9%*	*707*	*24.7%*
7) goal setting	*1025*	*35.8%*	*1043*	*36.4%*	*796*	*27.8%*
8) negotiation skills	*576*	*20.1%*	*940*	*32.8%*	*1346*	*47.0%*
9) leadership skills	*979*	*34.3%*	*995*	*34.9%*	*881*	*30.9%*
10) organizational effectiveness	*1082*	*37.9%*	*1004*	*35.1%*	*772*	*27.0%*
11) job retention skills	*833*	*29.8%*	*1084*	*38.8%*	*876*	*31.4%*
Subtotal for Indicator B	11709	37.3%	11003	35.1%	8662	27.6%
Total for Criterion	24840	39.5%	21286	33.8%	16760	26.7%

1. *Description*

This criterion was designed to assess how well vocational programs incorporated basic and higher order current and future workplace competencies considered important to keeping Americans competitive in the world marketplace and, therefore, essential and basic for current and future workplace needs. The indicators used to assess this criterion include: (a) competency specific objectives; and (b) assessment of workplace competencies.

2. *Findings*

There were no indicators that document a need for improvement for this criterion, nor were there any items within any indicators that show the need for improvement.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked eleventh.

The findings do not support this as a priority area for improvement.

L. Raising the Quality of Vocational Education Programs in Schools with High Concentrations of Low Income and Low Achieving students (IX)

Indicator (Secondary)	Usually		Sometime		Rarely	
A. Vocational programs are available to low income and low achieving students in equal or greater number of quality to those available to other students.	2026	71.1%	472	16.6%	351	12.3%
B. Vocational programs are accessible for low income and low achieving students.	2349	82.4%	382	13.4%	119	4.2%
C. Programs which have high concentration of low income and low achieving students have a process in place for assessing program quality ana plan for program improvement.	610	21.6%	863	30.6%	1351	47.8%
D. Support services are available to low income and low achieving students in vocational programs.	1062	37.4%	921	32.5%	583	30.1%
Total for Criterion	6047	53.2%	2638	23.2%	2674	23.5%

1. *Description*

   This criterion provided the basis for assessing the extent to which vocational programs are raising the quality of vocational education programs in schools with high concentrations of low income and low achieving students. The following indicators provide the basis for that assessment: (a) available to low income and low achieving students in equal or greater number and quality as those available to other students; (b) accessible to their populations; (c) have implemented a process for assessing program quality and planning program improvement; and (d) provide support services to assist these populations.

2. *Findings*

   There were no indicators that document a need for improvement for this criterion, nor were there any items within any indicators that show the need for improvement.

3. *Interpretation*

   Based on a statistical analysis of the data, this criterion was ranked twelfth.

   The findings do not support this criterion as a priority area of need for improvement.

VI. Secondary Summary and Conclusions

Based on an analysis of data gathered through an assessment of perceived needs as expressed by secondary school respondents, the need for improvement is greatest in the areas related to transition and instructional content. The majority of indicators for criteria which assessed transitional issues (secondary to postsecondary programs and school to work) were perceived as being rarely incorporated into secondary vocational-technical programs.

The majority of indicators for criteria that addressed instructional content (relevance and responsiveness to labor market and work force current and emerging needs) also were perceived as being rarely incorporated into secondary programs. Closely related criteria also perceived as in need of improvement were: academic and occupational competency development and the use of performance assessment.

Criterion VIII pertaining to meeting the needs of special populations ranked tenth in the priority listing; however, as a result of the analysis of the data, indicators in this criterion and across the other criteria point to the need for emphasis on the ability of institutions to meet the diverse needs of members of special populations.

As a result of the emphasis in the Carl Perkins legislation for meeting the needs of members of special populations and the aforementioned results of analysis, the ability of the eligible recipients to meet the needs of special populations with respect to vocational education is viewed as a viable goal.

In rank order, the following are perceived as the areas having greatest need for improvement in secondary vocational education programs:

1. Linkage Between Secondary and Postsecondary Educational Institutions
2. Ability of the Vocational Program to Provide Job Placement Service(s)
3. Vocational Programs Meeting the Needs of Work Force
4. Relevance of Programs to the Workplace/Occupations for Which Students Are to be Trained and Extent to Which Such Programs Reflect a Realistic Assessment of Current and Future Labor Market Needs (Including Needs in Areas of Emerging Technologies)
5. Sequencing of Courses Leading to the Attainment of Both Academic and Vocational Competencies
6. Student Work Skill Attainment

   Ability of the Eligible Recipients to Meet the Needs of Special Populations With Respect to Vocational Education*

*Included in this listing based on the narrative immediately above.

VII. Postsecondary Findings and Interpretation

A. Assessment of Linkages Between Secondary and Postsecondary Educational Institutions (VI)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
A. Articulation agreements are in place corresponding to vocational secondary programs in your area.	23	4.1%	119	21.1%	422	74.8%
B. Tech-prep programs which lead to specific two-year associate degrees have been established with secondary schools in your area.	0	0.0%	7	1.2%	557	98.8%
C. Support services are provided by post-secondary institutions to the following special populations to help them enter postsecondary vocational education programs.						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged	*16*	*2.8%*	*277*	*49.1%*	*271*	*48.0%*
b. economically disadvantaged (includes JTPA)	*18*	*3.2%*	*213*	*37.8%*	*333*	*59.0%*
c. limited English proficient (including migrant)	*11*	*2.0%*	*122*	*21.6%*	*431*	*76.4%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*16*	*2.8%*	*266*	*47.2%*	*282*	*50.0%*
3) non-traditional (gender)	*12*	*2.1%*	*207*	*36.7%*	*345*	*61.2%*
4) displaced homemakers, single/teen parents, and single pregnant women	*18*	*3.2%*	*193*	*34.2%*	*353*	*62.6%*
5) offender	*6*	*1.1%*	*80*	*14.2%*	*478*	*84.8%*
Subtotal for Indicator C	97	2.5%	1358	34.4%	2493	63.1%
Total for Criterion	120	2.4%	1484	29.2%	3472	68.4%

1. *Description*

This criterion provided the basis for assessing the extent to which vocational programs are providing opportunities for students to transition from secondary vocational education programs to postsecondary vocational programs based upon the following indicators: (a) the use of formalized articulation agreements which results in advanced placement or standing; (b) the availability of tech-prep programs which lead to specific two-year associate degrees.

2. *Findings*

Respondents indicated that:

- 74.8 percent of vocational programs rarely have articulation agreements with secondary vocational programs in place.

- 98.8 percent of vocational programs rarely establish tech-prep programs with secondary schools.

- 50.0 percent to 84.8 percent of vocational programs rarely provide support services to help special populations enter their vocational education programs. Overall, the average measure for indicators of this criterion was 68.4%.

No inconsistencies were found between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked first.

The data indicate a very strong need to increase linkages between community colleges and secondary schools, specifically the development of articulation agreements and the establishment of tech-prep programs. Also, a need exists for community colleges to provide support and transitional services to special populations entering vocational education programs. All three indicators strongly supported this finding. Overall, this was the highest area of need shown on the survey.

Some linkages, such as 2 + 2 programs, informal articulation agreements, and tech-prep agreements, have previously existed between secondary and postsecondary vocational education. In 1989, the linkage was mandated by state law. Tech-prep is a new vocational education initiative emphasized by the Perkins Act; only six tech-prep projects currently operate in demonstration modes in the state. Due to the recency of the legislation, community colleges have not had the time to formally adopt these initiatives.

Programs rarely provide transition services for incoming special populations. The Iowa Transition Initiative has recently begun to provide grants particularly addressing this need. This concern for special populations also will be addressed in section B.

B. Ability of the Eligible Recipients to Meet the Needs of Special Populations With Respect to Vocational Education (VIII)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
A. Each of the special populations listed below are recruited into all vocational programs.						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged	*15*	*2.7%*	*197*	*34.9%*	*352*	*62.4%*
b. economically disadvantaged (includes JTPA)	*29*	*5.1%*	*242*	*42.9%*	*293*	*52.0%*
c. limited English proficient (including migrant)	*14*	*2.5%*	*118*	*20.9%*	*432*	*76.6%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*17*	*3.0%*	*187*	*33.2%*	*360*	*63.8%*
3) non-traditional (gender)	*49*	*8.7%*	*188*	*33.3%*	*327*	*58.0%*
4) displaced homemakers, single/teen parents, and single pregnant women	*49*	*8.7%*	*180*	*31.9%*	*335*	*59.4%*
5) offender	*11*	*2.0%*	*93*	*16.5%*	*460*	*81.6%*
Subtotal for Indicator A	184	4.7%	1205	30.5%	2559	64.8%
B. Each individual of the special populations listed below is assessed upon entry to determine her/his needs to be successful in vocational programs in the most integrated setting possible (Note: This is in addition to the ASSET which may be given to all students):						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged	*6*	*1.1%*	*105*	*18.8%*	*448*	*80.1%*
b. economically disadvantaged (includes JTPA)	*4*	*0.7%*	*70*	*12.4%*	*490*	*86.9%*
c. limited English proficient (including migrant)	*1*	*0.2%*	*53*	*9.4%*	*510*	*90.4%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*4*	*0.7%*	*106*	*19.0%*	*449*	*80.3%*
3) non-traditional (gender)	*5*	*0.9%*	*44*	*7.7%*	*520*	*91.4%*
4) displaced homemakers, single/teen parents, and single pregnant women	*3*	*0.5%*	*56*	*9.8%*	*510*	*89.6%*
5) offender	*1*	*.02%*	*24*	*4.4%*	*519*	*95.4%*
Subtotal for Indicator B	24	0.6%	458	11.7%	3446	87.7%

B. Ability of the Eligible Recipients to Meet the Needs of Special Populations With Respect to Vocational Education (VIII)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
C. Support services for special populations are accomplished by means of:						
1) curriculum modification and materials	*11*	*1.9%*	*169*	*29.8%*	*387*	*68.3%*
2) equipment modification	*6*	*1.1%*	*153*	*27.0%*	*408*	*72.0%*
3) environment modification	*8*	*1.4%*	*161*	*28.4%*	*398*	*70.2%*
4) support personnel	*19*	*3.4%*	*311*	*55.4%*	*231*	*41.2%*
5) instructional aids and devices	*11*	*1.9%*	*249*	*43.9%*	*307*	*54.1%*
6) instructional methodologies	*8*	*1.4%*	*273*	*48.3%*	*284*	*50.3%*
Subtotal for Indicator C	19	1.7%	522	46.1%	591	52.2%
D. The progress of each of the following special populations is monitored in all vocational programs.						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged	*19*	*3.4%*	*230*	*40.8%*	*315*	*55.9%*
b. economically disadvantaged (includes JTPA)	*29*	*5.1%*	*259*	*45.9%*	*276*	*48.9%*
c. limited English proficient (including migrant)	*15*	*2.7%*	*136*	*24.1%*	*413*	*73.2%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*20*	*3.5%*	*266*	*47.1%*	*279*	*49.4%*
3) non-traditional (gender)	*12*	*2.1%*	*164*	*29.1%*	*388*	*68.8%*
4) displaced homemakers, single/teen parents, and single pregnant women	*15*	*2.7%*	*127*	*22.5%*	*422*	*74.8%*
5) offender	*18*	*3.2%*	*95*	*17.0%*	*446*	*79.8%*
Subtotal for Indicator D	45	2.7%	386	22.9%	1256	74.5%

B. Ability of the Eligible Recipients to Meet the Needs of Special Populations With Respect to Vocational Education (VIII)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
E. The special populations listed below are given opportunities to successfully complete their vocational education career objectives (e.g., opportunities could program availability, support services, advising, etc.):						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged	*38*	*6.7%*	*454*	*80.6%*	*71*	*12.6%*
b. economically disadvantaged (includes JTPA)	*39*	*6.9%*	*447*	*79.3%*	*78*	*13.8%*
c. limited English proficient (including migrant)	*26*	*4.6%*	*339*	*60.1%*	*199*	*35.3%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*34*	*6.0%*	*424*	*75.2%*	*106*	*18.8%*
3) non-traditional (gender)	*30*	*5.3%*	*402*	*71.3%*	*132*	*23.4%*
4) displaced homemakers, single/teen parents, and single pregnant women	*29*	*5.1%*	*336*	*59.6%*	*199*	*35.3%*
5) offender	*32*	*5.7%*	*237*	*42.2%*	*292*	*52.0%*
Subtotal for Indicator E	228	5.8%	2639	66.9%	1077	27.3%
F. Vocational instructional staff have received inservice training on methods of working with the following special populations.						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged	*0*	*0.0%*	*115*	*20.4%*	*449*	*79.6%*
b. economically disadvantaged (includes JTPA)	*0*	*0.0%*	*39*	*6.8%*	*532*	*93.2%*
c. limited English proficient (including migrant)	*0*	*0.0%*	*16*	*2.9%*	*541*	*97.1%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*3*	*0.5%*	*126*	*22.3%*	*437*	*77.2%*
3) non-traditional (gender)	*0*	*0.0%*	*73*	*13.2%*	*481*	*86.8%*
4) displaced homemakers, single/teen parents, and single pregnant women	*0*	*0.0%*	*47*	*8.3%*	*517*	*91.7%*
5) offender	*7*	*1.2%*	*12*	*2.1%*	*545*	*96.6%*
Subtotal for Indicator F	10	0.3%	428	10.9%	3502	88.9%

B. Ability of the Eligible Recipients to Meet the Needs of Special Populations With Respect to Vocational Education (VIII)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
G. Vocational instructional methods are responsive to the diverse learning styles of the following special populations:						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged	*25*	*4.4%*	*262*	*46.5%*	*277*	*49.1%*
b. economically disadvantaged (includes JTPA)	*22*	*3.9%*	*200*	*35.5%*	*342*	*60.6%*
c. limited English proficient (including migrant)	*9*	*1.6%*	*140*	*24.8%*	*415*	*73.6%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*18*	*3.2%*	*279*	*49.5%*	*267*	*47.3%*
3) non-traditional (gender)	*21*	*3.7%*	*201*	*35.6%*	*342*	*60.6%*
4) displaced homemakers, single/teen parents, and single pregnant women	*20*	*3.5%*	*185*	*32.8%*	*359*	*63.7%*
5) offender	*20*	*3.6%*	*111*	*19.9%*	*428*	*76.6%*
Subtotal for Indicator G	135	3.4%	1378	34.9%	2430	61.6%
Total for Criterion	645	2.9%	7016	31.2%	14861	66.0%

1. *Description*

The criterion provided the basis for assessing the degree to which community colleges meet the needs of special populations. Indicators used to assess this criterion included: (a) recruitment; (b) entry assessment; (c) support services; (d) progress monitoring; (e) successful completion opportunities; (f) vocational instructor inservice; and (g) diverse instructional methods.

2. *Findings*

Respondents indicated that:

- 52 percent to 81.6 percent of the programs rarely recruit students from special populations into vocational programs.
- 80.1 percent to 95.4 percent of the programs rarely assess the needs of students from special populations upon entry to be successful in vocational programs.
- 50.3 percent to 72 percent of the programs rarely provide support services for students of special populations, with the exception of providing support personnel.
- 55.9 percent to 79.8 percent of the programs rarely monitor the progress of their special populations, except for economic disadvantaged and disabled students.

- 77.2 percent to 97.1 percent of the programs rarely provide inservice training to their instructional staff on methods of working with special populations.

- 60.6 percent to 76.6 percent of the programs rarely provide instructional methods responsive to the diverse learning styles of students of special populations, with the exception of students who are academic disadvantaged and/or disabled.

Included below are indicators pertaining to special populations that surfaced in other criterion sections of the assessment instrument.

Respondents indicated that:

- 53.0 percent to 84.5 percent of vocational programs needed to improve counseling and guidance services to students of special populations by professionally trained counselors. These populations include disabled, non-traditional, displaced homemakers, offenders, and LEP students (from section F).

- 61.6 percent of the programs rarely provide transition services (counseling, instruction, and job placement services). A range of 50.4 percent to 79.7 percent of the programs rarely provide these services to students of special populations, with the exception of disabled student transition services (section I).

- 50.0 percent to 84.8 percent of vocational programs rarely provide support services to help special populations enter their vocational education programs. Overall, the average for measures of this criterion was 68.4 percent (section A).

- 90.8 percent to 96.1 percent of the vocational programs rarely provide special populations and their family members direct input into the development of vocational education program curricula (section G).

No inconsistencies were found, except as noted above, between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked second.

Overall, the ability of community colleges to meet the needs of special populations ranked as the second highest need area in the assessment. Community colleges are having difficulty providing the full range of support services needed for special populations. Six of the seven indicators supported this criterion. This survey indicated that community colleges were very concerned about the lack of support services for special populations. This was reinforced throughout the survey on questions dealing with special populations. Overall, this area consistency ranked very high.

There was consistency across the special populations indicators in this section and throughout the assessment instrument that there is a need for additional services for special populations. No mechanism currently exists to assist students from special populations in transition from secondary schools to community colleges, and college students may or may not chose to identify themselves as having special needs. Therefore, it is difficult to provide services until students' needs are identified.

Included in the state needs assessment was a census form that asked each site (secondary and postsecondary) to provide the Department a breakdown on their special needs population. The census asked for a break down by special population category of the total enrollment. In addition, data were requested on the enrollment of special populations by category and the number that received supportive services in specific vocational program areas (Appendix G).

The postsecondary schools data on special populations appeared to be accurate and logical. It should be noted that postsecondary schools have been audited by the Department for the last two years and have spent much effort on developing their record keeping systems. Most colleges have set up computerized record keeping systems for students who are members of special populations. This has enabled community colleges to keep accurate records on members of special populations.

C. Basic and Higher Order Current and Future Workplace Competencies That Will Reflect the Hiring Needs of Employers (XII)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
A. The following basic and higher order current and future workplace competencies have been incorporated into vocational and technology curricula through competency specific objectives.						
1) listening skills	*10*	*1.8%*	*212*	*37.9%*	*337*	*60.3%*
2) oral communication skills	18	3.2%	275	48.9%	269	47.9%
3) problem-solving skills	*41*	*7.3%*	*283*	*50.4%*	*238*	*42.3%*
4) creative thinking skills	*19*	*3.4%*	*191*	*34.0%*	*352*	*62.6%*
5) interpersonal skills	*27*	*4.8%*	*291*	*51.6%*	*246*	*43.6%*
6) team work	*43*	*7.7%*	*205*	*36.5%*	*314*	*55.9%*
7) goal setting	*14*	*2.5%*	*208*	*37.0%*	*340*	*60.5%*
8) negotiation skills	*5*	*0.9%*	*125*	*22.2%*	*432*	*76.9%*
9) leadership skills	*16*	*2.8%*	*191*	*34.0%*	*355*	*63.2%*
10) organizational effectiveness	*5*	*0.9%*	*198*	*35.2%*	*359*	*63.9%*
11) job retention skills	*39*	*6.9%*	*266*	*47.3%*	*257*	*45.7%*
Subtotal for Indicator A	237	3.8%	2445	39.6%	3499	56.6%
B. Vocational instructors assess students' ability to perform higher order current and future workplace competencies in the areas listed below:						
1) listening skills	*8*	*1.4%*	*218*	*38.8%*	*336*	*59.8%*
2) oral communication skills	*22*	*3.9%*	*280*	*49.8%*	*260*	*46.3%*
3) problem-solving skills	*57*	*10.1%*	*279*	*49.6%*	*226*	*40.2%*
4) creative thinking skills	*30*	*5.3%*	*184*	*32.7%*	*348*	*61.9%*
5) interpersonal skills	*22*	*3.9%*	*285*	*50.7%*	*255*	*45.4%*
6) team work	*44*	*7.8%*	*211*	*37.5%*	*307*	*54.6%*
7) goal setting	*16*	*2.9%*	*191*	*34.0%*	*354*	*63.1%*
8) negotiation skills	*6*	*1.1%*	*108*	*19.2%*	*448*	*79.7%*
9) leadership skills	*6*	*1.1%*	*194*	*34.5%*	*362*	*64.4%*
10) organizational effectiveness	*11*	*2.0%*	*172*	*30.6%*	*379*	*67.4%*
11) job retention skills	*50*	*8.9%*	*248*	*44.3%*	*262*	*46.8%*
Subtotal for Indicator B	272	4.4%	2370	38.4%	3537	57.2%
Total for Criterion	509	4.1%	4815	39.0%	7036	56.9%

1. *Description*

This criterion was designed to assess how well vocational programs incorporated basic and higher order current and future workplace competencies considered important to keeping America competitive in the world marketplace and, therefore, essential and basic for current and future workplace needs. The indicators used to assess this criterion include: (a) competency specific objectives; and (b) assessment of workplace competencies.

2. *Findings*

Respondents indicated that:

- 55.9 percent to 76.9 percent of the vocational programs rarely incorporate higher order workplace competencies into their vocational curriculum except for communication skills, problem-solving skills, interpersonal skills, and job retention skills.

- 54.6 percent to 79.7 percent of the vocational programs rarely assess students on their ability to perform higher order workplace competencies except for communication skills, problem-solving skills, interpersonal skills, and job retention skills.

No inconsistencies were found between selected indicators within this criterion or with indicators of other criteria in the survey instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked third.

The data indicate a need to incorporate basic and higher order workplace competencies into some community college vocational programs. Both indicators supported this criterion. Overall, while there were only two indicators identified for this criterion, both consistently showed that higher order and future workplace competencies were rarely incorporated into the vocational education curricula.

The state vocational standards require that several basic and higher order workplace competencies be taught in the community college. Of the eleven competencies identified in the assessment instrument, only four were indicated as being addressed by a majority of the programs in the community colleges.* Because these requirements have recently been established, community colleges may not have had the opportunity to incorporate them into their curriculum or to assess student attainment.

*The standards also require that basic and higher order workplace competencies be assessed. A majority of the respondents indicated that the vocational programs assess only four of eleven competencies listed in the survey.

D. Instruction and Experience, to the Extent Practicable, In All Aspects of the Industry the Students are Preparing to Enter (VII)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
A. Competencies in each of the following aspects of industry (for which students are preparing to enter) are incorporated into the curriculum of each vocational program:						
1) planning	*28*	*5.0%*	*249*	*44.3%*	*285*	*50.7%*
2) management	*11*	*2.0%*	*181*	*32.1%*	*372*	*66.0%*
3) finances	*7*	*1.3%*	*134*	*24.1%*	*415*	*74.6%*
4) technical and production skills	*60*	*10.7%*	*347*	*61.7%*	*155*	*27.6%*
5) underlying principles of technology	*51*	*9.0%*	*254*	*44.7%*	*263*	*46.3%*
6) labor	*14*	*2.5%*	*181*	*32.1%*	*369*	*65.4%*
7) community issues	*3*	*.5%*	*174*	*31.5%*	*376*	*68.0%*
8) health and ecology	*27*	*4.7%*	*191*	*33.2%*	*357*	*62.1%*
9) safety	*100*	*17.4%*	*330*	*57.4%*	*145*	*25.2%*
Subtotal for Indicator A	301	5.9%	2041	40.2%	2737	53.9%
B. Within the vocational programs, students are assessed on their understanding of each of the following aspects of industry (for which students are preparing to enter):						
1) planning	*35*	*6.2%*	*215*	*38.1%*	*314*	*55.7%*
2) management	*18*	*3.2%*	*183*	*32.4%*	*363*	*64.4%*
3) finances	*14*	*2.5%*	*145*	*25.7%*	*407*	*71.8%*
4) technical and production skills	*133*	*23.6%*	*259*	*45.9%*	*172*	*30.5%*
5) underlying principles of technology	*116*	*20.6%*	*198*	*35.1%*	*250*	*44.3%*
6) labor	*24*	*4.3%*	*132*	*23.5%*	*405*	*72.2%*
7) community issues	*8*	*1.6%*	*138*	*24.4%*	*418*	*74.0%*
8) health and ecology	*28*	*5.0%*	*165*	*29.3%*	*371*	*65.8%*
9) safety	*106*	*18.9%*	*265*	*47.2%*	*190*	*33.9%*
Subtotal for Indicator B	483	9.5%	1700	33.5%	2888	57.0%
Total for Criterion	784	7.7%	3741	36.9%	5625	55.4%

1. *Description*

The criterion provided the basis for assessing the extent to which vocational program curricula provide instruction and experience in all aspects of industry. The following indicators were utilized to assess this criteria: (a) the extent competencies related to all aspects of the industry are incorporated into the curriculum; and (b) the extent to which students in vocational programs are assessed on their understanding of a variety of aspects of the industry which they are preparing to enter.

2. *Findings*

Respondents indicated that:

- 50.7 percent to 74.6 percent of vocational programs rarely require competencies from all aspects of industry to be incorporated in the curriculum, with the exception of technical and production skills, underlying principals of technology skills, and safety skills. Overall, 53.9 percent of vocational programs rarely incorporate selected industrial skills.

- 55.7 percent to 74.0 percent of vocational programs indicated that students were rarely assessed on their understanding of the industry they were preparing to enter, except for technical and production skills and underlying principles of technology. Overall, 57.0 percent of programs assessed identified selected industrial skills.

No inconsistencies were found between selected indicators within this criterion or with other indicators in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked fourth.

The data indicate that community colleges need to upgrade some program criteria to provide training in all aspects of industry that students are preparing to enter. Both indicators supported this criterion. Over half of the measures in both indicators showed that all aspects of industrial competencies were rarely incorporated into the curriculum. These competencies are now required by law. Community colleges are not teaching or assessing students for all aspects of industry which students are preparing to enter.

The Carl D. Perkins Act requires that all aspects of industry that students are preparing to enter be incorporated into the vocational curriculum, and that the students be assessed on their understanding of these competencies. Of the nine measures served, only technical and production skills, underlying principles of technology, and safety skills are incorporated into the curriculum and assessed. Because these are new requirements, community colleges may not have had time to incorporate them into their curricula or assess student attainment. Community colleges need to expand their vocational curriculum offerings to include the additional competencies.

E. Sequencing of Courses Leading to the Attainment of Both Academic and Vocational Competencies (II)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
A. Within the vocational program, sequential courses have been developed which integrate academic and vocational competencies.	33	5.9%	335	59.4%	196	34.8%
B. Vocational programs require prerequisites from:						
1) academic course(s)	30	5.3%	211	37.4%	323	57.3%
2) vocational course(s)	61	10.8%	289	51.3%	213	37.8%
3) academic skill(s) (e.g., GPA, reading level, math level, etc.)	*66*	*11.7%*	*204*	*36.1%*	*295*	*52.2%*
Subtotal for Indicator B	157	9.3%	704	41.6%	831	49.1%
C. Vocational courses taught by competency-based instruction include the following areas:						
1) new and emerging technologies	*11*	*2.0%*	*338*	*59.9%*	*215*	*38.1%*
2) job seeking, job keeping, job adaptability, and other employment skills	*27*	*4.8%*	*321*	*56.9%*	*216*	*38.3%*
3) employment skills that reflect current industry standards and labor market needs	*59*	*10.5%*	*352*	*62.4%*	*153*	*27.1%*
4) leadership skills	*17*	*3.0%*	*199*	*34.7%*	*357*	*62.3%*
5) entrepreneurial skills	*13*	*2.3%*	*152*	*27.0%*	*399*	*70.7%*
6) basic academic skills	*33*	*5.9%*	*256*	*45.4%*	*275*	*48.8%*
7) sex equity	*29*	*5.1%*	*151*	*26.8%*	*384*	*68.1%*
Subtotal for Indicator C	189	4.8%	1769	44..7%	1999	50.5%
D. Students are given pre and post-tests to determine their gains.						
1) academic	*6*	*1.1%*	*80*	*14.3%*	*473*	*84.6%*
2) vocational	*16*	*2.9%*	*135*	*24.2%*	*408*	*73.0%*
Subtotal for Indicator D	22	2.0%	215	19.2%	881	78.8%
Total for Criterion	401	5.5%	3023	41.2%	3907	53.3%

1. *Description*

This criterion provided the basis for assessing the degree to which courses that integrate academic and vocational competencies have been defined and sequenced. The following indicators were used to assess this criterion: (a) the extent to which sequential courses that integrate academic and vocational competencies have been developed; (b) the extent to which vocational programs require prerequisites; (c) the extent to which vocational courses taught by competency-based instruction includes a variety of skills; and (d) the extent to which students are given pre- and post-tests to determine their gains.

2. *Findings*

Respondents indicated that:

- 62.3 percent of vocational programs rarely incorporate leadership and entrepreneurial skills.

- 73.0 percent to 84.6 percent of vocational programs rarely give academic or vocational pre- and post-tests to determine student gains.

No inconsistencies were found between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked fifth.

There is a need to improve sequencing of courses leading to the attainment of vocational education goals specifically related to improving methods of determining students' entry level skills and gains in vocational courses, and expanding vocational curriculum to include leadership and entrepreneurial skills. Two of the four indicators in this criteria were checked as being rarely incorporated.

Leadership and entrepreneurial skills are new state requirements. Community colleges probably have not had time to incorporate them into their curricula. The most adverse finding in this section of the survey is that community colleges are not giving pre- and post-tests to determine student gains. As the state adopts the new measures of performance required under Perkins, pre- and post-tests may become a very important factor in showing competency gains.

F. Vocational and Guidance Counseling (IV)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
A. Career planning to assist students to be successful in their vocational program is provided by:						
1) certified counselors	*28*	*5.0%*	*286*	*50.7%*	*250*	*44.3%*
2) faculty	*55*	*9.8%*	*413*	*73.2%*	*96*	*17.0%*
3) career information delivery system	*12*	*2.1%*	*172*	*30.5%*	*380*	*67.4%*
Subtotal for Indicator A	95	5.6%	871	51.5%	726	42.9%
B. Guidance and counseling services that help vocational students become successful in their vocational programs are offered.	26	4.8%	373	69.5%	138	25.7%
C. Vocational guidance and counseling services responsive to the needs of special populations cited below are provided/available by professionally trained counselors:						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged	*34*	*6.0%*	*342*	*60.6%*	*188*	*33.3%*
b. economically disadvantaged (includes JTPA)	*32*	*5.7%*	*286*	*50.7%*	*246*	*43.6%*
c. limited English proficient (including migrant)	*18*	*3.2%*	*119*	*21.1%*	*427*	*75.7%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*21*	*3.7%*	*244*	*43.3%*	*299*	*53.0%*
3) non-traditional (gender)	*15*	*2.7%*	*231*	*41.0%*	*318*	*56.4%*
4) displaced homemakers, single/teen parents, and single pregnant women	*23*	*4.0%*	*238*	*41.5%*	*312*	*54.5%*
5) offender	*16*	*3.0%*	*68*	*12.5%*	*458*	*84.5%*
Subtotal for Indicator C	159	4.0%	1528	38.8%	2248	57.1%
Total for Criterion	280	4.5%	2772	45.0%	3112	50.5%

1. *Description*

This criterion provided the basis for assessing the degree to which vocational guidance and counseling services are being provided to assist students. The following indicators were utilized to assess this criterion: (a) the extent career planning assistance is provided to students; (b) the extent to which guidance and counseling services are offered; and (c) the degree to which vocational guidance and counseling services responsive to the needs of special populations are provided by professionally prepared counselors.

2. *Findings*

Respondents indicated that:

- 53 percent to 84.5 percent of the programs indicated a need to improve counseling and guidance services to members of special populations by professionally trained counselors. These populations include disabled, non-traditional, displaced homemakers, offenders, and LEP students.

- 67.4 percent of the vocational programs indicated that few programs use a career information delivery system to assist students. This reporting was one component of one indicator, and does not indicate a high need in the overall criterion.

No inconsistencies were found between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked sixth.

The community colleges appear to have ample qualified counseling staff and provide adequate counseling and guidance services. However, one of three indicators in this criteria showed a strong need to provide counseling services to special populations.

Most colleges provide professionally trained counselors, but they may not be equipped to handle the unique needs of all special populations. For example, the majority of community colleges indicated that they provide services to academically and economically disadvantaged students. However, according to the data, counseling services were rarely provided to limited English proficiency students, non-traditional students, offenders, and displaced homemakers.

Colleges may have indicated they rarely use a career information delivery system because career exploration is done much more extensively at the secondary level. The individual college student decides which program they wish to enter and a career information system will not necessarily predict their success in a vocational program.

The indicator on special populations also will be addressed in section H (Special Populations).

G. Integration of Academic and Vocational Education (I)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
A. Vocational instructors use curriculum guides, instructional materials, and instructional strategies designed to integrate academic (e.g., math, science, etc.) and vocational education.	58	10.3%	339	60.4%	164	29.2%
B. The following four applied subjects are integrated into vocational education programs:						
1) applied technical concepts	*134*	*23.8%*	*349*	*62.0%*	*80*	*14.2%*
2) applied communications (academic/ vocational)	*76*	*13.5%*	*379*	*67.2%*	*109*	*19.3%*
3) applied mathematics (academic/ vocational	*85*	*15.1%*	*361*	*64.0%*	*118*	*20.9%*
4) applied sciences (physics, chemistry, biology)	*42*	*7.5%*	*237*	*42.1%*	*284*	*50.4%*
Subtotal for Indicator B	337	15.0%	1326	58.8%	591	26.2%
C. Academic competencies (e.g., math, science, etc.) are identified and integrated into vocational courses.	30	5.3%	275	48.8%	259	45.9%
D. Vocational instructors teach related academic competencies in vocational courses.	16	2.9%	271	48.5%	272	48.7%
E. Vocational instructors have received inservice training on methods of integrating academic competencies into vocational classes.	33	5.9%	82	14.5%	449	79.6%
F. Vocational instructors team with academic instructors to teach related academic competencies in vocational courses.	17	3.0%	72	12.8%	475	84.2%
Total for Criterion	491	8.7%	2365	41.8%	2801	49.5%

1. *Description*

This criterion provided the basis for assessing the degree to which vocational programs contain an integrated academic component which serves to ensure the achievement of academic as well as vocational competencies. The following indicators were utilized to assess this criterion: (a) the extent that vocational instructors use curriculum guides, materials, and strategies designed to integrate academics into vocational education; (b) the extent applied academics are integrated into vocational programs; (c) the extent that academic competencies as identified and integrated into vocational programs; (d) the extent that vocational instructors teach related academic skills in vocational courses; (e) the extent that vocational instructors have received inservice training on methods of integrating academic skills into vocational courses; and (f) the extent that vocational instructors team with academic instructors to teach related academic skills in vocational courses.

2. *Findings*

Respondents indicated that:

- 79.6 percent of the program instructors rarely receive inservice training on methods of integrating academic competencies in vocational programs.

- 84.2 percent of the vocational program instructors rarely team with academic instructors to teach related academic competencies.

No inconsistencies were found between selected indicators within the criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked seventh.

According to the data, the community colleges are doing an adequate job of integrating academic components in vocational education. There is a need to increase teacher inservice and improve academic and vocational teacher interaction. Two of six indicators under this criterion showed program instructors rarely receive inservice and rarely team with academic instructors to integrate academic competencies in vocational programs. No inconsistencies were found between selected indicators within the criterion or with indicators of other criteria in the assessment instrument.

Most community colleges offer related instruction to vocational programs, and such courses are not taught as strictly academic courses. Several national and federal reports indicate a need for vocational programs to improve communication and problem-solving skills in all occupational areas. Therefore, it would appear to be important for teachers to receive inservice training on integrating academic competencies in vocational programs.

Teaming with academic instructors to teach academic competencies is difficult in the college environment because many academic courses are offered on an elective basis and do not directly apply to an individual vocational program.

H. Vocational Programs Meeting the Needs of the Work Force (XI)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
A. Vocational programs meet the needs of business, industry, and labor through:						
1) curriculum content based on objectives and competencies	*170*	*30.1%*	*340*	*60.3%*	*54*	*9.6%*
2) instructional materials and supplies	*96*	*17.0%*	*422*	*74.8%*	*46*	*8.2%*
3) equipment	*37*	*6.6%*	*87*	*68.6%*	*140*	*24.8%*
4) staff development	*24*	*4.3%*	*363*	*64.4%*	*177*	*31.4%*
Subtotal for Indicator A	327	14.5%	1512	67.0%	417	18.5%
B. Vocational advisory committees review the program for relevancy including:						
1) instructional content based on competencies	*106*	*18.8%*	*331*	*58.7%*	*127*	*22.5%*
2) adequacy of materials	*62*	*11.0%*	*277*	*49.1%*	*225*	*39.9%*
3) adequacy of equipment	*101*	*17.9%*	*359*	*63.7%*	*104*	*18.4%*
4) adequacy of facilities	*75*	*13.3%*	*371*	*65.8%*	*118*	*20.9%*
Subtotal for Indicator B	344	15.2%	1338	59.3%	574	25.4%
C. Procedures are in effect that provide special populations below and their family members direct input into the development of vocational education programs.						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged	*3*	*.05%*	*49*	*8.7%*	*512*	*90.8%*
b. economically disadvantaged (includes JTPA)	*3*	*0.5%*	*46*	*8.2%*	*515*	*91.3%*
c. limited English proficient (including migrant)	*3*	*0.5%*	*37*	*6.6%*	*524*	*92.9%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*4*	*0.7%*	*46*	*8.2%*	*511*	*91.1%*
3) non-traditional (gender)	*3*	*0.5%*	*47*	*8.3%*	*514*	*91.1%*
4) displaced homemakers, single/teen parents, and single pregnant women	*13*	*2.3%*	*27*	*4.8%*	*524*	*92.9%*
5) offender	*3*	*0.5%*	*19*	*3.4%*	*540*	*96.1%*
Subtotal for Indicator C	32	0.8%	271	6.9%	3640	92.3%
D. In addition to classroom instruction, vocational education programs include the following:						
1) field experience	*103*	*18.3%*	*170*	*30.1%*	*291*	*51.6%*
2) laboratory experience	*277*	*49.1%*	*260*	*46.1%*	*27*	*4.8%*
3) on-the-job training	*112*	*19.9%*	*135*	*23.9%*	*317*	*56.2%*
4) clinical experience	*71*	*12.6%*	*92*	*16.3%*	*401*	*71.1%*
Subtotal for Indicator D	563	25.0%	657	29.1%	1036	45.9%
Total for Criterion	1266	11.8%	3778	35.3%	5667	52.9%

1. *Description*

This criterion provided the basis for assessing the extent to which vocational programs are to meeting the needs of the work force based upon the following indicators: (a) adequacy of curriculum content, instructional materials, equipment, and staff development; and (b) the extent to which advisory committees review programs for relevancy.

2. *Findings*

Respondents indicated that:

- 90.8 percent to 96.1 percent of the vocational programs rarely provide special populations and their family members direct input into the curriculum development of vocational education program curricula.

- 51.6 percent to 71.1 percent of the vocational programs rarely provide field experience, on the job training, and clinical experience in their vocational education programs.

No inconsistencies were found between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretations*

Based on a statistical analysis of the data, this criterion was ranked eighth.

Although this section (Designing Programs to Meet the Needs of the Work Force) ranked as a perceived need, the community colleges appear to be doing an adequate job in this area. They are not, however, soliciting input from members of special populations or their parents in designing vocational education curricula. Two of the four criteria indicated a high need. One area which revealed a high need does not specifically reflect meeting the needs of the work force, but rather pertains to the needs of special populations.

Overall, this criterion was not ranked as a high need. Two of the four indicators reflected a need to improve in the areas of student involvement in curriculum development and a need to improve field experience, clinical experience, or on-the-job training.

Community colleges have not traditionally incorporated direct input from special populations in designing vocational programs. The special needs coordinators at the colleges are developing guidelines for colleges to appoint advisory committees made up of special populations or their advocates to help review their programs. Once the advisory committees are in place, this need should decrease. Involving parents of special populations students in designing programs may not always be appropriate, considering that the age of the average student at the colleges is 26, and many students may, therefore, not require assistance from their parents. These students may or may not be enrolled full-time, which also limits students' direct input.

Not all vocational programs offered at community colleges require field experience, on-the-job training, or clinical experience, which may explain why some programs noted that this is "rarely done." For example, clinical experience is used predominantly in the health field and this program area will indicate they "rarely" provide field experience. These indicators may have given a distorted view of high need.

I. Ability of the Vocational Program to Provide Job Placement Service(s) (V)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
A. Students are provided comprehensive vocational job market information.	21	3.7&	372	66.0%	171	30.3%
B. Students are referred for job interviews and provided assistance in finding jobs after graduation.	107	19.0%	375	66.5%	82	14.5%
C. Employers surveys of former students' performance are conducted on an **annual** basis.	73	12.9%	128	22.7%	363	64.4%
D. Information from student and employer follow-up studies is shared with appropriate audiences.	83	14.9%	294	52.9%	179	32.2%
E. Counseling, instructional services, and job placement services are provided to special populations listed below to facilitate their transition from school to further schooling or post-school employment.						
1) disadvantaged (does not include individuals with learning disabilities)						
a. academically disadvantaged	*14*	*2.5%*	*246*	*43.7%*	*303*	*53.8%*
b. economically disadvantaged (includes JTPA)	*19*	*3.4%*	*261*	*46.3%*	*284*	*50.4%*
c. limited English proficient (including migrant)	*10*	*1.8%*	*146*	*25.9%*	*408*	*72.3%*
2) disabled (includes IEP, IVP, and vocational rehabilitation students, etc.)	*18*	*3.2%*	*281*	*49.8%*	*265*	*47.0%*
3) non-traditional (gender)	*9*	*1.6%*	*183*	*32.4%*	*372*	*66.0%*
4) displaced homemakers, single/teen parents, and single pregnant women	*15*	*2.7%*	*199*	*35.3%*	*350*	*62.1%*
5) offender	*12*	*2.1%*	*102*	*18.2%*	*447*	*79.7%*
Subtotal for Indicator E	97	2.5%	1418	36.0%	2429	61.6%
F. Placement data are collected annually to determine the percentage of students who obtain jobs in the occupational area or related field for which they are prepared.	214	37.9%	288	51.1%	62	11.0%
Total for Criterion	595	8.8%	2875	42.6%	3286	48.6%

1. *Description*

This criterion provided the basis for assessing the extent that occupational information and job placement services provided for students before, during and upon completion of a vocational program. The following indicators were used to assess this criterion: (a) the extent to which students are provided job market information; (b) the extent to which students are referred for job interviews; (c) the extent to which students are provided follow-up information; and (d) the extent to which counseling and placement services are provided to special populations.

2. *Findings*

Respondents indicated that:

- 64.4 percent of the programs indicate that employer surveys are rarely conducted on an annual basis.

- 61.6 percent of the programs rarely provide transition services (counseling, instruction, and job placement services). A range of 50.4 percent to 79.7 percent of the programs rarely provided special populations, with the exception of disabled students (including IEP and vocational rehabilitation students) transition services.

No inconsistencies were found between selected indicators within this criterion or with other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked ninth.

According to the data, community colleges appear to be adequately providing job placement services for most students. However, transition services are limited for most special populations transferring to further schooling or employment. Overall, two of the six criteria were identified as rarely performed.

Most community colleges conduct employment surveys, but not always on an annual basis. Surveys of this type are time-consuming and expensive; therefore, they are often done every other year.

Transition services for special populations to further schooling or employment have not traditionally been seen as a function of community colleges. There is a new state program, the Iowa Transition Initiative, that is involving secondary schools, AEAs, and community colleges in emphasizing transition services for students from secondary schools to post-high school education and to work. This initiative has focused primarily on disabled students, the one category not shown on the survey to be rarely served. Vocational Rehabilitation Services are provided to students with disabilities in all community colleges. The results of this question dealing with special populations are consistent with other criteria and indicators in the assessment instrument dealing with that group. This finding on special populations also will be addressed in section B.

J. Raising the Quality of Vocational Education Programs in Schools with High Concentrations of Low Income and Low Achieving Students (IX)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
A. Vocational programs are available to low income and low achieving students in equal or greater number of quality to those available to other students.	101	17.9%	297	52.7%	166	29.4%
B. Vocational programs are accessible for low income and low achieving students.	103	18.3%	369	65.4%	92	16.3%
C. Programs which have high concentration of low income and low achieving students have a process in place for assessing program quality ana plan for program improvement.	5	.09%	210	37.2%	349	61.9%
D. Support services are available to low income and low achieving students in vocational programs.	51	9.0%	364	64.5%	149	26.4%
Total for Criterion	260	11.5%	1240	55.0%	756	33.5%

1. *Description*

This criterion was intended to determine how well community college vocational programs are designed to improve their quality for high concentrations of low income/low achieving students. Four indicators were used to assess this criterion: (a) availability of programs; (b) accessibility of programs; (c) assessment of program progress and the improvement plan; and (d) availability of support services.

2. *Findings*

Respondents indicated that:

- 61.9 percent of the programs rarely have in place a process for assessing program quality and a plan for program improvement for programs with high concentrations of low income and low achieving students.

No inconsistencies were found between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked tenth.

As a whole, community colleges are raising the quality of vocational education programs in those institutions with a high concentration of low income and low-achieving students. However, community colleges are limited in their procedures to fully assess program quality for low achieving or low income students. One of the four indicators supported this need.

The state is in the process of implementing a program evaluation system (Code of Iowa 280A.48) that will be used to evaluate all vocational programs in Iowa community colleges. Community colleges are responsible for ensuring internal program quality and improvement. Most community colleges do not assess programs just for low achieving or low income students, but rather they evaluate programs for all students and employers. Evaluating program quality for a discriminate set of students has not traditionally been practiced in Iowa. As the state develops its program evaluation system, it will be able to specifically assess quality based on various factors and criteria.

K. Student Work Skill Attainment (III)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
A. Vocational instructors use the following to document student job skill attainment:						
1) state validated competency list	*33*	*5.9%*	*58*	*10.3%*	*473*	*83.9%*
2) locally validated competency list	*38*	*6.7%*	*204*	*36.2%*	*322*	*57.1%*
3) specific task list	*65*	*11.5%*	*242*	*42.9%*	*257*	*45.6%*
4) other	*49*	*27.8%*	*29*	*16.5%*	*98*	*55.7%*
Subtotal for Indicator A	185	9.9%	533	28.5%	1150	61.6%
B. Vocational instructors use the following measures to determine if students have achieved the job skill competencies required for successful employment.						
1) written measures	*131*	*23.2%*	*320*	*56.7%*	*113*	*20.0%*
2) performance measures	*127*	*22.5%*	*384*	*68.1%*	*53*	*9.4%*
Subtotal for Indicator B	258	22.9%	704	62.4%	166	14.7%
Total for Criterion	443	14.8%	1237	41.3%	1316	43.9%

1. *Description*

This criterion provided the basis for assessing the extent to which student work skill performance is measured and documented. The following indicators were utilized to assess this criterion: (a) the extent competency lists are utilized; and (b) the extent instructors utilize written and performance measures to determine if students have acquired job skill competencies.

2. *Findings*

Respondents indicate that:

- 83.9 percent of the programs rarely use state validated competency lists to document student skill attainment.

- 57.1 percent of the programs rarely use locally validated competency lists to document student job skill attainment.

No inconsistencies were found between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked eleventh.

Community colleges are adequately measuring and documenting work skill attainment using written and performance measures, but the data indicates that state or locally validated competency lists are seldom used. Two measures of one indicator supported this need.

State validated competency lists have only recently been mandated by state law (state vocational standards) and developed by the Department of Education. Community colleges may not have had access to them or had time to develop their own locally validated competency lists at the time this survey was conducted. Community colleges are now developing their curricula in accordance with state and locally validated competency lists. One of the chief functions of vocational education at community colleges is to prepare students for employment, and the colleges consider this criterion as one of their primary roles.

L. Relevance of Programs to the Workplace/Occupations for Which Students Are to be Trained and Extent to Which Such Programs Reflect a Realistic Assessment of Current and Future Labor Market Needs (Including Needs in Areas of Emerging Technologies) (X)

Indicator (Postsecondary)	Usually		Sometime		Rarely	
A. The following sources of information are used to determine vocational program offerings:						
1) local surveys	*113*	*20.0%*	*309*	*54.8%*	*142*	*25.2%*
2) Job Service of Iowa	*95*	*16.8%*	*287*	*50.9%*	*182*	*32.3%*
3) business patterns	*114*	*20.2%*	*372*	*66.0%*	*78*	*13.8%*
4) national labor market information	*105*	*18.6%*	*309*	*54.8%*	*150*	*26.6%*
5) State Occupational Information Coordinating Committee (SOICC) data	*92*	*16.2%*	*268*	*47.3%*	*207*	*36.5%*
6) student interest	*141*	*25.0%*	*360*	*63.8%*	*63*	*11.2%*
7) program placement and follow-up	*201*	*35.6%*	*319*	*56.6%*	*44*	*7.8%*
8) advisory committee input	*285*	*50.5%*	*261*	*46.3%*	*18*	*3.2%*
9) chamber of commerce input	*16*	*2.8%*	*168*	*29.5%*	*385*	*67.7%*
10) want ad counts	*63*	*11.2%*	*133*	*23.6%*	*368*	*65.2%*
Subtotal for Indicator A	1225	21.7%	2786	49.3%	1637	29.0%
B. The following strategies are used to determine vocational program offerings:						
1) advisory council input	*202*	*35.8%*	*340*	*60.3%*	*22*	*3.9%*
2) contacts with business, industry, and labor representatives	*217*	*38.5%*	*326*	*57.9%*	*20*	*3.6%*
3) instructor experience in related business/industry	*148*	*26.2%*	*371*	*65.8%*	*45*	*8.0%*
4) instructor review of professional journals	*56*	*9.9%*	*357*	*63.3%*	*151*	*26.8%*
5) contacts with other vocational instructors	*100*	*17.6%*	*279*	*49.2%*	*188*	*33.2%*
6) trustees input	*28*	*5.0%*	*308*	*54.9%*	*225*	*40.1%*
Subtotal for Indicator B	751	22.2%	1981	58.6%	651	19.2%
C. Program enrollment correspond with the labor demand and supply for each occupation.	66	11.8%	401	71.9%	91	16.3%
Total for Criterion	2042	21.3%	5168	53.9%	2379	24.8%

1. *Description*

This criterion provided the basis for assessing the extent that programs for which students are to be trained are relevant to the workplace and reflect realistic, current, and emerging labor market needs. The following indicators were used to assess this criteria: (a) sources of information used to determine vocational program offerings; (b) strategies used to determine vocational program offerings; and (c) enrollment correspondence to labor demand.

2. *Findings*

Respondents indicated that:

- 67.7 percent to 65.2 percent of the programs rarely use either chamber of commerce input or want ad counts to determine what vocational programs they will offer. Overall, the average for all measures of this indicator was under 30.0%, which indicates low need for the criteria.

No inconsistencies were found between selected indicators within this criterion or with indicators of other criteria in the assessment instrument.

3. *Interpretation*

Based on a statistical analysis of the data, this criterion was ranked twelfth.

In general, community colleges are ensuring that programs are relevant to the workplace/occupations for which students are to be trained and that such programs reflect a realistic assessment of current and future labor market needs. A wide data base of information is being utilized to determine what programs will be offered. Under one indicator with ten measures, only two of the measures (input from the local chamber of commerce and want ad counts) indicated that some programs rarely use specific informational sources to determine vocational program offerings.

Community colleges indicated that a wide range of information is utilized to determine vocational program offerings. Since Iowa is largely a rural state, most community colleges incorporate a large geographic area of small towns. Most Iowa towns do not have a chamber of commerce, as one would expect to find in large cities. Want ads also are not always a feature in many of Iowa's papers, and many smaller towns do not have daily papers. Other responses show that community colleges are attempting to gather as much information as possible when determining which programs should be offered in their area.

VIII. Postsecondary Summary and Conclusions

In general, there was consistency among the community colleges concerning the areas that demonstrated the greatest needs. The results of the survey demonstrated that there was little formalized articulation agreements between secondary and postsecondary schools. Linkage or lack of it was the number one priority in the state for both secondary and postsecondary schools. Specifically, there was recognition that programs rarely incorporated articulation or tech-prep agreements. This was further reinforced by responses that showed the lack of transitional services for members of special populations.

The secondary highest area of need that surfaced for postsecondary schools concerned the lack of services for special populations. This finding was reinforced throughout the survey on all questions that dealt with special populations.

Community colleges showed strong needs in over half of the 12 criteria included in the survey. These criteria surfaced because they were perceived to be rarely done in over 50 percent of the programs. In addition, other criteria that rated high in the survey were for the need to incorporate basic and higher order current and future workplace competencies into vocational curriculum, instructing students in all aspects of industry for which they are preparing to enter, and sequencing courses leading to the attainment of both academic and vocational competencies.

One other criteria that indicated high need was in providing guidance and counseling services to members of special populations. Services to special populations was one area that showed high need throughout the survey for postsecondary schools.

The areas having greatest need for improvement in postsecondary vocational programs area as follows:

1. Linkage Between Secondary and Postsecondary Educational Institutions
2. Ability of the Eligible Recipients (Institutions) to Meet the Needs of Special Populations With Respect to Vocational Education
3. Basic and Higher Order Current and Future Workplace Competencies That Will Reflect the Hiring Needs of Employers
4. Instruction and Experience, to the Extent Practicable, In All Aspects of the Industry the Students are Preparing to Enter
5. Sequencing of Courses Leading to the Attainment of Both Academic and Vocational Competencies
6. Vocational and Guidance Counseling

IX. Final Summary and Conclusions or Discussion

The supplemental needs assessment which was conducted by the Bureau of Technical and Vocational Education provided quantitative data on specific components that need to be incorporated into vocational programs at the secondary school and the community college levels.

The assessment of program quality used 12 indicators of program need as outlined in the Carl Perkins Act as criteria. Program personnel at both levels reported their perceptions of the extent to which those criteria were incorporated in vocational programs by service area. For purposes of this study, quality was defined as whether or not institutions were using selected indicators (criteria) usually, sometimes, or rarely.

Based on our analysis of the assessment findings, there is agreement that there is a need for improvement in secondary and postsecondary programs. Needs common to both levels were identified in the areas of linkage between secondary and postsecondary programs and the sequencing of courses leading to the attainment of both academic and vocational competencies.

Needs identified as specific to the secondary programs related to transition from school-to-work and the relevance of programs to the needs of the work force. The analysis also identified concurs with the secondary programs' responses to the needs of special populations.

Needs identified as specific to the postsecondary programs concern the ability of the programs to respond to the needs of members of special populations, including guidance services. Additional need was also identified in areas related to the incorporation of basic and higher order workplace competencies and instruction and experience in all aspects of the industry students are preparing to enter.

After completion of the analysis and interpreting of data collected in March 1992, the results of the qualitative needs assessment prepared by the Center for Education and Training for Employment (CETE) of The Ohio State University in 1991 was reviewed. Their report indicated that the Carl Perkins Act and Senate File 449 (Vocational Education Standards) were used to identify topics of major concern. The criteria used to conduct the assessment related to the federal legislation and state legislation included the following: Relevancy of Programs to the Workplace; Adequacy of Facilities, and Equipment; Competencies, Curriculum, and Instructional Methods; Integration of Academic and Vocational Educational Instruction; Student Skill Attainment and Job Placement; and Articulation of Secondary and Postsecondary Programs. These areas correspond to 6 of the 12 areas required for assessment in the Perkins Act.

Center staff conducted meetings with secondary school and community college personnel in the following three areas of the state: Area V, Fort Dodge; Area VI, Marshalltown; and Area X, Cedar Rapids.

The results of discussions with these groups, as reported, were as follows:

A. In the area of Linkage (Criterion VI), the CETE focused upon articulation and stated that there is a need for improvement in articulation of programs between secondary schools and community colleges and senior institutions.

B. Related to Student Work Skill Attainment (Criterion III), the report stated that "there is not, at present, any statewide system to measure student skill attainment."

C. Related to Relevancy (Criterion X), program offerings are generally in line with the employment needs of the state at both secondary and postsecondary levels; A Department of Education Study conducted in 1987 on samples of employers of secondary and postsecondary students "rated the skill attainment of both secondary and postsecondary students quite highly."

D. Job Placement Services (Criterion V), is not a concern at the secondary level since enrollments drive what classes are offered rather than placement.

E. Related to Integration of Academic and Vocational Education (Criterion I), the report stated that "there is significant work to be done to meaningfully implement the integration concept. The CETE saw this "primarily as an issue for secondary education, although with the assistance of the AEA's and community colleges."

F. Related to the Ability of Institutions to Meet the Needs of Special Populations (Criterion VIII), "there is a real diversity of opinion about how well the needs of special populations are met at all levels."

In the policy implications section, the CETE report (page 27) states that "given the emphasis in Senate File 449 as a stated goal of the educational system in Iowa, the major need for program improvement is clearly at the secondary level."

The January 1991 qualitative assessment report developed by the CETE included information on 6 of the 12 criteria. In April 1992, the Center provided a computer analysis of quantitative data collected in March 1992 as a supplement to the earlier needs assessment. The Center also submitted an information report which presented the results of the Department's study compared with the results of the original qualitative assessment conducted in January 1991.

In contrast to the assessment conducted by the CETE, the Department study in March, 1992, focused upon requirements of the Carl Perkins Act rather than State Vocational Standards (S.F. 449) which was the major emphasis of the January 1991 qualitative assessment. The following provides a description of the findings based upon the purposes of the assessment study.

One of the purposes of the supplemental needs assessment was to assess program quality in terms of the ability of the programs to meet the labor market needs and training needs of secondary, postsecondary, and adult students. In the Department's analysis, it was found that the respondents for secondary programs perceived that they were rarely incorporating strategies designed to assist programs to be responsive to current and emerging needs (i.e., use of advisory committees, on-the-job or field experience, and informational sources to determine vocational programs). At the postsecondary level, it was found that such strategies are more commonly incorporated into programs. However, respondents stated that they rarely incorporated competencies that addressed all aspects of the industry in which students were preparing to enter.

In the Department's analysis of the assessment's findings addressing the state needs for supportive services necessary for the successful participation of members of special populations in vocational programs, it found that respondents, especially at the postsecondary level, perceived that they had great need to improve the level of supportive services currently being provided. Respondents reported that postsecondary programs rarely recruit students that were members of special populations, rarely assessed their needs for supportive services upon entry into a program, rarely provided supportive services, rarely monitored their progress, rarely provided inservices to their instructional staff on methods of working members of special populations, or rarely incorporate instructional

strategies that are responsive to the diverse learning styles of these students.

At the secondary level, respondents perceived themselves as incorporating these strategies 25 to 75 percent of the time; however, they were unable to document serving members of special population on the enrollment information they provided. The secondary respondents also indicated they rarely provided inservice training for instructors and rarely assessed members of special population upon entry into programs to determine needed supplemental supportive service.

In its analysis of the findings to determine program improvement needs, the Department found common need for improvement in both secondary and postsecondary programs in the areas of linkage between secondary and postsecondary programs and the provision of sequences of courses leading to the attainment of academic and vocational competencies. Respondents at both instructional levels reported that currently they rarely utilized articulation agreements or tech-prep programs to link secondary and postsecondary institutions. Respondents at both levels also reported that they rarely incorporate pre- and post-tests to monitor student's gain in academic and occupational skill development.

Additional areas of needed improvement at the secondary level included school-to-work transitional services, in that respondents reported they rarely provide placement related services and rarely collected information as to the success of program completers in the work force. Respondents also reported that instructors rarely utilized competency lists to document student's skill attainment.

At the postsecondary level, respondents reported programs rarely incorporated higher order competencies that respond to current and future workplace needs or all aspects of the industry for which students our preparing to enter. They also indicated that vocational guidance services need to be improved for members of special populations.

Based on it's analysis of the assessment's findings, the Department has concluded that there is need for improvement at both the secondary and postsecondary levels and that these assessed needs should be utilized to establish specific goals for state leadership and local program improvement funds allocated to the state under the Carl D. Perkins Vocational and Applied Technology Act of 1990.

Appendices

Appendix A **Carl D. Perkins Vocational and Applied Technology Act of 1990**
- Section 113 -- State Plan Development Procedure
- Section 116 -- State Assessment Requirements

Appendix B **Code of Iowa**
- Chapter 258 -- Vocational Education
- Chapter 256.11(4) -- Educational Standards - K-12
- Chapter 280A.48(1) -- Statement of Policy
- Chapter 280A.23(1) -- Authority of Community College Board of Trustees

Appendix C Iowa Needs Assessment Criterion and Indicators

Appendix D Secondary and Postsecondary Needs Assessment Instruments

Appendix E Data Summarization Tables
- Summary by Sector
- Summary by Service Area

Appendix F Iowa Labor Supply and Demand Information (Source: Iowa State Occupational Informational Coordinating Committee

Appendix G Secondary and Postsecondary Special Populations Census

References

A New Vision for Vocational-Technical Education In Iowa, February 1992

(Final recommendations of the Vocational-Technical Education Task Force to the State Board of Education.)

A Quantitative Assessment of Needs in Vocational-Technical Education in Iowa, April 1992

(An information report developed by the Ohio State University Center on Education and Training for Employment providing a correlation of criteria used in the Department's quantitative assessment with the **Assessment of Needs in Vocational-Technical Education In Iowa**, Center for Education and Training for Employment, The Ohio State University, January, 1991.)

Education is Iowa's Future: The State Plan for Educational Excellence in the 21st Century, January 1992

References are available upon request.