The Massachusetts Special Education Manpower Planning Project is described. Relying on cooperative planning, the project developed a system to provide information on manpower planning, a system to link other agencies with the project, and annual statements of state special education training priorities. The project also collaborated with six other northeastern states. An introductory section describes the project's background and provides an overview of its components. Part II presents performance data on six objectives: manpower information system; coordination, communication, and resource sharing; comprehensive planning for special education; use of evaluation results to improve the project; cooperation with other manpower projects; and work with interstate manpower planning. Part III discusses problem areas and successes for the project's manpower information system, participatory planning system, technical assistance system, training priorities, and management and support. More than half of the document consists of 19 appendices, including data collection forms and personnel data summaries, project evaluation results, and project technical assistance summaries.
FINAL REPORT

MODEL SPECIAL EDUCATION MANPOWER
INFORMATION AND MANAGEMENT SYSTEM

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The Massachusetts Special Education Manpower Planning Project was funded as an EI A Title VII-D Special Project from July 1975 through May 1978. The project was responsible for developing a comprehensive special education manpower planning system for Massachusetts and for initiating cooperative planning efforts with other northeastern states. In addition, it was designed to implement the BEH concept of cooperative planning. The project's primary objectives were: (a) to design and refine a comprehensive manpower information system for compiling, analyzing, and disseminating relevant and timely data to concerned decision-makers, and for responding to unique requests for training-related information; (b) to design and coordinate a linkage system of planning groups to facilitate communication, cooperative and coordinated planning and decision-making, and resource sharing involving all sectors concerned with special education manpower development; (c) to develop and initiate the implementation of short-range and long-range plans for balancing manpower supply and demand, and for maximizing efficient utilization and sharing of training resources; (d) to cooperate with BEH and other manpower projects to support national manpower planning, provide technical assistance to other states on request, and adapt strategies developed by other projects for use in Massachusetts; and (f) to develop mechanisms for coordination of special education manpower planning and placement efforts among northeastern states.

Project philosophy emphasized a democratic approach to participatory planning. The resources necessary for a comprehensive manpower planning system are located in multiple agencies, organizations, and institutions, each governed by relatively autonomous decision-makers. For maximum effectiveness, a cooperative planning system must deal with political and turf issues, and focus on the development of trusting relationships among representatives of multiple institutions and agencies in task-oriented working groups. The success of the effort also depends on the collection, coordination, and flow of information for decision-making, and on the planning of change. The original project design was based on a Havelock model for planned change and on several information/decision systems concepts, and its major components were an information system, a linkage group system, and a number of planning, coordinating, and technical assistance functions.

Information System: The information system was designed to develop an adequate data base for comprehensive manpower planning. Existing data sources were used heavily, with some modifications, and a few new data collection strategies were developed. The data collected concerned current and future pupil and personnel census in regular and special education in all types of schools, systems, and agencies; enrollments and projected numbers of graduates in higher education;
patterns of personnel movement across state lines; numbers of personnel certified/approved; training program profiles and plans; and economic, legislative, and political variables affecting manpower planning. Information was disseminated in several ways. Project-developed documents including a variety of data analyses, summaries, resource lists, and proceedings of planning conferences. An extensive report on the status of special education manpower in Massachusetts was published, and collaboration with the NIE-funded Massachusetts Dissemination Project led to production of a publication on special education training resources. Detailed minutes of project planning group meetings were disseminated in lieu of a newsletter. In addition, the Project responded to a large number of requests for information from individuals, organizations, agencies, and institutions in Massachusetts and other states.

Linkage System: The project's linkage system was comprised of a large number of groups, with overlapping memberships, all of which served as mechanisms for sharing information and resources, ongoing identification of problems and needs and potential solutions, cooperative and coordinated planning, and design of the Comprehensive System of Personnel Development (CSPD).

The Policy Advisory Board provided information and direction to the project and functioned as the state CSPD planning committee. This group included representatives of higher education planning groups, and public, private, and institutional schools, educational collaboratives, human service agencies, consumer groups, the State Advisory Commission, various state education agency bureaus, and professional organizations. A training Program Liaison Group included representatives of all public and private institutions of higher education, other agencies that had been awarded Title VI-D training grants, and chairpersons of Project Training Groups who, in turn, comprised the Project's Liaison Steering Committee.

The 15 Training Groups were organized on the basis of areas of specialization e.g., severe special needs, early childhood, vision, and so on. Activities of the various groups included development of resource sharing strategies, consortium proposals, training plans, and resource publications; sponsorship of conferences; and delineation of training program guidelines. In addition, each group developed and annually updated a specialized training plan for use in implementing the state's CSPD. Training plans typically included a statement of issues, problems, and needs; a progress report on implementation of the current year's plan; needs assessment results; a plan for training and other activities to be completed during the coming fiscal year; and data on personnel supply and demand in terms of state personnel categories.

The active involvement and interaction of large numbers of people in the planning process contributed heavily to the success of the project. Their sense of ownership of the process was particularly important since the success of the CSPD is dependent on the extent to which numerous autonomous decision-makers are willing to collaborate to coordinate the use of resources which they control.

Planning, Coordinating, and Technical Assistance Functions: As the Project evolved, several activities developed into major functions. These included development of an annual statement of state special education training priorities, coordination of submissions of Title VI-D training grant proposals, and provision of technical assistance.
The process of developing the statement of state special education training priorities evolved into a major component of the CSPD participatory planning procedures. These training priorities and a state level review process were developed in consultation with concerned constituencies as a mechanism for coordinating submission of Title VI-D proposals and insuring that proposals addressed priority training needs within the state.

Technical assistance functions of the project grew far beyond original expectations. Assistance was provided in developing, modifying, and evaluating preservice and inservice training programs; in developing research and training proposals; in locating and loaning training materials; in career counseling; and in CSPD and information system development. During fiscal year 1978, the project responded to 813 information and technical assistance requests, including 90 from outside Massachusetts.

Northeast Interstate Manpower Project: This component, initiated during the Project's third year, involved collaboration with the other six northeastern states (Connecticut, New Hampshire, New Jersey, Vermont, Rhode Island, and Maine) to coordinate special education manpower planning efforts. Objectives included: (a) refinement of each state's CSPD; (b) development of a regional data base; (c) sharing of training resources; (d) defining the parameters of the CSPD, including options to allow for unique characteristics of participating states; (e) informal efforts to balance manpower supply and demand across state lines and curtail duplication of training resources on a regional basis; (f) initiation of interstate training projects; (g) coordination to explore certification requirements in various states.

Evaluation: Internal evaluation procedures included; documentation of completion of project activities and products specified in the workscope; analysis of data collected by the project and assessment of its usefulness and accuracy; detailed analysis of information and technical assistance requests; review of informal feedback regarding concerns, needs, recommendations, and perceptions of project performance; analysis of weekly project activity logs; analysis of training program development and modification (including VI-D proposals) and decisions not to develop programs; and analysis of minutes of project group meetings.

The external evaluator for the second and third years of the project was Mary Havelock, one of the developers of the original planned change model on which the project was based. Evaluation procedures included observations of a sample of project group meetings, review of all project documents, structured phone interviews of samples of persons involved in one or more project groups, written questionnaires administered to random samples of project participants, and periodic interviews with the Project Director.

The external evaluation focused on the effectiveness of the five major project components. Third-year evaluation results included the following: 95 percent of linkage network members and 100 percent of the Interstate Steering Committee reported that they had benefitted from participation in the project and found it responsive to their expressed needs; (b) 95 percent of the respondents indicated that project data reports were adequate for their planning needs; (c) 55 percent indicated that they, or their institutions or agencies, had made new plans or decisions (or altered existing plans) as a result of participation in the pro-
ject; (d) 58 percent indicated that their agencies or institutions coordinated activities or planned cooperatively with others as a result of project activities.

Outcomes - Effective Practices and Problems: Several elements were found to be essential for an effective manpower planning system; (1) availability of adequate information for planning, (2) effective mechanisms for participatory planning and coordinated decision-making, (3) provision of technical assistance responsive to stated needs, (4) sufficient time for development of trusting relationships and planning, (5) flexibility to respond to continuing changes in system variables, (6) consistent central staff and fiscal support, (7) informed top level administrative support, and (8) primary emphasis on coordination and influence rather than control and authority.

Effective practices and problems are reviewed in the following areas: (1) Information/Needs Assessment System, (2) Participatory Planning System and Planned Change, (3) Technical Assistance System, (4) Training Priorities and EHA Title VI, Part D Proposal Coordination, and (5) Management and Support.

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Special thanks are due to Josephine Taylor, BEH-DPP Project Officer for the Massachusetts Special Education Manpower Project, for the invaluable assistance which she provided. She was generous in sharing her in-depth knowledge of the field of special education, her broad range of experience, and her general wisdom, suggesting alternative solutions for the variety of problems which arose during the course of Project implementation.
PART I - INTRODUCTION, BACKGROUND, AND OVERVIEW OF PROJECT

Organization and Purpose of Report: Three major sections and appendices comprise this report. The entire document is intended to serve as a final report to the Office of Special Education and Rehabilitative Services on the accomplishments achieved by the Project over its three years of funding as a Title VI, Part D Special Project. In addition, Parts I and III and selected appendices will be used as a dissemination report to inform personnel in other states of effective practices which might be adapted in implementing their Comprehensive Systems of Personnel Development and to alert them to problem areas and potential solutions.

A. Introduction

The Massachusetts Special Education Manpower Project was funded as an EHA Title VI, Part D Special Project from July, 1975 through May, 1978. The project was responsible for developing a comprehensive special education manpower planning system for Massachusetts and for initiating cooperative planning efforts with other northeastern states.

Project philosophy emphasized a democratic approach to participatory planning. The resources necessary for a comprehensive manpower planning system are located in multiple agencies, organizations, and institutions, each governed by relatively autonomous decision-makers. For maximum effectiveness, a cooperative planning system must deal with political and turf issues, and focus on the development of trusting relationships among representatives of multiple institutions and agencies in task-oriented working groups. The success of the effort also depends on the collection, coordination, and flow of information for decision-making, and on the planning of change. Thus, the original project design was based on a Havelock model for planned change and on several model information/decision systems.

The major functions of the Massachusetts project were (1) refinement of a personnel development information system, (2) coordination of a linkage group system for participatory planning, (3) coordination of multiple constituencies to refine, implement and evaluate the Comprehensive System for Personnel Development, (4) provision of technical assistance, (5) Interstate project management, and (6) internal project management/evaluation. These functions were continually refined in response to results of ongoing project evaluation, and politics, to achieve project's goals and objectives.

Project Goals

1. To ensure the availability of adequate numbers of competent special education related personnel to serve all children with special needs in Massachusetts and the Northeast Region, through development of short and long-range plans for (1) balancing special education manpower supply/demand (quality and quantity), and (2) making efficient use of training resources.
2. To refine the Massachusetts Comprehensive System for Personnel Development (Information/Decision System Model for Comprehensive Manpower Planning), and to continue to share information on the development and functions of the model for adaptation by other states.

3. To improve the quality of each cooperating state's Comprehensive System for Personnel Development including special education manpower information systems and cooperative planning systems (Interstate).

**Project Objectives**

1. To maintain and refine the Project's Manpower Information System including (a) compilation and analysis of data on existing and projected special education personnel supply and demand, training needs and resources, and other relevant data, (b) dissemination of relevant and timely data to concerned decision-makers, and (c) response to unique requests for pre-service training-related information.

1.1 Identify (first and second years) and monitor (third year) data needs of planners and decision-makers concerned with special education manpower planning, in terms of requisite content, format, timing, and accuracy.

1.2 Identify existing sources of data relevant to special education manpower planning (first and second years). Collect existing source data on current and projected pupil census, special education personnel supply and demand, training needs and priorities, and status of other variables affecting manpower projections. (Secondary data collection)

1.3 Continue direct collection of essential manpower data not available from any other source. (Primary data collection)

1.4 Analyze adequacy of existing data collection procedures.

1.5 Develop and assist in implementation of recommendations to support development of Special Education Manpower Information System, including (a) refinement of existing data collection procedures, (relative to accuracy, format, timing, compatibility, duplication and unnecessary data collection), and (b) development of new data collection procedures where essential.

1.61 Develop data analyses and summaries, training resource catalogs, and other reports, responsive to identified needs in terms of content, format, and (to the greatest extent possible) accuracy and timing.

1.62 Respond to other requests for information related to special education manpower and training.

1.7 Disseminate manpower information to various planners and decision-makers selectively, according to previously identified needs; disseminate training resource information broadly, in concert with other Projects and agencies with dissemination responsibilities.
1.8 Evaluate the adequacy of information disseminated by the Project and revise information system procedures and products in response to evaluation results.

1.9 Develop strategies for projecting special education manpower needs and update projections annually.

2. To coordinate the Project's Linkage Group System to facilitate (a) communication, (b) cooperative and coordinated planning and decision-making, and (c) resource sharing, involving all sectors concerned with special education manpower development (institutions, agencies, organizations, and individuals).

2.1 Organize and provide direct administrative support for Project Policy Advisory Board, Special Education Training Program Liaison Group, and Liaison Steering Committee. Involve the Board in establishing policy for Project operation and all three groups in setting priorities for Project activities.

2.2 Develop and maintain a linkage system of other Training Groups concerned with particular areas of specialization, to provide mechanisms for cooperative planning and development of State Plan for Personnel Development.

2.3 Coordinate Project activities with existing state and interstate regional groups concerned with sensory special needs (vision and hearing, first and second years).

2.4 Organize temporary task forces to address specific issues and problems through development of problem-solving strategies, policy recommendations, or other products as appropriate.

2.51 Provide technical assistance to staff of higher education institutions and other agencies and organizations, relative to development, evaluation, and modification of preservice and inservice personnel preparation programs, proposal development, and location of training materials.

2.52 Disseminate materials on request from various planners, decision-makers, and trainers.

2.6 Support planning and implementation of statewide training projects involving institutions of higher education and other public and private agencies and institutions.

2.71 Assist institutions of higher education and other agencies in coordinating submission of training grant proposals to BEH (and other funding sources) to maximize impact on identified training needs and priorities and minimize duplication of effort.

2.72 Develop and disseminate an annual statement of state Special Education Priorities, based on manpower data collected by the Project and reviewed and revised by SEA staff and Project planning groups.

2.73 Coordinate EHA VI-D proposal review process.
2.8 Coordinate planning with responsible staff of other Divisions of the Department of Education, and other agencies which administer to or plan for use of State and/or Federal funds which may allocated in part or in entirety for training.

3. To coordinate development, implementation, and evaluation of the state's Comprehensive System for Personnel Development, including plans for (a) balancing special education manpower supply and demand (quantity and quality), in all areas of specialization, and (b) maximizing efficient utilization and sharing of training resources to meet identified pre- and in-service training needs.

4. To utilize results of internal evaluation to improve the effectiveness of the Manpower Project on a continuing basis.

5. To cooperate with the Bureau of Education for the Handicapped (BEH) and other BEH-funded manpower projects (a) to support national level manpower planning, (b) to provide technical assistance to other states on request, and (c) to utilize knowledge and expertise developed in other states to improve the Massachusetts Project.

6. To develop mechanisms for coordination of special education manpower planning and placement efforts among the six New England states and New Jersey.

7. To develop a plan for continuation of essential elements of the Special Education Manpower Project after termination of Special Project funding (Third year).

B. Background of Project Development

Massachusetts' comprehensive special education law (Chapter 766, Acts of 1972), was enacted in July, 1972, with an implementation date of September 1, 1974. The law mandates provision of an appropriate educational program for every child with special needs between the ages of 3 and 21 years. It is similar in many respects to P.L. 94-142 and served as a model for drafting the Federal law.

1. Preliminary Planning Phase

In response to mounting concern relative to manpower and training needs generated by Chapter 766, the Secretary of Education established a Committee on Special Education Manpower in April, 1974, at the Governor's request. The Committee was charged with:

a. assessing the current status of supply and demand for special education personnel;

b. reviewing current activities of concerned public and private agencies, institutions, and organizations, relative to manpower planning and training;

c. developing recommendations for continuing assessment and projection of
special education manpower needs and coordinated planning to meet identified needs.

The Committee's October, 1974 Report \(^1\) identified a number of problems and concerns relative to special education manpower planning. These included:

a. Available information is grossly inadequate to support effective manpower planning.

b. No mechanisms exist to coordinate the planning efforts of the large number of agencies, institutions, and organizations with some decision-making responsibility for special education manpower development.

c. Traditional approaches to manpower needs projections are confounded by some of the major changes catalyzed by Chapter 766.

d. A number of additional administrative, economic, and political variables must be carefully considered in developing manpower needs projections and manpower development plans.

e. The balance of special education manpower supply/demand varies considerably for different areas of specialization (i.e., from substantial oversupply in one area to moderate or substantial undersupply in other areas).

f. Although major needs exist for inservice training of personnel currently employed, no systematic needs assessments and planning have been carried out.

g. Because of its close relationship with other states in the Northeast region (including substantial interstate migration of personnel), it would be unrealistic for Massachusetts to develop its manpower plan in isolation.

Although data relevant to special education manpower and training needs was seriously limited, the Committee developed the following recommendations, based on available information:

1. A comprehensive special education manpower data system should be established within the Commonwealth to compile and disseminate supply and demand data to all concerned program planners and decision-makers.

2. A structure should be established at the state level to insure continuing involvement of public and private institutions of higher education, local school districts, state education and human service agencies, and consumers in coordinated manpower planning and decision-making.

3. Linkages should be established with other states in the Northeast region in order to coordinate manpower planning and placement of special education personnel.

\(^1\) Gilles, Cynthia, Report of the Secretary of Education's Committee on Special Education Manpower, Boston: Massachusetts Executive Office of Educational Affairs, October, 1974.
4. Special education training programs should place less emphasis on expansion of undergraduate preservice programs and more on the development of field-based graduate level or continuing education programs for personnel currently employed. Expansion of existing programs or establishment of new programs should be based on documented needs and in consultation with potential employers.

5. Special education professional standards should be modified to reflect changing special education professional roles and to encourage the inclusion of some special education training in preparation programs for regular education personnel.

6. Systematic assessment of inservice training needs should be coordinated by regional offices of the State Department of Education. State and local education and human services agencies and institutions of higher education should collaborate in planning to meet inservice training needs on a regional basis.

7. A system should be established to identify and collect, classify, and disseminate information on all available training resources, including human and programmatic resources, training materials, and fiscal resources.

The task of developing an effective information/decision system for special education manpower planning was clearly too complex to be managed by a temporary task force. The Committee, therefore, recommended that Federal funds be sought for this purpose. The BEH DPP guidelines for Cooperative Planning for Personnel Preparation (April, 1974) were clearly in accord with the Manpower Committee's recommendations. For this reason, EHA VI-D Special Project funding was sought for the Massachusetts Manpower Project.

The original proposal was supported by the majority of the 21 agencies, institutions, and organizations represented on the original Committee, including Human Services as well as Education sectors. Support letters for the Project proposal were also received from Directors of Special Education in the other New England states and from many Massachusetts Colleges/Universities. Institutions from both public and private sectors have been involved on a parity basis from the beginning of the planning process. Many of the 36 Massachusetts Institutions of Higher Education which offer special education coursework and/or degree programs do not receive BEH funds. Although 12 institutions are in the public sector and 22 are in the private sector, current enrollments are approximately evenly divided between public and private institutions.

2. Planning for Change

The process of special education manpower planning in Massachusetts has been complicated by the combined effects of a number of system changes. Several of these changes have resulted directly from the mandates of Chapter 766, but others have developed independently. Any "right to education" mandates, state or federal, would probably generate some of these changes, but a few are unique to Massachusetts.
a. Massachusetts Chapter 766: A Mandate for Rapid and Complex Change

Changes catalyzed by Chapter 766 include the following:

1) Numbers, ages and classification of children:

The mandate to serve all children with special needs over the expanded age range of 3-21 years resulted in a rapid expansion of number of children requiring special services. The law also mandated the use of a single term "children with special needs" to replace traditional categorical labels, and a shift to a process-oriented definition of special needs. These changes in pupil classification categories and procedures have created problems in designing pupil data systems responsive to state needs and federal requirements.

2) Special education service delivery models and types of services required:

Because the law encouraged placement of children in the least restrictive alternative settings, new service delivery models were needed to implement mainstreaming and deinstitutionalization. Pupil personnel ratios varied considerably within and between the new program prototypes. Schools were responsible for providing a broader range of services for children with special needs -- generating needs for greater numbers of personnel and additional kinds of personnel, as well as major needs for retraining of existing personnel.

3) Special education personnel classifications and roles of regular education and special education personnel:

Special education personnel classifications were finally changed in January, 1975, to more nearly approximate the non-categorical emphasis of the law. New procedures for credentialling personnel through approval of training programs were instituted at the same time. For these reasons, all Massachusetts special education training programs were reorganized to varying degrees. Changes in special education personnel classifications generated some confusion, particularly in the public schools. Changes in special education service delivery models, with emphasis on "mainstreaming" necessitated changes in roles of regular education and special education personnel. Demands increased for special education personnel trained in comparatively new roles, Generic (consulting) teachers, teachers of children with Severe Special Needs, bilingual special education teachers, and secondary level special education personnel for academic and vocational education programs. Planning was also initiated for another credential, Teacher of Young Children with Special Needs.

4) Relationships of Education and Human Service Agencies:

Chapter 766 requires considerable coordination of efforts between Education and Human Services agencies in order to provide educational and education-related support services. Some types of education-related
services are provided by several agencies. Special Education personnel needs in Human Services as well as Education agencies must be assessed in order to generate a comprehensive picture of personnel supply and demand.

b. Other Significant Variables Affecting the Planning Process

1) Declining Enrollments:

Massachusetts, like many other states, has been experiencing a precipitous decline in school enrollments. One obvious effect of declining enrollments is a concomitant decrease in numbers of children requiring special education services. A less apparent secondary effect has significant implications for special education manpower planning. Tenured regular education personnel, whose positions are eliminated due to declining enrollments, may be transferred into new special education positions, and require long-term inservice training.

2) Educational Governance:

The governance of education in Massachusetts is politically and organizationally complex. Eight separate boards had various governance responsibilities for Massachusetts public higher education. Elementary and secondary education are directed by a Board of Education and a Commissioner of Education. An Association of Independent Colleges and Universities represents 57 accredited private institutions of higher education. In addition, a Secretary of Educational Affairs in the Governor's Cabinet had some coordination responsibilities and budget review powers.

3) Pending Further Changes in Personnel Classifications:

Massachusetts Chapter 847 (Acts of 1973) provided for major reform in credentialing of all educational personnel. The 847 Commission was developing recommendations for complete reorganization of existing classifications of educational personnel as well as certification procedures. This process was still underway when the Manpower Project ended its special project status.

4) Fiscal Constraints:

Massachusetts had experienced increasing fiscal problems since late 1974. These fiscal constraints have had significant effects on budgets for public higher education. In addition, the amount of (Chapter 70) funds for state support of elementary and secondary education was fixed. No new funds were appropriated to cover the costs of Chapter 766 in the public schools. School budgets have been challenged by taxpayers with increasing frequency and intensity. These fiscal constraints have generated discrepancies between "ideal" and "real" needs for special education personnel, i.e., between number of positions needed and number approved in the school budget.
Large Number of Autonomous Decision-Makers to be Involved in Cooperative/Participatory Planning:

Responsibility for policy decisions which affect special education manpower planning rests with a large number of institutions of higher education, and other organizations and agencies at various levels of the bureaucracy. At the time of the Project's inception, no formal mechanism existed to coordinate planning efforts among these numerous and relatively autonomous constituencies. (See Appendix A for Decisions/Decision-Makers Matrix which served as a basis for initial Project development.)

Preparation of Personnel to Meet Regional and National Needs:

Higher education is almost an industry in Massachusetts. Fifty-five (55) institutions offer training programs in education, and thirty-six (36) of these offer coursework and/or degree programs in special education. Approximately one half of all special education students are enrolled in private colleges and universities. Follow-up data available from a number of these institutions indicates that 50% or more of their graduates leave Massachusetts. In addition, several Massachusetts-based programs respond to regional and/or national needs e.g., in such areas as Vision, Audition, and Deaf-Blind-Multihandicapped. Any analysis of personnel needs which considered numbers of programs graduates, reported demands for personnel and prevalence of special needs only within the confines of Massachusetts would clearly be confounded by this variable.

Overview of Project

Project Philosophy: Personnel attitudes and competencies are the most significant determinants of the quality of any child's special education program. Personnel development plans should be a primary component of any plans for developing a full continuum of programs for children with special needs.

Individual agencies, institutions, and organizations, as well as individual persons, should be free to make decisions which will affect their future development - but these should be informed decisions. Given the uniqueness of each individual, system, institution, organization, agency, and state, the Comprehensive System for Personnel Development should provide multiple options for pre- and in-service personnel preparation and State Plan development responsive to specific local, regional, and state needs, as well as those generated by state and federal mandates. These beliefs require a democratic approach to participatory planning which emphasizes coordination and influence rather than control and authority. The former approach leads to collaboration while the latter fosters competition.

Diverse resources in multiple, relatively autonomous agencies, organizations, and institutions must be captured and coordinated to produce a personnel development system which is truly comprehensive. Primary emphasis must be on the development of productive relationships, both interpersonal and interorganizational, and the design of effective and open communication and coordination systems. All of these elements contribute to the sense of ownership and commitment to collaborative
efforts which are essential for implementation of plans for change in such a complex system.

The original project design was based on a Havelock model for planned change and on several information/decision systems concepts. For a more detailed description of initial Project development, see Schofer and McGough.

Rationale for Project Structure: The project was designed to respond to several significant characteristics of the special education manpower development and utilization system in Massachusetts. The original project design incorporated a linkage system model for planned change and several information/decision system concepts, and was based on the following rationale:

1. A continuing capacity to adapt to changes in multiple system variables would be essential, because the project would be operating during a period of rapid change. Traditional approaches to forecasting would be of little use until new baselines and classifications were established. Interim strategies would be devised to meet immediate information needs and contribute to the refinement of a planning system. It would be necessary to tolerate considerable ambiguity to avoid prematurely establishing an unworkable system. Both flexibility in adapting project structure and sensitivity to results of formative evaluation would contribute to this capacity.

2. Adequate information concerning personnel supply and demand, and training needs and resources is essential for comprehensive manpower planning.

3. Decision-makers in the various agencies, institutions, and organizations concerned with personnel development are numerous and relatively autonomous in controlling the resources necessary for a comprehensive manpower planning system. For this reason an information/decision system approach to planning would be utilized. The Project would attempt to provide data essential for planning to all decision-makers.

4. Availability of adequate information is necessary, but not sufficient. Mechanisms are also needed for coordinating the use of information for planning and decision-making, involving representatives of all concerned sectors. A system of Project linkage groups with overlapping memberships would provide a mechanism for coordinating various elements of the planning process, for communication and sharing of resources among various institutions and agencies, and for influencing decision-makers.

5. Individuals and agencies must derive some benefits from their expenditure of time and other resources for system development. Project staff would attempt to respond to all requests for information and other technical assistance related to special education personnel development, within the limits of the Project workscope.

6. Active involvement of representatives of multiple institutions and agencies is essential to ensure commitment to implement plans, and to develop a level

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of trust sufficient to minimize political conflicts and to foster cooperation rather than competition. An open system of linkage groups would provide a mechanism for directly involving more concerned persons in the planning process, and enhance coordination through increased communication, resource sharing, and joint planning.

Although numerous refinements were made in Project components during the Project's operation, the original design proved both effective and flexible.

D. Project Subcomponents: Structures, Functions, and Outcomes

Major Project subcomponents included:

1. a manpower information system,
2. a linkage system of participatory planning groups,
3. other planning/coordination/technical assistance functions,
4. a comprehensive Massachusetts personnel development plan (later CSPD),
5. Northeast Interstate manpower planning.

In addition, for evaluation purposes, overall Project management and support was treated as a separate function.

The separation of these functions is to some extent artificial since in practice, all but the Interstate Project interacted to create a comprehensive and dynamic system. The following sections summarize the structure, functions, and outcomes of each subcomponent. More detailed analyses of effective practices and problems related to each of these functions are included in Part III of this report.

Plans for Project operation were summarized in a Project workscope which detailed processes, products and timelines for each objective. The workscope also served as a major element of the Project's internal evaluation strategy. In response to data from needs assessments and results of internal and external evaluations, the workscope was modified at the end of each year. (See Appendix B: Third Year Project Workscope and Internal Evaluation results)

1. Manpower Information System

Massachusetts has a well deserved reputation for inadequate and uncoordinated data systems, and the Department of Education's computer capability is limited. The Project was designed to develop a functional special education manpower information system despite these limitations, in order to provide an adequate data base for comprehensive manpower planning.

Phase I (first year) of the Project's Information System included identification of data needs of decision-makers, and of existing and potential data sources, as well as data collection (primary and secondary; formal and informal), data analysis, and dissemination. Phase II (second year) of the system involved collection of
data only from those existing sources judged most useful, in addition to development and modification of direct data collection procedures. Dissemination of Project information summaries was made more selective through the use of a Project Information Request form. Phase III (third year) was marked by a further decrease in secondary data collection and additional modifications in direct data collection procedures. For the first time, data on personnel needs was collected from the full range of agencies, and a uniform data collection instrument was used. Use of the Project Information Request Form was further expanded.

Identification of Information Needs:

Throughout its operation, the Project emphasized responsiveness to identified needs of planners, decision-makers, and other persons/agencies concerned with personnel development. Prior to the Project's inception, work of the Secretary's Committee on Special Education Manpower had resulted in preliminary identification of some types of data needed and some potential sources. During the first year of Project operation, some additional data sources were identified as were some additional types of information needs. Attempts to identify data needs using formal procedures, i.e., questionnaires, met with limited success. Greater success was achieved with less formal procedures, including analysis of requests received by the Project from multiple sources, and both informal feedback and specific requests from Project groups working on specific problems. These informal procedures were used for ongoing monitoring of information needs during the second and third Project years.

Information Collection:

The Project's data collection efforts were developed and refined in accord with several basic principles:

a. Information collected should respond to identified needs, and should be useful for planning and problem-solving purposes.

b. Existing data sources should be used to the greatest extent possible (secondary data collection), to avoid duplication of effort.

c. New procedures (primary data collection) should be designed only for collecting data considered essential and not currently available from any other source; formal procedures should involve use of single, multi-purpose instruments.

Types of data collected by the Project were modified during the three years of Project operation. Initially the Project collected data from all identified sources already responsible for collecting any potentially relevant data. The Project also developed some procedures and conducted several voluntary surveys.

The Project Steering Committee and Policy Board assisted in evaluating existing (secondary) and direct (primary) data collected by the Project in terms of utility, accuracy, timeliness of availability, and cost to Project in terms of time. Major data collection instruments developed and refined each year by the Project included (a) the Special Education Training Program Survey and (b) the Special Education Personnel Needs form (originally developed for public schools but used for all agencies by the third year of the Project - see Appendix D for sample form and all-agency data summary). A Project Data Matrix was developed and updated each year detailing data types, sources, descriptions, timing of availability, utility
for planning and recommendations/plans for the future. (See Appendix C - Third Year Project Data Matrix.)

In addition to data collection through formal questionnaires and survey instruments, the Project also collected information informally. Issues, problems, needs, policy changes, and other significant variables were identified and clarified through discussions with the Policy Advisory Board and other Project Linkage Groups, and with knowledgeable individuals. Diverse training resources were also identified by members of Project groups and other individuals seeking assistance from the Project.

General types of data collected by the Project included current and projected pupil and personnel census in regular and special education in all types of schools, systems, and agencies; enrollment and projected numbers of graduates in higher education programs; training program profiles and plans; patterns of personnel movement across state lines; numbers of personnel certified/approved; inservice training needs and resources; economic, legislative, and political variables affecting manpower planning; and other relevant information.

As the Information System evolved, selection/development of appropriate data collection strategies involved several considerations including (a) decisions regarding scope of system, (b) anticipated purposes for which data would be used, (c) degree of emphasis on process or content, (d) nature of data to be collected, i.e., primarily qualitative or quantitative, (e) relative appropriateness of formal or informal procedures, (f) appropriate level, e.g., local, regional, state, multi-state, for data collection as related to potential sources, and (g) potential for incorporating new sections into existing procedures. (See Part III for more detailed discussion.)

Data Analysis and Dissemination

Data analysis processes were ongoing throughout the Project. Most frequently analyses involved synthesis and explanation of data from multiple sources with a focus on a particular area of specialization or a specific problem area. Although Project staff were primarily responsible for preparing analyses, the assistance of various Project groups was invaluable in identifying alternative interpretations of data and identifying the more salient interpretations. The most detailed data analyses produced by the Project included a comprehensive status report on special education manpower in Massachusetts and several reports on needs in particular areas of specialization.

The Project disseminated information in several ways. Documents produced by the Project included a variety of reports, data summaries, and analyses, proceedings of planning conferences, personnel development guidelines and plans, and catalogs of preservice and inservice training resources. The majority of these documents were available for broad dissemination, although a few were prepared for limited use. Twenty-eight (28) documents were developed during the first year, twenty-four (24) during the second year, and twenty-eight (28) during the third year. (See Appendix E - Lists of documents developed by Project.) Some documents were updated annually by the Project; others were the outcomes of unique efforts.

Detailed minutes of Project planning group meetings were disseminated in lieu of
a newsletter. In addition, the Project responded to an unexpectedly large number of varied individual requests. The volume of this demand increased by the second year to a monthly average of 50 written and 60 oral information requests, and this activity was incorporated into the technical assistance functions of the Project.

Outcome Evaluation:

Results of third year internal and external evaluations documented the effectiveness of the evolving information system. (See Appendices B and H, and Evaluation section, p. .)

2. Linkage Group System

The Project's linkage system was comprised of a large number of groups, with overlapping memberships, all of which served as mechanisms for sharing of information and resources, ongoing identification of problems and needs and potential solutions, cooperative and coordinated planning, and development and annual updating of the Comprehensive System of Personnel Development (CSPD).

Groups varied in terms of membership, goals, activities, and length of existence (long-term groups versus short-term task forces). The attached diagrams illustrate evolution of the system during its initial three years.

Project Policy Advisory Board:

The Project Policy Advisory Board provided information to the Project, established policy for Project operation, and assisted in setting priorities for Project activities. During its third year, the Board functioned as the state CSPD Committee. Members included representatives of higher education planning groups, and public, private, and institutional schools, educational collaboratives, human services agencies, consumer groups, the State Advisory Commission, various state education agency bureaus, and professional organizations. (See Appendix I - membership list.)

Special Education Training Program Liaison Group:

The Liaison Group included representatives of all public and private institutions of higher education which offered coursework and/or degree programs in special education, other agencies which had been awarded EHA Title VI, Part D training grants, and chairpersons of Project Training Groups. (See Appendix I - membership list.)

Discontinued Groups:

Two groups, a Steering Committee of the Board and an SEA Division of Special Education Training Committee, were organized early in the first Project year, but discontinued after a year because they were not functioning effectively.

Specialized Area Training Groups:

Project Training Groups were organized on the basis of area of training specialization, e.g., Early Childhood Education/Special Education, Regular Education/Special Education, Generic Special Education, and Severe Special Needs. Activities and
SPECIAL EDUCATION MANPOWER PROJECT - PLANNING GROUP LINKAGE SYSTEM

Interstate Steering Committee (Northeast Region)

Project RETOOL Steering Committee

SPED MANPOWER PROJECT

PROJECT POLICY ADVISORY BOARD

Special Education Training Program Liaison Group

Liaison Steering Committee

Temporary Task Forces

Other Task Forces:
- Regular Ed/SPED In-Service
- Competency Assessment
- Qualitative Discrepancies in Personnel Supply/Demand

Training Program Guidelines:
- Severe, SPED Administrators, and others

VI-D Consortium Proposal Development:
Regular Ed/SPED, Severe SPED, Vocational Ed/SPED, Bilingual SPED, Speech Pathology/Audiology and Audition; others

Regular Ed/SPED
Moderate/SPED
Severe/SPED
ECE/SPED

Generic/SPED
SPED Administrators
Bilingual/SPED
Voc. Ed/SPED

Vision
Speech Pathology/Audiology and Audition

Paraprofessionals/SPED

Physical Ed/Recreation
School Health
Occupational/Physical Therapy

To be developed in 1977:
Secondary Special Education
Arts/Special Education

September 1977
SPECIAL EDUCATION MANPOWER PROJECT
PLANNING GROUP LINKAGE SYSTEM DIAGRAM

TEMPORARY TASK FORCES

OTHER TASK FORCES:
- Regular Ed. In-Service
- Competency Assessment

CONSORTIUM PROGRAM DEVELOPMENT
VI-D and OTHER:
Vocational Ed./SPED; Parent/Surrogate Parent; Severe Competency Assessment/Licensure

PROJECT POLICY ADVISORY BOARD

SPECIAL EDUCATION MANPOWER PROJECT

LIAISON STEERING COMMITTEE

SPECIAL EDUCATION, TRAINING PROGRAM
LIAISON GROUP

TRAINING LINKAGE GROUPS

SEVERE/SPED
MODERATE/SPED
GENERIC/SPED
PARENT/SURROGATE PARENT

REGULAR ED./SPED
BILINGUAL ED./SPED
VISION

PAREPROFESSIONALS SPED

ARTS/SPECIAL NEEDS
SPED ADMINISTRATORS
VOCATIONAL ED./SPED

SPEECH PATHOLOGY/ AUDIOLOGY/AUDITION

EARLY CHILDHOOD ED./SPED

OCCUPATIONAL AND PHYSICAL THERAPY

SCHOOL HEALTH

ADAPTED PHYSICAL ED./ THERAPEUTIC RECREATION

SEPTEMBER 1978
membership of these groups varied considerably, although each included representatives of all Colleges/Universities which currently offered or planned to develop training programs in the given area of specialization. Other members of various groups included public school, institutional school, and collaborative personnel, parents, and personnel from various other education and human services agencies. Activities of various groups included sharing of information on existing programs and plans/strategies for program development and modification, development of guidelines for training programs and certification recommendations, development of training consortia, assessment of training needs and resources, development of resource sharing strategies, and planning conferences on personnel development. In addition, beginning in the second year, each group developed and annually updated a specialized training plan for use in implementing the state's CSPD. Training plans typically included a statement of issues, problems, and needs; a progress report on implementation of the current year's plan; needs assessment results; a plan for training and other activities to be completed during the coming fiscal year; and data on personnel supply and demand in terms of state personnel categories. (See Appendix J.: Summary of third year group activities.)

Liaison Steering Committee:

This Steering Committee, composed of chairpersons of Project Training Groups, was organized at the end of the second year to provide a mechanism for coordinating planning efforts of various Project Groups, including cross-disciplinary cooperative projects. (See Appendix I for membership lists.)

Project RETOOL Steering Committee:

This committee provided direction for a VI-D Special Project funded to provide continuing education for Massachusetts College and University special education faculty. (Manpower Project developed original proposal early in 1976, and provided extensive support for Project RETOOL operation during the next two years.)

Temporary Task Forces:

The manpower project also organized temporary task forces to deal with various concerns relative to special education personnel preparation and placement, e.g., VI-D consortium proposal development, competency assessment, recommendations for Regular Education Inservice Training and local education agency training plan development.

Original plans for group development were modified in several ways.

1. The original timeline for group development was too short, and was extended.

2. Additional groups were established in response to requests from members of one or more existing groups, so that more Training Groups were organized than originally anticipated.

Outcome Evaluation:

Internal and external evaluation results confirmed the effectiveness of the linkage system in facilitating (a) communication, (b) coordination of planning and decision-making, and (c) sharing of resources, involving all sectors concerned with
special education manpower development (institutions, agencies, and organizations).

3. Other Planning, Coordinating, and Technical Assistance Functions

By the second Project year, several Project activities had developed into major functions. These included Objective 1.9, development and dissemination of annual statement of state special education priorities, Objective 2.4, provision of technical assistance, and Objective 2.6, coordination of submissions of training grant proposals. (See Part III for more detailed descriptions of these functions.)

Training Priority Development:

The priority development process evolved into a major component of the state's CSPD participatory planning procedures. This process, initiated in 1975-76, involved the following steps:

a. Development of a draft statement of preservice and inservice training priorities based on manpower data collected by the Project, and other identified needs.

b. Review and revision of the draft by the Division of Special Education Coordinating Committee, the Project Policy Advisory Board, and the Special Education Training Program Liaison Group.

The final statement, which described target populations and general types of training needed in order to parallel BEH training priorities, was used in coordinating Title VI-D proposal submissions and also provided guidance for training program development by those who did not seek Title VI-D funds. After three years of development, the priorities that had been determined would, with minor modifications, be guiding personnel preparation in Massachusetts for several years to come. (See Priorities Statement in Appendix L.)

Coordinating Submissions of Training Grants and Other Collaboration

The procedures for coordinating Title VI-D proposal submissions to BEH also were developed through a participatory planning process. During the first year of the Project, the Training Program Liaison Group collaborated with Project staff to develop a process for SEA review of VI-D proposals. This process was approved by the SEA which made a commitment to support all proposals which addressed state training priorities. A timeline was developed for submission of proposal summaries or full proposals for review to determine whether they were in accord with priorities. Project staff reviewed proposals, provided technical assistance to applicants in shaping proposals to address priorities, and prepared support letters which noted the unique strengths of each proposal and its relationship to the state's CSPD. Each applicant also was provided with a summary of Massachusetts Special Education Personnel Needs which included the training priorities statement, a description of the proposal review process, State Plan personnel data tables, and a Manpower Project description. (See Appendix L.)

Approximately 55 Title VI-D training grant proposals were submitted by Massachusetts institutions of higher education and other agencies in October, 1977. A few of these were from agencies not yet involved with the Project, and were not
reviewed. With the exception of one component in one proposal (which addressed regional needs), all others addressed one or more state priorities. A substantial number of VI-D proposal writers sought technical assistance from the Manpower Project in shaping their proposals to state training needs, as well as in improving proposal quality. A summary of those proposals which were funded for FY 1979 is included in Appendix L. A number of these proposals were developed and others were significantly modified at the request of Project staff, in order to address high need areas. It should be noted that nearly one third of the funds allocated to Massachusetts supported programs which prepared personnel to respond to regional and national needs.

Several other types of collaboration evolved from continuing involvement of representatives of multiple institutions and agencies in various Project groups. These included:

a. Sharing of resources (staff, courses, specialized programs and materials) among various training programs, public schools, educational collaboratives, and institutional schools.

b. Plans to develop informal consortium VI-D proposals included in specialized area CSPD Components prepared by several Training Groups (Severe Special Needs, Bilingual Special Education, Speech Pathology/Audiology/Audition, and Career/Vocational/Special Education).

c. Provision of technical assistance by staff from several institutions and agencies to staff at other institutions and agencies, in developing programs and writing Title VI-D proposals.

Technical Assistance:

The technical assistance function of the Project grew far beyond original expectations. The system for classifying and recording requests was improved each year. Some information requests required little time for response, but others, particularly technical assistance/consultation requests and specialized information requests, were very time consuming. During its third year, the Project responded to 260 information requests, 119 requests which led to referral, and 410 requests for advice and in-depth consultation. (See Appendix P. for more detailed data analysis.) The Project also loaned various print and mediated training materials to institutions of higher education.

4. Comprehensive Massachusetts Personnel Development Plan (CSPD)

The original Project proposal included as a second year objective the development and initial implementation of short and long range plans for special education personnel development. As a result of the passage of P.L. 94-142, this plan was designed to respond to requirements for a Comprehensive System for Personnel Development. By virtue of its structure and objectives, the Massachusetts Manpower Project was designed to comply with many of the basic CSPD requirements:

a. to provide data on currently employed and needed personnel, and training needs.

b. to coordinate collection and dissemination of other information on training and programmatic resources.
c. to plan for necessary pre- and in-service training of all types of personnel needed to educate all Massachusetts children with special needs.

d. to coordinate CSPD development, involving representatives of multiple sectors concerned with preparation and utilization of special education related personnel in a participatory planning process.

e. to coordinate and evaluate CSPD implementation.

f. to provide necessary technical assistance relative to developing, planning, implementing, and evaluating training programs.

The Project coordinated development of the FY 1978 and FY 1979 Comprehensive Plans for Personnel Development. Members of all Project Groups were informed concerning the CSPD requirements and assisted in developing various sections of the plan. The Policy Advisory Board was primarily concerned with the CSPD narrative and data. Each Project Training Group developed a CSPD component dealing with its particular area of specialization. These components of training plans typically included a statement of issues, problems, and needs; a progress report on implementation of the current year's plan; needs assessment results; a plan for training and other activities to be completed during the coming fiscal year; and data on personnel supply and demand in terms of state personnel categories. (See Appendix K for sample Training Plans.)

5. Northeast Interstate Manpower Planning

A third year (1977-78) Project objective was to develop mechanisms for coordination of special education manpower planning and placement efforts among all states in the New England region. Given the many interdependencies among these states in terms of special education personnel supply/demand, and training needs and resources, it was impractical for the states in this region to plan in isolation. Since the Massachusetts Project was funded to develop a model for comprehensive manpower planning, and to provide assistance to other states in planning, the development of the regional component was a logical extension of the original Project.

Although the original plan was to include only the six New England states in the regional planning structure, New Jersey was added to the informal consortium in response to SEA request, and was involved in the first year of Interstate planning. (This request followed consultation by the Massachusetts Project Director with the New Jersey SEA and Higher Education Council. It was approved by the Massachusetts BEH-DPP Program Officer.)

Interstate manpower planning activities during the initial year were governed by interstate agreements between Massachusetts and the six cooperating states (see Appendix M). An Interstate Steering Committee, composed of one State Education Agency representative from each state, was responsible for determining Project policy and priorities, and providing direction for specific Project activities.

The Committee held three meetings during the year. At its first meeting (July, 1977) the Committee decided that the scope of proposed activities was too complex and the potential positive outcomes of regional planning were too substantial, to be accomplished within a single year. It was decided that limited BEH-DPP funding should
be requested to support regional cooperative manpower planning for three additional years. The Committee met in September 1977 to draft new Interstate Agreements and to refine Project structure. (The Project was subsequently funded for an additional three years.)

During the first year of interstate Project implementation, both the uniqueness of each state and a number of common needs were apparent.

Project activities were shaped by requests received from cooperating states. Following any individual state request for technical assistance, a more precise assessment of needs was completed and assistance was then provided by phone, mail, or in person, including on-site consultation. It also should be noted that Steering Committee members provided substantial technical assistance to one another at interstate meetings. Regional activities were initiated and monitored by the Interstate Steering Committee. All activities listed below involved single states unless otherwise noted.

Information System Development:

a. Analysed available data and existing data collection procedures; identified gaps and suggested appropriate data collection strategies (multiple requests).

b. Assisted in developing procedures for collection of data on personnel supply and demand.

c. Assisted in developing systems for assessing personnel and training needs.

d. Provided information on manpower information system and data collection instruments (multiple requests).

The Project also arranged for exchange of data collection forms, reports, etc. currently in use by some of the states.

State Plan Development, Including Cooperative Planning:

a. Met with recently developed State Higher Education Committee to describe Massachusetts Project and suggest (initiate) cooperative planning strategies.

b. Met with established State Higher Education Committee, to evaluate cooperative planning efforts, complete functional analysis of Massachusetts Project, and develop strategies for incorporating missing functions into existing State structure.

c. Met with statewide group of inservice trainers to review CSPD requirements and assist in training network development.

State Comprehensive Systems for Personnel Development:

a. Reviewed and critiqued CSPD, identified weaknesses, and suggested strategies for improvement; assisted in revising CSPD in response to BEH comments; assisted in developing one component of plan.
b. Shared available information on Massachusetts Project (multiple requests).

Development of Regional Data Base and Regional Manpower Plan:

a. Completed an item analysis of each state's pupil and personnel data collection procedures as requested by the Steering Committee. (See Appendix 0.)

b. Determined that the timeline for development of a comprehensive regional data base would depend on (1) the speed with which some of the states completed development of their manpower information systems, and (2) completion of committee efforts to develop a system for translating diverse state personnel classification systems into a common language.

Regional data base is essential for development of Regional Plan.

Define Parameters of the Comprehensive System for Personnel Development (CSPD) Including Options for States - Identify Problem Areas and Share Problem Solving Strategies (Regional Activity):

The Steering Committee identified this area as a top priority and began to deal with these needs at the first meeting. State representatives shared their CSPDs with the group, identified problems affecting one or more states, and suggested problem-solving strategies. By the second meeting, the Committee had developed a rough outline of CSPD parameters and decided to invite the BEH-DPP Program Officer (Josephine Taylor) for all seven states, the BEH-ASB State Plan Officer (Bill Halloran) for six of the seven states, and state directors to the third meeting held in February, 1978. At this meeting CSPD parameters were further negotiated, and the BEH personnel requested that the Committee prepare a memorandum to include both concerns and recommendations regarding the CSPD. The memo, which also suggested options for CSPD implementation, was drafted by the Manpower Project and reviewed and revised by the Steering Committee and the New York state representative who was an informal member of the Committee. (A copy of the original Interstate memorandum, with comments from Ms. Taylor and Dr. Halloran, is included in Appendix N.)

Informal Efforts to Balance Manpower Supply/Demand Across State Lines:

Several areas of substantial discrepancy were identified by the Steering Committee and several informal strategies were explored to deal with such discrepancies. These included (a) referral of states in need of personnel (in a particular area of specialization) to training institution(s) with good reputations in states with an oversupply of such personnel, and (b) dissemination to multiple agencies and institutions of information on personnel needs in a neighboring state. A number of Massachusetts early childhood special education personnel sought positions in New Hampshire as a result of this strategy.

Interstate Training Projects:

(It was anticipated that this objective would focus primarily on low incidence areas in which training resources were limited or non-existent in some states.)
Project staff worked with the Steering Committee and with Boston College to initiate a Northeast Region VI-D Project for Inservice Training of Teachers of Visually Handicapped (funded in 1978). The Project Director also was involved in planning for an Interstate Inservice Project in the area of Hearing Impaired, but Projects were funded in 1978 for only two states.

Coordinate Exploration of Personnel Certification/Approval Requirements and Implications for Training Programs (Regional Activity):

a. Project staff began to compile a catalog of special education personnel role descriptions in each of the states, at the request of the Steering Committee. The Committee was concerned with implications of non-compatible credentials for movement of personnel across state lines. The Director of Teacher Certification and Placement in Massachusetts asked the Committee to develop informal recommendations for interpreting equivalency of credentials.

Coordinate Development of Strategies for Sharing Training Resources Within and Among States (Regional Activity):

a. In addition to informal sharing of resources and information at the Steering Committee meetings, various states exchanged training materials, inservice needs assessment procedures, etc. through the Project.

Coordinate Access to Regional and National Programs and Technical Assistance Resources (Regional Activity):

a. Although individual state representatives were aware of various (often different) program and technical assistance resources currently available, there was no coordinated access to such resources. For this reason, the Steering Committee (at its second meeting) asked the Project to serve as a Clearinghouse for information on available resources which might be used in developing and implementing each state's Comprehensive System for Personnel Development as well as regional manpower development plans.

E. Cooperation with BEH and Other Manpower Projects

A separate Project objective was to cooperate with BEH and other BEH-funded projects (a) to support national level manpower planning; (b) to provide technical assistance to other states on request, and (c) to utilize knowledge and expertise developed in other projects to improve the Massachusetts Project.

The Project Director participated in a planning meeting concerning development of a National Special Education Manpower Project and in two meetings sponsored by the National Project, and prepared a paper on the Massachusetts Project for the first symposium proceedings.

During the first Project year, both information and technical assistance were provided to staff in two State Education Agencies and information was provided on request to University staff in four states, SEA staff in five states, and to one technical assistance project. In the third year, out-of-state requests increased to 42.
Elements adapted from other states included the Kentucky Project’s Catalog of Faculty Available for Training and Consultation, the Consortium proposal concept from New Jersey, and certain modifications in data collection procedures based on systems in Connecticut, New Jersey, and Florida.

F. Internal and External Project Evaluation Procedures and Results

During its three years of Special Project funding, the Manpower Project used an evaluation design which combined formal and informal procedures to provide both formative and summative evaluation data. Due to the developmental nature of the Project, formative evaluation played a major role in refining Project management and activities, and in assisting staff to adapt the Project to continuing system changes. A modification of the Discrepancy Evaluation Model was used to develop and refine a more detailed evaluation plan during the second and third Project years. (See Third Year Evaluation Plan in Appendix G.)

Procedures:

Internal evaluation procedures included: documentation of completion of Project activities and products specified in the workscope; analysis of data collected by the Project and assessment of its usefulness and accuracy; detailed analysis of information and technical assistance requests; review of informal feedback regarding concerns, needs, recommendations, and perceptions of Project performance; analysis of weekly Project activity logs; analysis of training program development and modification (including VI-D proposals) and decisions not to develop programs; and analysis of minutes of Project Group meetings. (See Appendix B for documentation of completion of Third Year activities and products.)

The external evaluator for the second and third years of the Project was Mary Havelock, one of the developers of the original planned change model on which the Project was based. Evaluation procedures included observations of a sample of Project Group meetings, review of all Project documents, structured phone interviews of samples of persons involved in one or more Project Groups, written questionnaires administered to random samples of project participants, and periodic interviews with the Project Director. Draft interview protocols and questionnaires were presented to the Policy Advisory Board and Interstate Committee, as appropriate, for review and revision prior to each evaluation.

External Evaluation Results:

The external evaluation focused on the effectiveness of the five major Project components:

a. Operation and refinement of the Project’s information system to collect, analyze, summarize, and disseminate data on special education personnel supply and demand and other training needs and resources.

b. Coordination of the Project’s Linkage Network which provided a mechanism for sharing information, for building relationships for planning on a cooperative basis across agencies and institutions in the Commonwealth, and participatory development of the Massachusetts Comprehensive System for Personnel Development (CSPD).
c. Coordination of the development of the Massachusetts CSPD.

d. Provision of technical assistance related to training program design and development, training delivery, proposal development, and manpower planning.

e. Coordination of Interstate Manpower Planning in collaboration with an Interstate Steering Committee comprised of representatives from Massachusetts and six other Northeast states, and provision of technical assistance to the participating states.

Effectiveness of these program components was judged primarily in terms of their contribution to informed planning and decision-making, within and across various agencies and institutions, regarding special education manpower planning and development. The external evaluation was designed to be both formative and summative in nature. Interim and final reports were prepared for the Project each year.

Third year evaluation results included:

Information System:

a. Ninety-five percent of Linkage Network members reported that the Project's data reports were adequate for their planning needs.

b. Sixty-nine percent of questionnaire respondents reported that the Project's projections of manpower training needs were useful.

c. Sixty-four percent of interview respondents and 43% of questionnaire respondents reported that they had made special requests for information from the Project. All of these respondents indicated that the Project responded promptly to their requests and that the responses were adequate to meet their needs.

Linkage System:

d. Ninety-five percent of questionnaire respondents said that they had found it useful to belong to a Manpower committee.

e. Eighty-six percent of questionnaire respondents and 82% of interview respondents indicated that they felt that the activities of the Manpower Project had been responsive to the needs identified by their committees.

f. Ninety-five percent of questionnaire respondents indicated that the minutes of their committee meetings were useful to their needs.

g. Fifty-five percent of questionnaire respondents said they, or the agencies or institutions with which they were affiliated, had made new plans or decisions, or altered existing plans, as a result of participating in the Project.

h. Fifty-eight percent of questionnaire respondents indicated that, as a result of the Manpower Project activities, their agencies or institutions had coordinated activities or planned cooperatively with other agencies or institutions.
CSPD:

i. Seventy-two percent of questionnaire respondents and 72% of interview respondents reported feeling that they were adequately involved in developing the CSPD components.

j. One problem was identified relative to the CSPD development process: Some members of the Linkage Network expressed concern that the products of the Network were not accepted by the state Division of Special Education.

Technical Assistance:

k. Forty-one percent of questionnaire respondents and 41% of interview respondents reported that they had made special requests for technical assistance from the Project; all were satisfied with the responses they received.

Interstate Project:

1. All members of the Interstate Steering Committee felt that the Interstate component was responsive to the priority manpower needs of their states, and all expressed satisfaction with the technical assistance and coordination which the Massachusetts-based Manpower Project had provided in the areas of the Interstate Agreements.

m. Five members specified areas in which the Project had already made an impact on manpower planning and development in their states.

Detailed descriptions and analyses of third year external evaluation results may be found in Appendix H.

G. Dissemination

Information on the Massachusetts Special Project was broadly disseminated in several ways:

1. Dissemination of information and materials in response to requests for information and technical assistance.

2. Resource sharing through the Interstate Manpower Project.

3. Presentations at various state and national meetings (including during the third year, (a) 1977 Summer Institute on P.L. 94-142 at the University of Vermont, (b) 1978 Annual National Meeting of the Council for Exceptional Children, and (c) 1978 EEH-DPP Eastern Region Meeting).

4. Publication of several chapters and articles. (See Appendix R.)

Part II includes a detailed report of Project accomplishments under each objective as well as a brief list of notably successful and unsuccessful elements. Part III provides an analysis of several of the Project's most effective practices.
PART II - PERFORMANCE REPORT

Accomplishments and slippages are summarized for each objective. Some objectives were operational for only one or two of the three Project years.

Objective 1:

To design and implement a comprehensive and coordinated system for (a) compilation and analysis of data on existing and projected special education personnel supply and demand, training needs and resources, and other relevant data, and (b) dissemination of relevant and timely data to concerned decision-makers.

1.1 Identify data needs of planners and decision-makers concerned with special education manpower planning, in terms of requisite content, format, timing, and accuracy. (First and second Project years)

First year: The initial procedure utilized to identify data needs (content and timing) of decision-makers was a questionnaire disseminated to members of the Project Policy Advisory Board. This procedure met with limited success. Responses were received from 13 out of 33 Board members. It was apparent that members were uncertain of the potential utility of some types of information until they had an opportunity to review various data summaries. In addition, some members of the Board were not in decision-making roles relative to special education manpower development, although their input was essential for the Project's effective functioning, and they were interested in using Project information for other purposes, (e.g., consumers and school administrators). For this reason, copies of all Project data summaries were disseminated to all policy Board members during the first Project Year (Information System Phase I). Reports of potential interest to other Project groups were disseminated selectively, as needs of different members proved to be extremely varied.

Three additional strategies proved more successful. One was the use of a Project Information Request Form, initiated during the second quarter of Project operation. Although use of these forms by members of Project groups was somewhat limited, due to automatic dissemination of reports to appropriate Project groups, the Project Policy Advisory Board and Steering Committee agreed that this approach to meeting 'selective needs should be utilized during the second Project year (Phase II Information System).

The third strategy was developed in response to the unexpectedly numerous and diverse requests received by the Project from a varied assortment of individuals and agencies both in and out-of-state. Additional information summaries were developed in response to a number of similar requests, while a few were developed in response to requests by individuals, (e.g., Commissioner of Education).

The fourth strategy was the preparation of a detailed summary and analysis of significant information collected by the Project during the first year: Special Education Manpower in Massachusetts - Status Report and Recommenda-
In addition to the content aspects of data needs described above, the dimensions of format, timing, and accuracy were assessed informally. Needs of individual planners and decision-makers were found to vary greatly. Some persons wanted an annual report, while others wanted data well before it was available; some wanted detailed reports, while others preferred executive summaries; some needed only general estimates of data, while others desired relatively high degrees of accuracy and specificity.

In practice, the compromise solutions evolved were:

a) to prepare data summaries as early as possible, within the limits imposed by timing of data collection efforts in other divisions and agencies. In a few instances, voluntary surveys were conducted by the Project to develop data estimates well ahead of the time when more complete data would be available.

b) to present data in a detailed format. This met the needs of all individuals since summary data was also included within each report.

c) to verify data as much as possible, including discrepancy analysis when complementary reports were available.

In addition, Project staff worked with staff of various divisions/agencies to improve accuracy, timing, and utility of data whenever possible.

Second year: Experience during the second Project year confirmed the high degree of variability in data needs of decision-makers in terms of content, format, accuracy, timing, and degree of specificity.

Data needs were identified by several procedures:

1. Special Education Training Program Survey
2. External Evaluation Questionnaire
3. Project Information Request Form
4. Informal Concensus by Various Project Linkage Groups
5. Requests from agencies and individuals.

Requests for information from the Project proved to be extremely numerous and diverse. Some requests were beyond the scope or capacity of the Project.

Third year: Discontinued as a separate objective. Data needs of decision-makers were monitored on a continuing basis using results of internal and external evaluations, analyses of information requests, and feedback from members of Project groups.

1.2 Identify existing sources of data relevant to special education manpower planning. (First and second Project years)

First year: A number of data sources had been identified through preliminary planning efforts prior to inception of the Project. Additional sources were
identified by contacting various agencies and soliciting information from members of the Policy Advisory Board and other Project groups. In addition, some group members volunteered information on other types of data sources, and sent unsolicited data in to the Project.

Second year: No additional significant data sources were identified during the second Project year. See revised Project Data Matrix (Appendix C for a summary of sources of essential or highly useful data utilized by the Project during its third year.

1.3 Collect data on current/projected pupil census, special education personnel, supply and demand, training needs, resources, and priorities, and status of other variables affecting manpower projections.

First year: Data was collected throughout the Project year. Timing of data availability from different sources proved to be extremely variable. (See Data Matrix, Appendix C.)

The following classifications of data collection efforts were developed:

- **Primary Data Collection:** Data collected directly by the Project vs
- **Secondary Data Collection:** Data obtained from some other agency/organization/division, etc., which was responsible for direct collection of the data.

- **Formal Data Collection:** Data collected through questionnaires, other survey forms, etc. vs
- **Informal Data Collection:** Data obtained through informal feedback from members of Project groups, structured interviews, etc.

Second year: In most instances where primary data was collected directly by the Project, data collection efforts were modified to some extent based on first year experience and results of internal and external evaluations.

Third year: Additional modifications in Project primary data collection procedures included:

a. Continue to use voluntary data collection for educational collaboratives through collaborative association - 100% return for the first time, due to assistance of Massachusetts Organization of Educational Collaboratives.

b. Used voluntary collection procedure on extensive sample of private schools - with extensive assistance from Massachusetts Association of 766 Approved Private Schools.

c. Training Program Survey data completed, Fall 1977. (earlier date)

1.4 Analyze existing data collection procedures and data relative to agency source, format, data compatibility, estimated accuracy, time data is available, and frequency of updating.
Data analysis proved to be an ongoing process throughout the Project year. A summary analysis of data collection procedures, including estimates of utility of data and time invested in its collection and analysis ("cost") was prepared for the Project Steering Committee at the end of the year in response to a request from the Committee.

The Committee reviewed the summary and approved a revised data collection approach for the second Project year (Phase II Information System). The Project would continue to collect information judged essential and highly useful, and a few additional (readily available) types of data. Other types of data would no longer be collected by the Project, but would be listed with sources in a catalog of available data. With minor modifications, this plan also governed data collection efforts in the third year.

1.5 Develop recommendations for modification of existing data collection procedures and development of new procedures where necessary for development of SPED Manpower Information System; Assist in implementation of recommendations.

First year: Project assisted in planning for modifications of the following data collection procedures:

a. School System Staff Report - changes in personnel classifications.

b. Contribution to modification of forms for collecting approval and rate-setting data from Private schools - to incorporate collection of personnel data in compatible classifications (tentative).

c. Contribution to Bureau of Institutional Schools fiscal reporting forms to collect personnel data in compatible categories (tentative).

d. Cooperation with group working on collection of data on children and personnel in low-incidence areas of special needs.

e. Request for advancing completion date for School System Summary Report, (which now includes Special Education Personnel Needs Assessment Form).

New data collection procedures were developed only when essential. These included:

a. Revised College/University Training Program Survey.

b. Data collection on supply/demand of Early Childhood Education (ECE) and ECE/Special Education personnel.

c. Voluntary CEC-CASE Special Education (SPED) Personnel Needs Survey (one-time only survey conducted because larger Department of Education data sample would be too delayed and did not include some needed data).

d. Developed SPED Personnel Needs Assessment form for School System Summary Report, Department of Education standard computer-processed data collection form (see Appendix D).
e. Survey of Placement Service Needs of public school and Collaborative Administrators (one time only survey).

f. Initial efforts to develop cooperative SPED personnel data system between Education and Human Services agencies.

g. Attempts to develop procedures for collecting data on SPED personnel employed and needed in private schools and educational collaboratives - initial voluntary surveys were unsuccessful. Later attempts involved incorporation of personnel data collection in procedures being developed primarily for other purposes.

h. Catalog of available funds for SPED inservice training and funded Projects.

i. Higher education SPED faculty training needs assessment - for Project RETOOL proposal.

j. Two surveys of training roles of Division of Special Education staff.

The Project arranged for computer processing of SPED Personnel Approval Flow Data and SPED Personnel Needs Data (School System Summary Report) and developed computer programs for processing data. Project also developed Flow Data form.

In addition, information on variables and agency policies potentially affecting Manpower planning was collected through monitoring contributions of group members during meetings, news media, agency policy statements and newsletters.

Collection of Manpower data proved particularly difficult in three areas: private schools, educational Collaboratives, and Human Services agencies. Project staff conducted voluntary surveys (unsuccessful) in the first two sectors and continued to meet with various individuals and groups in attempts to develop functional strategies for collecting data needed by all parties (i.e., multi-purpose data).

The development of procedures for routine transmission of relevant data to the Project was judged impractical because of continuing changes in data collection procedures, and in personnel employed by various agencies.

Second year: Project efforts to modify existing procedures or develop new procedures for collecting essential data included:


b. Cooperated with group working on collection of data on children and personnel in low-incidence areas of special needs.

c. Requested earlier completion date for School System Summary Report, (which now includes Special Education Personnel Needs Assessment Form).

d. Revised College/University Training Program Survey, already a multi-purpose instrument, adding inservice programs and faculty available for 1) con-
sultation and 2) training program audit teams for the Division of Special Education.

b. Organized group to work on cooperative SPED personnel data collection system between Education and Human Services agencies.

c. Developed data collection procedures for SPED personnel employed and needed in private schools and educational Collaboratives, using voluntary surveys through private associations: Massachusetts Organization of Educational Collaboratives (MOEC) and Massachusetts Association of Private Schools (MAPS).

d. Drafted survey questionnaire regarding preservice and inservice training needs for Bilingual SPED personnel.

e. Conducted higher education SPED faculty training needs assessment for Project RETOOL proposal (second year).

f. Assisted Bureau of Institutional Schools in collecting own personnel data.

Third year: Data collection modifications resulting from Project efforts included:

a. Development of a routine procedure for collection of private school personnel data by the Division of Special Education.

b. Further changes in the Training Program Survey including: differentiation of numbers of persons enrolled in preservice and in long-term inservice programs; separation of undergraduate enrollments by year.

c. Preparation of new private school forms and modifications in standard personnel needs forms in Fall 1977, to respond to changes in BEH requirements and state planning needs (including collection of data on numbers of personnel needing short-term and long-term inservice training).

d. Developed procedures for collection of data on related Human Services SPED personnel needs by Bureau of Institutional Schools.

e. Project collected data from Special Education Special Projects involved in direct services to children.

One notable accomplishment was the use of a single uniform (Project developed) survey instrument to collect SPED personnel data from all agencies for the first time in 1977-78 (see Appendix D).

Informal collection of information on variables and agency policies continued to be an important element in the Project's Information System. In addition, the Project continued to encourage attempts to develop functional strategies for collecting data needed by all parties (i.e., multi-purpose data collection strategies). Collection of manpower data from Human Services agencies continued to be particularly difficult. The Project was involved in early planning for a new Mental Health Manpower Project and plans included future
1.6 Develop data analyses and summaries responsive to identified needs of planners and decision-makers, in terms of content and format, and to the greatest extent possible, accuracy and timing.

First year: Twenty-eight (28) data summaries and reports were prepared by the Project (see Appendix E). Of these, twenty-one (21) were prepared for broad dissemination, four (4) were prepared for limited dissemination, and three (3) were prepared for internal Project use.

Second year: Twenty-four (24) data summaries and reports were prepared by the Project (see Appendix E).

Third year: Twenty-eight (28) data summaries and reports were prepared by the Project. (see Appendix E for list)

1.7 Disseminate manpower information to various planners and decision-makers selectively, according to previously identified needs.

First year: This objective was modified due to difficulty experienced in surveying data needs of Project Group members (See 1.1). For other individuals, data summaries and other information were disseminated by the Project in response to Project Information Request Forms and specific oral and written requests. (See Appendix F: sample Information Request Form.)

Second year: Routine dissemination of Project Summaries was far more selective during the second Project year. The volume of requests for information continued to increase and requests were extremely variable. The Project received and responded to an average of 50 written and 60 oral information requests each month. (This count does not include routine requests for information on meetings, etc.) Although data summaries/analyses could be used in responding to some requests, many requests required individualized responses.

Third year: Routine dissemination of Project Summaries, Reports and other documents was more selective during the third Project year. Increased use was made of the Project's Information Request form, periodically updated and routinely disseminated, (resulting in requests for 217 items). The volume of requests for information continued to be high. In addition to substantial numbers of requests made at Project meetings, telephone requests averaged 52/month and written requests 13/month. Requests varied considerably in type and amount of effort required to respond. Although data summaries/analyses could be used in responding to some requests, many requests required responses tailored to individual needs and some were quite time consuming.

Some requests were multi-faceted, i.e., requested more than one kind of information. Types of requests included training program development and modification, SPED personnel supply/demand, general information and referral. Requests came from various sources: Colleges and Universities, State Education Agencies, Local Education Agencies, Private Schools, Collaboratives, Consumer Groups, Professional Organizations, and Students.
1.8 Collect evaluations of adequacy of information disseminated by Project and revise information system procedures and products in response to evaluation results.

Information adequacy was assessed through internal and external Project evaluations and used in refining collection, analysis, and dissemination procedures. (see App. B, C, & I.) Informal feedback from members of Project groups and other recipients of information was also extremely helpful. Responses to the information system were generally positive and recipients appeared eager to contribute to its refinement.

1.9 Develop strategies for projecting special education manpower needs and Five-Year SPED Manpower Projections for Massachusetts (second and third Project years).

Second year: This activity had to be postponed to the third Project year due to lack of some essential data. An overview of anticipated needs was included in the SPED Manpower Status Report, completed early in the second year.

Third year: Accuracy of previous year projections for public schools was analyzed and one year projections were developed based on personnel data reports from various agencies.

Five-year projections delayed due to lack of availability of data on school enrollments, birth rates, etc., and some data missing from higher education programs, and insufficient data from previous years to develop trend analyses.

Objective 2:

To design and implement strategies to facilitate (a) communication, (b) coordination of planning and decision-making, and (c) sharing of resources involving all sectors concerned with special education manpower development (institutions, agencies, and organizations).

2.1 Complete organization of Project Policy Advisory Board and selection of Steering Committee and involve Board and Committee in actively directing Project Policy and activities.

First year: Project Policy Advisory Board was organized and its first meeting held on schedule in September, 1976. Due to delays in designation of a few agency/organization representatives, the group was not fully constituted until March, 1976. Two agency representatives (Massachusetts Rehabilitation and Department of Public Health) left their agencies and there were long delays in designation of new representatives. The large size of the Board was a source of concern to Project staff, but a few members had to be added, including representatives of private schools, and Department of Education Regional Special Education Project Directors. A number of individuals from various agencies were added to the cc: mailing list at their request (Massachusetts Division of Employment Security, Association of Independent Colleges and Universities of Massachusetts, Massachusetts Office of Federal and State Resources, Massachusetts Commission for the Blind, Massachusetts Office for
Children Day Care Unit, Massachusetts State College Planning Office, Board of Higher Education Office).

Three members voluntarily withdrew from the Board since they felt their involvement with the Project was adequate through membership in other groups or joint activities. Five members were unable to attend any meetings or participated minimally (Office of Educational Affairs, Massachusetts legislature, Secondary Principals Association, Massachusetts Federation of Teachers, Community Colleges). Project staff began to investigate the possibility of replacing at least two of these representatives.

Selection of the Steering Committee was delayed until members had an opportunity to be better informed about the Project. The Board wished the Project Director should recruit the Steering Committee to include certain specified sectors.

The Board and Steering Committee were actively involved in directing the Project as documented in minutes. Both groups were asked to elect a chairperson but preferred to have the Project Director function in this role for the first year. The Board met five times and the Steering Committee three times.

Second year: The Policy Advisory Board met five times and continued to provide direction for the Project during its second year. Several members were replaced. A few members did not participate actively despite phone reminders by Project staff. All but one wished to remain on the Board. Several members were replaced prior to the first meeting in the third Project year.

The Steering Committee of the Board was discontinued and replaced by a Steering Committee of the Special Education Training Program Liaison Group. At the recommendation of the Liaison Group, the new Committee was composed of Co-chairpersons of Project Training Groups dealing with particular areas of specialization.

Third year: Both during the five meetings and outside of formal meetings, the majority of Board members provided both direction and valuable assistance for the Project staff. A few members did not participate actively despite phone reminders by Project staff, and several were replaced. In general, participation by most agencies was improved. New organizations were represented on the Board this year including the Department of Youth Services and the Massachusetts Council of Organizations of the Handicapped. (See Appendix I.).

2.2 Develop and maintain a system of other training linkage groups, (in addition to the Board) including: Special Education Training Program Liaison Group; Division of Special Training Committee; Training Groups in the following specialized areas: Early Childhood Education/SPED, Generic, Moderate Special Needs, Severe Special Needs, Special Education Administration, Secondary Level Special Education, Regular Education/Special Education. (First and second years)

Develop and maintain a system of Training Linkage Groups (in addition to Policy Board) to provide mechanisms for cooperative planning and development.
First year: Formation of most Project Linkage groups was delayed for four reasons: (a) unanticipated delay in returns of Special Education Training Program Survey (resulting in uncertainty regarding specific institutions to be included in various groups); (b) extensive time demands of initial data collection efforts; (c) unanticipated length of time required in constituting certain Project Groups, e.g., severe, and (d) the realization that attempts to organize too many groups in a relatively short period of time would result in "group overload" for Colleges/Universities.

The Project organized the following groups, which met one or more times during the first Project year:

1. Special Education Training Program Liaison Group (originally organized by Project Director in Fall, 1973) - four meetings. Membership of this group was expanded to include representatives of all Colleges/Universities (34) which offered coursework and/or degree programs in special education, and representatives of three VI-D-funded Projects based in other agencies. This group: (a) dealt with a variety of concerns affecting all or many institutions, and was instrumental in determining the order in which other Project Linkage groups were organized; (b) identified additional needs to be met by the Project, and was responsible for the rapid development of the Regular Ed/Special Education Group and its Consortium proposal; (c) provided the primary mechanism for coordination of Cooperative Planning efforts between the State Department of Education and special education training programs; and (d) reviewed and revised draft special education training priorities and developed consensus on the final priority statements. The person selected as chairperson during the previous year (1974-75) continued to function in that role.

2. Division of Special Education Training Committee - three meetings - (discontinued in May, 1976 in response to results of internal and external Project Evaluations). This attempt to coordinate efforts of a substantial number of Division Staff members, concerned in some way with training, proved unsuccessful due to lack of participation and/or support from some key decision-makers and lack of consistent participation by others. Two surveys of Training Related Roles and Responsibilities of Division staff were completed, and results disseminated in an attempt (unsuccessful) to increase coordination of various training efforts.

3. Training linkage groups:

   a. Early Childhood Education/Special Education - Two meetings. Original group plans to adapt the Maryland Training Tape Project to Massachusetts Educational Television were unsuccessful due to cuts in funding for Massachusetts Educational Television. The group also was concerned with credentialing of Early Childhood/SPED personnel, interagency cooperation, and sharing of training resources. The Project's survey of personnel supply and demand in these areas was completed in response to requests by a number of group members - earlier than originally planned.
b. **Generic Special Education** - One (1) meeting. Group completed preliminary planning for task force to develop Guidelines for Generic Training programs.

c. **Moderate Special Needs** - Group was organized, and first meeting scheduled but delayed until fall due to time conflicts of most members.

d. **Severe Special Needs** - Two (2) meetings. This group was carefully planned over a period of four months, to include a membership broadly representative of public, private, and institutional schools, as well as educational collaboratives, human services agencies and special projects, and Colleges/Universities. Group activities included involvement in developing plans for resource sharing, training consortia, and Guidelines for training programs (through a Delphi strategy).

e. **Special Education Administration** - Some members were recruited but the first meeting of this group was delayed to Fall, 1976.

f. **Secondary Special Education** - Some members were recruited but the first meeting was postponed to Fall, 1976.

g. **Regular Education/Special Education** - Two (2) meetings. This group was constituted rapidly at the request of the Liaison Group in order to develop a multi-institution (25) Consortium Dean's Grant proposal for submission in Fall, 1976.

Co-chairpersons (representing public and private sectors) were selected for three groups: Generic, Severe, and Regular Education/Special Education.

**Formation of Additional Groups:** Several additional areas requiring cooperative planning were identified. It was decided that a Bilingual Special Education Group should be organized in Fall, 1976, to address complex and substantial needs in this area. Tentative plans were made to form groups in the areas of Special Education/Paraprofessionals, and Vocational Education/Special Education, pending further documentation of needs.

**Second year:** The Project organized all but one of the planned groups, and all but one met two or more times during the Project year. The Steering Committee had recommended that the Secondary SPED Group should not be constituted as a separate group. However, it was decided that a temporary planning group should be organized during the third Project year, to work with the SEA's new statewide Secondary Special Education Project.

1. **Special Education Training Program Liaison Group** - Four (4) meetings. One institution of higher education was added to the membership, bringing the College/University total to 35. In addition to performing the functions previously described, the group (a) assisted in designing a VI-D proposal review process to be used in conjunction with annual updating of state
special education training priorities in order to coordinate proposal submission and (b) assisted in developing the state’s P.L. 94-142 State Plan for Personnel Development. In addition, this group decided a Liaison Steering Committee should be organized to coordinate planning across Project groups.

2. Training Linkage Groups - Each group developed one specialized area component of the P.L. 94-142 State Plan for Personnel Development.

Groups were in varying stages of development. All but one had selected co-chairpersons and several were functioning more independently, but still required substantial Project support.

a. Early Childhood Education/Special Education - Two (2) meetings. Group concerns continued to include credentialing of Early Childhood/Special Education personnel, interagency cooperation, and sharing of training resources. Recommendations for ECE/SPED teacher credentials were developed by the group.

b. Generic Special Education - Two (2) meetings of total group. A Task Force developed Guidelines for Elementary Generic Training Programs.

c. Moderate Special Needs - Two (2) meetings. Guidelines for Moderate Training Programs were completed.

d. Severe Special Needs - Four (4) meetings. The group was involved in development of training consortia and of Guidelines for training programs through a Delphi strategy (1st Round Delphi completed, 2nd Round Delphi nearly completed).

e. Special Education Administration - Four (4) meetings. Group began developing Guidelines for SPED Administrator Training Programs.

f. Secondary Special Education - Two (2) meetings of planning group. This group was never formally constituted. It was decided to deal with this area across all other groups.

g. Regular Education/Special Education - Two (2) meetings. The group developed a multi-institution (25) Consortium Dean's Grant proposal for submission in Fall, 1976. It was not funded, but plans were made to resubmit in Fall, 1977. The group also shared training materials.

New Groups Organized:

h. Bilingual/SPED - Three (3) meetings. The group identified primary program development concerns, stimulated design of a data collection instrument, made preliminary plans for a training Consortium, and organized a large planning conference.

i. Joint Planning Group (Adapted PE/Ther.Rec./OT/PT/Health) - Three (3) meetings. This group worked on defining relationships between potentially overlapping roles and related issues in design of
training programs for these specialty areas. Initially the group involved only Adapted PE and Therapeutic Rec. Other disciplines were added during the latter part of the year.

j. Paraprofessional/SPED - One (1) meeting. This group met only once due to a crisis in the State Community College System. A sub-committee of the larger group organized a large planning conference.

k. Voc.Ed./Special Ed. - Five (5) meetings. Once this group was organized, it operated fairly independently.

l. Visually Handicapped - Group met independently with leadership provided by SEA Vision consultant.

m. Speech Pathology/Audiology - Preliminary organization of group was initiated.

Third year:

1. Special Education Training Program Liaison Group - Four (4) meetings. The group continued to perform a variety of functions as noted for previous years and was actively involved in refining the state's Comprehensive System for Personnel Development. Another institution of higher education was added to the membership, bringing the total number of institutions to 36. Some larger institutions had two or more representatives of different departments or schools. Membership also continued to include representatives of VI-D funded projects in other agencies.

2. Liaison Steering Committee - Four (4) meetings. This group was organized at the request of the Liaison Group and was comprised of co-chairpersons of the specialized training groups. It provided a mechanism for coordination and planning across specialized training areas. The group reviewed and revised the draft special education training priorities, and the draft formats for the narrative and components of the Comprehensive System for Personnel Development. (See Appendix I - Membership List.)

3. Training Linkage Groups - Most groups refined components for the FY 1979 Comprehensive System for Personnel Development and sought to implement FY 1978 Plans. Two new groups developed components in Arts/Special Education and Parent Education. Groups were in varying stages of development. All had selected co-chairpersons; although various chairpersons had changed due to resignations or relocation of staff at institutions and agencies. The Project maintained all existing groups.

Due to various snowstorms, the Project fell behind in its meeting schedule and some meetings were postponed during the winter months. All groups met two or more times. Various subcommittee meetings were scheduled by some groups for development of Guidelines and CSPD Components (some are not included below since Project staff were not responsible for managing or attending). Other group activities included: (also see Appendix J):

a. Early Childhood Education/Special Education - Two (2) meetings. The
group continued to focus on credentialling of Early Childhood/Special Education personnel, interagency cooperation, and sharing of training resources.

b. Generic - Two (2) meetings. A Task Force developed Training Program Guidelines for Secondary level Generic programs.

c. Moderate - Two (2) meetings. Group reviewed draft training program Guidelines and draft tentative certification changes. Will revise training Guidelines to be compatible with new professional standards.

d. Severe - Four (4) meetings. Group developed a core component for inclusion in VI-D proposals submitted to BEH, October, 1977. The Delphi Survey was completed in December, 1977, and Training Program Guidelines were developed and professional standards recommended. Several Task Forces were organized during the year to work on CSPD Component, Consortium Competency Assessment, and the VI-D Core which described state-wide needs and summarized all seven VI-D proposals being submitted for Severe personnel preparation.

e. SPED Administrators - Eight (8) meetings. The group developed draft Training Program Guidelines (professional standards recommendations) and attempted to stimulate development of additional approved SPED Administration programs, since only one was available in the state.

f. Regular Education/Special Education - One (1) meeting. This group explored and shared alternative approaches for faculty development, to support integration of special education training into regular education preservice programs, as well as other institutional change strategies.

g. Voc. Ed./Special Education - Nine (9) meetings. This group developed a core component, describing four Voc.Ed./Special Ed. proposals, for inclusion in each of these VI-D proposals submitted to BEH in October, 1977. Other activities included: (1) development of Professional Standards recommendations, (2) plans for short and long-term inservice training and coordination between IHEs and Vocational Schools, and (3) plans for Project RETOOL-Voc.Ed. (higher educational faculty development).

h. Bilingual/Special Education - Five (5) meetings and one (1) 1-day Conference. The group worked closely with a newly created SEA Special Project, the Bilingual Special Education Project. The group ran a 1-day state-wide conference on planning and implementing Special Education programs for children with limited English speaking ability and special needs. (Conference Proceedings were developed and disseminated during the following year.) Title VI-D applicants developed a common core section for all Bilingual Special Education proposals to be submitted in Fall, 1977. As a result of group activities, several institutions were developing training programs or were actively recruiting bilingual/bicultural students into existing training programs.
Joint Planning Group (Adapted PE/Ther.Rec./OT/PT.Health) - Seven (7) meetings. This group worked on defining relationships between potentially overlapping roles and related issues in design of training programs, and also developed a draft Role Descriptions Handbook for Public Schools. Separate meetings of constituency groups also occurred.

Paraprofessional - One-day Conference. This group did not meet as a total group. Chairperson met with Liaison Steering Committee. It was decided to recruit one member from each (appropriate) specialized training group. Several members were involved through the year in planning a state-wide conference. (Proceedings were developed and disseminated the following year.) Plans were made to reconstitute the group in Fall, 1978.

Visually Handicapped - Three (3) meetings. This group served as a state-wide Inservice training committee for the Division of Special Education Low Incidence Project.

Speech Pathology/Audiology/Audition - Four (4) meetings. This group developed a core component for VI-D (Consortium) proposals, submitted to BEH in October, 1977.

New Groups Organized:

Arts/Special Needs - Two (2) meetings. This group was constituted in November, 1977. Several additional sub-group meetings were held to develop a CSPD component.

Parent/Surrogate Parent - Two (2) meetings. This group was constituted in February, 1978, and worked on coordinating training plans/resources and development of a Title VI-D proposal for submission to BEH in October, 1978. (Proposal was funded.)

Coordinate Project activities with existing state and interstate regional groups concerned with sensory special needs (vision and hearing). (First and second years)

First year: The Project Director met several times with state coordinators for Visually Handicapped and Hearing Impaired and other persons to collect available data and plan for coordination with the Manpower Project.

Second year: Separate training groups were organized in these areas to develop State Plan Components and other Training plans, and this objective was deleted for the third Project year.

Develop temporary task forces to address specific issues and problems identified by Policy Board and other Linkage Groups.

First year: Special Education Personnel Placement. This Task Force was organized in March, 1976. Project staff were instructed to collect various types of information before and after the only formal meeting of this group.
The findings and recommendations of the Task Force were presented to the Policy Advisory Board.

Placement system needs of special education administrators were surveyed (53 respondents). An attempt was made to locate funds for a pilot Collaborative placement project. A potential, though uncertain, source of funds was located and an interested agency was identified and encouraged to submit a proposal.

Special Education Training Program Guidelines: Development of Guidelines for training programs was initiated in two relatively new areas of specialization: (1) Initial planning was completed for organizing a Generic Special Education Guidelines Task Force; (2) Because of the complexity of some of the issues involved, an alternative approach was chosen for Severe Special Education guidelines. A Delphi strategy was selected to develop consensus on the part of a larger and broadly representative group. A consultant was hired to develop the instrument and to analyze the results.

Follow-up and Evaluation of Training Program Graduates: Problems related to follow-up of graduates were discussed by the Training Program Liaison Group. Group members agreed to attempt to improve follow-up efforts during the coming year. The Project was asked to collect and share examples of follow-up strategies. Plans to develop a Task Force were dropped.

Second year:

a. Special Education Personnel Placement: A proposal stimulated by Task Force was submitted to the Division of Special Education, and was not funded.

b. Special Education Training Program Guidelines: Task Forces developed initial drafts of Generic and Moderate Guidelines.

c. Regular Education/Special Education Consortium Grant Proposal Writers: At the request of the Regular Ed./SPED Training Group, this Grant Writers' Task Force was organized in May, 1976. First and second drafts of the final proposal were developed by the group which held meetings in June and July of 1976. A consortium proposal involving 25 Colleges/Universities and the SEA was submitted to REH for Dean's Grant funding, but was disapproved.

Third year:

a. Competency Assessment Task Force - Two (2) meetings. This Task Force discussed potential procedures for competency assessment above the pre-entry level for Massachusetts Colleges and Universities SPED training programs as authorized by Chapter 766 regulations. (Activity supported by Bureau of Teacher Certification and Placement.)
b. **Regular Education Inservice Guidelines** - Two (2) meetings and one (1) 2-day conference. At the request of the Policy Advisory Board, this Task Force was organized to develop recommendations for LEA's inservice training activities (P.L. 94-142). Draft recommendations were completed.

c. **Severe Special Needs Competency Assessment Consortium** - Three (3) meetings. This Task Force began to develop a long-term inservice training consortium to address needs of currently employed severe special needs personnel who are not appropriately credentialed. They planned to work over the summer. Sub-groups of this Task Force met without direct Project support. The consortium will provide competency assessment/licensure options for experienced personnel.

### 2.5 Provide technical assistance to staff of higher education institutions relative to development and modification of personnel preparation programs.

**First year:**

**a.** The Project responded to 87 requests for consultation and technical assistance from College/University training programs.

<table>
<thead>
<tr>
<th>No. Colleges/Universities</th>
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<tr>
<td>First Quarter (log not kept)</td>
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<td>Second Quarter</td>
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<td>Third Quarter</td>
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<td>Fourth Quarter (2 months)</td>
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Although the total number of requests was 87, multiple requests from the same program or from different programs within an institution are not reflected in the quarterly totals.

Requests for consultation and technical assistance varied considerably in terms of content. The Project provided assistance in planning for the development of new programs, and in the redesign of existing programs, in development of competency statements, in planning for resource allocation within programs, locating training materials, faculty, and other resource personnel, and dealing with a variety of other concerns.

**b.** **Training Conference for Higher Education Faculty:** A one-day conference on Competency Specification was arranged at the request of the Training Program Liaison Group. Participants also received a set of pre-conference materials and a set of conference materials prepared by the conference leader, Dr. Robert Houston, University of Houston (Houston, Texas) and his colleagues. 52 persons, representing 21 Colleges/Universities and three other agencies, attended. A substantial portion of the conference costs was borne by participants.

**c.** **Special Education Training Program Audits:** The Project Director served as a member of the team for the first Audit conducted under new Special Education Professional Standards and program approval requirements. Consultation on implementation of this process was provided on a continuing basis.
Second year:

a. The Project responded to 166 requests for consultation and technical assistance from College/University training programs. Requests for consultation and technical assistance continued to vary considerably in terms of content, and included the same general areas as in the previous year.

b. Social Education Training Program Audits: Consultation on this process was continued.

c. Materials Loan: Several types of materials (training materials, films, books, and reports, etc.) were loaned on request to various planners, decision-makers, and trainers.

Third year:

a. The Project continued to respond to numerous requests for consultation and technical assistance from College/University training programs, and other persons concerned with personnel development.

b. Technical assistance was provided on development of 38 of the VI-D proposals submitted in Fall, 1977.

c. Training Approval and Audits: Consultation on this process continued to be provided on request to the unit head responsible for approval of special education personnel and programs while this function was based in the Division of Special Education, (and after September 1978, to the Bureau of Teacher Certification and Placement.)

2.6 Support planning and implementation of statewide training projects involving institutions of higher education.

First year:

a. Maryland Training Tapes: Several planning meetings were held involving Massachusetts Educational Television, the Early Childhood Education/Special Education Training Group, and the Manpower Project. However, this attempt to adapt the Maryland Training Tapes Project to Massachusetts was abandoned when a cut in Massachusetts ETV funds made it impossible to broadcast the tapes.

b. Faculty Training re Materials and Media: Representatives of Massachusetts and New England AIRC/RRC met with the Liaison Group and provided them with information on materials and media services. Some Liaison Group members were invited to other ALRC-sponsored materials/media training conferences.

c. Project RETOOL (Continuing Education for Higher Education Faculty in Special Education): A proposal was developed by the Manpower Project, initially in collaboration with a balanced sample of public and private College/University Special Education Training Programs. The proposal was funded and part-time Project Director hired. Three 3-day trainer-of-trainers workshops and 10 one-day workshops were to be planned in areas
of need identified through (1) faculty training needs assessments conducted in the original ten participating colleges and (2) recommendations of Project RETOOL Steering Committee members. The training sessions would be open to all Massachusetts training programs faculty concerned with preparation of personnel to work with children with special needs. The Manpower Project bore primary responsibility for Project RETOOL planning and coordination.

Second year:

Project RETOOL (Continuing Education for Higher Education Faculty in Special Education): The Project was funded to develop three 3-day trainer-of-trainers workshops and six 1-day workshops. These were provided in the areas of need identified through (1) faculty training needs assessments, and (2) recommendations of the Project RETOOL Steering Committee members. Due to the resignation of the part-time Project Director, Manpower Project staff had to assume responsibility for two of the 3-day training sessions and four of the 1-day training sessions.

Third year:

Project RETOOL: A new part-time Project Director was hired. The Manpower Project continued to provide support to Project RETOOL in various ways (consultation, dissemination, fiscal management, etc.), as requested.

2.7 Assist institutions of higher education in coordinating submission of training grant proposals to BEH and other funding sources to maximize impact on identified training needs and priorities, and minimize duplication of effort. Cooperatively develop VI-D Training Priorities.

First year:

a. Information on training funds was provided to institutions of higher education, public schools, and other agencies throughout the year. A catalog of funded inservice training projects and funding sources was also prepared and disseminated by the Project. More specific information on EHA VI-D funds was provided to the Training Program Liaison Group, the Project Policy Advisory Board and other interested individuals and agencies.

b. A draft of training priorities was developed based on data collected by the Project during its first year of operation. It was reviewed and revised by the SEA Special Education Coordinating Committee, the Project Policy Advisory Board, and the Liaison Group. Jo Taylor participated in the Liaison Group meeting during which priorities were extensively discussed. Representatives of approximately 20 training programs were present and consensus was reached on all priorities listed. The Division of Special Education made a commitment to support all proposals which addressed state priorities.

The draft proposal review process was reviewed and revised by the Division Training Committee (disbanded in May) and the Special Education Training Program Liaison Group. The proposal review process developed for Fall,
1976, was similar to that of Fall, 1975, with three exceptions:

(1) The priorities constituted a broad consensus by external groups.

(2) The SEA proposal review process had been refined by members of the Training Program Liaison Group and represented a consensus on their part.

(3) Proposal writers may submit a summary (components specified) rather than a full proposal, to obtain an SEA support letter.

Second year:

a. Information on training funds was again provided to institutions of higher education, public schools, and other agencies throughout the year. A second catalog of funded inservice training projects and funding sources was prepared and disseminated by the Project. More specific information on EHA VI-D funds was provided to the Training Program Liaison Group, the Project Policy Advisory Board and other interested individuals/agencies.

b. A new draft of training priorities, developed based on data collected by the Project, was reviewed and revised by the Division Coordinating Committee, the Project Policy Advisory Board, and the Liaison Group and Steering Committee. The BEH-DPP Program Officer for Massachusetts (Jo Taylor) participated in the Liaison Group meeting during which priorities were finalized. Project staff continued to provide technical assistance in development of proposals which addressed state priorities.

Third year:

a. Development of Informal Title VI-D Proposal Consortia: Several specialized area training groups developed informal consortia in the Fall of 1977: Severe Special Needs, Speech Pathology/Audiology/Audition, Bilingual/Special Ed., Voc. Ed./Special Ed., and Regular Ed./Special Ed. In addition, the Project initiated and coordinated development of an Interstate Vision Inservice Proposal (seven states).

b. The Project continued to disseminate information on EHA VI-D funds and other training funds and funded projects, as in previous years. In addition, a summary of VI-D proposals submitted in October, 1977, was also disseminated to applicants and the Policy Advisory Board and Steering Committee, as was a summary of funded projects (see Appendix L.)

c. VI-D Proposal Coordination: The development of training priorities, provision of technical assistance, and SEA proposal review processes continued as in the previous year. (See Appendix L.)

Project staff reviewed 53 proposals in Fall, 1977, and prepared individualized support letters. All proposals addressed one or more state priorities.

2.8 Coordinate planning with responsible staff of Division of Special Education, other Divisions of the Department of Education, and other agencies which
administer or plan for use of Federal or State funds which may be allocated in part or in entirety to training.

First year:

a. Division of Special Education Training Committee: This group was minimally effective due to lack of top level administrative support and it was disbanded. Some degree of coordination was achieved through relationships established with a few members of the Committee and these continued to function fairly well after the Committee was dissolved.

b. Manpower Project Policy Advisory Board: This group did not function formally to coordinate use of training funds, but some informal coordination of efforts resulted from information sharing by Board members.

Second and third years:

a. Manpower Project Policy Advisory Board: Continued to generate some informal coordination of efforts.

b. Division of Special Education Federal Funds Evaluation Committee: Manpower Project Director served as Chairperson all of the second Project year and most of the third year.

c. Handbook for Evaluating Federally-Funded Projects: Manpower Project Director assisted consultant in developing this Handbook for dissemination by the Division of Special Education.

Objective 3:

To develop and initiate implementation of short and long-range plans for (a) balancing special education manpower supply and demand, (quality and quantity) in all areas of specialization, and (b) maximizing efficient utilization and sharing of training resources (second Project year).

To further develop and refine P.L. 94-142 State Plan for Personnel Development (CSPD) including provisions for (a) balancing manpower supply and demand (quantity and quality), in all areas of specialization and (b) maximizing efficient use and sharing of training resources. (Revision for third Project year)

Although this objective was not addressed directly until the second Project year, some changes in College/University program development plans did result from Project data summaries and reports and consultation during the first year. Several institutions initiated planning efforts to respond to identified needs and at least four institutions decided not to develop new programs in Moderate Special Needs, the state's only significant surplus area.

Second year: This objective was modified to include development of the Comprehensive System of Personnel Development (CSPD) required under P.L. 94-142. Project staff developed the CSPD narrative and personnel data summaries and coordinated development of 12 specialized area plan components by the various Project Training Groups.
Third year: Project staff developed the CSPD narrative and personnel data summaries, coordinated development of 16 specialized plan components by the various Project Training Groups by March, 1978, and ensured that all required and appropriate constituencies had ample opportunity to participate in refining the FY 1979 CSPD. Final narrative draft was completed in May, 1978. Draft Plan (outline, format, narrative, and components) reviewed, revised, and approved by Division of Special Education, Training Program Liaison Group, Liaison Steering Committee, and Project Policy Advisory Board. (See Appendix K.)

Objective 4:

To utilize results of internal and external evaluation to improve the effectiveness of the Manpower Project on a continuing basis.

Results of internal and external Project evaluation proved to be remarkably consistent over the three years of Project operation. Ongoing feedback from the external evaluator and members of Project groups resulted in a number of modifications to improve Project functioning. (See Appendices B, G, and H - Third year evaluation plan and results of internal and external evaluations.)

First year: Modifications of the Project included:

1. Development of additional data summaries.
2. Changes in timelines for Project Group development.
3. Development of procedures for logging information requests and maintenance of weekly rather than monthly Project activity logs.

Second year: Modifications of the Project included:

1. Development of additional data summaries and Training Resource Catalogs.
2. Refinement of the Information System from Phase I to Phase II.

Third year:

1. Development of additional data summaries to meet changing needs.
2. Refinement of the Information System from Phase II to Phase III.
3. Development of Group meeting schedules for dissemination.

Other problems identified were beyond the scope of the Project.

Objective 5:

To cooperate with the Bureau of Education for the Handicapped (BEH) and other BEH-funded manpower projects (a) to support national level manpower planning, (b) to provide technical assistance to other states on request, and (c) to utilize knowledge and expertise developed in other projects to improve the Massachusetts Project.
First year:

a. The Project Director participated in a planning meeting concerning development of a National Special Education Manpower Project (October, 1975) and in the first Symposium sponsored by the National Project (May, 1976), and prepared a paper on the Massachusetts Project for the symposium proceedings.

b. The Project Director provided both information and technical assistance to State Education Agency staff and other persons in Maine (two meetings) and in New Jersey (one meeting). Information also was provided on request to New York (Univ.), Missouri (Univ.), Kansas (Univ.), North Carolina (Mid-East Learning Resource System), Florida (SEA), Kentucky (Univ.), Vermont (SEA), New Hampshire (SEA), Rhode Island (SEA), and Connecticut (SEA).

c. Two-day visit to Florida Manpower Project (May, 1976) - Several elements were adapted from Florida and Kentucky Projects to the Massachusetts Project.

Second and third years: The Project continued to provide information and technical assistance to other states on request and adapted additional strategies from other states to Massachusetts. During the third year, the Project responded to 42 requests from out-of-state, and the Project Director attended one (two-day) National Manpower Project meeting in Missouri.

Objective 6:

To develop mechanisms for coordination of special education manpower planning and placement efforts among all states in the New England region (third Project year.)

First and second years: Although this was primarily a third year objective, initial contacts were made with other states during the first year, formal interstate agreements were developed and signed by November, 1976, and the first meeting of the Interstate Steering Committee was scheduled for July, 1977. (See Appendix M - Sample Interstate Agreement.)

Third year: The Project initiated activities based on formal signed interstate agreements. A Steering Committee was constituted, consisting of SEA representatives from each of the seven Northeast states. New York began to participate in February on an informal basis. The Committee met three times during the year (fourth meeting delayed to July). Activities of this Committee included: (a) defining parameters of CSPD; (b) preparing a joint memo to BEH on formal policy recommendations re CSPD; (c) initiating development of a regional data base; (d) exploring certification/approval and role definitions for special education personnel; (e) sharing strategies, resources, and training materials; and (f) improving the quality of each state's CSPD. (See Appendix N - CSPD Recommendations for BEH.)

Project staff provided technical assistance to these states in a wide variety of areas.
Objective 7:

To develop a plan for continuation of essential elements of the Special Education Manpower Project after termination of Special Project funding (third Project year).

The Special Education Manpower Project developed two components (Massachusetts and Interstate Manpower Planning) in the Massachusetts SEA Title VI-D proposal submitted in October, 1977. Both components were subsequently funded for three years.

Project Problem Areas and Successes

1. Project Support
   a. A continuing problem experienced by the Project was lack of adequate staffing for significant periods of time, e.g., no Project Assistant during initial months of the first year, inconsistent secretarial support from the SEA, etc.
   b. A major problem throughout the Project's operation was lack of informed top level administrative support within the SEA Division of Special Education.

2. Information System
   Major problems included:
   a. Continuing difficulty in developing routine procedures for collecting personnel data from Collaboratives, Human Services Agencies, and private schools.
   b. Lack of reliability of some data, and incompatibility of some data.
   c. The unexpectedly and increasingly large number and varied content of information requests received by the Project.

   Major successes included:
   a. Substantial progress in developing or modifying data collection procedures to build a comprehensive manpower information system, including collection of data on personnel employed and needed from all relevant agencies using a single standard form.
   b. Effectiveness of information sharing within and among Project groups.
   c. Degree to which Project data was used in making decisions concerning
training program development and modification, e.g., all VI-D proposals reviewed responded to state training priorities and nearly all included an inservice component, and data also was used for a variety of other purposes by a large percentage of recipients.

d. Extent of cooperative planning among institutions and other agencies, including development of consortium proposals and resource sharing.

3. Linkage Group System

 Problems encountered in this area were:

a. Amount of time required to organize and maintain many of the Project groups was much greater than originally anticipated.

b. Changes in leadership of some groups, and unusually bad weather during the third year, were sources of difficulty.

Major successes included:

a. Effectiveness of system of overlapping linkage groups in responding to demands for rapid change-through communication, information and resource sharing, cooperative planning, and flexibility in identifying problems and proposing solutions.

b. Representativeness and openness of most Project groups and increasingly independent operation of some groups.

c. Development of increasing cooperation and trust among members of various groups.

d. Increasing knowledge and understanding of special education manpower needs and the complexity of the planning process by members of Project Groups, and their increasing ownership of the planning process.

e. Success in influencing significant numbers of institutions and agencies to respond to identified problems and needs, including development of new pre- and in-service programs in areas of need, necessary modifications of existing programs, and interorganizational collaboration to pool a variety of independently controlled resources to address needs.
A. Introduction

Several factors must be taken into consideration in reviewing effective practices developed by the Massachusetts Manpower Project. These include certain aspects of the context in which the Project operated, the long-range nature of the Project's goals, and the concepts of comprehensive manpower planning (later Comprehensive System for Personnel Development) which influenced Project design. Although the Project was initiated prior to the enactment of P.L. 94-142, by its second year it became the Massachusetts CSPD.

The Massachusetts Manpower Project was based within the State Education Agency (SEA). It functioned as a planned change project based within a traditional bureaucracy. Although the SEA was not the primary target for Project efforts, and was the logical site for such a Project, it was an uneasy host. This would probably be true for similar projects in SEAs in other states. Other aspects of the Massachusetts context are significantly different from the majority of other states. Although all states are political entities, Massachusetts enjoys a reputation for being an exceptionally "political" state. In addition the number of agencies, organizations, and institutions which should be involved in a manpower planning project is larger in Massachusetts than in many other states.

The Project's goals were long-term in nature. Some would take 5-10 years or more to achieve. For this reason, evaluation efforts and determinations regarding effective practices were based heavily on planning processes as they related to adequacy of achievement of enabling objectives. These processes constitute the generalizable elements of the project which could be translated to substantially different contexts in other states. The following discussion of effective practices focuses on those key elements and principles and avoids details specific to the Massachusetts context.

The concepts of comprehensive manpower planning (CSPD development) and the philosophy which shaped the Massachusetts Project are particularly important. Any SEA which wished to adopt or adapt any of the practices developed by the Project would first have to determine its position on the following key issues:

1. Concept of the Manpower Planning System (CSPD)

States have approached CSPD development in several ways. Initially the CSPD was treated from a compliance perspective and states attempted to respond to a list of minimally related requirements, generating a static view of the CSPD. A second approach, involving an analysis of CSPD structure and functions, produced a more systemic perspective. The Massachusetts Project operated from a third perspective, viewing the CSPD as a dynamic and evolutionary system rather than a collection of separate requirements. (The term system is used to denote an entity composed of multiple elements which influence one another through a complex network of relationships, and are continually interacting and changing.) The Comprehensive System was seen as a mechanism for coordinating the planning and management of change in a complex system. In conceptualizing the CSPD, the
system for coordination and management was distinguished from the annual training plan. The substance of the annual training plan was expected to change considerably each year while the management system evolved more slowly, gradually changing in scope and complexity in response to the catalytic effects of increased coordination and communication, and increasing involvement of various constituencies.

Several basic components of a Comprehensive System generated the dynamic nature of the Massachusetts Manpower Project. Although details of CSPD scope, structure, and functions would vary considerably due to unique characteristics of various states, these components are probably generalizable to other states:

a. Availability and adequacy of information on preservice and inservice training needs and resources (needs assessment and dissemination); extent of use of information for planning and decision-making.

b. Extent of coordination: levels of participation, trust, commitment, and cooperation of individuals, organizations, and agencies in developing and implementing plans.

c. Levels of support for Comprehensive System development: political and fiscal support and technical assistance; legitimation.

d. Size of state, population density.

e. Availability of training resources: numbers, types, and quality of resources for preservice and inservice training in institutions of higher education and various public and private agencies; time for participation; funds for planning and implementing training.


g. Current and projected school enrollments and prevalence of children with special needs.

h. Current and projected Special Education personnel supply and demand; personnel classifications and certification; elasticity of manpower market (ease of changing roles).

i. Legislation, judicial decisions, and regulations.

j. Level of political complexity: numbers and types of organizations, agencies, and other constituencies to be involved in cooperative planning; nature of their interaction.

k. Federal, state, and local policy.

Use of this third level of analysis provided a framework for understanding the Massachusetts CSPD as a dynamic system, selecting points at which the direction of the system was most vulnerable to influence, and developing plans which were comprehensive in fact as well as in name.


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<thead>
<tr>
<th>Issue:</th>
<th>static segmental compliance</th>
<th>versus</th>
<th>dynamic system development</th>
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<tr>
<td>Leads toward fragmented implementation of separate CSPD elements, minimum compliance, and limited scope.</td>
<td>Leads toward gradually evolving system in which CSPD elements are integrated and scope of system expands over time.</td>
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2. Characteristics and Scope of Manpower Planning System (CSPD)

The Massachusetts Project philosophy emphasized a democratic approach to participatory planning. The scope of the system was broadly defined to include resources controlled by autonomous decision-makers in multiple agencies, organizations, and institutions outside of the SEA's authority. For this reason the Massachusetts Project was designed as an open system, encouraging active participation in the planning process by representatives of organizations external to the SEA. Shared leadership, coordination, and influence were emphasized, leading to interagency collaboration, rather than SEA management of the limited resources under its control.

No consensus exists regarding the optimal structure and functioning of a CSPD. SEAs must deal with several basic conceptual and philosophical issues in developing their CSPDs. The ultimate nature and scope of a state's CSPD will be strongly influenced by the SEA's approach to the following related issues.

Issues:

<table>
<thead>
<tr>
<th>closed system</th>
<th>versus</th>
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<tr>
<td>Limited participation and involvement</td>
<td>Extensive participation and involvement</td>
<td>SEA coordination and influence</td>
</tr>
<tr>
<td>SEA control and authority</td>
<td>versus</td>
<td>leads toward more comprehensive system including many elements outside of SEA control, with substantial capacity to stimulate needed changes in external agencies due to shared ownership of plans, i.e., system with interagency focus and broad scope</td>
</tr>
<tr>
<td>Leads toward limited system composed primarily of elements under SEA control, with little capacity to stimulate needed changes in external agencies, since plans are owned primarily by the SEA, i.e., system with single agency focus and limited scope</td>
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B. Manpower Information/System

During its first three years, the Project made significant progress toward developing a comprehensive special education manpower planning information system with the capacity to collect, analyze, and disseminate information necessary for a variety of
manpower planning efforts and decisions. This has proved to be a problem area for a number of states, in part due to a tendency to focus primarily on compliance with P.L. 94-142 requirements. As the Massachusetts Project evolved, several elements of the information system design were refined, but the original concepts on which the system was based proved effective.

1. Basic Concepts and Definitions

a. Information/Decision System

The original Project proposal noted that responsibility for policy decisions which affect special education manpower planning rests with multiple institutions and agencies at different levels of the state bureaucracy. For this reason the Project sought to develop an information-decision system which (a) would provide essential information, in useful format at appropriate times, for various decision-makers, and (b) would develop strategies for coordinating decision-making among various sectors. The Project was expected to generate and disseminate policy recommendations, but it could not possibly control the decision-making process in the multiple agencies and institutions involved. The primary purpose of the information system was to improve the effectiveness and quality of decisions affecting preparation and utilization of special education personnel. Decisions made by one agency or institution may have significant impact on decisions made by a number of other sectors. The Project's intent was (1) to develop an effective information-decision system to support rational planning and management on the part of decision-makers responsible for special education personnel preparation and/or utilization, and (2) to coordinate decision-making between the various responsible sectors, in order (3) to ensure continuing availability of adequate numbers of competent personnel to provide essential special education and related services to all children with special needs in the Commonwealth and the collaborating states.

In developing the information system, particular emphasis was placed on actual use of Project-produced information by planners and decision-makers. Several other concerns noted in the original proposal also influenced design of the information system. The Project attempted to minimize over-collection of data and duplication of data collection procedures and data inaccuracies. It utilized existing data collection systems wherever possible, emphasizing development of compatibility between various systems. The intent was to avoid development of a cumbersome and expensive data system which might become an end in itself. Rather, the Project sought to develop an efficient and effective system to support information sharing and joint planning and decision-making so that the data would be useful to decision-makers in selecting among alternatives.

b. Scope and Purposes

A comprehensive information system should integrate collection, analysis, and dissemination of many types of data for multiple users. The scope of the system will be determined by the numbers and types of agencies actively involved in manpower planning and the multiple needs and purposes to be addressed. An open information system, with extensive participation, cycles...
through problem definition, collection and analysis of information on needs and resources, and dissemination and use of data, with continual feedback generating refinements in the system as it evolves.

A comprehensive manpower information system may serve a variety of purposes, including but not limited to the following:

- identifying needs for preservice and inservice training of various target groups
- influencing allocation of SEA controlled resources
- influencing decision-making by various agencies, organizations, institutions which control resources outside the authority of the SEA (providing information for users other than the SEA and OSE)
- coordinating planning for CSPD design and implementation and VI-D proposal development
- establishing priorities for various types of training and for CSPD development
- increasing efficiency of resource usage
- monitoring and evaluating programs and CSPD management and implementation
- improving program quality
- providing incentives for participation in inservice training as a result of active involvement in needs assessment process.
- compliance with state and federal laws and regulations
- identifying various types of existing and potential training resources
- identifying promising programs and practices.

This definition of a comprehensive information system integrates several CSPD requirements. It also should be noted that many types of information may be used for multiple purposes, e.g., data on inservice needs often indicates needs for changes in preservice programs.

Several years are required to develop and institutionalize an adequate manpower information system. The system can be refined over time through a process of experimentation with alternative and complementary strategies. Through this process, it is possible to address various problems and solve some and minimize others.

2. Data Collection

Several elements deserve special consideration in designing the data collection portion of an information system. These include concerns related to information adequacy, basic design principles, types of data to be collected, and selection or adaptation of procedures.

a. Information Adequacy

(1) Utility of Data: For a system designed to produce information which will influence decision-making, data utility is a primary concern. Although manpower information may be used for a variety of purposes, potential consumers of this information may find it difficult to specify their needs with any precision in the abstract. For this reason it is
desirable to involve a representative sample of users in reviewing actual data and evaluating its utility and level of priority so that the system can be refined over time to respond to existing and emerging needs of users.

(2) Information Validity: Although an information system should be designed to minimize errors, acquisition of manpower information with a high level of validity is probably an unattainable ideal. It often is necessary to settle for a reasonable level of accuracy, i.e., data which is not optimally accurate, but is sufficient for the purposes for which it will be used.

(3) Timing of Availability: Other problems arise from incompatible timelines for data collection and use, i.e., data not available soon enough for planning and reporting purposes, or substantial differences among users in terms of optimal timing.

b. Basic Design Principles

Two basic design principles should guide information system development: simplification and participation.

(1) Simplification: Collect only necessary and useful information. The system should include only information with a moderate to high degree of utility. Far too often systems and shelves become cluttered with information which is collected but never used. Since most systems possess limited capacity to collect, analyze, and disseminate information, priorities should be established based on levels of need for various types of information.

Avoid duplication of effort; use single multipurpose instruments and secondary rather than primary data collection strategies whenever possible. Any data collection system should attempt to minimize demands on personnel already overburdened by paperwork. To minimize or, in some cases, actually decrease such burdens, it is desirable to design single multipurpose instruments for formal collection of related types of information from various agencies and institutions. To the greatest extent possible, an information system should be designed to take advantage of existing data collection systems (secondary data collection) and to assist in making any necessary adaptations to existing procedures (e.g., adding items to existing instruments or modifying categories to increase data compatibility). New procedures for obtaining data (primary data collection) should be initiated only when no alternative exists.

(2) Participation: Participatory planning is essential for effective information system design. Most producers of manpower information are also information consumers. Their active involvement in planning, implementing, and evaluating the information system generates several benefits: increasing ease in obtaining needed information, increasing accuracy and credibility of information, and increasing use of information for planning purposes.
c. Types of Data Collected and Personnel Categories

(1) Types of Data: Although some kinds of information are easier to obtain than others, and level of priority may vary, the following types of data are desirable for a comprehensive personnel development information system:

- Current and projected total school enrollments and census of children with special needs.
- Current and projected supply of special education related personnel: numbers of personnel in each area of specialization and level of training, i.e., undergraduate or graduate, numbers/types; personnel currently employed in various agencies; numbers of students enrolled in preservice program and anticipated graduates in current year; number of personnel certified in current year; geographic source of new personnel; and numbers of currently employed personnel who need additional training to qualify for appropriate credentials.
- Current and projected demand for special education personnel: numbers and types of personnel needed; current vacancies; positions difficult to fill; attrition rates (and if possible, causes of attrition); and follow-up data on recent graduates.
- Classifications of special education related personnel and requirements for certification, licensing, and registration in education and other agencies.
- Plans for expansion, modification, or discontinuation of child service programs operated by various agencies.
- Inservice training needs: target populations and content areas, preferred training modes and incentives, problem areas (e.g., teacher contracts), program development needs and priorities.
- Training resources: college and university training program profiles and future plans for preservice and inservice training; DPP/BER-funded projects; other training and technical assistance resources including persons, programs, and materials; concerns regarding training program/resource quality.
- Information on exemplary programs and practices.
- Technical assistance needs of local districts and other sectors concerned with personnel preparation.
- Results of evaluation, monitoring, and due process procedures.
- Economic, political, and legislative variables affecting manpower planning; issues, problems and needs concerning personnel preparation and utilization.

Interpretation of data in these areas may require other kinds of information, e.g., causes and significance of attritions, regional and national needs in low incidence areas, and trends in prevalence of various special needs within the state.

(2) Personnel Categories:

OSE personnel data categories, particularly for teachers, are not compatible with existing personnel classifications in many states. In addition, states with non-categorical personnel/pupil classification systems cannot provide categorical personnel data. In those cases, the personnel data forms required in the CSPD are not useful for planning and projection purposes within the state, either for the SEA or for
Institutions of higher education. Personnel data should be collected using classifications which are meaningful for planning purposes at local, regional, or state levels, and translated into federal categories only for reporting purposes.

d. Alternative Data Collection Strategies: Techniques and Instruments

Multiple information collection strategies are needed to develop an adequate information base for special education manpower planning, due to the scope of the system, the many agencies involved, the multiple types of data needs, and the large number of subpopulations involved.

Selection of appropriate strategies should be guided by a number of basic design questions:

- **Problem Definitions and Purposes:** What problems or needs are to be addressed?
- **Users:** Who will use the information? How can users define their priority needs?
- **Content:** What kinds of data are needed? Which kinds of information are priorities?
- **Reliability and Specificity:** What minimum levels are acceptable?
- **Timing:** When is the information needed? Is it needed periodically or only once?
- **Available Options:** What feasible options exist for collecting the information? Have procedures already been established by any agency for collecting the same or related data?
- **Scope, Sources, and Geographic Level:** Should data be collected from all members of a population or will a systematic sample suffice? Can the information be collected most appropriately at the state, regional, or local level? What data sources and target populations are to be involved?
- **Incentives:** Is data reporting required or will data collection depend on voluntary participation? What rewards are built in for respondents?
- **Process/Content; Qualitative/Quantitative; Formal/Informal:** What relative emphasis is needed on interpersonal processes as opposed to content? Is the information primarily qualitative or quantitative in nature? Are formal or informal data collection procedures more appropriate?
- **Resources and Responsibility:** What resources are available, including time, personnel, and existing data collection systems? Who will be responsible for collecting the information? Is the information need sufficient to justify cost in terms of resources?

(1) **Problem Definition and Purposes:**

A comprehensive manpower information system should be designed to provide data essential for developing plans to address identified or anticipated problems or needs. The system can be refined over time with assistance from constituencies which need to use the information for a variety of purposes. A problem-solving approach to system design is particularly compatible with the participatory planning requirements for a state CSPD.
Manpower information may be collected for a wide variety of planning, reporting, and problem-solving purposes (see p. 3.4). The same information often may be used for multiple purposes. These proposed uses should guide the fine-tuning of information collection strategies.

(2) Users: A comprehensive information system should be capable of responding to the needs of multiple constituencies. Since collection and processing capacity will be limited, it identifies significant user groups and to request the: establishing data collection priorities. Massachusetts Project experience indicated that users often have difficulty defining their priority needs in abstract terms. They need opportunities to review various types of data in order to rank them in terms of usefulness and priority level.

(3) Content: In addition to information on preservice and inservice training needs for various target populations, a CSPD information system must collect information regarding technical assistance needs, promising practices, evaluation, and dissemination. General types of data which are desirable for a comprehensive personnel development information system are listed on p. 3.7. A variety of other needs will be identified in an operating system as a result of requests from individuals, agencies, institutions, or organizations involved in unique planning or problem-solving activities.

(4) Reliability and Specificity: Minimum acceptable levels of information reliability and specificity vary for different users. In addition, any information system encounters some substantial problems in collecting "accurate" information. Determination of minimum acceptable levels should be based on a consensus negotiated by knowledgeable information users and producers, and information system managers, as the system is refined. Information inadequacies should be prominently noted on data summaries and reports prepared for dissemination.

(5) Timing: Needs of different users tend to vary substantially in terms of timing. The time-consuming nature of some data collection procedures, particularly those which depend on voluntary participation, may be the primary factor in determining timing of data availability. Some types of data must be collected periodically in a consistent and systematic manner, while other kinds of information may be needed only once. Ongoing negotiation with knowledgeable information producers and consumers is essential to develop and maintain acceptable compromises regarding timing of data collection and availability.

(6) Available Options: In developing a system, it is important to first identify existing formal procedures for collecting similar or related data which are managed by educational or human services agencies and organizations. In some cases the data will prove to be inadequate or inappropriate for users, and in some instances it may prove too difficult to obtain the information. But fortunate is usually is possible to develop the necessary collaborative relationships so that other data collection systems can be used or adapted to provide information needed for the special education manpower information system. If this is not possible and the information need has been identified as a high priority, new information collection procedures must be established.
Options also exist for establishing new procedures: information system or CSPD staff may assume primary responsibility or may seek assistance from a variety of individuals, organizations, or planning groups. Examples of such voluntary efforts from the Massachusetts Project include:

- Student projects including studies for course credit and several Doctoral studies "commissioned" by various Project planning groups.
- Surveys conducted by members of various planning groups including needs assessments, and development of consistent cross-institutional procedures for follow-up of program graduates.
- Voluntary assistance by professional organizations, e.g., state and inservice needs assessments conducted by Massachusetts Speech, Hearing, and Language Association, initial survey of private school special education personnel supply and demand conducted by the Massachusetts Association of Approved Private Schools, initial voluntary survey of public school special education personnel supply and demand conducted with the assistance of the Council of Administrators of Special Education.

In addition, needed information may be obtained from a variety of other documents, e.g., policy papers, research studies, and reports on program monitoring visits and appeals procedures, and from informal data collection procedures, e.g., interviews or discussions with knowledgeable individuals and representative planning groups.

(7) **Scope, Sources, and Geographic Level:**

The system must identify preservice, inservice, and other needs of public schools, private schools, intermediate units, institutional schools, institutions of higher education, the state education agency and special education programs operated by human service agencies. In addition, it must respond to information needs of decision-making bodies such as legislatures and state boards of education. The optimal level for information collection should be expected to vary for different target populations. Needs for new personnel may be assessed at state, multi-state regional, or national levels. Inservice needs of regular classroom teachers are best assessed at the local school level while those of low incidence groups, e.g., vision and audition, are best assessed at substate regional or state levels. The unique needs of the latter target populations tend to be lost in standardized local needs assessments. To be consistent with the focus of P.L. 94-142 on individualized instruction, needs assessments should attempt to provide for specialized needs of different target populations. It also should be noted that inservice training needs within target populations vary greatly. For example, parents may need training in working with individual children, in exercising their rights, in providing support for other parents and school staffs, organizing local advisory councils, etc. (Needs assessments leading to standard packaged approaches to inservice are likely to be inadequate beyond the initial stages of providing basic information on laws and regulations.)

(8) **Incentives:**

Due to stringent limitations on data collection by the Department of Education, most of the Project's primary data collection efforts depended
on voluntary rather than required cooperation by respondents. Several procedures which were initiated as voluntary efforts later became required reporting procedures, but the majority remained voluntary. Incentives found to be effective in encouraging voluntary participation included:

- Active participation of representatives of various constituencies in designing procedures, resulting in greater understanding of the needs for various types of information as part of the comprehensive planning process and in ownership of data collection procedures.
- Feedback of results and analyses to respondents accompanied by a memo expressing appreciation for their cooperation and indicating the general purposes for which the information would be used, as an incentive for continuing collaboration.
- Use of information system data for planning purposes by various planning groups, institutions, and agencies which were also given information for the system, leading to increased legitimation of the information system and commitment to its ongoing operation.

(9) Process/Content; Qualitative/Quantitative; Formal/Informal:

The relative primacy of content as opposed to interpersonal processes should be an important consideration in designing information collection procedures. Content is the primary consideration in collecting some types of data, e.g., numbers of personnel currently employed and needed. In other cases process should be the primary consideration. For example, use of interactive processes in identifying inservice needs increases the probability of obtaining accurate and detailed information on desired content of inservice needs, provides an opportunity to underscore the importance of individual needs of teachers, and increases the probability of participation in training activities by generating a sense of ownership of the planning process. The process dimension is frequently neglected in favor of a content emphasis in developing data collection procedures. Careful consideration of the appropriate balance between content and process is essential in designing information collection procedures which contribute to use of data for problem-solving, planning, and decision-making.

Information collection often is limited to quantitative data, e.g., numbers of personnel available and needed. Qualitative dimensions, e.g., extent to which content of preservice training is responsive to emerging field needs, are more difficult to assess but are equally important. Formal data collection procedures, e.g., survey questionnaire and checklists, routine required reporting forms, are appropriate when the information to be collected is quantitative in nature and content is the primary concern, or when time and other resources are too limited to permit a more desirable interactive process approach. Informal strategies, or a combination of formal and informal strategies, are more appropriate when process is an important consideration, or the information to be collected is more subjective than objective in nature, e.g., analyses of issues and problems, projections of future changes in special education systems, certain qualitative concerns regarding personnel preparation, and significance of variables affecting manpower planning.
Multiple formal and informal data collection strategies were employed by the Project. Formal procedures, such as surveys, questionnaires, and checklists, were used for collecting statistical and other factual information, information which required substantial time for compilation, and some evaluation data. In one instance, a formal procedure was used for collecting future projection data (Delphi survey dealing with the area of Severe Special Needs). Informal strategies used by the Project included discussions on topical areas by representative planning groups, structured telephone surveys, analyses of requests for information and assistance received by the Project, and monitoring professional publications and documents produced by various agencies, as well as legislative actions.

Several technical considerations were found to be important in designing effective formal procedures:

- To increase accuracy and response rate, formal instruments should be visually clear in terms of format, and include complete and specific instructions as well as a name and phone number to be contacted if respondent questions. Instruments should be as brief as possible and provide respondents with an opportunity to check responses as much as possible, combined with "other" items or open-ended questions as appropriate. It is better to obtain a smaller amount of high priority information than to obtain no response to an excessively long instrument which discourages respondents.
- When information must be collected periodically, e.g., annually, use of consistent procedures and data classification categories over several years will gradually increase accuracy and greatly increase the usefulness of data for planning purposes.

(10) Resources and Responsibility:

An ongoing cost-benefit analysis should play a significant role in refining a special education manpower information system. Resources will always be limited and needs and priorities will change over time. For these reasons priorities and procedures should be reassessed annually. Proposals for major changes in procedures should receive particularly critical review since they will decrease accuracy of data collected in the following year or two, and significant changes in data classification categories destroy the possibility of using the information for trend analysis.

Responsibilities and timelines should be well delineated and formally agreed to by all parties when collaborative arrangements are developed.

3. Data Processing and Analysis

It would have been desirable to process personnel supply and demand data as well as some other types of information by computer. Due to the State Education Agency's limited computer capability, the Project compiled all data by hand. Although the Project succeeded in incorporating a section on special education personnel in the required form completed annually by local districts, the data still had to be compiled by hand, since computer printouts were not available until several months after the data was needed for federal reporting and other purposes.
Data analysis was an ongoing interactive process involving Project staff, members of Project planning groups and other knowledgeable individuals. The assistance of these external "experts" representing multiple constituencies was invaluable in interpreting the current and future significance of information collected by the Project. Examples of this analysis would include variations in causes and significance of attritions across different areas of specialization, interactive effects of personnel undersupply or oversupply in different areas of specialization, identification of those aspects of a problem which would be most susceptible to intervention, and policies developed by various institutions, agencies, and organizations which would impact on future needs or plans for personnel development.

The ongoing process of data analysis led to the delineation of several significant guidelines:

a. Needs in each area of specialization must be assessed separately, since significant oversupply in one area has tended to overshadow increasing unmet needs in other areas;

b. Training program enrollments should be differentiated in terms of numbers of students already employed and those who will represent additions to the labor market;

c. For some types of personnel, it is important to consider needs of multiple agencies other than public schools;

d. Attrition rates are significant but are frequently neglected, and they vary not only with supply levels but also with the intensity of job demands;

e. In a number of areas, e.g., vision, hearing, planning within a single state must consider regional and national needs;

f. Elasticity of the manpower market, i.e., ease with which personnel can shift from one role to another or move from one state to another, is an important factor in determining personnel supply levels; it is influenced by several variables, including certification requirements, and varies considerably across areas of specialization;

g. Numerous other political, economic, and legislative variables must be monitored in order to increase accuracy in forecasting needs, and changes in population cycles should be carefully monitored and incorporated into manpower plans.

4. Information Dissemination:

a. Focus on Use:

Unfortunately, a large amount of data on personnel and training needs is collected but never used. In some cases, this is due to the dubious validity of the data. In many other instances the data is not disseminated to potential users and/or no system exists to facilitate the use of such data for planning purposes. A comprehensive manpower information system should include provisions for disseminating data to potential users, and for encouraging and coordinating use of data for planning by various decision-makers within and outside the authority of the SEA.
b. Alternative Strategies:

Information was disseminated by the Project in a number of ways. These included informal dissemination through meetings of planning groups and conferences, as well as response to a variety of unique requests for information. Dissemination through interactive processes in meetings was particularly supportive of the Project's intent to encourage use of information for planning and decision-making. Detailed minutes of Project planning group meetings were disseminated in lieu of a newsletter. They served a number of valuable purposes including clarifying meeting transactions and plans, supporting continuity of group activity, maintaining involvement of members unable to attend meetings, and functioning as reference documents for Project staff and group members. In addition, the Project was responsible for development and dissemination of several types of documents including a variety of data summaries and analyses, training resource catalogs, handbooks, training program guidelines, and proceedings of planning conferences. An extensive report on special education manpower status in Massachusetts was published, and collaboration with the NIE-funded Massachusetts Dissemination Project led to production of a publication on special education training resources. Although the majority of these documents were produced by Project staff, several were produced by Project planning groups and task forces, with Project support. Members of various Project groups were responsible for generating plans for many of these documents, and determined which documents should be updated annually. The broad range of topics dealt with by these documents reflected the concerns and needs of multiple constituencies involved with personnel development.

c. Broad and Selective Dissemination:

In the initial states of information system development, it was necessary to disseminate documents broadly to assist potential users in determining their specific needs. During the second year dissemination became increasingly selective. Respondents to surveys were provided with copies of reports to which they had contributed. Members of Project groups were routinely provided with copies of documents which related directly to their planning tasks. A Project Information Request Form was developed and periodically updated so that members of Project groups and other interested parties could selectively obtain copies of those documents which they needed without routinely receiving other documents for which they had no use. This proved to be an extremely satisfactory approach to selective dissemination.

5. Problems and Benefits

Unanticipated problems included:

a. The length of time and the requisite negotiations involved in developing a functional information system.

b. Steady increase in volume of requests including unique and time-consuming individual requests; diversity of information needs in terms of content, format, and timing of availability.
Unanticipated benefits included:

a. The extent to which the information system served a coordinating function, helping to integrate needs assessment, planning and participation, technical assistance and dissemination.

b. Relatively rapid impact of some types of information in terms of program development and adaptation; extent to which information was used for a variety of purposes.

C. Participatory Planning System

The linkage system of cooperative planning groups was the most essential effective practice developed by the Massachusetts Project. It provided a mechanism for actively involving numerous representatives of a broad range of constituencies in the development and implementation of a comprehensive plan for special education manpower development. It was a key element supporting all of the other promising practices developed by the Project. Efficient and creative coordination of a participatory planning system, and increasing levels of collaboration and trust within and among constituent groups are essential for evolution of an effective CSPD. Although these may well be the most critical elements of the CSPD, they also appear to be the most difficult to implement. The Massachusetts Linkage System encouraged real rather than token participation and functioned as a planned change system which catalyzed a variety of collaborative efforts among individuals, agencies, institutions, and organizations to achieve objectives which had been established through cooperative planning processes.

1. Concepts and Definitions

a. Linkage System:

The Project Linkage System was designed on the basis of a planned change model described by Havelock et al. It was comprised of a number of planning groups with overlapping memberships; i.e., where one individual serves on more than one committee. In some cases the linkage concept extended into cooperating institutions and agencies which designated staff persons with special interests to serve on different project planning groups, thus increasing intra-institutional awareness and coordination relative to a variety of issues and plans. Havelock defines linkage as "the degree of interpersonal and intergroup connectedness" and postulates that the level of innovativeness of a change system is proportional to the strength and variety of linkages between innovators and diverse relevant resource systems. The Massachusetts Project functioned in a "change agent" role to facilitate planned innovation.

b. Basic Assumptions Regarding Change:

(1) The Project was based on the assumption that a democratic approach to participatory planning was essential to any planned change effort. This led to the design of the Linkage System as an open system, to encourage active participation in cooperative planning processes in which the SEA role primarily involved coordination and influence rather than control and authority.
Process rather than content should be the primary focus of any planned change effort. This approach to change requires tolerance of high degrees of uncertainty since the "coordinator" may articulate general directions for desired changes but must trust diverse groups of representative participants to evolve specific plans for change and to collaborate and commit resources for their implementation. Commitment of resources by a variety of agencies expands the scope of the system and increases the probability that change efforts will be successful in achieving desired objectives.

(2) Change is a highly personal process. Changes in attitudes, knowledge, and skills of individuals are an essential prerequisite for organizational change. Although individuals are the initial focus of change efforts, individuals operate in an organizational context and often need assistance in developing and implementing plans to modify organizational structures or policies to achieve desired objectives.

(3) Change is an evolutionary process which occurs in complex dynamic systems affected by multiple interacting variables. To develop and effectively implement plans for change, it is essential to (a) identify these variables and attempt to assess their potential directions and influence, (b) to continuously monitor the organizational contexts in which change processes are occurring, and (c) to have sufficient flexibility to adapt plans to continuously changing situations.

(4) System change is an extremely slow process. Substantial time is required to develop planning structures, engender essential trust, and build cooperative working relationships among many constituencies.

2. Basic Design Principles

Several basic principles proved effective in shaping the original design and evolution of the Massachusetts Project.

a. Participation:

Active participation of a large number of individuals range of constituencies, in planning processes is essential for an effective and comprehensive manpower planning system. Full participation implies active involvement in development and implementation of plans, and significant influence in determining outcomes. Real participation generates a sense of ownership of plans and commitment to their implementation. A participatory planning system should focus on developing networks to facilitate interactive communication, influence, and coordination among representatives of multiple constituencies. Active involvement of these individuals in task and product-oriented working groups fosters the development of trusting relationships which are an essential prerequisite for interagency collaboration and resource sharing. Groups must produce products or have some other visible impact in order to maintain continued commitment and active involvement of members.

b. Representation:

Broad representation and involvement of large numbers of individuals increases the power of the manpower planning system, since most of the
energy which drives the system derives from voluntary contributions by constituents, and the scope of the system is determined to a large extent by the amount of resources, controlled by various constituencies, which are integrated into the system. A comprehensive manpower planning system must integrate training plans of multiple independent agencies to coordinate use of training resources and minimize competition and duplication. Planning groups both advise the coordinating agency and seek to influence decision-making and policy-making by the constituent agencies and organizations which members represent.

c. Management and Structure:

The participatory planning structure must combine a reliable management framework with flexibility to adapt to an evolving system. Effective management of participatory planning processes requires integrity, and skills in a variety of areas, including management of group processes, organizational development, conflict negotiation, communication network design, and development of trusting relationships among participants from diverse backgrounds. Planning groups must be assisted in establishing goals, setting priorities for activities, completing tasks, and evaluating outcomes. The participatory planning structure should include a sufficient number of continuing committees or task forces to provide opportunities for active participation by representatives of all concerned constituencies. Satellite groups help to ensure that the system is open to persons interested in participating in the planning process, thus minimizing conflicts which may result if the system appears to be closed to all but a limited number of persons involved in a central committee. Standing committees build continuity and stability into the system, while temporary task forces can address specific problems and terminate after producing recommendations or products. Like the planning structure itself, roles and functions of individuals and constituencies evolve over time. Even when the structure and functions of planning groups are formally defined in a written document, much of the actual impact of the system occurs through informal as well as formal communication networks. It is desirable for planning structures to include both cross-agency or cross-disciplinary groups, to deal with broader aspects of comprehensive system development, and groups which can address needs related to particular areas of specialization.

d. Incentives for Participation:

Active participation requires commitment of time, which is a scarce resource. Participation must be justified in terms of short and long term impact. External rewards for participation in planning efforts are frequently limited or non-existent. Fortunately, several effective incentives fall within the realm of intrinsic rewards, e.g., opportunities to develop needed training programs, to define problems, and develop and implement problem-solving strategies in cooperation with peers, to obtain up-to-date information on matters of immediate concern, and to participate in a well managed and productive planning process which can contribute to achievement of short and long range goals to which participants have a personal commitment.


Development of a comprehensive manpower planning system is a time-consuming organizational development process which requires several years to develop a
fully operational system. Although the general design principles previously described would apply to any state, each state's system will be unique since participatory planning structures and processes must be tailored to many idiosyncratic characteristics of a state.

Design and management of a participatory planning system are challenging tasks but the potential outcomes will justify the investment of time and other resources to achieve effective interagency communication, coordination, and collaboration. Potential outcomes of participatory planning processes include: (1) more accurate identification of issues, problems and needs; (2) development of a broader range of effective problem-solving strategies and program development options; (3) increased cooperation, coordination, and resource sharing; (4) coordinated training plans which are effectively implemented due to shared ownership; (5) a personnel development system which is increasingly comprehensive as more agencies and institutions commit resources which are separately controlled; and (6) development of training programs necessary to ensure availability of competent personnel. Ultimately, the participatory planning system will be judged in terms of its integrity: participation must be real rather than token in nature, the recommendations of constituencies must actually influence the shape of the comprehensive system, and individuals and agencies must collaborate to identify and achieve common goals.

4. Problems and Benefits:

Unanticipated problems included:

a. Degree of difficulty in obtaining adequate involvement on the part of some agencies, institutions, and organizations.

b. The intensely political nature of the participatory planning process due to involvement of many constituencies.

c. Problems in maintaining continuity in some groups due to high annual turnover in membership.

d. Extent of time and effort involved in organizing and maintaining planning groups, and need to establish a number of groups in addition to those included in the original project design.

Unanticipated benefits included:

a. Extensive participation on the part of large numbers of individuals.

b. Extent to which the Project actually influenced decisions and plans of multiple institutions, agencies, and organizations.

c. Variety and extent of inter-institutional and other interagency collaborative efforts fostered by the Project.

d. Diversity and number of documents and other products and plans developed by planning groups.

e. Fulfillment of P.L. 94-142 CSPD requirements by the Project which was designed prior to the law's enactment.
D. Technical Assistance System

The Massachusetts Project emphasized provision of information and technical assistance and development of cooperative relationships rather than monitoring and control. The importance of this function was not anticipated when the Project was initially designed and the technical assistance expanded far beyond original expectations.

1. Basic Concepts and Definitions

a. Technical Assistance Roles:

The knowledge-linking model (Havelock et al) used in developing the original Project design suggests that technical assistance may be provided through one or more of the following roles, as appropriate to identified needs: catalyst, process helper, resource linker, or solution giver. In practice the Project's technical assistance function included all of these roles and added a trainer role. Selection of an appropriate role in a given situation was based on careful assessment of perceived client needs and other salient features of the situation.

b. Technical Assistance Versus Monitoring:

Monitoring identifies problems; technical assistance helps to solve them. Monitoring tends to generate minimal compliance; technical assistance seeks to improve program quality above minimum required levels. Monitoring tends to generate suspicion; effective technical assistance is dependent on the development of trusting relationships. It is difficult to combine monitoring and technical assistance roles. For these reasons the Project sought to avoid any direct involvement in monitoring functions.

c. Scope and Purpose:

The Project goals included both increasing the availability of sufficient numbers of personnel to serve all children with special needs and ensuring that they were as competent as possible. For this reason, staff attempted to respond to a broad range of needs related to special education personnel development identified by any individuals, agencies or institutions concerned with personnel development and/or delivery of services to children.

2. Basic Design Principles

Several basic design principles were found to be essential in designing an effective technical assistance system.

a. Salience of Consumer Needs:

Technical assistance should focus on needs as defined by the consumer and not be driven by the provider's need to "sell" particular skills or resources.

b. Ongoing Interactive Needs Assessment and Planning:

Technical assistance needs should be assessed through an iterative process which actively involves potential consumers in defining problems, and developing a consensus regarding goals, priorities and strategies, and a
commitment to implementation and ongoing planning and evaluation. It is essential to understand both clients and the situational context in which they operate in order to tailor technical assistance plans to the unique needs of technical assistance consumers, whether working with individuals, agencies, institutions, or organizations.

The needs assessment process involves five steps or stages. The first step involves developing a positive, cooperative relationship with the individual(s) or group(s) to be involved in the process. The next stage is that of problem definition. Issues, problems, and needs must be clarified and salient situational factors identified. Two aspects of problem definition must be pursued simultaneously. One involves asking the right questions to assist individuals or groups in initially defining their needs, without prematurely defining the needs for them. A second aspect involves mapping the system, learning as much as possible about salient features and variables from the clients. This stage also involves further clarification of the clients' goals and priorities, and purposes of the needs assessment. Problem definition or needs clarification is a critical stage because it sets the direction for future technical assistance efforts and identifies both options and limits. The third step involves the development and implementation of appropriate strategies for conducting more formal or extensive needs assessments, as appropriate. Feedback of results of needs assessment to participants in planning and problem-solving processes is the essential fourth step. Finally, planning and problem-solving processes should be managed so that they generate ongoing formal or informal needs assessment information, creating the iterative nature of the technical assistance process. An open planning process with ongoing feedback is an important element in technical assistance. It contributes to the development of trusting relationships and credibility and often assists in locating a variety of additional resources which may be used in developing programs and solving problems.

c. Alternative Technical Assistance Strategies:

Effective technical assistance requires careful matching of appropriate strategies or resources with identified needs. Alternative strategies used by the Massachusetts Project included:

1. Provision of information or materials.
2. Referral and resource location, i.e., linking consumers to other sources of information and assistance.
4. In-depth technical assistance, i.e., extensive and frequently long-term support in such areas as program development and evaluation, problem definition and solution, issue clarification, negotiation, coordination, and proposal development.

d. Other Characteristics of Effective Technical Assistance

Other characteristics of effective technical assistance include:

1. Timing: Appropriate timing of assistance is crucial. In some instances this involves simply a prompt response, but in other cases, it involves a carefully sequenced series of activities which must be carried out on schedule. Efficient use of time is also important since time is a significant and scarce resource.
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(2) Competence of providers and quality of assistance.
(3) Maintenance of continuity and providing ongoing follow-up for in-depth assistance activities.
(4) Flexibility to adapt to changing needs and situations.

e. Use of Alternative Sources of Assistance:

A technical assistance system should not only provide direct assistance but should also continuously locate and provide access to external technical assistance resources. Many resources can be identified in an expanding network. Manpower Project staff provided extensive direct assistance but also catalyzed provision of assistance by many members of Project planning groups. In some cases this assistance was provided to other linkage group members, but in many cases it was provided to external individuals and agencies such as public schools. Examples of assistance provided by linkage group members included:

(1) The Joint Planning Group developed a Handbook on Roles of Supportive Services Personnel (Adaped Physical Education, Therapeutic Recreation, Occupational Therapy, Physical Therapy, and School Nurses) in the Public Schools and included information on representatives of these disciplines who could be contacted by school personnel for information and consultation or program development (at no cost).

(2) One of the most unusual outgrowths of cooperative planning activities was the provision of technical assistance by faculty from one institution/agency to faculty at another institution - in planning programs and preparing VI-D proposals. It should be noted that these proposals would be in competition with one another during the Federal review process. Extensive assistance was provided by some individuals and more limited assistance was provided by group members during planning sessions.

3. Benefits and Problems

Unanticipated benefits and problems were intermingled with respect to technical assistance. The essential role of technical assistance in developing credibility, trust, and a positive image for the Project and in supporting extensive development of collaborative relationships was an unanticipated benefit. From this perspective the steady increase in technical assistance requests was helpful. From another perspective, this continuing increase in requests was a problem. The increased volume, including some very time-consuming requests, and the extensive variation in individual requests, i.e., in content, source, level of specificity, scope and complexity, produced a significant overload for the small Project staff at various times.
E. Training Priorities and EHA Title VI, Part D Proposal Coordination

Development of an annual statement of State Special Education Priorities and their use in coordinating submission of EHA, Title VI, Part D proposals were prime examples of the benefits of participatory planning and shared leadership. Each year the Manpower Project developed a draft statement of training priorities on the basis of data collected over time. The draft was then reviewed and revised by the Policy Advisory Board, the Training Program Liaison Group, and the SEA Division of Special Education. Priorities described target populations and needs for preservice or inservice training, in order to parallel DPP/BEH training priorities. The proposal review process was designed in concert with a large number of representatives of institutions of higher education and other agencies, including many recipients of Title VI, Part D grants. Personnel preparation proposals or summaries were submitted to the Manpower Project for review, in terms of the extent to which training priorities were addressed. The Project also provided technical assistance in shaping proposals to address the priorities. The review process involved some delegation of authority to the participatory planning system by grant applicants, who developed an SEA review process which could not have been mandated, and by the SEA, which made a commitment to support all proposals which addressed the priorities. As a result of this coordination process, all 55 proposals submitted for SEA review during 1977 addressed state training priorities. The priorities statement also influenced the development of training programs not funded under Title VI, Part D, and functioned as one mechanism for disseminating results of training needs assessments.

Both the content of the Priorities Statement and the process of its development contributed to its success in influencing training program development and modification. Significant elements included:

1. Although the content was based on data collected by the Project, most applicants were not only familiar with at least some portions of the data, but had assisted in collecting and reviewing it for accuracy and in analyzing it.

2. The trusting relationships and commitment to common goals generated by involvement in participatory planning groups were essential for meaningful priority development and acceptance of the coordination process by applicants; concomitant requirements were continuing integrity and openness in managing the SEA proposal review process.

A second level of proposal coordination took place within several Project planning groups, ranging from joint planning by several institutions or agencies which intended to submit proposals, to development of informal consortium proposals, i.e., proposals submitted separately by several institutions, each including a common core section describing the complementary relationships of the proposed programs. In October, 1977, four such Consortium proposals were submitted in the areas of (a) Severe Special Needs, (b) Vocational Education/Special Education, (c) Bilinguual Special Education, and (d) Speech Pathology/Audiology/Audition. Although some of the proposals in each of these informal Consortium arrangements were not funded, the intensive cooperative planning which generated the common core sections provided a base for continuing collaboration by various institutions and agencies. In addition, another "consortium" proposal was submitted by a single institution which had previously received a Dean's Grant. This Dean's Project Technical Assistance proposal was supported by Education Deans from 25 public and private institutions, but was not funded. The Project also coordinated initial planning for a seven-state interstate proposal, Inservice Training for Teachers of the Visually Handicapped, a project which was subsequently funded.
Central staff and fiscal support were essential for management of a Project of this magnitude. The Project staff consisted of a full-time Project Director and a full-time Administrative Assistant, supplemented by variable support from part-time graduate assistants. Some were supported by the Project, but the majority were interns placed with the Project by local institutions of higher education. In addition, variable levels of secretarial support were provided by the Division of Special Education. One of the Project's most valuable assets was the extensive donation of time by many professionals involved in Project planning groups.

One of the Project's major problems was the lack of informed top level administrative support within the SEA. This marginality produced both benefits and difficulties. It created legitimation problems for the Project within the SEA but enabled it to enhance its credibility with external agencies and institutions as a provider of technical assistance entirely separate from any monitoring function. The placement of this change agent project at the interface between the SEA and numerous external constituencies generated various difficulties, including the need for continuing attempts to mediate between an SEA typically concerned that external agencies might try to dictate to it, and external agencies equally fearful that the SEA might interfere with their autonomy. Despite these difficulties, the SEA was the most appropriate site for a Project of this nature.
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EVALUATION REPORT
ON A
QUESTIONNAIRE SURVEY OF COMMITTEE MEMBERS
OF THE
SPECIAL EDUCATION MANPOWER PLANNING PROJECT

Mary C. Havelock

Submitted to:
Special Education Manpower Planning Project
Division of Special Education
Massachusetts Department of Education

Submitted by:
Educational Research Corporation
85 Main Street
Watertown, Massachusetts 02172
June, 1978
In the spring of 1978 Educational Research Corporation conducted a questionnaire survey of members of the linkage network of the Special Education Manpower Planning Project of the Massachusetts Department of Education. The purpose of the survey was to gather information which would assist the Project Director in assessing the achievements of the Project and to make plans for future Project activities.

Seventy-four members of the linkage network responded to our questionnaire; this represents a response rate of 30%. At least one member of each of the groups in the linkage network and each of the special task forces responded, and responses were in numbers roughly proportional to the total size of each group. Because many respondents belong to more than one group, the 74 respondents represent 202 committee memberships and 13 special task force memberships.

In order to determine the general level of activity of committee members within the network, and to establish our respondents' degree of involvement in the Project, we asked the participants to indicate the number of meetings they attended, during the last Project year (beginning June 1, 1977), for each of the committees to which they belong. Table 1, which gives the responses to this question, shows that the respondents have been very active in attending meetings. Many respondents also attended planning sessions for their groups and met with the Project Director on a variety of matters, so Table 1 does not reflect the full level of activity of the participants.

The Linkage Network

The linkage group system was designed by the Project Director to serve as a mechanism for sharing information, for building relationships, and for planning on a cooperative basis across agencies and institutions in the Commonwealth. To determine the extent to which the network is meeting these goals, we asked respondents several questions about their experiences with their committees.

Seventy of the 74 respondents, or 95%, said that they have found it useful to belong to a Manpower committee. Two respondents said they had not found it

* A copy of this questionnaire is attached to this report.
<table>
<thead>
<tr>
<th>Committee</th>
<th>Number of Members Responding</th>
<th>Average No. of Meetings Attended</th>
<th>Number of Meetings Held</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts/Special Needs</td>
<td>3</td>
<td>1.7</td>
<td>2</td>
</tr>
<tr>
<td>Adapted PE/REC-OT/PT-Health</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Bilingual/SPED</td>
<td>8</td>
<td>2.9</td>
<td>6</td>
</tr>
<tr>
<td>ECE/SPED</td>
<td>8</td>
<td>2.5</td>
<td>3</td>
</tr>
<tr>
<td>Generic</td>
<td>8</td>
<td>2.25</td>
<td>3</td>
</tr>
<tr>
<td>Moderate</td>
<td>5</td>
<td>2.2</td>
<td>3</td>
</tr>
<tr>
<td>Liaison Steering Committee</td>
<td>11</td>
<td>2.6</td>
<td>5</td>
</tr>
<tr>
<td>Paraprofessional</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Parents/Surrogate Parents</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Project RETOOL Steering Committee</td>
<td>9</td>
<td>2.4</td>
<td>3</td>
</tr>
<tr>
<td>Policy Advisory Board</td>
<td>17</td>
<td>3.35</td>
<td>5</td>
</tr>
<tr>
<td>Regular Ed/SPED</td>
<td>11</td>
<td>2.9</td>
<td>5</td>
</tr>
<tr>
<td>Speech Path/Audiology/Audition</td>
<td>4</td>
<td>3.25</td>
<td>5</td>
</tr>
<tr>
<td>Secondary/SPED</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SPED Administrators</td>
<td>7</td>
<td>4.5</td>
<td>8</td>
</tr>
<tr>
<td>Severe Special Needs Group</td>
<td>14</td>
<td>3.2</td>
<td>4</td>
</tr>
<tr>
<td>Training Program Liaison Group</td>
<td>11</td>
<td>2.45</td>
<td>5</td>
</tr>
<tr>
<td>Vocational Ed/SPED</td>
<td>5</td>
<td>5.8</td>
<td>7</td>
</tr>
<tr>
<td>Vision</td>
<td>3</td>
<td>1.7</td>
<td>3</td>
</tr>
<tr>
<td>Regular Ed. In-service Task Force</td>
<td>2</td>
<td>2.5</td>
<td>3</td>
</tr>
<tr>
<td>Severe SPED Task Force</td>
<td>6</td>
<td>4.5</td>
<td>6</td>
</tr>
<tr>
<td>Competency Assessment Task Force</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Generic Task Force</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
useful, and two participants did not respond to this question. One member who had not found membership useful and one who did not respond to the question explained that they had just joined the network. We asked those who said that they have found it useful to belong to a Manpower committee to explain in what way(s) it has been useful. Table 2 summarizes the responses to this question.

Table 2
Benefits of Committee Membership

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>To share information</td>
<td>72</td>
</tr>
<tr>
<td>To develop consortium proposals</td>
<td>13</td>
</tr>
<tr>
<td>To develop other training plans</td>
<td>33</td>
</tr>
<tr>
<td>To develop training priorities and guidelines</td>
<td>45</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
</tr>
</tbody>
</table>

Almost all participants listed more than one benefit of their committee memberships. In describing the benefits of sharing information, several respondents commented that they had gained a better understanding of the issues at different levels. Included in respondents' description of "other" benefits were: meeting and establishing relationships with people of similar interests and responsibilities; evaluating and updating current training programs; planning and implementing joint activities; establishing certification criteria; and developing service delivery responses to P.L. 94-142.

We next asked participants if they felt that the activities of the Manpower Project have been responsive to the needs identified by their committees. Sixty-four respondents, or 86%, indicated that the activities have been responsive. Nine participants (12%) did not respond to this question; only one participant felt that the activities had not been responsive. The reason given for this view was that the activities were much too diffuse. Several respondents commented that in responding to the needs identified by the committees, the Project Director has provided initial structure, followed by support during participatory planning, and then clear written documentation of activities.
The linkage network provided a mechanism for participatory planning for the State Plan for Personnel Development. To assess the effectiveness of this mechanism, we asked respondents if they felt that they had had an adequate opportunity to participate in the process of developing the State Plan. Fifty-three participants (72%), indicated that their involvement had been adequate. Eight participants (11%) did not respond to this question, and 13 participants, or 18%, felt that they had not had an adequate opportunity to participate.

Of the 13 who felt that they had not had adequate opportunity to participate, five said that the reason for this was that they were new to their committees and that the Plan had been developed before they joined. In effect, then, only eight respondents found fault with the participatory planning mechanism. Explanations included: inconvenient locations of meetings; great time pressure in the development, with insufficient notice of meetings; too many task forces which were too spread out to have a real impact; failure of personnel at the state level to consider the committees' recommendations; and the feeling of two individuals that it was not their "role" to participate.

Generally, then, the respondents expressed the feeling that through their committees they had had an adequate opportunity to participate in the process of developing the State Plan for Personnel Development. However, some members felt that the products of their committees were not accepted by the State at the Division level.

As a final indication of the extent to which the respondents feel they benefit from their committee memberships, we asked if they feel that the minutes of their committee meetings are useful to their needs. Seventy respondents, or 95%, indicated that the minutes were useful; three members did not answer this question, and only one respondent indicated that the minutes were not useful.

We asked those members who found the minutes useful to indicate the ways in which they use the minutes. Table 3 shows the responses to this question.
Table 3
Committee Members' Use of Meeting Minutes

<table>
<thead>
<tr>
<th>Use of Minutes</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>To review the committee proceedings</td>
<td>55</td>
</tr>
<tr>
<td>To keep up to date if I have missed a meeting</td>
<td>56</td>
</tr>
<tr>
<td>As documentation of group decisions and progress</td>
<td>42</td>
</tr>
<tr>
<td>As a resource for myself</td>
<td>50</td>
</tr>
<tr>
<td>As a resource for others</td>
<td>40</td>
</tr>
</tbody>
</table>

One member who found the minutes useful said that they were, however, a bit too extensive; another member commented that the minutes were exceptionally concise and complete. Overall, it is clear that the minutes which the Project Director has prepared and circulated to members after each meeting have been valuable to the members.

The Information System

The Project developed and operated an information system to collect, analyze, summarize, and disseminate data on special education personnel supply and demand and other training needs and resources. To get some indication of the success of this data system, we asked committee members whether they find that data reports which they routinely receive from the Project are generally useful. Sixty-five respondents (88%) said that the reports are generally useful, four (5%) indicated that the reports are not generally useful, one respondent gave a mixed response, and four participants did not answer this question.

We listed the Project's major data reports, and asked those respondents who said that they generally find the Project's reports useful to indicate which reports they find useful and how they use each of them.
### Table 4
Network Members' Use of Project Data Reports

<table>
<thead>
<tr>
<th>Report</th>
<th>Number of Respondents</th>
<th>Use of Report*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Program Survey</td>
<td>40</td>
<td>Program planning (9) Reference (3) Project enrollment (2) Provide tech. assist. (2) Student advisement (1) Plan use of faculty (1) Statewide planning (1) Support grant app. (1) Plan in-service (1) Needs assessment (1) Compare own program to others (1)</td>
</tr>
<tr>
<td>Catalog of In-Service Programs</td>
<td>26</td>
<td>Program planning (7) Resource (4) Referrals (3) Plan in-service (1) Provide tech. assist. (1) Support grant app. (1) Student advisement (1) Statewide planning (1) Coordination (1)</td>
</tr>
<tr>
<td>Public School Personnel Needs</td>
<td>40</td>
<td>Program planning (8) Student advisement (7) Support grant app. (6) Provide tech. assist. (1) Plan in-service (1) App. and waiver (1) Statewide planning (1)</td>
</tr>
<tr>
<td>Private School Personnel Needs</td>
<td>21</td>
<td>Student advisement (5) Program planning (4) Support grant app. (4) Reference (1) App. and waiver (1)</td>
</tr>
<tr>
<td>Collaborative Personnel Needs</td>
<td>20</td>
<td>Student advisement (3) Program planning (3) Support grant app. (3) Reference (1) App. and waiver (1) Legislative process (1)</td>
</tr>
<tr>
<td>State Plan Components</td>
<td>35</td>
<td>Reference (6) Program planning (5) Support grant app. (3) Provide tech. assist. (1) Statewide planning (1)</td>
</tr>
<tr>
<td>Catalog of Faculty Consultants</td>
<td>20</td>
<td>Workshop resources (3) Program planning (1) Plan in-service (1) Referral (1)</td>
</tr>
<tr>
<td>Current and Projected Supply of SPED Personnel</td>
<td>33</td>
<td>Program planning (8) Support grant app. (4) Student advisement (2) Needs assessment (2) Statewide planning (1) App. and waiver (1) Referral (1) DMH manpower projection (1) Project enrollment (1) Plan in-service (1) Provide tech. assist. (1)</td>
</tr>
<tr>
<td>Training Priorities</td>
<td>35</td>
<td>Program planning (9) Support grant app. (5) Needs assessment (2) Plan in-service (1) Reference (1) App. and waiver (1) Quality control (1)</td>
</tr>
</tbody>
</table>

*Numbers in parentheses indicate the frequency of mentions of specific uses.*
In Table 4 we show the responses to this question. Not all participants indicated the use which they make of reports, but the comments of those who did list specific uses give a good indication of how each report is most commonly used. A large number of respondents represent training institutions and the responses reflect this. Most reports are used most commonly for planning training programs, while school and collaborative personnel needs data are particularly useful for student advisement. Most reports are frequently used to support grant applications. Respondents representing state agencies use the reports to provide technical assistance, to make referrals, and to plan on a statewide basis.

We also asked respondents whether they had found the Project's projections of manpower training needs useful to themselves or their agencies or institutions. Fifty-one (69%) indicated that they had found the projections useful, while 20 (27%) had not, and three participants did not respond to this question. Of the 20 who said they had not found the projections useful, nine explained that they had not had the need to use these data; six said that they did not trust the accuracy of the data, and five listed other reasons.

We asked those respondents who found the projections useful to indicate the ways in which they have used them. Planning training programs was again the most common use, with 23 respondents mentioning this. Student advisement was mentioned six times, and supporting grant applications was mentioned five times. Other uses, mentioned less frequently, were planning in-service programs, projecting enrollment, advising training institutions, assessing needs, statewide planning, and developing a DMH manpower plan.

Overall, the responses indicate very clearly that the Project's projections, as well as its data reports, have been used extensively by members of the linkage network.

Besides disseminating various data reports on a routine basis to members of the linkage network, the Project also responds to numerous specific requests for information. We asked respondents if they had made requests for information from the Project beyond that which they received at meetings or through the Project mailing list. Thirty-two participants (43%) said that they had made such requests, and all of them reported that the responses which they received from the Project...
were adequate to meet their needs. Almost all responses were received within one week of the request, with only three responses taking as long as two weeks. Examples of the wide variety of information requested include: names of resource people, programs available to meet needs of specific students, information on facilities with Part D grants, proposal information, clarifications of written materials, regional data, updated membership lists, Interstate Committee reports, and information on model programs.

Technical Assistance

A third objective of the Project was to provide technical assistance related to training program design and development, training delivery, proposal development, and Manpower planning. Therefore, we asked participants if they had made specific requests for technical assistance from the Project; 30 respondents, or 41%, said that they had. Table 5 shows the types of technical assistance requested. In about two-thirds of the cases, the Project provided the assistance directly, while in the other cases the Project staff made referrals to other resource persons, materials, or programs. All but one of the 30 respondents who requested technical assistance reported that they were satisfied with the response they had received. The one who was dissatisfied indicated some doubt as to whether the development of a consortium for training and/or certifying teachers of children with special needs is within the purview of the program.

<table>
<thead>
<tr>
<th>Type of Assistance</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referral to resource persons, materials, funds, or model programs</td>
<td>18</td>
</tr>
<tr>
<td>Assistance in obtaining training materials</td>
<td>7</td>
</tr>
<tr>
<td>Assistance in developing grant proposals</td>
<td>14</td>
</tr>
<tr>
<td>Assistance in modifying or developing pre-service training programs</td>
<td>8</td>
</tr>
<tr>
<td>Assistance in designing in-service training programs</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
</tr>
</tbody>
</table>
Impact of Project on Planning

To gain a further understanding of the impact of the Project, we asked respondents whether they, or the agencies or institutions with which they are affiliated, have made any new plans or decisions, or altered any existing plans, as a result of participating in the Project or receiving information from the Project. Forty-one respondents, or 55%, said that the Project had influenced their plans. Four other respondents said that they will use Project information in their future planning. Table 6 shows how training institutions used Project information to develop or amend their plans.

Table 6
New or Altered Plans of Training Institutions

<table>
<thead>
<tr>
<th>Plans</th>
<th>Number of Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>New or Expanded SPED Programs:</td>
<td></td>
</tr>
<tr>
<td>In-service</td>
<td>7</td>
</tr>
<tr>
<td>Generic</td>
<td>3</td>
</tr>
<tr>
<td>Early childhood</td>
<td>2</td>
</tr>
<tr>
<td>Severe</td>
<td>2</td>
</tr>
<tr>
<td>Bilingual</td>
<td>2</td>
</tr>
<tr>
<td>Bilingual speech pathologists and audiologists</td>
<td>1</td>
</tr>
<tr>
<td>O.T./P.T.</td>
<td>1</td>
</tr>
<tr>
<td>Expanded - unspecified</td>
<td>2</td>
</tr>
<tr>
<td>Altered Programs</td>
<td></td>
</tr>
<tr>
<td>Altered to conform to training priorities or certification requirements</td>
<td>9</td>
</tr>
<tr>
<td>Discontinued or Reduced SPED Programs</td>
<td></td>
</tr>
<tr>
<td>Quotas for preservice</td>
<td>1</td>
</tr>
<tr>
<td>Limited moderate</td>
<td>1</td>
</tr>
<tr>
<td>Reduced - unspecified</td>
<td>1</td>
</tr>
<tr>
<td>Integrated SPED with rehab./counseling</td>
<td>1</td>
</tr>
<tr>
<td>Combined deaf-blind with severe/profound</td>
<td>1</td>
</tr>
<tr>
<td>Decided not to add new masters program</td>
<td>1</td>
</tr>
<tr>
<td>Introduced Entry Level Assessment</td>
<td>2</td>
</tr>
</tbody>
</table>
Respondents who represented agencies or institutions other than training institutions used Project information to plan in the following ways:

- Hospital day program training program
- Private school in-service
- Classroom teacher in-service
- Parent training program
- More parent support
- More involvement in bilingual community
- Sharing resources among LEAs
- Statewide vocational and secondary SPED planning
- Joint publication

We also asked respondents whether, as a result of Manpower Project activities, their agencies or institutions coordinated activities or planned cooperatively with other agencies or institutions. A very large number—43, or 68%—said that they had. Only two respondents said that their attempts at collaboration had not been useful. In these two cases the respondents said that the institutions with which they had attempted to collaborate had been unresponsive. Collaborative efforts which respondents considered to be useful are shown in Table 7.

Table 7
Collaborations Resulting from Project Participation

<table>
<thead>
<tr>
<th>Collaboration</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration across agencies or institutions</td>
<td>15</td>
</tr>
<tr>
<td>(including university-LEA; MDE-DMH; University-MDE)</td>
<td></td>
</tr>
<tr>
<td>Training program collaboration</td>
<td>11</td>
</tr>
<tr>
<td>(including preservice, in-service, workshops, summer programs)</td>
<td></td>
</tr>
<tr>
<td>Development of consortia</td>
<td>5</td>
</tr>
<tr>
<td>(including severe special needs, vocational ed/special ed)</td>
<td></td>
</tr>
<tr>
<td>Information exchange</td>
<td>5</td>
</tr>
<tr>
<td>Sharing training materials</td>
<td>1</td>
</tr>
<tr>
<td>Joint data collection</td>
<td>1</td>
</tr>
<tr>
<td>Joint research</td>
<td>1</td>
</tr>
<tr>
<td>Joint presentation</td>
<td>1</td>
</tr>
</tbody>
</table>
The extent to which participation in the Project has resulted in coordination among agencies and institutions and in new or altered plans of participants is a very strong indicator of the positive impact the Project has had on agencies and institutions across the Commonwealth with concerns in the area of special education manpower planning and development.

Accomplishments of the Project

Our final question of respondents concerning their experiences with the Project to date was, "From your own professional perspective, what do you think are the most valuable accomplishments of the Project during its three years as a Special Project?" The opinions expressed by 55 participants who responded to this question are shown in Table 8.

Table 8
Participants' Views on the Most Valuable Accomplishments of the Project

<table>
<thead>
<tr>
<th>Accomplishment</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network for communication and interaction</td>
<td>33</td>
</tr>
<tr>
<td>Data collection and dissemination (including projections)</td>
<td>12</td>
</tr>
<tr>
<td>Information and referral &quot;clearinghouse&quot;</td>
<td>11</td>
</tr>
<tr>
<td>Cooperative planning</td>
<td>11</td>
</tr>
<tr>
<td>Unified state goals and priorities</td>
<td>5</td>
</tr>
<tr>
<td>Project RETOOL and conferences</td>
<td>5</td>
</tr>
<tr>
<td>Needs assessment</td>
<td>3</td>
</tr>
<tr>
<td>Getting local input to State Plan</td>
<td>3</td>
</tr>
<tr>
<td>Leadership within BEH</td>
<td>3</td>
</tr>
<tr>
<td>Development of certification requirements</td>
<td>2</td>
</tr>
<tr>
<td>Assistance in developing grant proposals</td>
<td>2</td>
</tr>
<tr>
<td>Highlighting awareness of special education issues</td>
<td>2</td>
</tr>
<tr>
<td>Stimulating research and program development</td>
<td>1</td>
</tr>
<tr>
<td>Serving as a bridge between the field and universities</td>
<td>1</td>
</tr>
<tr>
<td>Pioneer in developing a manpower (as opposed to training) perspective in service delivery agencies</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 8 demonstrates that, in the view of the network members, the greatest accomplishments of the Project have been in the areas of the Project's major goals.

**Future Focus of the Project**

We also asked respondents what they felt should be the focus of Manpower Planning Project activities during the coming year. Table 9 shows that the 44 participants who responded to this question generally feel that the present work of the Project should be continued and refined, but with increased focus on coordination of in-service training program development.

<table>
<thead>
<tr>
<th>Focus</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue work in same areas as past</td>
<td>13</td>
</tr>
<tr>
<td>Coordinate in-service program development</td>
<td>10</td>
</tr>
<tr>
<td>Continue network building and maintaining</td>
<td>5</td>
</tr>
<tr>
<td>Continue data collection and dissemination</td>
<td>5</td>
</tr>
<tr>
<td>Continue development of certification requirements</td>
<td>5</td>
</tr>
<tr>
<td>Provide centralized coordination of SPED technical assistance and referral</td>
<td>5</td>
</tr>
<tr>
<td>Implement committee recommendations</td>
<td>3</td>
</tr>
<tr>
<td>Focus on secondary level SPED</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
</tr>
</tbody>
</table>

Included in the category of "other" in Table 9 were suggestions which were made by only one respondent. They included suggestions to focus on specific areas, such as paraprofessionals, parents, and bilingual education; to focus on the public school sector; to work with DYS; to assess manpower needs on a regional and national basis; and to develop strategies for cross-district utilization of "difficult-to-find" personnel.
General Comments

At the end of our questionnaire we invited respondents to make additional comments or suggestions which they felt would be helpful to the project. These remarks are summarized in Table 10.

Table 10
Additional Comments and Suggestions of Participants

<table>
<thead>
<tr>
<th>Comment or Suggestion</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good Project leadership</td>
<td>8</td>
</tr>
<tr>
<td>Project helpful/enjoyable</td>
<td>3</td>
</tr>
<tr>
<td>Weak Project leadership</td>
<td>1</td>
</tr>
<tr>
<td>Suggestions</td>
<td></td>
</tr>
<tr>
<td>Arrange more convenient meeting times and places</td>
<td>3</td>
</tr>
<tr>
<td>Get more input from other sectors</td>
<td>2</td>
</tr>
<tr>
<td>Re-work competency specifications</td>
<td>1</td>
</tr>
<tr>
<td>Make minutes and reports more clear</td>
<td>1</td>
</tr>
<tr>
<td>Use telephone or written responses to mailings in place of some meetings</td>
<td>1</td>
</tr>
<tr>
<td>Prepare a summary handbook of Project to improve understanding of efforts among broader professional community</td>
<td>1</td>
</tr>
</tbody>
</table>

As Table 10 shows, the most frequent comment, made by 8 of the 21 respondents who added comments, was that the Project Director and her staff have provided leadership, coordination, and support which has been very helpful and effective.

Summary

In summary, members of the linkage network have found it useful to participate in Project meetings, they have found the Project's data reports useful, and they have used the information gained from their participation in planning the future activities of their agencies or institutions. Many plans have been developed or amended as a result of project information and activities, and a great deal of collaboration across agencies and institutions has resulted from committee members'
participation in the Project. Members have frequently turned to the Project for information and technical assistance beyond that routinely provided at meetings and through the mails, and the members have found the Project staff very helpful, supportive, and efficient. Participants recommend that during the coming year the Project should continue its activities in the same areas as in the past, but with more focus on coordinating in-service program development.
Educational Research Corporation has been contracted to evaluate the Special Education Manpower Planning Project of the Massachusetts Department of Education. We are gathering information which will help the Project Director assess the effectiveness of the Project and make plans for future Project activities. Your responses to this survey will be particularly important, since the third year of Special Project funding will end on May 31, 1978. Information on the current status of the Project will be critical to planning a continuation of the Project's functions, for which Title VI-d funds have been requested in a regular State Department of Education grant application. Please assist us by answering the questions on this form and then returning the form directly to ERC in the enclosed business reply envelope.

Thank you.

1. Please list the Manpower Project committees to which you belong, and estimate the number of meetings of each of these committees you have attended during the Project year (beginning June, 1977):

<table>
<thead>
<tr>
<th>Committee</th>
<th># of Meetings Attended</th>
<th>Committee</th>
<th># of Meetings Attended</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Arts/Special Needs</td>
<td></td>
<td>[ ] Policy Advisory Board</td>
<td></td>
</tr>
<tr>
<td>[ ] Adapted PE/REC-OT/PT-Health</td>
<td></td>
<td>[ ] Regular Ed/SPED</td>
<td></td>
</tr>
<tr>
<td>[ ] Bilingual/SPED</td>
<td></td>
<td>[ ] Speech Path/Audiology/Audition</td>
<td></td>
</tr>
<tr>
<td>[ ] ECE/SPED</td>
<td></td>
<td>[ ] Secondary/SPED</td>
<td></td>
</tr>
<tr>
<td>[ ] Generic</td>
<td></td>
<td>[ ] SPED Administrators</td>
<td></td>
</tr>
<tr>
<td>[ ] Moderate</td>
<td></td>
<td>[ ] Severe Special Needs Group</td>
<td></td>
</tr>
<tr>
<td>[ ] Liaison Steering Committee</td>
<td></td>
<td>[ ] Training Program Liaison Group</td>
<td></td>
</tr>
<tr>
<td>[ ] Paraprofessional</td>
<td></td>
<td>[ ] Vocational Ed/SPED</td>
<td></td>
</tr>
<tr>
<td>[ ] Parents/Surrogate Parents</td>
<td></td>
<td>[ ] Vision</td>
<td></td>
</tr>
<tr>
<td>[ ] Project RETOOL Steering Committee</td>
<td></td>
<td>Other Task Forces</td>
<td></td>
</tr>
</tbody>
</table>

[ ] (specify):

[ ]
2. Have you found it useful to belong to a Manpower committee?

[ ] Yes
[ ] No

Please explain how it has been useful (check all that apply):

[ ] To share information
[ ] To develop consortium proposals
[ ] To develop other training plans
[ ] To develop training priorities and guidelines
[ ] Other (please describe)

3. Do you feel that the activities of the Manpower Project have been responsive to the needs identified by your committee(s)?

[ ] Yes
[ ] No

Please explain:

4. Do you feel that you had an adequate opportunity to participate in the process of developing the State Plan for Personnel Development?

[ ] Yes
[ ] No

Please explain:
5. Are minutes of your committee meetings useful to your needs?

[ ] Yes
[ ] No

Please explain how you use them (check all that apply):

[ ] To review the committee proceedings
[ ] To keep up to date if I have missed a meeting
[ ] As documentation of group decisions and progress
[ ] As a resource for myself
[ ] As a resource for others
[ ] Other (please describe): __________________________

6. Do you find that data reports which you **routinely** receive from the Project are generally useful?

[ ] Yes
[ ] No

Please check those data reports which are generally useful to you and indicate how you use each of them.

<table>
<thead>
<tr>
<th>Report</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Training Program Survey Report</td>
<td></td>
</tr>
<tr>
<td>[ ] Catalog of In-Service Programs</td>
<td></td>
</tr>
<tr>
<td>[ ] Public School Personnel Needs</td>
<td></td>
</tr>
<tr>
<td>[ ] Private School Personnel Needs</td>
<td></td>
</tr>
<tr>
<td>[ ] Collaborative Personnel Needs</td>
<td></td>
</tr>
<tr>
<td>[ ] State Plan Components</td>
<td></td>
</tr>
<tr>
<td>[ ] Catalogue of Faculty Consultants</td>
<td></td>
</tr>
<tr>
<td>[ ] Current and Projected Supply of SPED Personnel</td>
<td></td>
</tr>
<tr>
<td>[ ] Training Priorities</td>
<td></td>
</tr>
<tr>
<td>[ ] Other (specify)</td>
<td></td>
</tr>
</tbody>
</table>
7. Are the Project's projections of manpower training needs useful to you (or your agency or institution)?

[ ] Yes
If yes, in what ways have you used them?

[ ] No
If no, why not?
[ ] I have not had the need
[ ] I don't trust their accuracy
[ ] Other (please explain):

8. Have you made specific requests for information from the Project beyond that which has been provided at meetings or has been sent to you through the Project mailing lists?

[ ] Yes
[ ] No

a. What types of information did you request?

b. How rapidly did the Project respond to your request?
[ ] Within one week
[ ] Within two weeks
[ ] More than two weeks

c. Were the responses of the Project adequate to meet your needs:
[ ] Yes
[ ] No

Please explain:
9. Have you made specific requests for technical assistance from the Project?

[ ] Yes
[ ] No

a. What type of technical assistance did you request?

[ ] Referral to resource persons, materials, funds, or model programs

[ ] Assistance in obtaining training materials

[ ] Assistance in developing grant proposals

[ ] Assistance in modifying or developing pre-service training programs

[ ] Assistance in designing inservice training programs

[ ] Other (please describe): ________________________________

b. Were you satisfied with the response you received?

[ ] Yes
[ ] No

Please explain:

10. Have you, or the agency or institution with which you are affiliated, made any new plans or decisions, or altered any existing plans, as a result of participating in the Project or receiving information from the Project?

[ ] Yes
[ ] No

Please describe new or altered plans:
11. As a result of Manpower Project activities has your agency or institution coordinated activities or planned cooperatively with other agencies or institutions?

[ ] Yes
[ ] No

a. Please describe the nature and extent of the collaboration:

b. Do you feel that this collaboration was useful to your agency or institution?

[ ] Yes
[ ] No

Please explain:

12. From your own professional perspective, what do you think are the most valuable accomplishments of the Project during its three years as a Special Project?

13. What do you think should be the focus of Manpower Planning Project activities during the coming year?

14. Please make any other comments or suggestions which you feel would be helpful to the Project.
1. Level of Steering Committee members' satisfaction with the adequacy of technical assistance provided by the Massachusetts Manpower Project:

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Development of a manpower information system.</td>
<td>NY</td>
<td>ME</td>
<td>VT</td>
<td>RI</td>
<td></td>
</tr>
<tr>
<td>b. Development of strategies for cooperative manpower planning among northeast states.</td>
<td>CT</td>
<td>NY</td>
<td>RI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Development of Comprehensive System for Personnel Development (CSPD) in your state.</td>
<td>CT</td>
<td>NY</td>
<td>VT</td>
<td>RI</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Explanation of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT - Was intact prior to project.</td>
</tr>
<tr>
<td>NY - Internal considerations preclude our focusing on this as a current priority.</td>
</tr>
<tr>
<td>VT - Very helpful.</td>
</tr>
<tr>
<td>ME - Assistance in review on data system.</td>
</tr>
<tr>
<td>NY - Our state may have unique problems in cooperating on this.</td>
</tr>
<tr>
<td>ME - Face to face meetings most helpful--best way to disseminate information.</td>
</tr>
<tr>
<td>RI - This activity has begun to be coordinated, but there is a great deal more to be done.</td>
</tr>
<tr>
<td>CT - Was intact prior to Project.</td>
</tr>
<tr>
<td>NY - Exploration of issues, parameters, problems, solutions helpful.</td>
</tr>
<tr>
<td>ME - Tremendous consultation, particularly on process.</td>
</tr>
<tr>
<td>RI - Further clarification of mandate was needed prior to provision of technical assistance. The Project Director has forwarded a letter requesting clarification.</td>
</tr>
</tbody>
</table>
2. Level of satisfaction of Steering Committee members with adequacy of coordination provided by the Massachusetts Manpower Project:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Development of a regional data base for manpower planning.</td>
<td>NY</td>
<td>NH</td>
<td>ME</td>
<td>CT</td>
<td>CT - Still in the discussion state.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Design of Comprehensive System for Personnel Development (CSPD)</td>
<td>NY</td>
<td>CT</td>
<td>VT</td>
<td></td>
<td>NY - Interaction with other directors and BEH/DPP/DAS personnel helpful in exploring parameters for implementing CSPD regs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Exploration of cooperative strategies for SPED personnel placement among northeast states.</td>
<td>NY</td>
<td>NJ</td>
<td>CT</td>
<td>VT</td>
<td>ME - Has assisted us in cooperating with regional proposals and planning. RI - Technical assistance will be provided at next meeting when mandates will be clarified by BEH.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Development of strategies for sharing training resources within and between northeast states.</td>
<td>NY</td>
<td>ME</td>
<td>CT</td>
<td>VT</td>
<td>ME - Sharing info and &quot;good&quot; resources has allowed us to utilize consultants. RI - Additional attention needs to be directed to this activity.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Analysis of personnel certification requirements in the northeast states.</td>
<td>NY</td>
<td>CT</td>
<td>VT</td>
<td>ME</td>
<td>NY - Hope project will &quot;plug&quot; our Certification Study, if not, change my response to &quot;dissatisfied.&quot; ME - Has increased understanding of credentials used in other states. RI - Adequate.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NH</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RI</td>
<td></td>
</tr>
</tbody>
</table>
3. Technical assistance provided by the Project beyond that initially expected:

**ME** - Information and assistance specific to problems. Feedback on planning process as well as good advice and recommendations. Good information in response to specific questions. Project staff have been most responsive to Steering Committee.

**VT** - Been very helpful in accessing information.

**NY** - Knowing Cynthia's capabilities, enthusiasm and commitment, I expected to receive information sharing discussions which would be helpful to us as an initial auditor with (perhaps) a unique set of problems and concerns.

**NH** - Still in process. Sharing information from other states. Will assist this summer in putting pieces together in final form.

4. Major impact of Interstate Project on manpower planning and development in their states:

**NY** - The providing of a forum to share common concerns, explore alternative solutions.

**ME** - Assistance in the initiation of a "process." Mistakes are being made but I feel far fewer of them. The initial planning phase of the CSPD is difficult, but more important. We will not have just a paper plan or compliance statements.

**RI** - The major impact will be demonstrated later this year (next three months) when the response from BEH is received by Project Director regarding clarification of PL 94-142 mandate of a Comprehensive System of Personnel Development.

**NJ** - Gaining broader perspective of what others are doing with regard to similar problems. Closer contact with BEH to relay impact (problems) regarding statutes and regs.

**CT** - Sharing of information.

**NH** - Has caused post-secondary institutions to inter-communicate and to question.

5. Major contributions of their states to the Interstate Project:

**NY** - Aside from whatever contributions we may have made to the discussions at the Vermont meeting, I would hope that through documents I've shared (or shortly will share) would be of interest and assistance in teacher competency assessment, certification, and technical assistance.

**ME** - Information on modules for in-service.
RI - Since staff was reassigned this year, I am fairly new to the project and would expect RI will provide more support and assistance to goals of project this year.

NJ - Sharing information regarding manpower information system, comprehensive plan, mainstreaming; in-service proj. and in-service project for college faculty.

CT - Sharing of information.

NH - Dissemination of information about our "Regional Systems" within the state--and the use of this system for administrating Part D training monies. Our Part D State Plan is unique!

6a. Areas related to interstate activities, or joint needs of the states participating in the Interstate Project that they feel the Project should focus on during the coming year:

NY - The continued explication of parameters to fulfill the CSPD regs. in 94-142.

ME - CSPD and coordination of Part D and other $ resources. Clarification of CSPD regs.

VT - Continuing analysis and problem clarification relating to state CSPD.

RI - Clarification of PL 94-142 and BEH mandate regarding CSPD. Refinement of manpower information system. Development of strategies for sharing training resources.

NJ - Development of CSPD plans and subsequent activities related to accomplishing the plan. Interstate training projects; cooperative manpower planning.

CT - Assessment of regional manpower needs.

NH - Continuing of Sharing. The use of the group as trainer(s) of each.

6b. Areas related to the needs of their states, as individual states, they feel the Project should focus on during the coming year:

ME - Technical assistance to individual states.

VT - Continued development and refinement of CSPD including procedures for needs assessment and evaluation.

RI - Same as #6a.

NJ - CSPD.

NH - Continued - exploration of shared programs for the training of teachers of low-incidence handicapped.
6c. By rank order, the three areas of the Interstate Agreement which are their highest priorities:
(First priority = 1; second priority = 2; third priority = 3.)

<table>
<thead>
<tr>
<th>Rank*</th>
<th>Vermont</th>
<th>New York</th>
<th>New Hampshire</th>
<th>Maine</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RI-3</td>
</tr>
<tr>
<td>ii.</td>
<td></td>
<td>VT-1; NH-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii.</td>
<td></td>
<td>VT-1; ME-1; RI-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv.</td>
<td></td>
<td>CT-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v.</td>
<td></td>
<td>NJ-1; NY-1; VT-1; ME-2; RI-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi.</td>
<td></td>
<td>CT-2; NH-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii.</td>
<td></td>
<td>CT-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ix.</td>
<td></td>
<td>NY-3; NH-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x.</td>
<td></td>
<td>NJ-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>xi.</td>
<td></td>
<td>VT-1; NY-2; ME-3; NJ-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Vermont ranked four items as #1 priority.
7. Additional comments and suggestions:

    NJ - I find the exchange between different persons and different states very helpful in broadening my own perspective on commonly confronted problems.

    RI - I feel I would be in a much better position to evaluate the project next year due to the fact that I replaced a staff member on this committee this year.

    NY - Please weight my responses in the context of my not being an "official" part of the Interstate Project, as a guest auditor who has attended but one meeting, and who should not therefore significantly impact on the directions the Project might take.
Educational Research Corporation has been contracted to evaluate the Special Education Manpower Planning Project of the Massachusetts Department of Education. We are gathering information which will help the Project Director assess the effectiveness of the Interstate Component of the Project and make plans for future Project activities. Please assist us by answering the questions on this form and then returning the form directly to ERC in the enclosed business reply envelope.

Thank you.

1. Please indicate how satisfied you are with the adequacy of technical assistance provided by the Massachusetts Manpower Project in each of the following areas, and please explain each response.

<table>
<thead>
<tr>
<th>area</th>
<th>Not applicable to my state</th>
<th>Very Satisfied</th>
<th>Very Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Dissatisfied</th>
<th>Very Dissatisfied</th>
<th>Explanation of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Development of a manpower information system.</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td></td>
<td>a.</td>
</tr>
<tr>
<td>b. Development of strategies for cooperative manpower planning among northeast states.</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td></td>
<td>b.</td>
</tr>
<tr>
<td>c. Development of Comprehensive System for Personnel Development (CSPD) in your state.</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td></td>
<td>c.</td>
</tr>
</tbody>
</table>
2. Please indicate how satisfied you are with the adequacy of coordination provided by the Massachusetts Project in each of the following areas, and please explain each response.

<table>
<thead>
<tr>
<th>Not applicable to my state</th>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Dissatisfied</th>
<th>Very Dissatisfied</th>
<th>Explanation of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Development of a regional data base for manpower planning.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>a.</td>
</tr>
<tr>
<td>b. Design of Comprehensive System for Personnel Development (CSPD)</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>b.</td>
</tr>
<tr>
<td>c. Exploration of cooperative strategies for SPED personnel placement among northeast states.</td>
<td>[ ]</td>
<td>[ ]</td>
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<td>[ ]</td>
<td>[ ]</td>
<td>c.</td>
</tr>
<tr>
<td>d. Development of strategies for sharing training resources within and between northeast states.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>d.</td>
</tr>
<tr>
<td>e. Analysis of personnel certification requirements in the northeast states.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>e.</td>
</tr>
</tbody>
</table>
3. Has the Project provided technical assistance to you beyond that which you initially expected?

- [ ] Yes
- [ ] No

Please explain:

4. In your view, what is the major impact of the Interstate Project on manpower planning and development in your state?

5. What do you feel are the major contributions of your state to the Interstate Project?

6.a. On what areas related to interstate activities, or joint needs of the states participating in the Interstate Project, do you feel the Project should focus during the coming year?

b. On what areas related to the needs of your state, as an individual state, do you feel the Project should focus during the coming year?
EVALUATION REPORT
ON THE
MASSACHUSETTS SPECIAL EDUCATION
MANPOWER PLANNING PROJECT
1977-78

Mary C. Havelock

Submitted to:
Special Education Manpower Planning Project
Division of Special Education
Massachusetts Department of Education

Submitted by:
Educational Research Corporation
85 Main Street
Watertown, Massachusetts 02172
June, 1978
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<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
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<td>1</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>2</td>
</tr>
<tr>
<td>EVALUATION FINDINGS</td>
<td></td>
</tr>
<tr>
<td>A. Information System</td>
<td>4</td>
</tr>
<tr>
<td>B. Linkage Network</td>
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ABSTRACT

The Division of Special Education of the Massachusetts Department of Education awarded Educational Research Corporation (ERC) the contract to evaluate the Special Education Manpower Planning Project. During the third Project year (1977-78) the Project staff continued developing and refining Project components which had been the focus of the Project during its first two years. These included continued refinement and operation of an information system and continued organization and coordination of a Linkage Network. The Project also continued to coordinate development of the Massachusetts Comprehensive System for Personnel Development and to provide technical assistance to individuals and groups in Massachusetts and from other states. During the third Project year coordination began of the Interstate Manpower Project, the focus of which had been negotiated in 1976. ERC judged the effectiveness of these program components primarily in terms of their contribution to informed decision-making, within and across various agencies and institutions, regarding special education manpower planning and development.

Evaluation activities included observation of a sample of Linkage Network Committee meetings; review of Project documents; interview and questionnaire surveys of Linkage Network and Interstate Steering Committee members; periodic meetings with the Project Director; informal reporting to the Project's Policy Advisory Board; and submission of written reports on our surveys and of the final written report.

Through our evaluation activities, we judged that the Project has been successful in meeting its objectives for its third year of operation. Members of the Linkage Network and the Interstate Steering Committee reported that they had benefited from their participation in the Project and that they felt that the Manpower Project was responsive to the needs which their groups had expressed. Many Network members reported that they or the agencies or institutions which they represent have made new plans, often of a collaborative nature with other agencies or institutions, as a consequence of their participation in the Project. Information, assistance, and coordination provided by the Project to Linkage Network and Interstate Steering Committee members, and also to individuals and organizations outside the Project, has increased cooperative planning and informed decision-making, which in turn contribute to creating an appropriate balance of supply and demand for special education personnel.

Both the Manpower Planning Project and the Interstate Manpower Planning Project now have been funded by BEH for 1978-79 at the levels requested.
INTRODUCTION

In its evaluation of the third year of operation of the Special Education Manpower Planning Project of the Massachusetts Department of Education, Educational Research Corporation (ERC) focused on assessing the effectiveness of five major Project components:

1. Operation and refinement of the Project's information system to collect, analyze, summarize, and disseminate data on special education personnel supply and demand and other training needs and resources.

2. Coordination of the Project's Linkage Network which provides a mechanism for sharing information, for building relationships, for planning on a cooperative basis across agencies and institutions in the Commonwealth, and participatory development of the Massachusetts Comprehensive System for Personnel Development (CSPD).

3. Coordination of the development of the Massachusetts CSPD.

4. Provision of technical assistance related to training program design and development, training delivery, proposal development, and manpower planning.

5. Coordination of Interstate Manpower Planning in collaboration with an Interstate Steering Committee comprised of representatives from Massachusetts and six other northeast states, and provision of technical assistance to the participating states.

Effectiveness of these program components was judged primarily in terms of their contribution to informed planning and decision-making, within and across various agencies and institutions, regarding special education manpower planning and development.

We designed our evaluation to be both formative and summative in nature. We collected information on a continuing basis throughout the year in order to keep the Project Director informed so that any indicated adjustments could be made during the Project year. In addition, we collected information which would allow us to make judgments about the success and impact of the components of the Project.
Evaluation of outcomes was more important during this year's evaluation than it was in the first two years of operation of the Project, since the third year of funding as a special project ended on May 31, 1978. We regarded information on the status of the Project at the close of Special Project funding as very important to a continuation of the Project's functions under Title VI-D funds granted in a regular State Department of Education application. In general, we attempted to determine, for all Project components, whether adequate and appropriate steps were being taken to ensure that the systems and activities built by the Project would continue to function effectively after termination of special funding.

Evaluation activities included reviewing a variety of Project documents (data reports; meeting agendas and minutes of meetings; reports, announcements and other materials relating to technical assistance activities; and activity logs prepared by the Project Director); attending a sample of Linkage Network committee meetings; surveying Linkage Network committee members and Interstate Steering Committee members through questionnaires and interviews, and reporting on these surveys*; meeting regularly with the Project Director to obtain information from her about Project activities as well as to discuss our findings with her; and preparing the final written report. Through each evaluation activity we generally collected information about several Project components. Similarly, we generally assessed each Project component through a variety of evaluation activities.

*Reports on our interview and questionnaire surveys of Linkage Network members and Interstate Steering Committee members have been submitted to the Project Director, together with our survey instruments.
EVALUATION FINDINGS

A. Information System

1. Findings

Evidence of Project success in operating and refining its information system is as follows:

a. Data collection instruments have been refined for ease of completion and for collecting all relevant information from each source through one primary instrument per source.

b. Data have been collected, as appropriate, either from primary or secondary sources, so that efforts are not duplicated.

c. All data as detailed in the Project Workscope have been collected.

d. Data are routinely updated.

e. The Project Director delegates the routine operation of the system to her assistants.

f. Reports on all data collected have been distributed routinely to each member of the Policy Advisory Board prior to meetings or at meetings, and relevant data reports have been sent to each member of each of the other committees in the Linkage Network. All committee members have the opportunity to request, via request forms, all data reports prepared by the Project.

g. Eighty-eight percent of linkage network committee members whom we surveyed by questionnaire reported that the data reports which they routinely receive from the Project are generally useful to them.

h. Sixty-nine percent of questionnaire respondents reported that the Project's projections of manpower training needs are useful to them.

i. Ninety-five percent of linkage network committee members whom we surveyed by interview reported that the information provided in the Project's data reports was adequate for their planning needs.
j. The Project has provided information and referral services in response to individual requests from persons and agencies outside the Project as well as from persons serving on Project committees.

k. Sixty-four percent of interview respondents and 43% of questionnaire respondents reported that they had made special requests for information from the Project. All of these respondents indicated that the Project responded promptly to their requests and that the responses were adequate to meet their needs.

l. The Project worked with the State Dissemination Project to develop a special education component of the Dissemination Project which would prepare a Special Education Training Resource Publication and files.

2. Discussion

The information system of the Project was well established by the end of the second Project year. During the third Project year the emphasis was on refining the system. Data collection instruments were refined, and the Project staff worked with representatives of various bureaus of the Department of Education and of other state agencies (including the Department of Public Health and the Department of Mental Health) to coordinate and facilitate collection of relevant data. Routine operation of the system was handled primarily by Project assistants this year, leaving the Project Director free to work on refining the system and on other components of the Project.

As during the Project's second year of operation, data reports were sent selectively to the committee members to relieve their feeling of an overload of information. Again, all members were sent a checklist through which they could request any data reports which they did not receive routinely. Findings from our interview and questionnaire surveys indicate that this selective dissemination is effective, since most participants find that the reports which they routinely receive are useful to them and are adequate to their planning needs.

In addition to sending data reports to committee members on a routine basis or as requested through the Project's checklist of available data reports, the Project responded to numerous individual requests for special information throughout the Project year. The largest number of requests came from Massachusetts
colleges and universities, while many requests also came from various divisions of the Massachusetts Department of Education. Requests also came from other Massachusetts state agencies, local education agencies and collaboratives, representatives of private agencies, professional associations, consumer groups, parents, and students. Further, information requests were received from the state education agencies of other states and from colleges and universities in other states.

We found in our interview and questionnaire surveys that many Linkage Network members were among those who had made special requests for information from the Project. The information requested varied widely in nature, and was not generally included in Project reports which the members had not received. That is, by selective dissemination, the Project did not increase substantially the volume of individual requests it received.

All survey respondents who reported that they had made special requests for information from the Project indicated that the Project had responded promptly--almost always within one week of the request--and that the responses were adequate to meet their needs. All aspects of the Project's information system, then, appear to be working smoothly and satisfactorily.

Through collaboration with the Massachusetts State Dissemination Project, the Manpower Project is further increasing its capacity for dissemination of information on training resources. Linkage Network members have been asked to contribute to the Training Resources Publication and to the files.

B. Linkage Network

1. Findings

Evidence of Project success in operating an effective Linkage Network is as follows:

a. All committees planned as part of the Linkage Network have been organized and at least two meetings of each group were held during the third Project year. These committees include the following: Policy Advisory Board; Special Education Training Program Liaison Group; Training Program Liaison Steering Committee; and fifteen Project Training Linkage Groups (Arts/Special Needs; Adapted PE/REC-OT/PT-Health; Bilingual/SPED; ECE/SPED; Generic;
Moderate; Paraprofessional; Parents/Surrogate Parents; Regular ED/SPED; Speech Pathology/Audiology/Audition; Secondary SPED; SPED Administrators; Severe Special Needs; Vocational Ed/SPED; and Vision). Four temporary groups also operated this year: Regular Ed In-service Task Force; Severe SPED Task Force; Generic Task Force; and Competency Assessment Task Force. In addition, the Project RETOOL Steering Committee also operated under the direction of the Project.

b. Members of the Policy Advisory Board indicated in our interview survey that they felt that the Board affects the direction of the Project.

c. An appropriate balance existed this year, as in the first two Project years, between having overlapping memberships (where one individual serves on more than one committee) to aid in sharing and planning, and having persons with special interests from the same agency or institution serving on different committees to increase intra-institutional awareness of issues and plans.

d. Detailed minutes of each committee meeting were prepared by the Project Director and were sent to each member of the particular committee.

e. Attendance at meetings, as evidenced from committee meeting minutes, our observations, and our questionnaire survey of Network members, was generally adequate for communication, coordination and sharing purposes.

f. Ninety-five percent of questionnaire respondents said that they had found it useful to belong to a Manpower committee.

g. Eighty-six percent of questionnaire respondents and 82% of interview respondents indicated that they felt that the activities of the Manpower Project had been responsive to the needs identified by their committees.

h. Ninety-five percent of questionnaire respondents indicated that the minutes of their committee meetings were useful to their needs.

i. Fifty-five percent of questionnaire respondents said that they, or the agencies or institutions with which they are affiliated, have made new plans or decisions, or altered existing plans, as a result of participating in the Project.
j. Fifty-eight percent of questionnaire respondents indicated that, as a result of the Manpower Project activities, their agencies or institution coordinated activities or planned cooperatively with other agencies or institutions.

k. The Project coordinated the development of consortia proposals for BEH training program support.

2. Discussion

During the first two years of the Project, twelve of the fifteen Project Training Groups were organized, while the remaining three groups were formed during the third Project year. These last three groups are: Art/Special Needs; Parents/Surrogate Parents; and Secondary SPED. Building the Network required much less time during the third Project year than it did during the first two years. Further, the degree of leadership exercised by members of the committees has continued to increase, so that the direct linkages among agencies and institutions are operating more independently of the leadership and direction of the Project.

The Project is based on the notion that its influence comes from those whom it serves. Thus, the Project's Policy Advisory Board should lend advice to the Project, and in turn the Project should be responsive to this advice. Therefore, it is important that Board members feel that they do influence the direction of the Project.

Our questionnaire and interview surveys of the Linkage members demonstrated that committee members are generally very satisfied with their participation in the Network. They are pleased with the way in which the Network is managed by the Project, and they perceive benefits to themselves and the agencies or institutions with which they are affiliated. They mention that the meetings are particularly helpful for sharing information, and also for developing training priorities and guidelines and for developing consortia proposals and other training plans. Questionnaire respondents named the Linkage Network as the most valuable accomplishment of the Project.

Agendas of meetings were mailed to members in advance of meetings, often along with copies of materials which would be discussed at meetings. Members were thus able to prepare for the meetings, and the meeting time itself could be
used efficiently and constructively. When we observed meetings we found that the agendas were followed, and that all topics were covered during the allotted time.

We also observed that members generally participated actively in the meetings, with the discussions being lively. Expression of members' various points of view was encouraged, and, whenever possible, problems and concerns were resolved through discussion at the meetings. When this was not possible, specific referrals or follow-up plans were generally made to deal with the issues.

Minutes of meetings were prepared carefully to reflect the concerns of the members as well as action taken on issues. Almost all members indicated in our questionnaire survey that they find the minutes of meetings useful, generally for a combination of review, documentation, and reference.

One of the most impressive and important achievements of the Project is the impact which it has had on the planning of the agencies and institutions which are represented in the Linkage Network. More than half the members described ways in which their participation in the Project had resulted in new or altered plans in their agencies. Most of the representatives of teacher training institutions reported such changes, with programs being altered to conform to training priorities or certification requirements, and an increased emphasis on in-service programs. In addition, 58% of questionnaire respondents described ways in which their agencies or institutions had coordinated their activities or planned cooperatively with other agencies or institutions. Many such collaborations were between or among training institutions; coordination of pre-service and in-service programs, workshops, and summer programs were described to us, and some institutions formed consortia for joint application for BEH training program support. Much collaboration also took place between other types of agencies and institutions, including universities collaborating with LEAs and with the Department of Education, and the Department of Education collaborating with other state agencies.

The extent to which participation in the Project has resulted in coordination among agencies and institutions and in new or altered plans of participants is a very strong indicator of the positive impact the Project has had on manpower planning and development in the Commonwealth. Further evidence of the importance of the Linkage Network is provided below in the discussion of the Project's role in coordinating the development of the Massachusetts Comprehensive System for Personnel Development.
C. Coordination of Comprehensive System for Personnel Development

1. Findings

Evidence of Project success in coordinating the development of the Massachusetts Comprehensive System for Personnel Development (CSPD) is as follows:

a. The Project coordinated the drafting of CSPD components through the Linkage Groups and Task Forces. The process included two cycles of drafting of the components by subcommittees and review by the entire committees, followed by review by the Project's Policy Advisory Board.

b. The Project Director prepared the narrative section of the CSPD and data summaries which accompanied the components developed by the Linkage groups.

c. Seventy-two percent of questionnaire respondents and 72% of interview respondents reported feeling that they were adequately involved in developing the CSPD components.

One problem with the CSPD development process was:

a. Some members of the Linkage Network expressed concern that the products of the Network were not accepted by the state at the Division level.

2. Discussion

Participatory planning for the Massachusetts CSPD is included as a requirement in its development. The Linkage Network of the Manpower Project provides a mechanism for the statewide involvement of individuals and groups with concerns about special education manpower planning and development. The level of involvement of the Linkage members in developing the CSPD can be viewed as an indicator both of the representativeness of the plan and of the level of support which the plan will receive statewide. Seventy-two percent of Linkage Network members whom we interviewed, and 72% of members who responded to our questionnaire, indicated that they felt that they had been adequately involved in developing the CSPD components. Many of the remaining committee members had joined their committees recently, after the CSPD components had been drafted; and some of the inactive members commented that while their participation had been low, the communication was good and they knew what was going on in the committees. The Project Director circulated copies of the component drafts by mail, and asked for written comments from those members who did not attend the meetings at which the components were discussed. In effect, then, very few members actually found fault with the
participatory planning process. Generally, the level of participation is high, and the comments of those who reported involvement indicate a high level of commitment as well.

The Project Director prepared the narrative section of the CSPD to accompany the components developed by the Linkage groups. While this narrative draft received positive comments from Linkage members, some revisions which were made by the Division of Special Education of the Department of Education created a variety of concerns among the members. Policy Advisory Board members were particularly involved in bringing these concerns to the attention of the Division in order to retain the contributions of the Linkage Network and to preserve the participatory planning process itself. While most concerns were resolved to the satisfaction of Project members, the episode created a feeling of uneasiness about the Division's acceptance of participatory planning. The lengthy revision process also required a great deal of the Project Director's time and caused delays in other Project activities.

D. Technical Assistance

1. Findings

Evidence of Project success in providing technical assistance is as follows:

a. The Project compiled a list of Massachusetts special education training priorities to serve as a guideline for institutions of higher education and other agencies designing training programs and applying for BEH VI-D personnel preparation grants, and developed a VI-D proposal review process.

b. The Project coordinated the development of consortia proposals for BEH VI-D funding and prepared the core sections for these proposals.

c. Project staff provided assistance to training institutions in developing proposals for BEH funding, reviewed proposals on request, and provided assistance on improving the quality of proposals.

d. About half of the nearly 50 proposals for BEH VI-D funds which the Project reviewed received funding; this compares very favorably with the percentage of approved proposals submitted by other states for BEH VI-D funding. The Manpower Project itself received BEH VI-D funding for 1978-79, at the level requested.
e. Project staff provided general assistance to training institutions relative to the development of special education personnel preparation programs.

f. The Project Director consulted with the Division of Special Education and other agencies in planning manpower preparation strategies for the other agencies.

g. The Project organized Project RETOOL for this Project year, assisted in planning for RETOOL conferences and workshops, and participated in RETOOL sessions.

h. The Project Director attended BEH briefings in Washington D.C.

i. Project staff consulted with the staff of other BEH funded projects in Massachusetts and in other states.

j. Project staff responded to numerous individual requests for technical assistance from staff members of training institutions and others within the Project Network and outside the Project.

k. Forty-one percent of questionnaire respondents and 41% of interview respondents reported that they had made special requests for technical assistance from the Project; all were satisfied with the responses they received.

l. The Project Director participated in state, regional, and national conferences on various aspects of special education manpower planning and development, and she made presentations at several of these.

m. The Project Director participated in planning and writing an evaluation handbook for federally funded projects of the Department of Education.

2. Discussion

As during its first two years of operation, the Project again provided a wide range of technical assistance, both formally and informally. It continues to be viewed by agencies and institutions within the Commonwealth, and even outside the Commonwealth, as a resource not only for information but also for direct assistance.
Providing assistance to training institutions in preparing their proposals for SEH VI-D funding was a major Project activity during the late summer and fall. Almost all proposals submitted by Massachusetts training institutions were reviewed by the Project, and in most cases the Project Director provided technical assistance in preparing the proposals. The high percentage of Massachusetts proposals which were approved for funding (relative to the approval rate in other states) is probably due primarily to high proposal quality and to success of proposals in addressing Massachusetts training priorities as developed by the Linkage Network.

The Project has also provided a great deal of other technical assistance to members of the Linkage Network, as we determined in our interview and questionnaire surveys. In addition to providing assistance in developing grant proposals, the Project assisted Linkage Network members in designing in-service training programs, modifying or developing pre-service training programs, obtaining training materials, and making referrals to resource persons, materials, funds, or model programs.

Assistance to other state agencies and to groups outside the Commonwealth also occurred in a variety of forms. Assistance provided to the Department of Mental Health regarding coordination of their manpower development program with that of the Division of Special Education is significant not only for cooperative planning but also for integrated service delivery to children and youth with special needs.

The Project Director made presentations at state, regional and national conferences, disseminating and gathering information. Some conferences addressed special education manpower development generally, while others focused on special areas such as bilingual special needs and speech pathology and audiology. These activities, as well as other technical assistance activities of the Project, contribute to an improvement in the capacity of Massachusetts and other states to plan in a responsible manner for manpower planning and development.

E. Interstate Manpower Planning Component

1. Findings

Evidence of Project success in coordinating Interstate Manpower Planning is as follows:

a. Three two-day meetings of the Interstate Steering Committee were held during this Project year--in July and September, 1977, and February, 1978.
b. All members of the Interstate Steering Committee told us in our interview survey that they feel that the Interstate Component is responsive to the priority manpower needs of their states.

c. In response to our questionnaire survey, all members of the Steering Committee expressed satisfaction with the technical assistance and coordination which the Massachusetts-based Manpower Project has provided in the areas of the Interstate Agreements.

d. Four Steering Committee members stated in our questionnaire survey that the Project had provided technical assistance to them beyond that which they initially expected.

e. In our questionnaire survey, five members specified areas in which the Project has already made an impact on manpower planning and development in their states, and one more member indicated that the impact of the Project was expected to be felt later this year.

f. All but one member indicated in our surveys that their states had made contributions to the Interstate Project.

g. New Interstate agreements were negotiated with the New England states and New Jersey in September, 1977, for the academic years 1978-80.

h. The Interstate Project received BEH VI-D funding for 1978-79 at the level requested.

2. Discussion

During the 1977-78 Project year, the Interstate agreements signed in the fall of 1976 were in effect. These agreements allowed each participating state to indicate those areas in which it desired assistance from the Massachusetts-based Project. These agreements were signed by the Special Education Manpower Project Director, the Massachusetts Commissioner for Special Education, and, from the cooperating states, the VI-D Coordinator, the State Director of Special Education, and the Responsible State Official. Before the 1977-78 Project year began, each cooperating state had designated a state official who was responsible for personnel preparation and cooperative planning, and who would serve as a representative to the Interstate Project Steering Committee.
Replacement of one state's representative has contributed to that state's feeling that it has not contributed as much to the Project as it would have liked. However, other representatives appear to be very satisfied with their participation, and, in addition, a representative from New York participated on an informal basis.

While only two meetings of the Interstate Steering Committee were originally planned, the members believed that there would be value in holding an extra meeting. Therefore, three two-day meetings were held, with the first two, in July and September of 1977, being held in Boston, and the third, in February, 1978, being held in Stowe, Vermont. When we surveyed the members of the Interstate Committee by interview and by questionnaire, we found that they felt that the meetings were very valuable for sharing information.

Generally, members felt their own major contributions were in the areas of sharing information and documents. They mentioned having shared information or materials on their State Plans, information systems, in-service programs, training resources, certification guidelines, and child count programs. It is important, of course, that each state views itself as having something of value to share with the other states, in order that all the cooperating states benefit from each other as resources.

Members also referred to their interactions with other states when they described the major impact of the Project on their states. They mentioned that they had benefited from the information which other states had shared with them, and they also noted that the Project created a climate which facilitated implementation of their CSPDs.

Development of the CSPDs was also mentioned as a major impact of the Project on the participating states, and the Project Director's assistance in clarifying the 94-142 regulations for the CSPD was viewed as critical. A continuation of clarification and of CSPD development were cited by most members as being the areas on which the Project should focus during the coming year. Five members ranked "Definition of the parameters of the Comprehensive System for Personnel Development and sharing of problem solving strategies" as being either the first or second priority of their Interstate agreements. Three members ranked "Development of the State Comprehensive System for Personnel Development" for their states as their top priority. Also mentioned as being among the top three priorities by
four members was "Coordination of access to regional and national program and technical assistance resources, for use in development and implementation of each state's Comprehensive System for Personnel Development." Only one state did not have priority concerns in the area of CSPD development; the representative of this state has primary concerns in the areas of planning and implementing regional manpower planning.
SUMMARY AND RECOMMENDATIONS

The Special Education Manpower Planning Project was successful in meeting its objectives for its third year of operation. It met its primary goals of refining and maintaining its information system and its Linkage Network; coordinating the development of Massachusetts' Comprehensive System for Personnel Development; providing technical assistance related to manpower planning and training program design, development, and delivery; and coordinating the Interstate Manpower Project. The Project has also gone beyond its original workscope in the extent to which it has provided technical assistance in response to special requests from individuals and organizations in Massachusetts and in other states.

Success of the Project in Massachusetts is evidenced not only through support given to it by the numerous members of its Linkage Network, but also through decisions made by Linkage members as a direct result of their participation in the Project. These decisions represent important collaborative efforts, new plans, or modifications of existing plans, including joint training programs, additions, modifications or deletions of types, levels or delivery modes of training programs, and inter-agency coordination. These decisions have a direct impact on manpower preparation and supply in the Commonwealth.

Coordination of the Interstate Manpower Project began during the third Project year, and it also met with success. All cooperating states, including the New England states, New Jersey, and New York, identified specific ways in which the Project had benefited them and ways in which they had contributed to the Project. They noted that the Project is important not only substantively, but also in creating a climate which will facilitate CSPD implementation within the states and manpower planning and development on a regional basis.

Both the Massachusetts Manpower Project and the Interstate Manpower Project have been funded by BEH for 1978-79 at the levels requested.

In order that the Project may continue to improve in effectiveness and efficiency during the 1978-79 Project year, we recommend the following:
1. Computerization of the data system should take place as rapidly as possible in order to reduce the staff time involved in data handling and to minimize errors caused by manual data tabulation. Now that the collection process has been refined and the types of desirable output determined, computerization should prove particularly efficient.

2. Again we encourage the Project Director to increase her interpretation of data collected by the Project. While the Project cannot and should not give "answers" to specific questions about manpower supply and demand, we believe that the Project Director is better prepared than are most other individuals to interpret the Project data. She can place the manpower data in a context which will help to prevent misinterpretations and will promote informed decision-making.

3. In accordance with the wishes expressed by members of the Linkage Network, we feel that it will be appropriate for the Project to increase its focus on coordination and development of in-service programs.

4. When the Project moves under the direction of the new Bureau of Program Development and Evaluation this summer, it should be ready to take advantage of any opportunities to coordinate its technical assistance activities with those of other staff members in the Bureau and to draw on any new resources that become available.

5. Because most members of the Interstate Steering Committee would like to focus on clarifying the requirements for their CSPDs and developing their CSPDs, it will be appropriate for the Project to focus its assistance in these areas. However, one state is more concerned now with developing and implementing regional manpower strategies than with CSPD development, and neither the needs of this state nor the contributions it can make to the Project should be neglected, even for a short time. This state's expertise in CSPD development may be helpful to the other states; additionally, it might be encouraged to take some initiative in designing regional strategies which could form the basis for regional collaboration when other northeast states are prepared to concentrate more in this area.
REPORT ON
SEVERE SPECIAL NEEDS
DELPHI SURVEY

Mary C. Havelock

Submitted to:
Special Education Manpower Planning Project
Division of Special Education
Massachusetts Department of Education

Submitted by:
Educational Research Corporation
85 Main Street
Watertown, Massachusetts 02172

December, 1977
Educational Research Corporation (ERC) was retained by the Special Education Manpower Project to assist in developing a consensus of sample "experts" regarding the desirability of various training program elements for use in developing training program guidelines. To help determine these personnel preparation needs, we asked experts in the area of severe special needs to express their opinions regarding the desirability and the probability of the occurrence of various changes in such areas as recruiting, training, and certifying personnel to serve students with severe special needs, in the Commonwealth, during the next five years.

To achieve consensus of opinions among experts in the area of severe special needs, we used the Delphi technique. In this process, experts express their opinions on a "first round" questionnaire, and responses to these instruments are tabulated. Then the same experts respond to successive similar questionnaires which report the responses of the group as a whole to the previous round and which allow individuals to modify their responses, if they wish.

Questionnaire Development and Administration

Items on the first round of the Severe Special Needs Delphi questionnaire were drafted and refined collaboratively by the Severe Special Needs Training Linkage Group of the Manpower Project, the Director of the Manpower Project, and ERC personnel. Fifty-three items were categorized into four areas: Personnel and Recruitment (14 items); Content of Training for Personnel (19 items); Structure and Process of Training for Personnel (14 items); and Certification and Related Issues (6 items). These items were intended to be reflective of the full range of concerns of experts in the area of severe special needs. However, the respondents were also urged to add any relevant items which they thought had been omitted.

Respondents were selected by the Severe Special Needs Group and the Manpower Project Director. There were twelve respondent categories: Special Education (SPED) college teachers; SPED administrators in collaboratives; SPED administrators in public schools; SPED administrators in institutional schools; SPED administrators in private schools; SPED teachers; SPED paraprofessionals; parents of SPED children; Human Service Agency personnel; State Education Agency (SEA) personnel; students in SPED training programs; and...
auxiliary personnel. The number of persons chosen to represent each group varied from five to twenty, depending on the size of the total population of each group in the Commonwealth.

Manpower Project staff distributed the first round questionnaires to the 141 selected respondents in the fall of 1976, and assumed responsibility for following up on non-respondents to ensure a good response rate. Participants were assured that their responses would be anonymous and they were asked to return their questionnaires directly to ERC. Of the 141 questionnaires distributed, 114 (80%) were returned to ERC.

ERC tabulated the results and, for each of the four sections of the questionnaire, rank ordered the responses for each of the twelve respondent groups and for the entire group. Mean responses to each item were also computed for the group as a whole.

The Round I results were reported to the Severe Special Needs Training Group at its meeting of January 19, 1977. The group decided that a second round should be conducted, since variations in ratings among the respondent groups were evident. However, the Group recommended two modifications for the Round II questionnaire. First, they recommended that additional items drawn from Round I write-in suggestions should be included in a separate section on the Round II instrument. Second, they recommended decreasing the Round I item pool by eliminating those items which had already been determined as highest priority by respondents.

ERC drafted new items based on Round I comments and submitted these to the Manpower Director and the Severe Special Needs Group Chairpersons for selection of additional Round II items. Twenty-six new items were selected for inclusion. These were grouped, within a fifth section of the questionnaire, into the four Round I categories, and a fifth category, "Content of Social Education for Severe Special Needs."

Round I items with the ten highest mean ratings were dropped from Round II consideration. Because two items were tied for tenth place in the mean ratings, a total of eleven items were eliminated in this way. The Round II instrument contained a total of 68 items for respondent rating.
On the Round II questionnaire the mean Round I responses for all participants were indicated for the items; means were marked at appropriate places along the scale for each item. For example, for the first item in category I of the questionnaire, the mean response of all participants to the desirability of the item was 4.04; this was indicated on the desirability scale as follows:

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</table>

This information is critical to the Delphi process, of course. Consensus may be achieved if respondents are influenced by seeing how the group as a whole rated items in the previous round. Naturally, no mean responses to the new items in the fifth section of the Round II instrument were indicated, since these items were suggested by participants in Round I.

In the spring of 1977, the Round II questionnaires were mailed to all 114 Round I respondents. Again the Manpower Project staff assumed responsibility for distributing the questionnaires and following up on non-respondents. The follow-up process was lengthy, because many respondents could not be reached during the summer months. However, by November, 1977, 94 (82%) of the 114 Round I participants had returned their Round II questionnaires to ERC.

Results for all Respondent Groups Combined -- Rounds I and II

ERC again assumed responsibility for tabulating and analyzing the results. We computed mean Round II responses to each item and rank ordered them within each category of items. These are presented in Table I, together with the comparable Round I data. The Round I items which were eliminated from Round II are included for reference, with the Round I ratings and ranks. Respondents rated items on a five-point scale, where 5=very high desirability or probability, and 1=very low desirability or probability. To allow comparison of Desirability ranks between Round I and Round II, the Round II rankings have been adjusted downward by the number of Round I items eliminated from each section. For example, in Section I, the five items which were ranked highest in desirability of occurrence were eliminated. Thus the top ranked Round II item was assigned rank 6. This adjustment has also been made for
Probability rankings, although comparisons of Round I to Round II rankings cannot always be made. Since the items which received the highest Desirability rankings, and which were therefore eliminated in Round II, did not necessarily receive the highest Probability rankings, items ranked highest in Probability in Round I may be included in Round II, while items with lower ranks were eliminated in some cases. This is true in Section I, where items ranked 1, 2 and 3 in Round I remained on the Round II instrument.

Where ties in ranking occurred, each item was assigned that rank, and the appropriate number of rank numbers were skipped in assigning a rank to the next item. For example, if two items were tied for first place, then both items were assigned a rank of "1," and the item with the next highest mean rating was assigned a rank of "3."

Generally, very few changes occurred between Rounds I and II, either in ratings or in rankings of items within categories. The data for Section I, Personnel and Recruitment, are virtually unchanged. In Section II, Content of Training for Personnel, a few changes occurred. Item 15, which received a Desirability rank of 14 out of 19 in Round I, moved up to rank 10 in Round II. This item is: "Increased emphasis on instructing trainees in writing specific individual behavioral objectives for SSN students and time lines for meeting these objectives." Items numbers 1, 14, and 19 moved down more than two points in the Desirability rankings. These items are: "More emphasis on a multidisciplinary approach;" "Greater emphasis on preparing trainees to use a variety of observational techniques to monitor the progress of SSN children;" and "Specialized training for personnel who (will) work with SSN children in institutional schools."

In Section III, Structure and Process of Training for Personnel, only two items changed by more than two ranking points. Item 9, "Non-college groups will offer formal training programs," went down from rank 11 to 14, while item 10, "Professionals and paraprofessionals will receive their training together, through a team approach," moved up from rank 14 to rank 11.

In Section IV, Certification and Related Issues, where there were only six items, no item changed more than two points in the Desirability rankings between Round I and Round II, but half the items did change by two points, two changed by one point, and only the top ranked item remained unchanged in
rank. Item 1, "Certification of paraprofessionals will be required," moved down from rank 2 to rank 4; and item 6, "Teachers of SSN students will be required to hold regular class certification," moved down from rank 4 to rank 6. Item 5, "The educational requirement for SSN teachers will be upgraded to that of Master's degree," moved up from rank 5 to rank 3.

Overall, mean desirability ratings given to items in Section IV, Certification and Related Issues, were lower than those assigned to items in the other three categories. This held true both in Round I and in Round II. However, the mean desirability ratings for new Round II items (Section V D) in this same category were as high as the mean ratings of items in other categories. Probability ratings for both old and new items in this category were comparable to probability ratings for items in other categories. The items receiving the lowest Desirability ratings in Round II were those in group E., Context of Social Education for Severe Special Needs. No items of this group were included in the Round I instrument.

Probability ratings were lower than Desirability ratings in both Round I and Round II. Desirability ratings averaged slightly over 4 on the five-point scale, while Probability ratings averaged about 3. Out of all items, there were only two cases in which Probability ratings exceeded Desirability ratings in Round II. One of these was a new item, V.E.2, "School age people with severe special needs will be served only in special settings due to their extensive personnel support requirement," which received a Desirability rating of 2.63 and a Probability rating of 3.16. In fact, this latter item received the highest Probability ranking of items in this group, and the lowest Desirability ranking. The second item which received a higher Probability rating was IV.6, "Teachers of SSN students will be required to hold regular class certification," which received a Desirability rating of 2.86 and a Probability rating of 3.23. The other item received a higher Probability than Desirability rating in Round I only; this item, number IV.5, "The educational requirement for SSN teachers will be upgraded to that of Master's degree," was one which also moved up in the Desirability rankings from Round I to Round II.
MASSACHUSETTS SPECIAL EDUCATION MANPOWER PROJECT
SEVERE SPECIAL NEEDS
DELPHI SURVEY

Results of Round One and Round Two
For All Groups

1. Personnel and Recruitment

<table>
<thead>
<tr>
<th>Statement</th>
<th>DESIRABILITY of Occurrence</th>
<th>PROBABILITY of Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank</td>
<td>Mean</td>
</tr>
<tr>
<td>Direct service by paraprofessionals will be increased.</td>
<td>8</td>
<td>4.04</td>
</tr>
<tr>
<td>More Occupational Therapists will be trained to work with children with SSN.</td>
<td>6</td>
<td>4.46</td>
</tr>
<tr>
<td>Requirements for entry into training programs will become more stringent.</td>
<td>12</td>
<td>3.68</td>
</tr>
<tr>
<td>More Physical Therapists will be trained to work with children with SSN.</td>
<td>3</td>
<td>4.60</td>
</tr>
<tr>
<td>The ratio of paraprofessionals to professional teachers will increase.</td>
<td>11</td>
<td>3.80</td>
</tr>
<tr>
<td>More Language Development Therapists will be trained to work with children with SSN.</td>
<td>1</td>
<td>4.63</td>
</tr>
<tr>
<td>The Special Education community will increase its active recruitment of people to work on both professional and para-professional levels.</td>
<td>5</td>
<td>4.54</td>
</tr>
<tr>
<td>As part of their career exploration process, high school students will be encouraged to join volunteer programs which serve SSN persons.</td>
<td>7</td>
<td>4.37</td>
</tr>
<tr>
<td>Mildly disabled persons will be recruited in greater numbers to teach SSN students.</td>
<td>14</td>
<td>3.49</td>
</tr>
<tr>
<td>Increased emphasis will be placed on recruiting local community residents to serve as paraprofessionals.</td>
<td>9</td>
<td>3.96</td>
</tr>
<tr>
<td>Foster grandparent programs will be expanded and elderly persons will be encouraged to teach SSN students.</td>
<td>13</td>
<td>3.61</td>
</tr>
<tr>
<td>Increased emphasis will be placed on preparing personnel to manage and staff community residences (e.g., to serve as houseparents).</td>
<td>1</td>
<td>4.63</td>
</tr>
</tbody>
</table>

*Statements which were ranked highest on Round I were not rated again by participants on Round II. These statements are circled. For each set of statements, Round II ratings were adjusted downward by the number of statements circled, to allow easy comparison with Round I ratings.
Programs will be developed which will prepare trainees to work with SSN children from the time of their birth.

Greater emphasis will be placed on recruiting and preparing personnel to work within institutional schools (including non-instructional as well as instructional and administrative positions).

**II. Content of Training for Personnel Should Include:**

<table>
<thead>
<tr>
<th></th>
<th>DESIRABILITY of Occurrence</th>
<th>PROBABILITY of Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Round I</td>
<td>Round II</td>
</tr>
<tr>
<td></td>
<td>Rank</td>
<td>Mean</td>
</tr>
<tr>
<td>1.</td>
<td>More emphasis on a multi-disciplinary approach (e.g., training in Social Work, Medicine, or Psychology).</td>
<td>9</td>
</tr>
<tr>
<td>2.</td>
<td>Greater emphasis on music, movement and the visual arts.</td>
<td>17</td>
</tr>
<tr>
<td>3.</td>
<td>More emphasis on diagnostic and prescriptive skills.</td>
<td>15</td>
</tr>
<tr>
<td>4.</td>
<td>Greater stress on interpersonal skills for teachers.</td>
<td>11</td>
</tr>
<tr>
<td>5.</td>
<td>More instruction in behavioral principles and techniques.</td>
<td>10</td>
</tr>
<tr>
<td>6.</td>
<td>More emphasis on career education in teacher training programs.</td>
<td>16</td>
</tr>
<tr>
<td>7.</td>
<td>More emphasis on recreational and physical education.</td>
<td>13</td>
</tr>
<tr>
<td>8.</td>
<td>More time allocated to the learning of curriculum development skills.</td>
<td>18</td>
</tr>
<tr>
<td>9.</td>
<td>More training in carefully sequenced programs in language development and non-verbal communication.</td>
<td>2</td>
</tr>
<tr>
<td>10.</td>
<td>Emphasis on preparing teachers to train and supervise paraprofessionals on the job.</td>
<td>8</td>
</tr>
<tr>
<td>11.</td>
<td>More training in working with parents of SSN children.</td>
<td>1</td>
</tr>
<tr>
<td>12.</td>
<td>Substantial emphasis on sequenced programs in self-help skills for SSN children.</td>
<td>3</td>
</tr>
<tr>
<td>13.</td>
<td>Greater emphasis on preparing trainees to use a variety of standardized measures to monitor the progress of SSN children (e.g., achievement tests).</td>
<td>19</td>
</tr>
</tbody>
</table>
14. Greater emphasis on preparing trainees to use a variety of observational techniques to monitor the progress of SSN children.

15. Increased emphasis on instructing trainees in writing specific individual behavioral objectives for SSN students and time lines for meeting these objectives.

16. Increased instruction in working with SSN children at a pre-academic level.

17. Greater emphasis on preparing trainees to work with SSN children in vocational school settings.

18. Instruction designed to increase trainees' skills in the area of socialization (i.e., to guide socialization of SSN children so that behavior does not interfere with educational progress).

19. Specialized training for personnel who (will) work with SSN children in institutional schools.

### III. Structure and Process of Training for Personnel

<table>
<thead>
<tr>
<th></th>
<th>DESIRABILITY of Occurrence</th>
<th></th>
<th>PROBABILITY of Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Round I Rank Mean</td>
<td></td>
<td>Round II Rank Mean</td>
</tr>
<tr>
<td>14. Greater emphasis on preparing trainees to use a variety of observational techniques to monitor the progress of SSN children.</td>
<td>4 4.53</td>
<td>7 4.40</td>
<td>6 3.38</td>
</tr>
<tr>
<td>15. Increased emphasis on instructing trainees in writing specific individual behavioral objectives for SSN students and time lines for meeting these objectives.</td>
<td>14 4.03</td>
<td>10 4.34</td>
<td>2 3.71</td>
</tr>
<tr>
<td>16. Increased instruction in working with SSN children at a pre-academic level.</td>
<td>4 4.53</td>
<td>5 4.52</td>
<td>5 3.44</td>
</tr>
<tr>
<td>17. Greater emphasis on preparing trainees to work with SSN children in vocational school settings.</td>
<td>7 4.46</td>
<td>6 4.43</td>
<td>12 3.18</td>
</tr>
<tr>
<td>18. Instruction designed to increase trainees' skills in the area of socialization (i.e., to guide socialization of SSN children so that behavior does not interfere with educational progress).</td>
<td>6 4.47</td>
<td>4 4.60</td>
<td>9 3.29</td>
</tr>
<tr>
<td>19. Specialized training for personnel who (will) work with SSN children in institutional schools.</td>
<td>12 4.26</td>
<td>15 4.13</td>
<td>19 2.69</td>
</tr>
</tbody>
</table>

**III. Structure and Process of Training for Personnel**

1. More than 50% of the trainee's time in a training program will be spent in field-based practicums.

2. Students should have practicum experience in at least three different types of settings during training.

3. Training programs will develop advisory councils comprised of parents and currently employed teachers and administrators.

4. College and university students will be given more opportunity to provide input into the design and content of their teacher training programs.

5. There will be greater input by trainees into the content of their own in-service training.

6. Greater emphasis will be placed on interagency collaboration to develop a comprehensive plan for training all types of personnel to work with children with SSN.
7. All special education trainees will receive training to work with children with SSN.
8. Trainees will be prepared to work with SSN children in more than one setting (e.g., public schools, institutions, human services agencies).
9. Non-college groups (e.g., professional organizations, service facilities) will offer formal training programs.
10. Professionals and paraprofessionals will receive their training together, through a team approach.
11. Colleges and universities will join together for inter-school degree programs.
12. There will be more in-service training provided within community service agencies (e.g., vocational rehabilitation settings, community group homes).
13. Training programs will collaborate with institutional schools to assist in providing training for non-instructional as well as educational staff in institutions.
14. Public, private, and institutional schools will join with training institutes to provide staff members with the opportunity to upgrade their skills and knowledge so that they may advance their careers (as, in "job ladder" advancement).

### IV. Certification and Related Issues

1. Certification of paraprofessionals will be required.

2. Special Educators will be required to renew their certification on a regular basis.

3. Entry level jobs for paraprofessionals will require a two-year Associates degree.

4. Requirements for entry level certification will become more stringent.

<table>
<thead>
<tr>
<th>DESIRABILITY of Occurrence</th>
<th>PROBABILITY of Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round I Rank</td>
<td>Mean</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----</td>
</tr>
<tr>
<td>13</td>
<td>3.82</td>
</tr>
<tr>
<td>1</td>
<td>4.66</td>
</tr>
<tr>
<td>14</td>
<td>3.54</td>
</tr>
<tr>
<td>7</td>
<td>4.30</td>
</tr>
<tr>
<td>4</td>
<td>4.53</td>
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<tr>
<td>3</td>
<td>4.54</td>
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<tr>
<td>2</td>
<td>3.61</td>
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<tr>
<td>1</td>
<td>3.89</td>
</tr>
<tr>
<td>6</td>
<td>3.03</td>
</tr>
<tr>
<td>3</td>
<td>3.61</td>
</tr>
</tbody>
</table>
5. The educational requirement for SSN teachers will be upgraded to that of Master's degree.

6. Teachers of SSN students will be required to hold regular class certification.

V. Statements Added by Round I Respondents

A. Personnel and Recruitment

1. More art, drama, and music professionals will be trained to work with SSN children.

2. Increased emphasis will be placed on the training of all direct care hospital personnel regarding the special needs of SSN children who are patients in hospitals.

3. More physical therapists will be trained to work with children with SSN.

4. Increased emphasis will be placed on preparing professional personnel to staff day care facilities for children with SSN.

B. Content of Training for Personnel Should Include:

1. More emphasis on environmental design for SSN children.

2. More emphasis on adaptive equipment for SSN children.


4. More emphasis on creative problem-solving skills for trainees.

5. More instruction in setting reasonable goals and in measuring student attainment of specific goals through observations.

6. Increased emphasis on content of curriculum for older SSN students (12 years and older), so that teachers know what to teach as well as how to teach.

7. Thorough background training in normal child development and a working knowledge of basic neurophysiological principles for teachers of SSN children.
8. Training professionals and paraprofessionals to work with children with any of a variety of special needs.

9. Emphasis on social goals, such as deinstitutionalization, for programs for severely handicapped students.

C. Structure and Process of Training for Personnel

1. Training programs will be evaluated on their effectiveness in enhancing the educational options for children with SSN, as well as through a range of other evaluation methods.

2. Emphasis will be placed on a cooperative approach among agencies and institutions to coordinate services for SSN children and to train professionals and paraprofessionals in all aspects of education of SSN children.

3. Parents and parent groups will have input to teacher training programs.

D. Certification and Related Issues

1. Support training will be offered to paraprofessionals to encourage them to continue working with SSN children.

2. Field work or experience in regular education classrooms as well as with SSN children will be required for certification of special education teachers (to provide the teacher with perspective).

3. Credit will be given for on-the-job experience as well as for coursework and/or educational degrees in fulfilling certification requirements for professionals.

4. Credit will be given for on-the-job experience as well as for coursework and/or educational degrees in fulfilling certification requirements for paraprofessionals.
E. Context of Social Education for Severe Special Needs

1. Children and youth with severe special needs will be mainstreamed into schools.

2. School age people with severe special needs will be served only in special settings due to their extensive personnel support requirement.

3. Children and youth with severe special needs will be able to participate in normal community life despite its competitiveness.

4. Persons with severe special needs will be allowed to take the same risks in everyday life as do persons without severe special needs.

5. All regular classroom teachers in elementary and secondary schools will be trained to work also with people with severe special needs.

6. Teachers of people with severe special needs will prepare them for earning a living wage.

<table>
<thead>
<tr>
<th>Rank</th>
<th>DESIRABILITY Rank Mean</th>
<th>PROBABILITY Rank Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3.73</td>
<td>2 2.71</td>
</tr>
<tr>
<td>6</td>
<td>2.63</td>
<td>1 3.16</td>
</tr>
<tr>
<td>1</td>
<td>3.86</td>
<td>4 2.14</td>
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<tr>
<td>4</td>
<td>3.15</td>
<td>5 1.92</td>
</tr>
<tr>
<td>5</td>
<td>3.11</td>
<td>6 1.81</td>
</tr>
<tr>
<td>2</td>
<td>3.81</td>
<td>3 2.33</td>
</tr>
</tbody>
</table>
Below are listed, in order of descending Desirability, the eleven top rated items from Round I, combined with all items which received Round II mean Desirability ratings of 4.50 or greater. The mean ratings are given in parentheses following the items.

II.11. More training in working with parents of SSN children. (Round I 4.78)

II.9. More training in carefully sequenced programs in language development and non-verbal communication. (Round I 4.70)

V.B.6. Increased emphasis on content of curriculum for older SSN students (12 years and older), so that teachers know what to teach as well as how to teach. (Round II 4.68)

III.8. Trainees will be prepared to work with SSN children in more than one setting (e.g., public schools, institutions, human services agencies). (Round I 4.66)

I.6. More Language Development Therapists will be trained to work with children with SSN. (Round I 4.63)

I.12. Increased emphasis will be placed on preparing personnel to manage and staff community residences (e.g., to serve as houseparents). (Round I 4.63)

III.6. Greater emphasis will be placed on interagency collaboration to develop a comprehensive plan for training all types of personnel to work with children with SSN. (Round I 4.61)

I.4. More Physical Therapists will be trained to work with children with SSN. (Round I 4.60)

II.18. Instruction designed to increase trainees' skills in the area of socialization (i.e., to guide socialization of SSN children so that behavior does not interfere with educational progress). (Round II 4.60)

I.13. Programs will be developed which will prepare trainees to work with SSN children from the time of their birth. (Round I 4.59)

II.12. Substantial emphasis on sequenced programs in self-help skills for SSN children. (Round I 4.58)

V.B.2. More emphasis on adaptive equipment for SSN children. (Round II 4.57)

V.B.5. More instruction in setting reasonable goals and in measuring student attainment of specific goals through observations. (Round II 4.56)

III.2. Students should have practicum experience in at least three different types of settings during training. (Round II 4.55)
I.7. The Special Education community will increase its active recruitment of people to work on both professional and para-professional levels. (Round I 4.54)

III.14. Public, private, and institutional schools will join with training institutes to provide staff members with the opportunity to upgrade their skills and knowledge so that they may advance their careers (as, in "job ladder" advancement). (Round I 4.54)

V.A.3. More physical therapists will be trained to work with children with SSN. (Round II 4.54)

V.D.4. Credit will be given for on-the-job experience as well as for coursework and/or educational degrees in fulfilling certification requirements for paraprofessionals. (Round II 4.54)

V.C.2. Emphasis will be placed on a cooperative approach among agencies and institutions to coordinate services for SSN children and to train professionals and paraprofessionals in all aspects of education of SSN children. (Round II 4.53)

V.D.1. Support training will be offered to paraprofessionals to encourage them to continue working with SSN children. (Round II 4.53)

II.16. Increased instruction in working with SSN children at a pre-academic level. (Round II 4.52)

These 21 items represent the combined opinions of experts regarding priority directions for severe special needs training programs in the Commonwealth. These options suggest the need for training programs for paraprofessionals and various professional groups which prepare them to work effectively in a variety of settings with children of all ages who have a variety of special academic, physical and social needs. Priority is also given to interagency planning and coordination.
Rank Order Correlations -- Round II

Table 2 illustrates some of the correspondence of rankings of questionnaire sections between respondent groups. The data in this table are rank order correlation coefficients. The correlation coefficients can have values ranging from -1 to +1. When the rankings of two groups are all identical, the rank correlation is +1, and when they are exactly reversed it is -1. If there is no relationship at all between the rankings, the rank correlation coefficient is zero.

Naturally, correlations between each pair of groups could be computed but in this case the volume of data generated would not be helpful. Instead, we computed the correlation between SPED college teachers and each of the other groups for each section of the questionnaire. The college teacher group was used in these calculations because the number of respondents in the group is fairly large, and because mean responses of this group generally corresponded fairly closely to the mean responses of all groups taken together. We also made the computations for three other pairs of groups to serve as further illustrations. Some further inferences about correlations can be made from the data presented in Table 2. For example, if the correlation between college teachers and teachers is very high, and if the correlation between college teachers and paraprofessionals is very high, then the correlation between teachers and paraprofessionals is also very high.

Table 2 shows clearly a high level of agreement between college teachers and most other respondent groups for the Desirability of items in Section I, Personnel and Recruitment. However, there is very little correlation between the ranking which college teachers and public school administrators assigned to Section I items. Interestingly, college teachers and public school administrators agreed fairly well on the Probability of items in this section, while institutional school and private school administrators had only very limited or no agreement with college teachers on the Probability of occurrence of these items. The correlation for these two groups (not included in Table 2) is .40:

*The Spearman rho rank difference correlation coefficients were computed using average rank values when ties in ranking occurred.
Agreements between respondents in their rankings of items in other sections of the questionnaire were more limited than the Section I agreements, but administrators tended to diverge most often from other groups in their rankings. In some cases administrator groups ranked items similarly to each other, and in other cases correlations between these groups was low.

In Section IV, where there was no correlation between the ranking of college teachers and those of either public school administrators (−.17) or institutional school administrators (−.04), these two groups of administrators assigned fairly similar rankings (.61). However, in Section II, where public school and institutional school administrators were both in only limited agreement with college teachers (.28 and .41 respectively), the correlation between these two groups was also limited (.20).
## Table 2
Sample Rank Order Correlations -- Round II
Questionnaire Section

<table>
<thead>
<tr>
<th>Respondent Groups</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Teachers Adm. Clbr.</td>
<td>.87</td>
<td>.78</td>
<td>.62</td>
<td>.70</td>
</tr>
<tr>
<td>Adm Pub.</td>
<td>.17</td>
<td>.73</td>
<td>.20</td>
<td>.38</td>
</tr>
<tr>
<td>Adm Inst.</td>
<td>.70</td>
<td>.31</td>
<td>.41</td>
<td>.34</td>
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<tr>
<td>Adm Priv.</td>
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<td>.63</td>
<td>.39</td>
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<tr>
<td>Teachers</td>
<td>.95</td>
<td>.82</td>
<td>.70</td>
<td>.63</td>
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<tr>
<td>Paraprof.</td>
<td>.88</td>
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<td>Parents</td>
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<td>.84</td>
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<td>.63</td>
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<td>Aux. Pers.</td>
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p = The Spearman correlation
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p = The Spearman correlation
Rankings by Respondent Group -- Round II

Table 3 gives the rank order of Round II responses by respondent category and for the total group for each item. This table shows in detail that respondent categories were generally very similar to each other in their ranking of each of the items in Section I, Personnel and Recruitment. The major exception to this, as Table 2 highlighted, is the Public School Administrators; Human Service Agency (HSA) Personnel also had views somewhat different from those of other groups.

In other sections of the questionnaire, as we noted above, there was much less correspondence among the rankings assigned to items by the various groups. The major agreement in Section II, Content of Training for Personnel, was that item 13 was ranked lowest in priority for Desirability of occurrence by all groups except collaborative administrators. This item is: "Greater emphasis on preparing trainees to use a variety of standardized measures to monitor the progress of SSN children."

Another, and very important, agreement among groups occurred on item V.C.2: "Emphasis will be placed on a cooperative approach among agencies and institutions to coordinate services for SSN children and to train professionals and paraprofessionals in all aspects of education of SSN children." All groups agreed on the high priority of this item, and it is one of the 21 top-rated items, as listed above.

In only a few instances did "special interests" of groups surface. In one such instance, item III.1, "More than 50% of the trainee's time in a training program will be spent in field-based practicum," was ranked considerably lower by college teachers than by any other group except HSA Personnel. In another instance, paraprofessionals ranked item III.10, "Professionals and paraprofessionals will receive their training together, through a team approach," higher than did any other group except public school administrators. Public school administrators and teachers ranked item IV.2, "Special Educators will be required to renew their certification on a regular basis," lower than did other groups. While this item may be threatening to these groups, both groups do approve more stringent requirements for entry level certification (item IV.4). Similarly, while paraprofessionals do not particularly support certification of paraprofessionals (item IV.1), they do endorse, more strongly than do other groups, item IV.3, "Entry level jobs for paraprofessionals will require a two-year Associates degree."
Two important agreements on items, between groups most particularly affected by the items, occurred in Section III, Structure and Process of Training for Personnel. First, college teachers and students ranked item III.4 similarly, and ranked it higher than did any other group; this item is: "College and university students will be given more opportunity to provide input into the design and content of their teacher training programs."

Second, college teachers and institutional school administrators both gave high priority to item III.13. "Training programs will collaborate with institutional schools to assist in providing training for non-instructional as well as educational staff in institutions." Thus, while the various groups demonstrate close agreement only for one general area (Personnel and Recruitment), there are important areas of agreement between particular groups on important items relevant to content and to structure of training.

Note: Table 3, rank order of Round II responses by respondent category is omitted from this dissemination document but is available from the Manpower Project on request.