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ABSTRACT

A study was undertaken to provide a third analysis of implementation of evaluation requirements in vocational education and of their perceived effectiveness and utility. The sample included the total population of Directors of Vocational Education for the United States and its territories; 50 directors completed the questionnaire. All respondents indicated they had either fully implemented or were in the process of implementing the mandated evaluation activities. Program improvement was the primary reason for adopting current evaluation practices. Employer feedback and placement of former students were identified as the most often identified indicators of program quality. Student follow-up and employer assessment of former students were the most fully implemented evaluation activities. Assessment of student performance and of special needs services remained the least implemented activities. Respondents were generally satisfied with their state's system for evaluating vocational programs. They also indicated a high level of usefulness of evaluation activities. Specific purposes for which they were used were making improvements, preparing accountability reports, and aiding decision making. Recommendations for further development of federal policy were emphasizing evaluation's improvement function and keeping requirements for evaluation procedures consistent. (Study questions are provided with conclusions and evidence/responses. An approach for evaluation for and of improvement is suggested.) (YLB)

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**a survey of  
state evaluation  
practices in  
vocational education**

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For:

The National Association of  
State Directors of  
Vocational Education

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July 1981

## introduction

Since the early 1960's, federal legislation for education has made reference to evaluation. The 1963 Vocational Education Act provided for using federal funds for state and local evaluations of vocational education and all its subsequent amendments have increased the attention given to evaluation. The most recent, the Education Amendments of 1976 (PL 94-482), introduced new requirements that have exceeded all those previous in both number and complexity.

The National Institute of Education was charged by the 1976 amendments to conduct a comprehensive study of vocational education and was also directed to analyze "the means of assessing program quality and effectiveness": Part of the NIE thrust focused on implementation of the act's evaluative requirements. This was accomplished at two points prior to this study -- in the spring of 1978 (CRC, 1978) and during the 1979-81 school year (Abt, 1980). The study reported herein provides a third metering of evaluation practice as of the spring of 1981. This study involved a survey of state directors of vocational education and was administered by the National Association of State Directors of Vocational Education (NASDVE) with support from the Vocational Education Study of the National Institute of Education.

This study sought to gain a third perspective to the implementation of evaluation requirements and their perceived effectiveness and utility.

More specifically, the study sought to answer the following questions:

1. What do state directors of vocational education perceive to be the key indicators of program quality?
2. How do SEA's interact with LEA's in the collection and use of evaluative information?

3. What is the perceived utility of current evaluation practices in SEA's?
4. What factors facilitate and deter the initiation and conduct of state evaluation practices?
5. Should the existing criteria for evaluation be retained?
6. What is the extent of implementation of current evaluation practices?
7. What is the desired unit of focus for evaluation and program improvement?
8. What suggestions do state directors have for writing new legislation?

These questions focused the collection and analysis of information.

The "General Recommendation" and "Suggestion" at the close of this report are made by the author, and do not necessarily reflect the views of the NASDVE or the NIE, which commissioned this report; or its Vocational Education Study.

## method

### Sample

The sample for this study included the total population of Directors of Vocational Education for the United States and its territories. A total of 57 questionnaires were mailed and responses were received from 50. This calculates to an 88% return rate. Of the 50 respondents, 32 were state directors and 18 were SEA staff members designated by the state directors.

### Instrument

A four-page questionnaire was used in the survey. This questionnaire incorporated two rating type items, eleven checklist items, one combination checklist/rating item, and one open ended item.

### Procedure

The questionnaires were mailed with a cover letter signed by the Executive Director of the National Association of State Directors of Vocational Education. Also, NASDVE was responsible for the follow-up of non-respondents. All questionnaires were mailed on March 23, 1981, and the last response was received on May 14, 1981.

### Analysis

The questionnaires were summarized using frequency counts, measures of central tendency, and a measure of dispersion. Questionnaire item responses were categorized and reported to parallel the study questions presented in the introduction to this report.

## **results**

The following pages present the study questions, the questionnaire evidence that corresponds to each, and a series of judgments presented in the form of conclusions.

Key Question 1. What do State Directors of Voc-Ed perceive to be the key indicators of program quality?



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conclusions

evidence (responses to survey question)

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Employer feedback and placement are identified as the primary indicators of program quality. These are followed by instructional materials, job satisfaction, instructor performance, and student test performance (these four were rated almost equally).

14. Of the following criteria, which would you rely on as indicators of program quality?

- 44 - Placement Level
- 25 - Condition of Equipment
- 36 - Instructor Performance
- 37 - Quality Curriculum Materials
- 47 - Employer Feedback
- 37 - Job Satisfaction
- 17 - School Staff Morale
- 31 - Student Test Performance
- 1 - *Participation*
- 1 - *Serving Special Needs*
- 1 - *Instructional Preparation*
- 1 - *Facilities*
- 1 - *Instructional Materials*
- 1 - *Retention of Students*
- 1 - *Advisory Committee Use*
- 1 - *Guidance, Counseling and Placement*

**Key Question 2.** How do SEA's interact with LEA's in the collection and use of evaluative information?



**conclusions**

**evidence**

1. LEA's appear to have a high level of involvement in the collection of placement and student assessment data (75% of those states responding).
2. Planning and operational processes, employer feedback and special needs data appear to be collected and used by both SEA's and LEA's.
3. There appears to be a lower involvement of SEA's in the collection of student assessment and placement data when compared with other evaluative data and with LEA involvement.
4. The SEA's tend to be the heavier users of evaluative data, except for student assessment data and for employer feedback data, which are used equally by SEA's and LEA's.

2. In your state, who collects, receives and uses evaluation data required by federal legislation?

	COLLECTS		RECEIVES		USES	
	SEA	LEA	SEA	LEA	SEA	LEA
● Placement Data	15	37	41	16	43	37
● Planning and Operational Processes Data	27	26	39	21	44	33
● Employer Feedback Data	21	29	40	18	39	38
● Special Needs Services Data	21	32	38	19	38	32
● Student Assessment Data	12	36	24	26	23	35



**Key Question 3.** What is the perceived utility of current evaluation practices in SEA's?

**conclusions**

1. In general, there is an indication that state directors are satisfied with their state's evaluation system.
2. Making program improvements, preparing accountability reports, and aiding decision making are uses of evaluation results with the highest perceived success.
3. Least success was reported as occurring for informing the public and discontinuing programs.
4. Supporting legislative request received the most varied rating of all those included.

**evidence**

1. How satisfied are you with your state's system for evaluating the quality and effectiveness of vocational education programs? (mean = 4.0, Sd = .94\*)

Not Satisfied	Very Satisfied
1            2            3            4            5	

5. How useful would you say are your state's evaluation activities? (mean = 4.1, Sd = .68)

Not Useful	Very Useful
1            2            3            4            5	

6. What success has been achieved in using evaluation results?

	Low	1	2	3	4	5	High
Make Improvements in programs						mean = 4.1	Sd = .82
Inform the Public						mean = 2.8	Sd = 1.02
Aid Decision Making						mean = 3.9	Sd = .64
Discontinue Programs						mean = 2.8	Sd = 1.06
Support Legislative Requests						mean = 3.3	Sd = 1.20
Prepare Accountability Reports						mean = 4.1	Sd = .82
Inform Legislators						mean = 3.0	Sd = .92
Add New Programs						mean = 3.1	Sd = .94

\*Sd is the notation for standard deviation, a statistical measure of dispersion or variance.



**Key Question 4.** What factors facilitate and deter the initiation and conduct of state evaluation practices?



**conclusions**

**evidence**

1. Improvement of programs, meeting federal mandates, and improving planning were the highest ranked reasons for current state evaluation practices.

2. The lowest ranked were fiscal pressures and State Advisory Council for Vocational Education (SACVE) requests.

3. The major factor in the success of state evaluation practice is perceived to be the SEA staff (commitment, attitude and expertise). LEA staff attitudes toward evaluation are also considered a contributing factor to success. Technical assistance provided by the federal government is perceived to be insignificant.

7. What reasons led your state to adopt its current evaluation practices? Please rank in order of descending importance. Most important = (1), Least Important = (8).

(Mean Rank)

- 2.3 Meet Federal Mandate
- 4.4 Meet State Legislative Mandate
- 5.2 Advisory Council Request
- 1.8 Interest in Program Improvement
- 3.0 Need to Improve Planning
- 6.1 Need to Make Budget Cuts
- 4.7 Need to Justify Activity
- 7.7 Other

8. (Frequency)

- 36 Existing Evaluation Expertise of Staff
- 13 Federal Guidelines
- 2 Federal Technical Assistance
- 17 Existing Documents (Books, Guides)
- 34 Positive Attitudes toward Evaluation by LEA's
- 44 Positive Attitudes toward Evaluation by SEA Staff
- 15 Available Resources
- 14 Success of Previous Evaluation
- 15 Available Consultant Assistance
- 40 Strong Commitment to Evaluation

Key Question 4. (continued)



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conclusions

evidence

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4. Inadequate resources appears to be the major obstacle to the development of evaluation activities.

9. What factors hampered the development of evaluation activities in your state?

(Frequency)

- |    |   |
|----|---|
| 15 | Lack of Evaluation Expertise                      |
| 12 | Inadequate Federal Guidelines                     |
| 20 | Lack of Federal Technical Assistance              |
| 13 | Lack of Guides and Books                          |
| 10 | Negative Attitudes toward Evaluation by LEA's     |
| 3  | Negative Attitudes toward Evaluation by SEA staff |
| 26 | Inadequate Resources                              |
| 5  | Failure of Previous Evaluation                    |
| 6  | Lack of Consultant Assistance                     |
| 8  | Lack of Commitment to Evaluation                  |

**Key Question 5.** Should the existing criteria for evaluation be retained?



**conclusions**

**evidence**

1. Employer reaction and student performance were the least desired evaluation components if federal requirements were eliminated; however, a majority of states (66-87%) would continue to use all five evaluation components.

10. If federal requirements for evaluation were eliminated, which aspects of your state evaluation process might be dropped?

(Frequency)

- 7 Placement
- 12 Employer Reaction
- 8 Planning and Operational Processes
- 9 Services to Special Populations
- 11 Student Performance
- 16 None
- 1 Teachers & School Directors Performances

11. If federal requirements for evaluation were eliminated, what would you choose to evaluate?

- 43 Placement
- 35 Employer Reaction
- 38 Planning and Operational Processes
- 36 Services to Special Populations
- 34 Student Performance
- 1 Total Program
- 1 None

**Key Question 6.** What is the level of implementation of current evaluation practices?



**conclusions**

**evidence**

1. State evaluation activities were carried out primarily by SEA staffs with cooperative approaches used by 17%.

2. Placement evaluation and employer assessment appear to be the most extensively implemented evaluation activities with special needs services and student assessment existing at the lowest level of implementation.

3. Are your state evaluation activities conducted:  
(Frequency)

37	By your SEA staff
1	Under contract with an outside organization
7	Both
1	Neither

4. Please check the following evaluation activities as to their level of implementation in your state.

	FULLY IMPLEMENTED	IN PROCESS	NOT STARTED
● Placement Level of Grads	35	15	0
● Employer Assessment of Grads	27	20	0
● Assessment of Planning and Operational Procedures	21	24	0
● Assessment of Special Needs Services	18	29	0
● Assessment of Student Performance	14	30	0

Key Question 7. What is the desired unit of sampling for evaluation?



conclusions

evidence

The predominantly desired unit of sampling for evaluation appears to be individual programs. Although, for program improvement, attention would be given to both programs and institutions.

12. In your state, if the goal was improvement of vocational offerings, would the SEA direct its efforts toward evaluating:

(Frequency)

30	Individual Programs
10	Institutions
9	Both
1	Neither

13. In your state, if the goal was to improve programs, where would SEA attention be directed?

(Frequency)

11	Programs
1	Institutions
37	Both

Key Question 8. What suggestions do state directors have for writing new legislation with respect to evaluation?

The following responses were made by respondents.

1. Provide more latitude for states to develop their own evaluation around their needs (Frequency = 9).
2. Provide funds for evaluation (Frequency = 7).
3. Present provisions are acceptable (Frequency = 6).
4. Eliminate student performance (Frequency = 3).
5. Eliminate employer satisfaction as a state requirement (Frequency 2).
6. Lessen prescriptiveness of rules and regulations (Frequency = 2).
7. Base evaluation on program results:
  - Job satisfaction
  - employer ratings
  - job performance
8. Eliminate 1 year follow-up and replace with 5 and 10 year follow-up.
9. Delete planning and operational processes.
10. Maximize sampling in employer survey.
11. Expand criteria beyond placement and employer satisfaction.
12. Provide time for developing student competency data.
13. Relegate employer feedback to national research.
14. Develop student tests nationally.
15. Require evaluation techniques for all parts of law.
16. Reduce data burden.
17. Develop guidelines 9 months prior to reporting.
18. Report data for 5 years.
19. Incorporate VEDS and evaluation.
20. Make evaluation program improvement oriented.

Key Question 8. (Continued)

21. Place emphasis on the use of data.
22. Change special population evaluation from program to school.
23. Expand OE codes to include broader occupations.
24. Rewrite planning and reporting requirements.
25. Require public participation.
26. Urge coordination with regional accrediting associations.
27. Encourage a continuous evaluation by LEA's.
28. Fund VEDS.
29. Require evaluation for all Voc. Ed. programs regardless of funding.
30. Provide technical assistance on evaluation.
31. Evaluation only federally funded activities.
32. Make accountability more product-oriented.
33. Promote qualitative measurement of programs.
34. Describe the technical assistance role to be carried out for program improvement.
35. Hire developers of guidelines.
36. Provide large set asides for territories.
37. Gain input from practitioners.
38. Provide block grants.
39. Continue state plan process.
40. Eliminate NOICC/SOICC.
41. Mandate fewer "must haves" on SACVE.
42. Combine sex equity with guidance section with funding.
43. Reestablish regional offices.
44. Add specificity to legislative purpose programs and special populations services.
45. Eliminate 104.402 (d) (Frequency = 6).
46. Provide for uniform procedures for conducting evaluation of programs, institutions, student performance and others.

## discussion

This report provides an added dimension to the two previous observations of evaluation in vocational education made by Contract Research Corporation in 1978 and by Abt Associates in the 1979-80 school year. Also, this report adds to the evaluation section of the interim report of the vocational education study (NIE, 1980) and an excellent paper entitled, "Evaluating Vocational Education: The Federal Stimulus" (Hendrickson, 1981).

This study indicates that a high level of evaluation activity exists among the states. All states (of those responding) indicate that they have either fully implemented or are in the process of implementing the mandated evaluation activities.

The following paragraphs reflect the researcher's perception of several factors associated with vocational education evaluation in the states. These factors include: purpose of evaluation, focus of evaluation, implementation of evaluation and use of evaluation results.

### Purpose of Evaluation

States indicate that program improvement is the primary reason for adopting their current evaluation practices. This finding supports the finding of the two previous observations by CRC and Abt. Meeting the federal mandate and desiring to improve planning were rated second and third, respectively. This finding appears to imply that the federal intent of improved planning and program improvement has been transmitted to and internalized by state education agencies. The researcher supports the notion that program improvement should be the primary purpose of program evaluation.



### Focus of Evaluation

Employer feedback and placement of former students are identified as the most often identified indicators of program quality (47 and 44 respectively from 50 respondents). However, when asked about changes in evaluation practices if federal evaluation requirements were abolished, 12 respondents indicated that they would eliminate employer reaction and 7 would eliminate placement assessment. It could be that respondents may believe in the utility and validity of employer feedback, but some may not have confidence in the process that is currently used. That is, many believe that employers provide valuable input but surveys with minimally responding groups may be insignificant. This finding may speak to policy makers regarding the inappropriateness of specifying procedures without tryout and utility testing.

It is also interesting to note that several criteria, other than those mandated by legislation and regulations, are viewed as important by SEA's. For example, job satisfaction (frequency = 37), were cited as indicators of program quality. Perhaps evaluation should not be limited to the traditional (legislated) criteria. It may be beneficial to identify the intercorrelation of various process and product measures (since most states do process evaluations fairly well, and they relate to their technical assistance role) of placement, employer reaction, and job satisfaction. The question is, "Why collect all this information when a portion of it may tell you the same thing?" For example, student evaluation of instruction results (end of course feedback) may be highly correlated with student follow-up results.

### Implementation of Evaluation

As previously mentioned, an extensive amount of activity has occurred within the states to implement required evaluation activities. It can also

by seen, by reviewing the earlier observational reports (CRC and Abt) that much of this activity has resulted since the passage of the Education Amendments of 1976 (PL 94-482). This fact speaks favorably for federal action having impact on states and for states being responsive.

Slightly different from the Abt findings in 15 states, student follow-up and employer assessment of former students are the most fully implemented evaluation activities (35 states for placement and 27 states for employer assessment compared to 21 states for planning and operational processes). Assessment of student performance and assessment of special needs services remain the least implemented activities.

The findings of this survey portray a cooperative effort in the collection and use of evaluative information. The collection of information appears to be a local responsibility in about half the states with the exception of placement data which is collected by LEA's in more than half the states. Use of results appear to be an activity in which both SEA's and LEA's are heavily involved.

It is interesting to note that respondents were generally satisfied with their state's system for evaluating vocational programs. This may provide an indication that the evaluation activities have been internalized and are not being viewed solely as a reaction to a federal mandate. It may also mean that the states are patting themselves on the back.

#### Use of Results

The use of evaluation results is a necessary step in achieving the purpose(s) of evaluation. Respondents indicated a high level of usefulness of their evaluation activities ( $\bar{X} = 4.1$  on a scale of 1-5). When asked to rate the success of using evaluation results for specific purposes, making improvements ( $\bar{X} = 4.1$ ), preparing accountability reports ( $\bar{X} = 4.1$ ), and aiding

decision making ( $\bar{X} = 3.9$ ) were the highest. The use of results in "supporting legislative request" has the greatest range of success. That is, some had high success and some had very little success. It can be speculated that various types of results, e.g., student follow-up, planning and operational processes have different uses. Also, it is probable that some SEA persons have more experience than others in the use of results. This step in the evaluation process, in the researcher's mind, needs greater attention -- procedure development, staff development and technical assistance.

## **general recommendations**

The following statements are broad recommendations for the further development of federal policy related to the evaluation of vocational education. These, it is thought, should be the framework for any specific legislative requirements.

1. Continue to emphasize the improvement function of evaluation and further develop ways of facilitating the use of results for improvement.
2. Analyze extant research findings and conduct new research on the validity of process measures for predicting products or outcomes of vocational education. These findings should provide the base for determining evaluative criteria.
3. The requirements for evaluation procedures should remain somewhat consistent to minimize state and local burden and to provide for the enhancement of currently used procedures.
4. Any new approaches should be tried out prior to the preparation and issuance of rules and regulations.
5. The use of evaluation results should receive added emphasis in terms of new procedures, staff development, and technical assistance.

## a suggestion

The evaluation of vocational education programs is a worthwhile investment of tax generated funds. If this statement is accepted, then policy makers must strive to maximize the return on dollars invested through informed decisions and established practice. Also, it is important to strive for a certain amount of stability in policy. That is, it is obvious that many PL 94-482 requirements are only recently being fully implemented. To change drastically at this time may frustrate and deter rather than build and enhance. The suggestion being posed herein is focused on maintaining consistency in evaluation intent and polishing and honing existing evaluation procedures and steps for utilizing results.

### Rationale

Program improvement has been a major intent of federal legislation in vocational education. The use of information, (e.g., labor force data, evaluation data), was identified as one means of facilitating program improvement. Though a worthy expectation, the practice of evaluation and the use of its results have fallen far short of the expectation. Many evaluative activities such as employer surveys and student assessment have been viewed more as compliance oriented than improvement oriented. Consequently, the results therefrom have not been maximally used for improvement. This is a case of appropriate intent, possibly appropriate procedures, but inappropriate use.

Furthermore, many of the required or federally chosen criteria for evaluating vocational programs have been deemed inappropriate. For example, many have argued that employment is outside the realm of control of vocational education, since the economy and other forces are involved. Also, inputs to programs--students--may vary considerably and may effect outcomes significantly.

Procedurally, evaluation of vocational programs suffer from technical and staff implementation problems. Response rates to employer surveys and testing technology deficiencies are but two basic methodological problems. In addition, the inconsistencies that exist within and among states in the collection of evaluative data pose severe problems in aggregating information. All this leads to a need for improvement.

### The Suggested Approach

The improvement function of evaluation should be held high and existing evaluation efforts should be enhanced. This can be accomplished by holding educational agencies (local and state) accountable for improvement. That is, LEA's should be given the responsibility to document changes that have occurred in their vocational programs. These changes need not be limited to growth but should focus on qualitative changes as well. For example, the elimination of a program could be a positive change for an institution.

Evaluation techniques should be used within this thrust to aid in making improvements and changes as well as aiding in their documentation. LEA's could choose the appropriate evaluative techniques to use in the process. Or SEA's could specify a variety of legitimate techniques for local use.

Reporting could be done in some consistent format, but the emphasis should be on using results to improve rather than on reporting to an external party. This approach will encourage agencies to actually initiate changes rather than to simply report. Additionally, results could be used by agencies for other purposes as well.

### A Supplement

In addition to this change/improvement evaluation approach, it may be useful to incorporate periodic statewide and national surveys to provide

needed gross information for state and federal policy making.

**"A NEW WAY"  
FOR EVALUATING VOCATIONAL EDUCATION**

- TITLE** : Evaluation For and Of Improvement
- PURPOSE** : To facilitate and document change/improvement in vocational programs. Also, future development of national policy could be enhanced.
- SCOPE** : Local Programs and institutions; state; and federal.
- EVALUATIVE QUESTIONS:**
1. What changes have occurred in the delivery of vocational education?
  2. What stimuli are responsible for program changes?
- PROCEDURE** :
1. Each LEA will evaluate its vocational programs using self-selected or SEA-selected techniques.
  2. Results will be reported to the SEA regarding the specifics of change and the factors contributing to the change.
  3. SEA's will summarize the type and extent of local change and report it to the Department of Education.
  4. A series of periodic national surveys and/or case studies will be sponsored to provide a consistent data base for necessary federal policy development.
- TIMEFRAME** : Could vary. Might require continuous LEA evaluation with third year reporting of change.