DOCUMENT RESUME

ED 109 419 CE 004 256

AUTHOR Morgan, Robert L.; And Others
TITLE A National Survey of Problems in State Planning for Vocational Education. DASP Planning Paper No. 2.
INSTITUTION North Carolina State Univ., Raleigh. Center for Occupational Education.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.
REPORT NO DASP-PL-PA-2
PUB DATE 74
CONTRACT NE-C-00-3-0069
NOTE 45p.

EDRS PRICE MF-$0.76 HC-$1.95 PLUS POSTAGE
DESCRIPTORS Data Analysis; Data Collection; Educational Planning; *Educational Problems; *National Surveys; Questionnaires; *Statewide Planning; Statistical Surveys; Tables (Data); Vocational Directors; *Vocational Education

ABSTRACT

The study of problems in State planning for vocational education surveyed the vocational education directors in the various States and the District of Columbia to determine what were their major planning problems. The survey instrument consisted of three sections: time spent on planning (both in general and on the State Plan for vocational education), problems in vocational education planning, and identification of critical planning problems. It was administered to State directors in January 1973, and 33 useable questionnaires were completed. From the survey of time allocated to planning, the data indicate that overall State planning constitutes on the average about 20% of the total man-months available for all purposes, while State Plan developing takes only about five percent of available time. In addition, two distinct measures indicate that the most pressing problem facing State directors was the uncertainty of the availability of future fiscal resources. Clustering the States according to similarity of responses suggests that, holding percentage of total time spent on planning constant, those States which devote the least of their planning time to the State Plan and more time to State planning in general have the least severe planning problems. The 10-page survey instrument comprises an appendix. (Author/JR)

A NATIONAL SURVEY OF PROBLEMS IN STATE PLANNING FOR VOCATIONAL EDUCATION

ROBERT L. MORGAN
JOHN E. S. LAWRENCE
DOUGLAS W. CHAMPION

center for
occupational education

DASP

THE PROGRAM

D. W Drewes, DASP Program Director

Dynamic Analysis and Strategic Planning is a Program Division of the Center for Occupational Education at North Carolina State University DASP is committed to a systematic application of information technology to the identification, collection and provision of management information for educational decision-makers The program currently has two major thrusts (1) research and development aimed at improved information technology and strategies for agency implementation, supported by an NIE contract, (2) application of the developed information technology to field generated problems, supported by independent contracts with interested client groups

THE CENTER

John K Coster, Director

The Center for Occupational Education at North Carolina State University at Raleigh is a research and development center established in 1965 under the provisions of the Vocational Education Act of 1963 The Center has been established as an integral unit within the School of Education at North Carolina State University, and its major programs are supported by contracts with the National Institute of Education and the Office of Education The Center has as its mission the provision—through research, development, and related activities—of a continuing contribution to the improvement of occupational education The major research and development programs of the Center focus on the relationship of occupational education to its context or environment The frame of reference for occupational education includes its relationship to regional economy, politics, and the employment or work environment In addition to its primary programs, the Center also maintains a Division of Special Service Projects which provides the capability for flexible action within the Center's overall mission Funding for these projects is not maintained through the Center's federal grant, but rather negotiated on a project-by-project basis with the contracting agencies

THE SCHOOL

Carl J. Dolce, Dean

The School of Education at North Carolina State University offers baccalaureate, master's and doctoral degree programs in professional education and psychology With a focus on human resource development, the School contains extensive teaching, research and demonstration capabilities Emphasizing multidisciplinary effort, where appropriate, the School of Education has access to personnel and physical facilities throughout North Carolina State University.

For Further Information Contact.

D. W Drewes, Program Director
DASP Program Division
Center for Occupational Education
P. O Box 5096
Raleigh, North Carolina 27607
(919) 737-3127

A NATIONAL SURVEY OF PROBLEMS IN STATE PLANNING FOR VOCATIONAL EDUCATION

Robert L. Morgan
John E. S. Lawrence
Douglas W. Champion

****

The research reported herein was conducted pursuant to a contract with the National Institute of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official National Institute of Education position or policy.

****

DASP Planning Paper No. 2

Dynamic Analysis and Strategic Planning Program
Center for Occupational Education
North Carolina State University at Raleigh

1974

Contract No: NE-C-00-3-0069

PREFACE

The DASP Program Division of the Center for Occupational Education is committed to assisting vocational education decision-makers in the identification, collection and use of policy-relevant information for planning. Consistent with our effort to seek participatory input from those actually involved in the daily administration of vocational education in the field, this national survey presents an analysis specifically of problems encountered in planning by state directors. The amount of time spent in State Plan preparation is compared with that spent on state planning in general. Problems consistently ranked high in priority for solution were isolated. The responses to this survey suggest that there is a general consensus on the single most important problem facing state directors in vocational education.

The assistance of the American Vocational Association was invaluable in this study. In particular we appreciate the help of Mr. Lowell A. Burkett and Mr. Dean Griffin in the design of instrumentation and review of the final report, and Mrs. Chris Berger in the dissemination of the survey.

Donald W. Drewes, Director
DASP Program Division

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

Recent federal legislation in vocational education has focused considerable attention on state planning and particularly on the State Plan. Yet Arnold (1969) considered the conduct of statewide program planning in vocational education to have been "at best somewhat haphazard and fragmentary" (p. 5). He cited a number of reasons for this, among which are lack of funds exclusively for planning, lack of data on labor market needs, and a lack of initiation or leadership in planning from the state level.

The most obvious and tangible product of the federal mandate to vocational education is the State Plan. It is important, though, to distinguish between the State Plan, required by federal legislation since 1917 and given additional emphasis in the 1963 Vocational Education Act and 1968 Amendments, and state planning. While state planning clearly includes the State Plan, it is easier to define the second than the first. Thus, in making interstate comparisons, it is somewhat easier to do so in terms of the State Plan, because of the relatively homogeneous response to rigorous federal guidelines for its construction. There is, however, evidence that the document is largely engineered toward compliance and is not often used operationally (Lawrence and Dane, 1974). Reasons for this have frequently been sought in the extreme specificity of controlling legislation (Thompson, 1973). The National Advisory Council, in its fourth report (1971), considered the specifications "so meticulously detailed . . . [that] annual preparation becomes a chore for the expert in grantsmanship." However, so little attention is paid to the plan at the regional or federal level that "its review in the Office of Education has literally been entrusted to secretaries" (p. 16).

Suspicion about the quality of data available to state vocational education planners has led to further distrust of the accuracy of projections contained as justifications for program choice in State Plans (Lawrence and Dane, 1974, p. 69). A careful, in-depth study of the 1970 Alabama State Plan by the State Advisory Council revealed "gross inadequacies in planning and in methods of determining state needs" (Alabama State Advisory Council Report, 1970). The North Carolina State Advisory Council for Vocational Education recommended in its 1970 report that either the State Plan be organized so as to display goals, objectives and priorities in an interrelated fashion, or the State agency do so in a separate document. Dissatisfaction by state advisory councils with State Plans is, therefore, reflected in the conclusion by the National Advisory Council that the State Plan is not a viable planning instrument.

It is not clear why little research has been generated in such an important area so obviously in need of objective examination. Regarding the State Plan, one study has found, rather than the restrictive nature of federal guidelines, that "ineffective leadership at the state level" may be to blame for the weaknesses that exist (Vandiver, 1968, p. 123). Another study, however, has pointed to an inherent inconsistency in

existing legislation. The 1963 Vocational Education Act and 1968 Amendments emphasized the designation of the State Board as the sole agency for the administration and supervision of local vocational education supported by federal funds. Yet the intent of the 1968 Amendments, with the introduction of the submission of local plans, seems to require that planning responsibility be shared between state and local agencies. The ambiguity of this relationship and its implications concerning the dichotomy between the planning and delivery functions of vocational education were discussed in Woodruff et al (1974). They suggested expansion of the role of the state agency in the planning process and indicated a need for clarification of the state agencies' responsibility for the planning process.

There is very little documentation regarding the specifics of the state planning process as distinct from time spent in compliance with federal requirements. One line of research has focused on the necessity for coordination of expertise at the state level (Nowrasteh, 1971, Arnold, 1969, Loomis, 1969). Other studies have focused on both the qualifications and informational inputs required for vocational education agencies personnel at the state level. Gray (1970) identified 147 competencies required for state personnel in the areas of socio-economic, program and resource planning. Information needs of state directors were categorized by McCracken (1973). However, there is an absence of research to determine empirically, at the state agency level, what planning personnel perceive as being the problems that directly obstruct effective planning.

Taking the operational view of planning, the study documented in this report addressed the above deficiency by contacting directors in the states and the District of Columbia to determine first-hand what they saw as being their major planning-related problems. It was, therefore, the purpose of this exploratory study to determine (1) if problems which have been identified in the literature and from other sources are consistent across states, and (2) if clusters of planning problems could be derived which were of operational significance for research purposes. More specifically, the objectives were

1. To assess the severity, frequency of occurrence and significance of problems as perceived by state directors of vocational education,
2. to determine the amount of time allocated to planning within the state departments;
3. to determine the problems as perceived by state-level planners as most frequent and severe or "most significant";
4. to determine whether meaningful clusters of problems could be developed for future research and intervention purposes; and
5. to determine if groups of respondents (states) who respond alike differ in the amount of time allocated to planning.

METHODOLOGY

This section describes the development of the survey instrument, the procedures employed in the survey, and the data analysis techniques.

Survey Instrument Development

The survey instrument used in this study can be divided into three sections (refer to Appendix A). The first section is addressed to determining (1) the man-months allocated to planning, (2) the man-months allocated to the development of the State Plan, and (3) the percentage of total available man-months spent in planning. The second section lists problems that have been identified from the literature and from discussions with state directors of vocational education. A five-point rating scale was applied to each problem (item). Each item was rated on two bases: (1) frequency of occurrence of each problem and (2) the severity of the problem when it occurs. A team of ten judges was involved in testing the content validity of the instrument. (Four psychometricians, four state-level personnel and two representatives from the American Vocational Association reviewed the instrument for comprehensiveness and redundancy.) The third section deals with the identification of critical planning problems.

Survey Procedures

On January 16, 1973, packets containing a cover letter from Lowell Burkett, Executive Secretary of the American Vocational Association, an addressed and stamped envelope for returning the survey, and one copy of the survey instrument were mailed to 49 state directors of vocational education, who constituted the entire population of interest for this study. Thirty-seven instruments were returned. Of these, 33 were usable (complete forms) and were coded and subsequently analyzed. Three of the responses were unusable because of failure to follow directions, and one respondent declined to complete the form at all.[1]

Responses were coded directly from the survey instrument, and each state's responses were punched and verified. The data analyses discussed in the next section were performed on an IBM 360 Model 165 computer, using Statistical Analysis System (SAS) software.

---

[1] On the front page of the survey form the respondent noted that "State planning in vocational education is handled very well in the Bureau of Vocational Education. It takes man-hours to plan and we do it."

Data Analysis

Means were computed on each of the items in Sections 1 and 2 of the survey. Items in Section 2, as well as states, were clustered by Ward's hierarchical clustering procedure (Anderberg, 1973, p. 42). Means and standard deviations were computed for state clusters and for item clusters in terms of the product of the rating on frequency of occurrence and severity. Item one, Section 3, was analyzed by a frequency count of states mentioning a particular item. The remainder of the items in Section 3 were content analyzed.

RESULTS AND DISCUSSION

The results section presents: (1) time allocated to planning, (2) frequency and severity of identified problem areas, (3) critical planning problems, (4) clusters of planning problems, and (5) clusters of states.

Time Allocated to Planning

Item 1 asks for the approximate number of man-months allocated to planning in the organization. The mean number of man-months allocated to planning each year was 68.75 with a standard deviation of 88.45. Item 2 asks for the approximate number of man-months spent on the development of the State Plan (not including local time spent on local plans). The mean number of man-months spent was 18.70 with a standard deviation of 44.67. Item 3 requests the percentage of total available man-hours spent in planning. The mean percentage was 20 18 with a standard deviation of 12.50.

Only 27 percent of the time spent in planning was related to the development of the State Plan. This fact tends to support the contention of many that the State Plan is merely a compliance document which does not at all represent the true planning capability and effort at the state level. Since total planning time is only 20.18 percent of the total man-hours available; it would seem that approximately five percent of available time is spent on the State Plan.

It is important, however, to note the implications of these calculations. The data suggest that the average state agency spends just one-fifth of its time, or 68.75 man-months, on planning--implying a total number of 341 man-months, on the average From this, one concludes that the average state agency for vocational education in the United States employs annually the equivalent of 28 full-time personnel, a very low estimate.[2] Judging from the skewed distribution of responses to Section 1, item 1 (σ = 88.45), it seems likely that the mean is a poor measure of central tendency in this case, and that most states spend more time on planning than the means indicate. Other possible explanations are either that respondents have generally tended to underestimate time spent on planning, or that the mean as a statistic is more representative of small states These conclusions are tentative and require further research. However, one conclusion that seems warranted from these data is that though the mean values seem small by absolute standards, the relative difference between time spent on state plans and on planning in general

---

[2] One estimate (Rice, 1968, p. 35) projects 1965 regional state agency professional personnel to 1970 The mean 1970 projection for a "sample" state division of vocational education across the nine regions is 168, and the range goes from 31 to 468.

is large. If we assume that though the estimates are low--for reasons given above regarding implications for numbers of agency personnel--they are likely to be uniformly low within states (and by roughly similar amounts), then the important and legitimate conclusion is that state agencies spend on the average one-quarter of the time on their State Plan that they spend on state planning in general.

Frequency, and Severity of Problem Areas

Table 1 presents the mean rating, on a five-point scale, of the frequency of occurrence (O), severity of the problem (S), and a composite single measure, the product of frequency times occurrence (O x S) for each of the 56 items in Section 2. The 12 most frequent and severe problems as measured by (O x S), in order of their magnitude, are:

a. the uncertainty in availability of future fiscal resources for programs (Item 38);

b. the insufficiency of fiscal resources available to support long-range programs (Item 39);

c. the inadequacy of systems to measure the benefits of vocational programs (Item 48);

d. the difference in formats of data collection across agencies (Item 17);

e. the inadequacy of procedures for the estimation of future employment demands (Item 54);

f. the lack of training in planning techniques of local-level staff (Item 36);

g. the lack of adequate personnel to process and analyze data (Item 31);

h. the inadequacy of presently available data for planning purposes (Item 15);

i. the inadequacy of student follow-up data (Item 49);

j. the inadequacy of information concerning societal needs for vocational education (Item 10);

k. the incomplete nature of information on characteristics of target populations (Item 9); and

l. the incomplete nature of information about needs of target populations (Item 8)

Table 1. Mean Rating of Frequencies of Occurrence, Severity of Problems, and the Product of Frequency and Severity of the 56 Planning Problems, with Rank Ordering of Twelve Items Ranked Highest on (O x S) Rating

Item Number	Frequency of Occurrence (O)	Severity of Problem (S)	O x S	Rank Order of Twelve Highest O x S Ratings
1	2.88	3.06	8.81	
2	3.30	3.03	10.00	
3	3.06	2.73	8.34	
4	3.49	3.09	10.76	
5	2.90	2.82	8.19	
6	3.58	3.39	12.13	
7	3.03	2.88	8.72	
8	3.76	3.58	13.43	12
9	3.76	3.58	13.43	11
10	3.81	3.55	13.53	10
11	3.12	3.00	9.36	
12	2.61	2.67	6.94	
13	2.88	2.55	7.32	
14	3.21	2.82	9.04	
15	3.79	3.73	14.11	8
16	3.33	3.27	10.90	
17	4.18	3.79	15.83	4
18	3.24	2.97	9.62	
19	3.76	3.21	12.06	
20	2.76	2.79	7.68	
21	3.51	3.21	11.28	
22	3.51	3.21	10.64	
23	3.42	3.24	11.09	
24	3.49	3.33	11.61	
25	3.21	2.82	9.04	
26	3.45	3.09	10.67	
27	3.33	2.97	9.89	
28	3.39	2.94	9.97	
29	3.09	2.64	8.14	
30	2.97	2.58	7.64	
31	4.06	3.64	14.77	7
32	3.51	3.18	11.18	
33	3.30	2.85	9.40	
34	3.79	3.39	12.85	
35	3.58	3.30	11.81	
36	4.09	3.67	14.99	6
37	3.15	2.90	9.16	
38	4.36	4.48	19.56	1
39	4.39	4.21	18.50	2

Table 1. (continued)

Item Number	Frequency of Occurrence (O)	Severity of Problem (S)	O x S	Rank Order of Twelve Highest O x S Ratings
40	2.85	2.51	7.16	
41	2.39	2.39	5.72	
42	3.21	2.94	9.44	
43	3.15	2.90	9.16	
44	3.42	3.03	10.37	
45	3.70	3.55	13.10	
46	3.49	3.06	10.66	
47	3.12	2 82	8.79	
48	4.12	3.91	16 11	3
49	3.76	3.64	13.66	9
50	3.49	3.12	10.87	
51	3.42	3.06	10.47	
52	3.42	3.21	10.99	
53	3.24	3.00	9.72	
54	4.00	3.88	15.51	5
55	3.64	3.63	12.22	
56	3.76	3.49	13.09	

Significant Planning Problems

In Section 3, respondents were asked to select from Section 2 those items expressing problems they felt to be "most significant" for planning in their state. Table 2 presents a frequency count of items thus chosen. Figure 1 clusters graphically the 16 items with the highest frequency of response into eight ordinal categories. This measure of criticality of problem areas gives a slightly different picture from our previous measure (O x S).

By this measure, the uncertainty in availability of future fiscal resources for problems (Item 38) was considered "most significant" by most respondents, corroborating the previous finding. Poor procedures for estimating future employment demands (Item 54) was the next most frequent response in this section; this item ranked fifth in the (O x S) measure. Items 39, 15 and 48, concerning fiscal resources for long-range programs, inadequate data presently available for planning, and inadequate measurement of the benefits of vocational education, ranked equally as the most frequent response. These three items ranked second, eighth, and third, respectively, on the (O x S) measure. Items 8 and 17, concerning lack of information or needs of target populations and different data formats across collection agencies, were the fourth and

Table 2. Frequency of Identification of Specific Items as "Most Significant Planning Problems in Your State"

Item Number	Number of Responses
1	2
2	5
3	1
4	4
5	1
6	5
7	4
8	12
9	8
10	6
11	2
12	4
13	2
14	1
15	14
16	7
17	11
18	3
19	7
20	0
21	4
22	4
23	3
24	8
25	4
26	1
27	5
28	7
29	0
30	1
31	9
32	8
33	5
34	8
35	9
36	10
37	4
38	16
39	14
40	1
41	1
42	2
43	1
44	6

Table 2. (continued)

Item Number	Number of Response
45	9
46	5
47	5
48	14
49	9
50	2
51	2
52	4
53	1
54	15
55	6
56	6

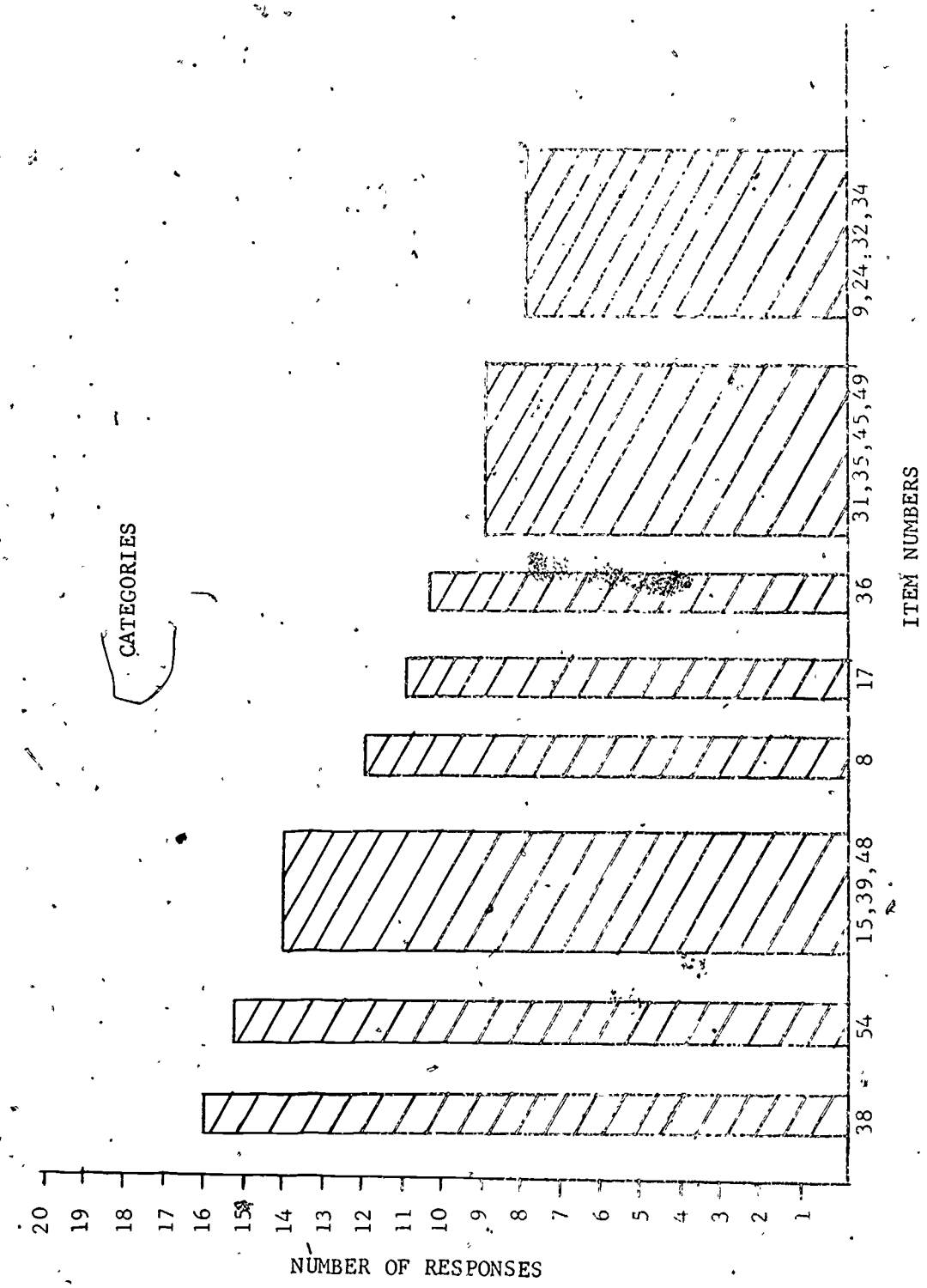

Figure 1. Eight Ranked Categories of Response Frequencies to the Identification of Specific Items in Section 3 as "Most Significant Planning Problems" from Section 2

fifth most frequently chosen items in this section; these items ranked twelfth and fourth, respectively, on the (O x S) measure. Item 36, concerning the lack of planning training for local-level staff, ranked sixth in frequency on this measure, where it also ranked on the (O x S) rating. Items 31 and 49, concerning the lack of adequate personnel to process data and the inadequacy of student follow-up data, ranked seventh in frequency on this measure, whereas they ranked seventh and ninth on the (O x S) measure, respectively. Items 35 and 45 also ranked seventh on this measure, though they did not rank in the highest 12 on the (O x S) measure. Finally, Item 9 ranked eighth on this measure, with Items 24, 32 and 54. Only Item 9, concerning incompleteness of information on target population needs, was ranked in the first 12 on the (O x S) measure; it ranked eleventh.

Comparing these two measures (Table 3), it is clear that Item 38, which ranks highest on both measures, is the most important problem defined by this study. Using Kendall's tau (Hays, 1963, p 652) as a test of concordance in the rankings of Items 38, 39, 48, 17, 54, 36, 31, 15, 49, 9 and 8[3] on both measures, it appears that there is a significant degree of agreement between rankings on these items. (For τ = .548, the test for significance provided a z of 2.331, which supports the hypothesis that τ is significantly different from zero at better than the .05 level.) It is, therefore, suggested that these 11 items are representative of key problems in frequency and severity and in priority for solution in the state agencies sampled.

Only two problems were not deemed "most significant" by any state--Items 20 and 29, concerning restricted access to data sources and inappropriate choice of data levels. All other items were identified by at least one state director as being "most significant." This finding lends some support to the content validity of the instrument.

Clusters of State Planning Problems

Ward's hierarchical cluster analysis (Anderberg, 1973, p. 42) was chosen as the method for grouping both respondents (states) and problems (items), using O x S as the elements of the matrix. This procedure forms hierarchical clusters having minimum within-group variation and maximum between-group variation at each stage of the grouping process.

Initially, each of the N profiles can be thought of as N groups or clusters, each having one member. The Osgood and Suci measure of distance (simply the sum of the squared differences between the raw elements) is used to choose the two groups most nearly alike. The two are combined leaving N-1 groups. This process continues until only one group is left (i.e., all profiles are clustered into one group). At

---

[3] Item 10 appeared 10th on the (O x S) measure but was not ranked high in the second measure, so it was discarded from this test.

Table 3. Comparisons of Rank Ordering of Items by First Measure (0 x S) and Second Measure (Frequency of Identification as "Most Significant" Planning Problems)

Rank Order	(0 x S) Table 1	Frequency Table 2
1	38	38
2	39	54
3	48	39, 15, 48
4	17	8
5	54	17
6	36	36
7	31	31, 35, 45, 49
8	15	9, 24, 32, 34
9	49	
10	10	
11	9	
12	8	

each stage of the clustering process, the total within error and the change in error are computed. The relative change in error is used to determine with minimum subjectivity the point at which the homogeneity of the groups starts to break down.

Grouping by item was thus performed. The plot of within-group error vs. groups remaining served as the basis for determining the optimal number of clusters. After five groups were remaining to be clustered, within-group error rose sharply, indicating a cluster solution.

Table 4 presents the mean and standard deviations for each of the five obtained clusters.

Table 4. Cluster Analysis of Problems in State-Level Planning

Group	Items	Mean (O x S)	S.D. (O x S)
I	1, 2, 4, 6, 10, 16, 18, 19, 21, 22, 25, 26, 27, 28, 37, 42, 45, 46, 47, 53	10.51	1.36
II	3, 5, 7, 12, 13, 14, 20, 29, 30, 41	7.77	.95
III	8, 9, 15, 17, 38, 39, 48, 49, 54	15.58	2.23
IV	11, 23, 24, 33, 40, 43, 44, 50, 51, 52, 55	10.24	1.40
V	31, 32, 34, 35, 36, 56	13.11	1.53

The items, grouped as in Table 4, are as follows:

Group I

Item 1. The goals of vocational education at the state level have not been clearly stated.

Item 2. It is difficult to translate state vocational programs to measurable product objectives.

Item 4 There are difficulties in establishing the linkages between product objectives and process necessary to obtain these objectives.

Item 6. There are conflicts between the goals of vocational education and general education.

Item 10. Information is incomplete concerning societal needs for vocational education.

Item 16. The necessary data are too costly to collect.

Item 18. Available data are collected on inappropriate populations.

Item 19. Collected data quickly become outdated.

Item 21. Available data do not exist at an appropriate level of aggregation.

Item 22. Reports based on collected data are not updated with sufficient frequency.

Item 25. Data about available physical resources are incomplete.

Item 26. Data about available human resources are incomplete.

Item 27. Instruments are not available for the collection of data.

Item 28. The form of data is inappropriate for storage retrieval and analysis for reporting requirements.

Item 37. Political constraints inhibit effective data-based planning.

Item 42. There is no adequate mechanism for determining the number of educational professionals needed in the future.

Item 45. Feedback on the degree of attainment of product objectives is inadequate.

Item 46. Feedback on the degree of attainment of process objectives is inadequate.

Item 47. Accounting systems to monitor expenditures by program category are inadequate.

Item 53. Local facilities are inadequate for program requirements.

Group II

Item 3. It is difficult to translate state vocational programs to observable process objectives.

Item 5. There are conflicts between state and local goals for vocational education.

Item 7. The needs of target populations have not been adequately reflected by state program goals.

Item 12. There is uncertainty at the state level about the purpose of state planning for vocational education.

Item 13 The users of planning information are not clearly defined.

Item 14. The level of aggregation of information for particular users is not clearly defined.

Item 20. There is restricted access to data sources.

Item 29. The choice of level of analysis is inappropriate.

Item 30. Choice of method of data analysis is inappropriate.

Item 41. There is little assurance that funds allocated to the local schools will be used according to state-level intentions.

Group III

Item 8. Information about the needs of target populations is incomplete.

Item 9 Information is incomplete concerning the characteristics of target populations.

Item 15. The presently available data are inadequate for planning purposes.

Item 17. Data collected have different formats across collection agencies.

Item 38. Fiscal resources that will be available in the future to support programs are uncertain or unspecified.

Item 39 Fiscal resources available to support long-range programs are insufficient.

Item 48. Systems to measure benefits of vocational education programs are inadequate.

Item 49 Student follow-up data are inadequate.

Item 54. Procedures for the estimation of future employment demands are inadequate.

Group IV

Item 11. Target populations are inadequately represented in the planning process.

Item 23. Data about available fiscal resources are incomplete.

Item 24. The implications of data are not clear for decision-making purposes.

Item 33. There are inadequate physical facilities to process and analyze the desired data.

Item 40. Allocation of funds is biased by political considerations.

Item 43. Teacher training institutions are not sensitive to the needs of the state for trained personnel.

Item 44. Inservice training for state department personnel is inadequate.

Item 50. Unsuccessful programs are difficult to terminate.

Item 51. Criteria for selection of alternative program strategies are not specified.

Item 52. Policies are inadequate on how information will be used in decision-making.

Item 55. There is insufficient control over the placement process.

Group V

Item 31. There is an inadequate number of personnel available to process and analyze desired data.

Item 32. There are inadequately trained personnel available to process and analyze desired data.

Item 34. Resources allocated to state-level planning are insufficient.

Item 35. State-level staffs are not trained in planning techniques.

Item 36. Local-level staffs are not trained in planning techniques.

Item 56. Coordination of general and vocational education is inadequate.

Statistically, the clusters are mutually exclusive in terms of the variances in responses generated for the set of items within the cluster. Thus, it was probable that a respondent who saw one of the items within a particular cluster as a problem would tend to see the other items in the cluster similarly. Conversely, if one of the items is not seen as a problem, the remainder of items in the cluster tend not to be also for that respondent. Cluster content, however, in terms of what items appear to be addressing, does not seem to be strictly exclusive across categories. That is, some items that seem to concern similar classes of planning problems are lodged in different categories (e.g., items 8 and 10). Careful, though judgmental, consideration, nevertheless, of the item content within clusters has yielded evidence of some homogeneity, enabling the tentative titling of clusters according to general content class. Group I contains items predominantly concerned with procedural constraints surrounding the planning process in the areas of goal expression, data collection procedures and feedback. This group is, therefore, called the procedural/contextual cluster. Group II appears to be primarily concerned with the ends toward which the planning process is directed: goals, objectives and user groups. Group II is thus named the directional cluster. The third cluster deals with the problems surrounding the planners' need for information and is called the informational cluster. Group IV concerns specific and substantive operational problems, though covering a wide range. This is the least homogeneous of the categories and is called the operational/substantive cluster. Group V mostly contains items that address the quality and quantity of resources, particularly trained personnel available for planning tasks in state agencies, and is thus called the resources cluster.

By examining the mean of means for the item ratings associated with problem areas, it was determined that state directors felt that informational and resource problems were the most significant.

The third, or informational, cluster contains nine out of the 11 items on which concordance was found to be statistically significant, which shows that respondents tended to respond in the same manner to most of those items (resulting in low within-item variance across respondents). One suggested explanation for the salience of these items, both in rank order of frequency/severity and in "significance," is that they tend to specify problems over which the respondents may perceive themselves as having little control. The other two items highly ranked by the earlier measures are in Group V, the resource cluster. It can be hypothesized, therefore, that state directors' key problems seem to center around the shortage of necessary information and resources with which to plan, and that these problems may be characterized by a perception of their solution as largely exogenous to the state agency itself. This explanation is tentative and takes the form of a hypothesis for future research rather than a strongly documented empirical conclusion. It is, however, supported somewhat by the observation that two of the other three clusters which did not figure as importantly in identification of problem areas (Groups II and IV) are characterized by

agency direction and agency operation, respectively. It is reasonable to depict each of these contextual problem areas as, to some extent, within the jurisdiction and, therefore, control of the state director and, thus, to perceive them as less problematical. The remaining cluster (Group I), however, is largely contextual and, therefore, exogenous; yet it does not contain any of the particularly salient problems. It is the largest cluster and calls into some question the aforementioned conclusion.

Clusters of States

The hierarchical procedures were applied to states also. The purpose here was to determine if the states' tendency to respond alike has any relationship to the time spent in planning. Three state clusters were derived (See Table 5.)

a. Group I, whose mean 0 x S was 6.96, spent 71 man-months in planning, 6.3 man-months in State Plan development, and 16 percent of total available time in planning.

b. Group II, whose mean 0 x S was 11.18, spent 48.5 man-months in planning totally, 13.8 man-months in State Plan development, and 25.9 percent of the total available time in planning.

c. Group III, whose mean 0 x S was 14.64, spent 65 man-months in planning, 34 man-months in State Plan development, and 13 percent of their available time in planning.

The high (Group III) and low (Group I) rating groups of states, as rated by 0 x S and time spent on State Plan development, spent approximately the same man-months in planning and approximately the same percentage of time. However, the high rating states (Group III) spent almost 52 percent of their total available time on State Plan development, while the low rating states (Group I) spent only 8.87 percent of their available planning time on State Plan development. Group III, evidently small states, perceive a moderate level of planning problems.

The only pattern emerging from this finding relates to the amount of time spent in State Plan development versus other types of planning. An inspection of the data reveals that the states with the lowest 0 x S spent the least time in State Plan development and the highest time in overall planning. Conversely, the states with the highest 0 x S reported the greatest amount of time spent in State Plan development. It would be tempting to infer from this that states which spend more time on compliance planning (i.e., State Plan development) have more problems; however, the data do not support a determination of cause and effect. It may be that the states reporting fewer problems (lower 0 x S) have already solved many planning problems and, as a consequence, spend less time on State Plan development. Furthermore an absolute figure of, for example, 25 man-months may represent a small amount of total time for a large agency, or a large amount for a small agency.

Table 5. Mean O x S Rating, Number of Man-Months Spent in Planning, Number of Man-Months Spent in State Plan Development, and Percentage of Total Available Time Spent in Planning for Three Groups of States Clustered According to Similarity in Responses

Group	Mean O x S	Man-Months Spent in Planning	Man-Month's Spent in State Plan Development	Percentage of Total Time Spent in Planning
I	6.96	71.0	6.3	16.0%
II	11.18	48.5	13.8	25.9%
III	14.64	65.0	34.0	13.0%

If the data do not suggest a cause and effect relationship, however, they do demonstrate that a great disparity exists among states in the number of problems faced and that some states have found ways of overcoming common planning problems. This, in turn, suggests that individual states can have considerable control over their own destiny as planners. Stated bluntly, it may seem that individual states can improve their state planning processes without additional federal assistance or intervention.

CONCLUSIONS

The important findings from this study fall into two general categories: those concerning the amount of time spent on planning in state vocational education agencies and those concerning the kinds of planning problems state directors find most acutely in need of solution.

From the survey on time allocated to planning, the data indicate that overall state planning constitutes approximately 20 percent of the total man-months available for all purposes in the average state agency of vocational education. State Plan development, on the other hand, takes about five percent of total available time. Our analysis tends to suggest that these estimates are rather low, for reasons elaborated in the results section. The data, however, yield prima facie support for the contention voiced in the introduction that state planning and State Plans should be carefully distinguished. The finding that states appear to spend only about one-quarter of their planning time on the State Plan offers some possible reasons for the National Advisory Council's dissatisfaction, also documented in the introduction to this paper.

In the second category of findings, the most pressing problem facing state directors, by two distinct measures, was the uncertainty with which the availability of future fiscal resources for programs was viewed. Also perceived as problems high in both frequency and severity were the insufficiency of funds to support long-range programs, inadequate systems for program evaluation, confusions and inadequacies in data format and content, and lack of staff and adequately trained personnel for planning at both the state and local levels.

Of the 12 problem statements rating highest in both frequency and severity, the first two expressed concern over the uncertainty and insufficiency of funds. The others all stated either dissatisfaction with either shortage of data or lack of trained staff needed for planning. Cluster analysis permitted further collapsing of problem areas into five groupings: informational, procedural/contextual, resource, directional, and operational substantives. It appeared that the most important problems center around deficiences in the necessary information data and resources (fiscal and personnel) with which to carry out planning obligations. The findings suggest the conclusion that the two important problem groupings tend to contain exogenous issues over which state directors perceive themselves as having little control. One of the three remaining, and the largest of the cluster of problems (procedural/contextual), however, contained similarly exogenous issues, none of which achieved consensus in designation as highly salient by any of our measures. The two other clusters (directional and operational/substantive) were both characterized in problem content by agency-oriented issues, and again they did not include any of the problems judged salient by many states. It is tempting, therefore, to conclude that state directors diagnose as most pressing those problems

in areas over which they have less control, and as less pressing those problems the solution of which is perceived to lie within the jurisdiction of the agency. The presence of a large cluster of exogenous but non-salient problems dictates that such a conclusion should remain tentative.

When states were clustered according to similarity in responses, a relationship was established between the amount of time spent on State Plan development and the frequency and severity of problems encountered. States reporting the highest problem rating spent the most time in State Plan development. States reporting the lowest problem rating not only spent the least time in State Plan development, but the most time in overall state planning. These data do not permit more than associational conclusions to be drawn from their interpretation, and yield no information on cause and effect. However they suggest a clear hypothesis for further research: holding percentage of total time spent in planning constant, those states which devote the least of their planning time to the State Plan, and more time to state planning in general, have the least severe planning problems.

Finally, there is nothing emerging from the results of this study to refute the National Advisory Council's 1970 verdict on the State Plan referred to in the introduction to this report. There is, rather, some evidence to support that verdict in that states, on the average, spend comparatively little time in State Plan preparation. Moreover, states who spend the most time in its preparation also report more severe and frequent problems.

LIST OF REFERENCES

Alabama Advisory Council on Vocational Education. "Excerpts from the State Advisory Council's 1970 Reports." In Reports on the Implementation of the Vocational Education Amendments of 1968. Washington, D. C.: U. S. Government Printing Office, 1971, p. 23.

Anderberg, Michael R. Cluster Analysis for Application. Vol. XIX of Problems and Mathematical Statistics. New York: Academic Press, 1973.

Arnold, W. M. Vocational Education Program Planning at the State Level. Paper presented at the National Conference on Methods and Strategies for State Plan Development in Accordance with the Provisions of the Vocational Education Amendments of 1968. Covington, Kentucky, March, 1969.

Gray, K. E. Competencies Needed by Personnel Engaged in Program Planning in State Divisions of Vocational-Technical Education. Unpublished doctoral dissertation. The Ohio State University, 1970.

Hays, William L. Statistics. New York: Holt, Rinehart and Winston, 1963.

Lawrence, John E. S., and J. K. Dane, editors. State Vocational Education Planning: An Assessment of Issues and Problems. DASP Planning Paper No. 1. Raleigh: DASP Program Division, Center for Occupational Education, North Carolina State University at Raleigh, 1974.

Loomis, William G. The Role of Professional Vocational Education Personnel in State Program Planning and Evaluation. Paper presented at the National Conference on Methods and Strategies for State Plan Development in Accordance with the Provisions of the Vocational Education Amendments of 1968. Covington, Kentucky, March, 1969.

McCracken, J. David. Information Needs of State Directors of Vocational Education. Columbus: Center for Vocational and Technical Education, The Ohio State University, 1973.

National Advisory Council on Vocational Education. "Fourth Report of the National Advisory Council on Vocational Education." In Reports on the Implementation of the Vocational Education Amendments of 1968. Washington, D. C.: U. S. Government Printing Office, 1971, p. 16.

Nowrasteh, Daryush M. Planning and Management Systems for State Programs of Vocational and Technical Education: An Application of Research. Columbus: Center for Vocational and Technical Education, The Ohio State University, 1971.

Osgood, Charles E., and George J. Suci. "A Measure of Relation Determined by Both Mean Difference and Profile Information." Psychological Bulletin, L (1953), 251-262.

Rice, Dick C. Professional Personnel in State Divisions of Vocational Education: Policies, Practices, Requirements. Columbus: Center for Vocational and Technical Education, The Ohio State University, 1968.

Thompson, John F. Foundations of Vocational Education: Social and Philosophical Concepts. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1973.

Vandiver, Robert E. An Analysis and Evaluation of Federal Guidelines and State Plans for Vocational Education. Unpublished doctoral dissertation. University of Oklahoma, 1968.

Woodruff, Alan, Frank Banghart, Anita Bright, and Mary Matthews. State and Local Responsibilities for Planning Occupational Education. Raleigh: DASP Program Division, Center for Occupational Education, North Carolina State University at Raleigh, in press.

APPENDICES

APPENDIX A

A SURVEY OF PROBLEMS IN STATE-LEVEL PLANNING FOR VOCATIONAL EDUCATION

Instructions

This survey instrument is intended to develop information on the occurrence and severity of various problems in planning for vocational education at the state level. Each of the items shown represents a potential problem for state planners. Please read each item carefully and rate the problem according to its frequency of occurrence in your state and the severity of the problem on the accompanying scale. Circle the number on the scale to indicate your estimate.

Section 1

Before beginning the survey, there are three questions we would like to ask which do not fit the survey format:

1. Approximately how many man-months are allocated to planning in your organization?

   _____

2. Approximately how many man-months are spent on the development of the State Plan for your state (not including local time spent on local plans)?

   _____

3. What percentage of total man-hours would you estimate is spent on the planning function in your state organization (including not only development of the State Plan, but all planning functions)?

   _____

Thank you for your time and your assistance in completing this survey.

Section 2

1. The goals of vocational education at the state level have not been clearly stated.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

2. It is difficult to translate state vocational programs to measurable product objectives.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

3. It is difficult to translate state vocational programs to observable process objectives.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

4. There are difficulties in establishing the linkages between product objectives and the processes necessary to obtain these objectives.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

5. There are conflicts between state and local goals for vocational education.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

6. There are conflicts between the goals of vocational education and general education.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

7. The needs of target populations for vocational education have not been adequately reflected by state program goals.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

8. Information about the needs of target populations is incomplete.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

9. Information is incomplete concerning the characteristics of target populations.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

10. Information is incomplete concerning the societal needs for vocational education.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

11. Target populations are inadequately represented in the planning process.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

12. There is uncertainty at the state level about the purpose of state planning for vocational education.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

13. The users of planning information are not clearly defined.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

14. The level of aggregation of information necessary for particular users is not clearly defined.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

15. The presently available data are inadequate for planning purposes.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

16. The necessary data are too costly to collect.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

17. Data collected have different formats across collection agencies.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

18. Available data are collected on inappropriate populations.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

19. Collected data quickly become outdated.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

20. There is restricted access to data sources.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

21. Available data do not exist at an appropriate level of aggregation.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

22. Reports based on collected data are not updated with sufficient frequency.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

23. Data about available fiscal resources are incomplete.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

24. The implications of data are not clear for decision-making purposes.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

25. Data about available physical resources are incomplete.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

26. Data about available human resources are incomplete.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

27. Instruments are not available for the collection of needed data.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

28. The form of data is inappropriate for storage, retrieval and analysis for reporting requirements.

OCCURRENCE. 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

29. The choice of level of data analysis is inappropriate.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

30. The choice of method of data analysis is inappropriate.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

31. There are inadequate numbers of personnel available to process and analyze the desired data.

OCCURRENCE. 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY. 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

32. There are inadequately trained personnel available to process and analyze the desired data.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY. 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

33. There are inadequate physical facilities to process and analyze the desired data.

OCCURRENCE. 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

34. Resources allocated to state-level planning are insufficient.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

35. State-level staffs are not trained in planning techniques.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

36. Local-level staffs are not trained in planning techniques.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

37. Political constraints inhibit effective data-based planning.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

38. Fiscal resources that will be available in the future to support programs are uncertain or unspecified.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

39. Fiscal resources available to support long-range programs are insufficient.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

40. Allocation of funds is biased by political considerations.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

41. There is little assurance that funds allocated to the local schools will be used according to state-level intentions.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

42. There is not adequate mechanism for determining the number of educational professionals needed in the future.

OCCURRENCE 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

43. Teacher training institutions are not sensitive to the needs of the state for trained personnel.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

44. Inservice training for state department personnel is inadequate.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical.

---

45. Feedback on the degree of attainment of product objectives is inadequate.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

46. Feedback on the degree of attainment of process objectives is inadequate.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

47. Accounting systems to monitor expenditures by program categories are inadequate.

OCCURRENCE 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

48. Systems to measure benefits of vocational education programs are inadequate.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

49. Student follow-up data are inadequate.

OCCURRENCE. 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

50. Unsuccessful programs are difficult to terminate.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

51. Criteria for the selection of alternative program strategies are not specified.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

52. Policies are inadequate on how information will be used in decision-making.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

53. Local facilities are inadequate for program requirements.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

54. Procedures for the estimation of future employment demands are inadequate.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

55. There is insufficient control over the placement process.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

56. Coordination of general and vocational education is inadequate.

OCCURRENCE: 1 Never, 2 Rarely, 3 Occasionally, 4 Frequently, 5 Continually

SEVERITY: 1 Inconsequential, 2 Minor, 3 Considerable, 4 Major, 5 Critical

---

Section 3

From the previous pages, indicate the number of the statements which identify the most significant planning problems in your state.

APPENDIX B

LETTER OF TRANSMITTAL TO STATE DIRECTORS

american vocational association inc headquarters office washington d c

AVA

January 16, 1973

TO: State Directors

FROM: Lowell Burkett, Executive Director

The American Vocational Association is sponsoring a series of conferences on state planning for vocational education to be held here, in Washington, D. C., during January and February. The intent of the conference series is to develop a set of guidelines which may be used by state directors of vocational education in the preparation of their state plans. Three groups of nationally known state directors, educators, economists and planning specialists are being gathered to construct these guidelines as a service from the American Vocational Association to the field. The Center for Occupational Education, located at North Carolina State University, through its Division of Dynamic Analysis and Strategic Planning (DASP), is cooperating with the AVA in the conduct of the conference and has provided the funding. Staff from the Center will provide assistance in the analysis of data and the final production of the guidelines, as well as participating in the conference itself.

In order to provide our conference participants with as clear a picture as possible of the problems which now exist in the planning process in the states, we have developed a brief questionnaire which attempts to cover some of the most notable problems facing planners in the states. I would appreciate it very much if you could take a bit of your time to complete this questionnaire and return it, in the enclosed envelope, to the Center for Occupational Education for analysis. Every effort is being made to make the responses completely anonymous, so we will be unable to send individual reminders to each of you. Therefore, I urgently request that you find a little of your time, or assign someone familiar with the planning problems in your state, to complete this questionnaire. I sincerely believe that it will be in the best interests of the states if this information can be made available to our participants.

Because funds for these conferences have only recently become available, there is very little time before our first conference. Consequently, I am asking not only that you complete our questionnaire, but also that it be returned in the shortest possible time. I am well aware that for most of you this is a particularly demanding time on a usually demanding job. However, if we can obtain this information in time for its use by our conference participants, we can help insure the kind of quality product which may make your job of state planning go a little easier. The guidelines should be available for release by mid-spring and I will make arrangements to have copies shipped to each of you as soon as they are released.

Thank you for your cooperation.

lowell a burkett
executive director