

Employment



Training and Research Institute for People with Disabilities

Children's Hospital, Boston

**National Survey of State
Information Systems
Related to Day and
Employment Programs**

April, 1991

The Training & Research Institute for People with Disabilities

in conjunction with

the Developmental Evaluation Center: A University Affiliated Program
Children's Hospital, 300 Longwood Ave. Boston, MA.

**National Survey of State Information Systems
Related to Day and Employment Programs**

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National Survey of State Information Systems

Related to Day and Employment Programs

Executive Summary

The National Study of Day and Employment programs was conducted in order to collect national information regarding the full range of day and employment settings currently utilized by persons with mental retardation and other developmental disabilities. Previous studies typically have analyzed one or two options within the day and employment service system or have focused on a single service agency. Several complementary activities were undertaken as part of this study: 1) a national survey of state Mental Retardation/Developmental Disabilities (MR/DD) agencies, 2) a national survey of state Vocational Rehabilitation (VR) agencies, 3) supplementary analyses of federal Rehabilitation Services Administration data (RSA), and 4) a survey of state MR/DD and VR agencies' information systems. This report summarizes the findings from the National Survey of State Information Systems.

Survey responses were received from Washington D.C. and all state MR/DD agencies except Oregon. All 50 state VR agencies as well as Washington D.C. and Puerto Rico responded to the VR portion of the survey.

Information was requested from the State MR/DD agencies regarding:

- existing consumer-referenced data collection systems for day and employment services;
- plans for expanding or developing such systems;
- specific characteristics related to the structure of individual state systems; and
- utilization of existing data for program evaluation and planning purposes.

Information requested from the State VR agencies included:

- availability and description of computerized MIS in day and employment services,
- future plans for development or expansion of MIS, and
- constraints on data collection efforts.

MR/DD Agency Information Systems.

Results from the survey of state MR/DD agencies can be summarized as follows:

Administrative structure. State MR/DD agency service systems are currently structured according to three administrative models: The models that are most common include: (a) state MR/DD administrative agencies contracting with regional or county boards; (b) states contracting with private providers and also providing some state services; or (c) a combination of a and b.

Day and employment services provided. Most state MR/DD agencies currently provide supported employment, sheltered employment/work activity, day activity, and day habilitation services.

Day and employment data sets collected. The majority of state agencies currently are likely to collect expenditure data (by funding source and service category), consumer characteristics (especially age and primary disability), consumer characteristics by service option (especially for supported employment, sheltered employment/work activity, day activity and day habilitation), and information regarding persons not receiving day and employment services but waiting for them. In the majority of cases, these data are aggregated at the state level. State MR/DD agencies are less likely to collect consumer movement data, outcome data, or quality indicators of employment.

Data utilization. The data sets collected by state MR/DD agencies are most frequently utilized for policy formulation, legislative activity, program development, and/or program monitoring purposes.

Current and planned MIS. State MR/DD agency management information systems tend to utilize mainframe computers within the state agency or personal computers (including PC networks within the department). State agencies that plan to develop information systems reflect the same pattern of organization with a slight increase toward use of personal computers. Agencies with plans to expand their data collection activities tend to focus on collecting data related to supported employment and sheltered work/work activity, including adaptive/functional skills, outcome data, and the number of high school graduates who will need day and employment services.

Constraints. The primary constraints reported for data collection/utilization are resources (money and personnel) and a lack of integration or coordination across agencies or levels (state, regional, county) of the service delivery system.

VR Agency Information Systems.

The following sections describe results from the survey of state VR information systems.

Current MIS. Structurally, the current MIS system is most likely to be either a mainframe computer within the state agency/department or a mainframe computer within a state umbrella agency or a separate state agency.

Planned MIS and its use. Among those 21 state VR agencies that reported plans to expand or change their current system, there is a tendency toward increased utilization of personal computers or pc networks within the department. Respondents indicated that they plan to expand data collection on expenditures, consumer characteristics, employment services, quality indicators of employment, and unmet needs. Planned utilization includes policy formulation, legislative activity, program development, program monitoring, program evaluation and research, and benefit/cost analysis.

Constraints on data collection/analysis. Primary constraints reported include resources, needed expansion/updating of the current system, and confidentiality.

Although data collected by state VR and MR/DD agencies are utilized for a variety of purposes and collected at several different levels (state, regional and county), there is a limited capacity to share information across the two agencies for planning, reporting, and evaluation. This inhibits both agencies' ability to document duplication across their systems, to track movement across the two systems, and to assess the relative interaction between the two agencies. Increasing data sharing capacities across the two agencies would enhance interagency coordination and evaluation at the systems' level.

Furthermore, these state agencies place greater emphasis on the evaluation of resource allocations than on assessing consumer satisfaction or the quality of the work environment. However, some agencies did indicate plans to expand these areas in the future. These are critical areas for future analysis in order to assess the more intangible benefits of day and employment programs serving persons with mental retardation and related disabilities.

In summary, there is wide variation across state MR/DD agencies with respect to the type of day and employment data aggregated at the state level and the purposes for which information is utilized. State VR agencies collect more consistent data across the states, due to federal reporting mandates. It is hoped that state agency staff will utilize the complete report to compare their data collection systems with those of other states and to plan expansions or modifications in their existing systems. The ultimate purpose of such revisions, of course, is to improve the quality and accessibility of day and employment services for persons with developmental disabilities.

The National Survey of State Information Systems may be obtained by contacting: The Children's Hospital, Training and Research Institute for People with Disabilities, 300 Longwood Avenue, Gardner 6, Boston, MA 02115. Phone: 617 735-6506. Specific questions may be directed to Dr. William E. Kiernan or Dr. Martha McGaughey.

**National Survey of State Information Systems
Related To Day and Employment Programs**

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National Survey of State Information Systems Related To Day and Employment Programs

Section I: INTRODUCTION AND BACKGROUND OF THE STUDY

This National Survey of State Information Systems Related to Day and Employment Programs is part of an ongoing national study of day and employment programs for persons with disabilities funded by the Administration on Developmental Disabilities. The initial national survey focusing on competitive employment for adults with developmental disabilities was conducted in 1983 (Kiernan & Ciborowski (1985), with subsequent survey reports examining sheltered, transitional, supported, and competitive employment options for adults with developmental disabilities issued in 1986 (Kiernan, McGaughey & Schalock), and in 1988 (Kiernan, McGaughey, Schalock & Rowland, 1989). The targeted samples for these three national surveys included vocational rehabilitation agencies and organizations/facilities that were either placing adults with developmental disabilities into transitional, supported, or competitive employment and/or providing sheltered employment.

The 1988-1990 phase of this research shifted the source of day and employment data collection from the provider-level to state-level Mental Retardation/Developmental Disabilities (MR/DD) or Vocational Rehabilitation (VR) agencies. Although relevant data were obtained from these agencies, we found considerable differences among the state MR/DD agency data system(s) and their ability to process and report data related to day and employment programs. State VR agencies collect more consistent data sets due to federal reporting mandates from the Rehabilitation

Services Administration (RSA). The present study was designed to obtain more specific information regarding information systems within these two state agencies. Information requested from the State MR/DD agencies included:

- existing consumer-referenced data collection systems for day and employment services;
- plans for expanding or developing such systems,
- specific characteristics related to the structure of individual state systems;
- utilization of existing data for program evaluation and planning purposes; and
- constraints on data collection efforts.

Information requested from the State VR agencies included:

- availability and description of computerized MIS in day and employment services,
- future plans for development or expansion of MIS, and
- constraints on data collection efforts.

This study, as was the case in earlier efforts noted by Eyman and White (1990), is not an attempt to develop uniform data reporting systems but, rather, is a comprehensive effort to document current and planned management information activities conducted by state MR/DD and VR agencies. The study is a reflection of the increasing need at the state and federal levels for standard data sets that can be used to evaluate the status of the nation's commitment to increasing the interdependence, productivity, and community integration of persons with disabilities.

In a recent review, Eyman and White (1990) summarized early attempts at developing a national uniform data reporting system related to persons with mental retardation. For example, from 1922-1955, the Bureau of the Census and the National Institute of Mental Health (NIMH) recorded the characteristics of institutionalized and deinstitutionalized persons. Similarly, in 1951,

the model reporting area for mental health statistics completed by the Biometrics Branch of NIMH was expanded to include persons with mental retardation. In 1961-1962, the President's Panel on Mental Retardation (PCMR) recommended the development of an information and resource center for persons with mental retardation, which unfortunately never materialized. Throughout the period from 1968 to 1972, an Ad Hoc Committee of the American Association on Mental Retardation (AAMR) met regarding the use and construction of data banks (Eyman and Committee, 1968, 1969, 1972), but ultimately, little progress was made toward the development of a uniform data reporting system.

During the 1970's, there was even less emphasis on national data collection related to mental retardation services due to the federal paper reduction act and reduced federal support for mental retardation research and training activities (Braddock, Hemp, Fuijura, Bachelder & Mitchell, 1989). The net-result of these factors was a significant reduction in the development of uniform data systems at the federal level. This occurred at the same time as state service delivery systems were moving toward smaller, decentralized, community-based formats. The development of data collection systems for planning, evaluation, and program monitoring purposes is even more crucial for community-based systems, because quality control is more difficult in a dispersed service system. However, as Rowitz stated in a recent editorial:

...despite the increasing need for data about people with developmental disabilities for planning purposes, there is no evidence that any form of uniform data-reporting system is on the horizon for the next decade (p.3).

Four federal agencies (Administration on Developmental Disabilities (ADD), Rehabilitation Services Administration (RSA), the Social Security Administration, and The Bureau of the Census currently gather and analyze data regarding persons with severe disabilities. Highlights of these

efforts include:

- The Administration on Developmental Disabilities has responded to the DD Act of 1987 (P.L. 100-146) that assigns to ADD the responsibility to:
 - (1) assist states as need be in their required review, analysis, and reporting of the status of their services for persons with developmental disabilities;
 - (2) develop and maintain policy relevant data; statistical, literature, and policy review capabilities; information of model services and related capacities that will permit informed, timely, and authoritative policy and program related activities in support of the purposes and priorities of the Federal government under the Act, including those pursued through the "Federal interagency initiatives" specifically mentioned in the Act; produce efficient and attractive reports, briefing papers, and chartbooks that demonstrate the status and progress of the nation in pursuit of the purposes of the Act and the priorities established under its authority, including those activities designated to meet the agency's responsibility under the Act "to educate policymakers."
- Rehabilitation Services Administration RSA-911 data sets report the percent of persons with severe disabilities served by state VR agencies, percentage of persons rehabilitated, demographic characteristics, primary and secondary disabilities, services received, and wage data (Burkowitz, 1988).
- The Social Security Administration compiles data on Supplemental Security Income (SSI) recipients. Although not specifically identifying persons with developmental disabilities, these data have been used to estimate the prevalence of developmental disabilities (Burwell, 1990; Scott, 1989), but not without some problems (Thornton & Gianolio, 1989).

- U.S. Department of Commerce, Bureau of the Census administers the Survey of Income and Program Participation (SIPP) to a cross-sectional sample of 20,000 dwelling units in the United States. The survey collects data related to the characteristics of noninstitutionalized persons, basic demographics, income, work, use of government programs, and general health and disability information. The 1984 Survey data have recently been used to develop a profile of persons with developmental disabilities (Thornton, 1990).

In a sense, a national uniform data system regarding persons with disabilities is emerging through the ongoing Data Collection System of the Administration on Developmental Disabilities. This system currently is compiled at the University Affiliated Programs at The University of Illinois at Chicago (expenditures), University of Minnesota (residential services), and Boston Children's Hospital (day and employment services). Additional national survey data regarding the Supported Employment Initiative are being collected at The Virginia Commonwealth University. Recent reports from each of these sources include:

- Expenditures: Braddock, Hemp, Fujiura, Bachelder and Mitchell (1989)
- Residential: Arnado, Lakin and Menke (1990)
- Day and Employment: Kiernan, McGaughey, Lynch, Schalock, and Morganstern (1990)
- Supported Employment: Kregel, Shafer, Wehman and West; and Shafer, Wehman, Kregel, and West (1990)

In summary, this report focuses on the current "state of the art" regarding states' information systems related to day and employment programs for persons with disabilities. Without knowledge of the current status of states' data collection, analysis, and reporting capabilities, administrators and policy makers frequently are unable to answer questions about the effectiveness and efficiency of the current day and employment service system. In addition,

accountability requirements are being expanded in many states and information regarding other state information systems should prove useful.

The following report is divided into major sections that summarize the procedure used (II), the MR/DD State Information Systems (III), the State VR Information systems (IV), and implications and recommendations (V).

The reader is cautioned that this report is based on survey data provided by informants who, while well-versed with the survey format and questions, answered the questions on the basis of their knowledge of their state's information system. A second caution is that, as will be demonstrated in Sections III and IV, each state has unique mandates, organization, and data system structures.

Section II: PROCEDURE

A. MR/DD State Agencies

An initial draft of the "Survey of State MR/DD Agency Information Systems" found in Appendix A was developed based on the project's goals and a review of the literature regarding data and management information systems. The initial draft was edited twice, critiqued by three MR/DD state directors, and revised into its final form based on the directors' comments (See Appendix A). The major areas addressed in the survey include:

- The administrative structure of the state's MR/DD services.
- The specific day and employment services funded, operated or regulated by the state or regional or county MR/DD service system.
- The availability of specific types of data related to day and employment services, including: expenditure data, consumer characteristics, service data, consumer movement data, outcome data, quality indicators, and unmet needs data.
- The purposes for which day and employment data sets are utilized.
- The format of current and planned computerized management information systems.
- Constraints affecting state's data collection and analysis activities.

The printed survey was sent to the MR/DD director in May, 1990 with a cover letter. State directors were asked to identify an individual to provide the survey information. However, most state agencies had a staff person who had been appointed to respond to the previous year's survey. For these agencies, the survey was mailed directly to this individual and a copy of the survey was also mailed to the state director. Respondents were given the choice of returning the survey by

mail or providing the information via a telephone interview. The majority responded through the mail.

Data were collected during the summer and early fall of 1990. Frequent telephone contacts were made to encourage response. Data were verified prior to computer entry, and unclear responses were clarified by phone calls to the contact person. Technical assistance personnel were trained by the research coordinator with respect to survey techniques, terminology used in the survey, and the essential characteristics of data and management information systems. Completed surveys were obtained from 50 (96%) MR/DD Agencies. Nonrespondents included MR/DD agencies in Oregon and Puerto Rico.

B. VR Agencies

The procedure utilized with MR/DD Agencies also was implemented with VR agencies. The final instrument is presented in Appendix C. This was a significantly shorter survey due to the federal reporting requirements for state VR agencies. The three areas surveyed related to:

- The availability and description of a computerized management information system (MIS) for data related to employment services.
- The agency's plans within the next two years either to develop or to expand their MIS.
- Constraints affecting the states' data collection and analysis activities.

All VR data were collected through telephone interviews during August - October, 1990. Training and verification procedures were the same as those implemented with state MR/DD agencies. Responses were received from all 50 states as well as the District of Columbia and Puerto Rico.

Section III: STATE INFORMATION SYSTEMS: MR/DD AGENCIES

This section of the report summarizes the following aspects of state MR/DD information systems:

- A. the administrative structure of the state's MR/DD services,
- B. the day and employment services funded, operated, or regulated by the state or regional/county MR/DD service system,
- C. day and employment data collected,
- D. data utilization patterns,
- E. the structure of current and planned management information systems,
- F. constraints on data collection and analysis, and
- G. MR/DD survey summary.

A. Administrative Structure

Data systems typically reflect the structure as well as the mandate or function of an agency. Thus, respondents were asked to describe or to diagram the administrative structure of their agency's MR/DD services. Four possible administrative structures were outlined in the survey. All respondents described their administrative structure according to one of the structures presented or according to a combination of all the structures (structure D). Descriptions of the possible administrative structures include:

Structure A: The state agency contract is with regions or county boards for administration and with private providers for services. Seventeen states reported this structure.

Structure B: The state agency contracts service delivery to private providers. Six

states reported this structure.

Structure C: The state agency contracts some service delivery to private providers, but also operates some state programs. Seventeen states reported this structure.

Structure D: A combination of A, B and C, wherein the state contracts with regions or county boards for administration and service delivery but also contracts with private providers for service delivery and operates some state programs. Ten states reported this structure.

A graphic summary of these results is presented in Figure 1.

B. Day and employment Services Provided

The expansion of integrated employment opportunities for persons with disabilities has been a national priority for several years and has resulted in the addition of supported employment and transitional-training employment to MR/DD agencies' service array. State agency staff were asked to identify the types of day and employment services that are currently funded, operated, or regulated by their state, regional, or county MR/DD service system. Seven possible day and employment services identified from our previous work are defined in Table 1.

The response from each state is tabulated separately in Table 2, with the combined data summarized graphically in Figure 2. In descending order, the following day and employment services were reported as currently funded, operated, or regulated by the 50 respondents:

- Supported Employment (N=50).....
- Sheltered Employment/Work Activity (N=48)
- Day Activity (N=46)
- Day Habilitation (N=43)
- Programs for Elderly Individuals (N=27)

FIGURE 1
ADMINISTRATIVE STRUCTURE OF
STATE MR/DD AGENCIES

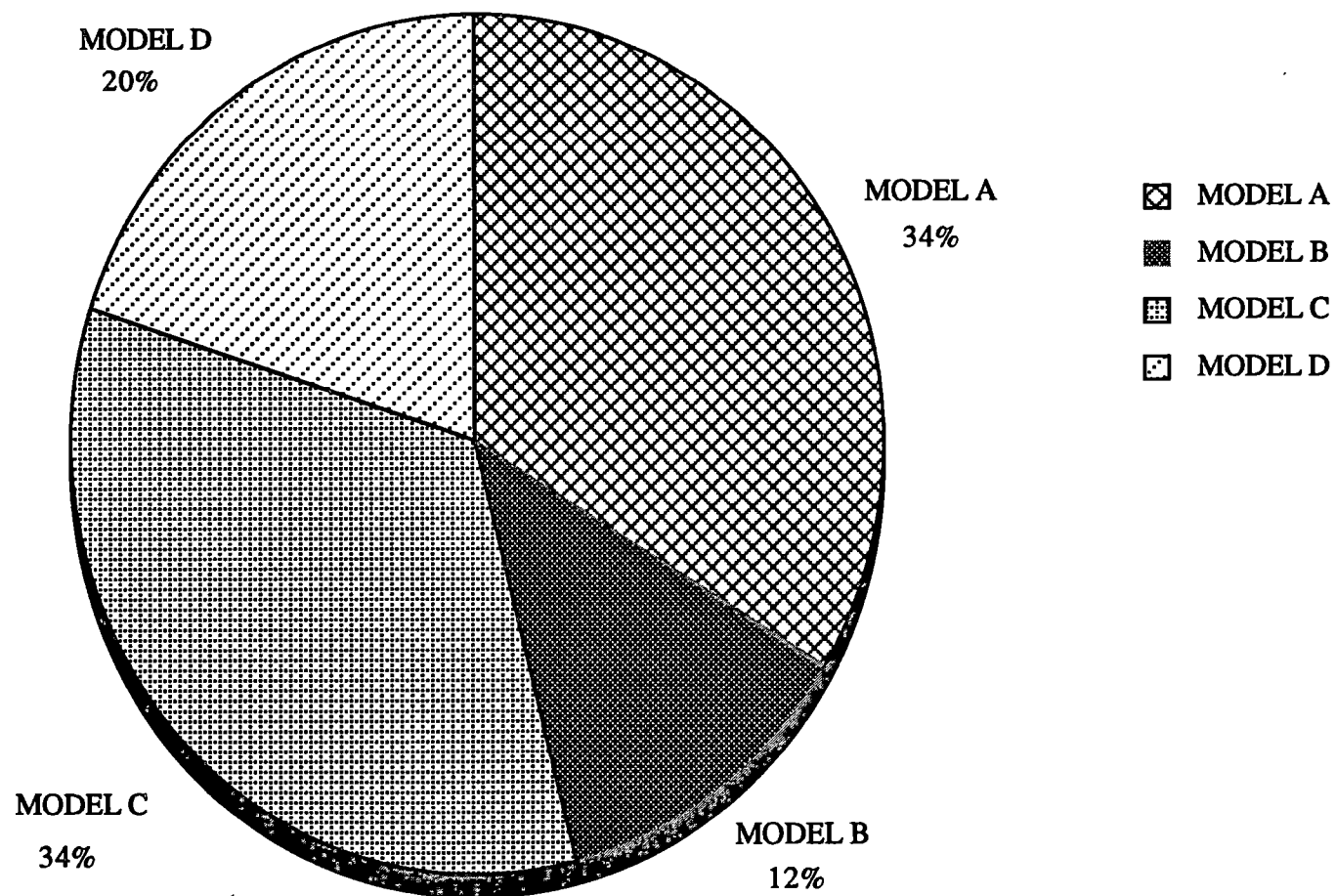


Table 1

Definitions of Optional Day and Employment Services

Time-limited Training for Competitive Employment

Environment where **most** workers do **not** have disabilities

Time limited job-related supports are provided to the worker with a disability in order to maintain employment

Supported Employment (with ongoing support)

Environment where **most** workers do **not** have disabilities

Ongoing job-related supports are provided to the worker with a disability in order to maintain employment

Sheltered Employment/Work Activity

Environment where **all** workers have disabilities

Continuous job-related supports and supervision are provided to all workers with disabilities

Day Activity

Environment where **all** participants have disabilities

Primary program focus: psychosocial skills, activities of daily living, and recreation; however, some vocational services may be provided

Continuous supports and supervision are provided to all participants with disabilities

Day Habilitation

Environment where **all** participants have disabilities

Primary program focus: professional therapies (e.g., O.T., P.T., Speech) and activities of daily living

Continuous supports and supervision are provided to all participants with disabilities

Funded by Title XIX

Integrated Day Programs

Participants are adults or youth transitioning from school (no other age restrictions)

Primary program focus: community integration experiences with individuals who do not have disabilities (leisure activities, learning activities, etc.)

Program established to provide an alternative to segregated day programs

Programs for Elderly Individuals

Environment where **all** participants are 55 years or older

Primary program focus: leisure recreation, nonvocational

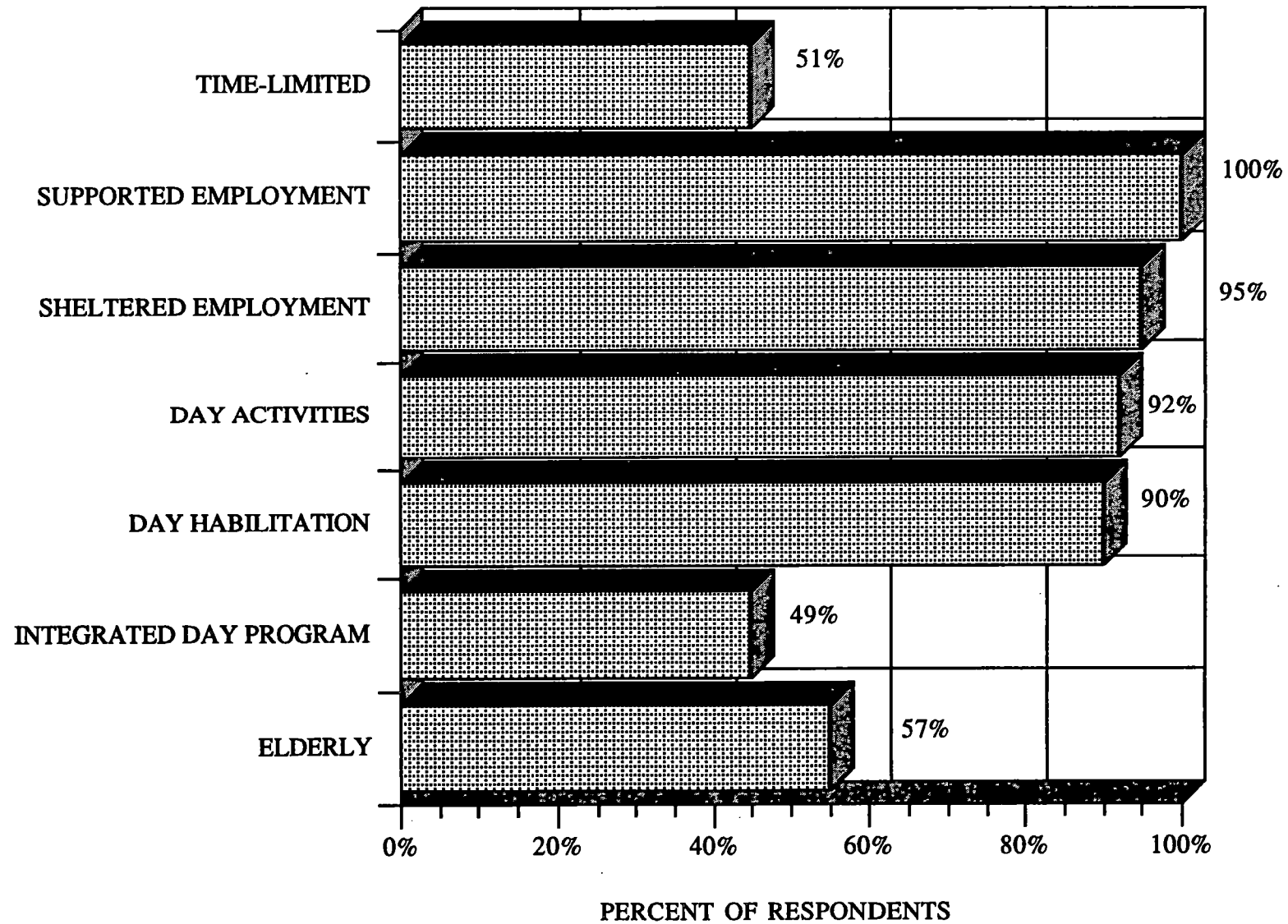
May be integrated with elders who do not have disabilities

Table 2
Services Funded, Operated or Regulated By State or Regional/County MR/DD
Service System

State	Time Ltd Training/ Comp.Emp	Supported Emplmt	Sheltered Emplmt/ Wk. Activity	Day Activity	Day Habili- tation	Integrated Day Programs	Programs for Elderly
Alabama		Yes	Yes	Yes	Yes		Yes
Alaska		Yes	Yes	Yes			
Arizona		Yes	Yes	Yes	Yes		
Arkansas		Yes	Yes	Yes	Yes	Yes	
California		Yes	Yes	Yes	Yes	Yes	Yes
Colorado		Yes	Yes	Yes	Yes	Yes	Yes
Connecticut		Yes	Yes	Yes	Yes	Yes	Yes
D. C.	Yes	Yes	Yes	Yes	Yes	Yes	
Delaware	Yes	Yes	Yes	Yes	Yes		Yes
Florida	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Georgia		Yes	Yes	Yes	Yes	Yes	
Hawaii		Yes	Yes	Yes	Yes	Yes	
Idaho		Yes	Yes	Yes	Yes	Yes	Yes
Illinois		Yes	Yes	Yes			
Indiana		Yes	Yes	Yes	Yes	Yes	
Iowa	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Kansas	Yes	Yes	Yes	Yes	Yes		Yes
Kentucky		Yes	Yes		Yes		Yes
Louisiana	Yes	Yes	Yes	Yes			
Maine		Yes	Yes	Yes	Yes		Yes
Maryland	Yes	Yes		Yes	Yes	Yes	
Massachusetts		Yes	Yes	Yes	Yes	Yes	Yes
Michigan	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Minnesota		Yes	Yes	Yes	Yes		
Mississippi		Yes	Yes	Yes			Yes
Missouri	Yes	Yes		Yes	Yes		Yes
Montana		Yes	Yes	Yes	Yes		Yes
Nebraska	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nevada	Yes	Yes	Yes	Yes	Yes		
New Hampshire	Yes	Yes	Yes	Yes	Yes		Yes
New Jersey		Yes	Yes		Yes		
New Mexico		Yes	Yes	Yes	Yes		
New York	Yes	Yes	Yes	Yes	Yes		Yes
No. Carolina	Yes	Yes	Yes	Yes	Yes	Yes	
No. Dakota		Yes	Yes	Yes	Yes		Yes
Ohio	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Oklahoma	Yes	Yes	Yes			Yes	
Pennsylvania	Yes	Yes	Yes	Yes	Yes		
Rhode Island	Yes	Yes	Yes	Yes	Yes	Yes	Yes
So. Carolina		Yes	Yes				
So. Dakota	Yes	Yes	Yes	Yes	Yes		
Tennessee		Yes	Yes	Yes	Yes		Yes
Texas		Yes	Yes	Yes	Yes		Yes
Utah		Yes	Yes	Yes	Yes	Yes	Yes
Vermont	Yes	Yes	Yes	Yes	Yes	Yes	
Virginia	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Washington	Yes	Yes	Yes	Yes	Yes	Yes	Yes
West Virginia	Yes	Yes	Yes	Yes	Yes		
Wisconsin	Yes	Yes	Yes	Yes	Yes	Yes	
Wyoming	Yes	Yes	Yes	Yes			

FIGURE 2

**MR/DD AGENCIES THAT FUND, OPERATE OR REGULATE
DAY/EMPLOYMENT SERVICE OPTIONS**



- Time-limited Training for Competitive Employment (N=24)
- Integrated Day Programs (N=23)

C. Data Sets Collected

An essential component to a state information system is the specific data sets collected. Respondents were asked for information regarding the availability and use of the following data sets: (1) expenditure data; (2) consumer characteristics; (3) consumer movement data; (4) outcome data; and (5) unmet needs data. Each is summarized below.

1. Expenditure data. Respondents were asked whether expenditure data for day and employment services were available by funding source and service category, and if so, whether it was aggregated at the state, regional or county level. The states agencies' responses to this question are presented in Table 3. In Table 3, "S" refers to state-level aggregation, "R" to regional, and "C" to county. For completeness, all of the possible levels at which data are collected are presented for each respective agency. Forty-seven of the 50 respondents reported day and employment expenditure data (by funding source or service category) aggregated at one or more of the three levels. This included:

Expenditure Data by Funding Source: Aggregated at the state level (96% of responding states), at the regional level (40%), and at the county level (24%).

Expenditure Data by Service Category: Aggregated at the state level (95%), at the regional level (40%), and at the county level (24%).

The reader should note that many states collect expenditure data at several different levels. Thus, the percentages reported exceed 100%. The percentages reflect the portion of the 50 respondents that aggregate data at that administrative level (state, region or county).

Table 3
Expenditure Data and Consumer Characteristics*

State	Expenditure		Consumer Characteristics					
	Funding Source	Service Category	Age	Gender	Ethnicity	Primary Disab.	Level of MR	Adapt. Skills
Alabama	S	S	R	R		R		
Alaska	S/C	S/C	S/C	S/C	S/C	S/C	S/C	S
Arizona	S	S	S	S		S	S	S
Arkansas	S	S						
California	S/R	S/R	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C
Colorado	S/R	S/R	S/R	S/R	S/R	S/R	S/R	S/R
Connecticut	S/R	S/R	S/R	S/R	S/R	S/R	S/R	
D. C.	S	S	S	S		S	S	
Delaware	S	S				S	S	S
Florida	S	S/R	S	S	S	S	S	S
Georgia	S	S	S	S	S	S	S	
Hawaii	S	S	S	S	S	S	S	S
Idaho	S		S/R			S/R	S/R	
Illinois	S/R	S/R	S/R	S/R	S/R	S/R	S/R	S/R
Indiana		S	S	S	S	S	S	S
Iowa	S/C	S/C				S		
Kansas			S/R	S/R	S/R	S/R	S/R	
Kentucky	S/R	S/R	S/R					
Louisiana	S/R							
Maine	S/R	S/R	S/R	S/R		S/R	S/R	
Maryland	S/R	S/R	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C
Massachusetts	S/R	S/R	S	S	S	S	S	S
Michigan	C	S/C	S/C	S/C	S/C	S/C	C	C
Minnesota	S		S	S	S	S	S	S
Mississippi	S	S						
Missouri	S/R		S/R	S/R	S/R	S/R	S/R	S/R
Montana	S	S	S	S	S	S		S
Nebraska			S/R	S/R		S/R	S/R	
Nevada	S	S	S	S		S	S	C
New Hampshire	S	S						
New Jersey	S	S	S/R	S/R	S/R	S/R	S/R	
New Mexico	S	S	S	S	S	S	S	S
New York	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C
No. Carolina	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	
No. Dakota	S	S	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C
Ohio	S/C	S/C	S/C	S/C	S/C	S/C	S/C	S/C
Oklahoma	C	C	C		C	C	C	
Pennsylvania	S/R	S/R						
Rhode Island	S	S						
So. Carolina	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C
So. Dakota	S/C	S/C	S/C	S/C	S/C	S/C	S/C	S/C
Tennessee	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C
Texas			C	C	C	C	C	C
Utah	S	S	S	S	S	S	S	S
Vermont	S/R	S/R	S	S	S	S	S	
Virginia	S/R	S/R	R	R	R	S/R	R	
Washington	S/C	S/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	R
West Virginia	R	R	R	R	R	R	R	R
Wisconsin	S/C	S/C	S/C	S/C	S/C	S/C		
Wyoming	S	S	S	S		S	S	S

*Data sources are identified as state-level (S), regional (R) or county (C).

Another survey item (#8) asked respondents to indicate the use of the various data sets according to report categories (mandated or voluntary) and recipient of the report. The general trend for expenditure data reports included:

- Report categories (of the 39 respondents 29 noted mandatory reporting while 10 reported voluntarily)
- Reported to administrative or fiscal office (24 responses), legislative (13 responses) or service system (6 responses)

2. Consumer characteristics. Respondents were asked two questions regarding consumer characteristics. One was whether data were available regarding a person's age, gender, ethnicity, primary disability, level of retardation, and adaptive skill levels, and if so, at what level of aggregation (state, regional, or county). The second question was whether these consumer characteristics were aggregated according to the day and employment service options previously reported in Table 3. Responses to each question are summarized below.

a. Availability of consumer characteristics. The state agencies' individual profiles regarding data availability and level of aggregation are shown in Table 3. As in the case of expenditure data, the data collection effort for consumer characteristics is reported at all levels. In descending order, age and primary disability are the consumer characteristics most available (42 of 50), followed by level of retardation (39), gender (39), ethnicity (33), and adaptive behavior level (28). With respect to utilization of these data sets, they are used equally in mandated and voluntary reports (13 respondents each), with the recipient most likely to be the administrative or fiscal office (16 respondents), followed by the legislature (7) and the service system (5)

b. Aggregated by day and employment service. Research and evaluation studies regarding

the current employment status of persons with disabilities require available data regarding the characteristics of persons served and type of service received. Thus, recipients were asked whether consumer characteristics were available by type of service, and if so, the level of aggregation (state, region, county). The individual state profiles according to the highest level of aggregation are presented in Table 4. Again, most of these data sets are aggregated at the state level, with the most commonly available data (reportedly available in 44 of the 50 respondents) being the number (rather than specific consumer characteristics) of consumers by service type. The reader is referred to Table 2 for the specific services that are funded, operated, or regulated by each state agency. Across the seven types of service, consumer characteristics are aggregated in the following descending order of frequency as well as by the percentage of states that reported providing the service:

Supported Employment: 43 out of 50 respondents (86%) providing this service,

Sheltered Employment/Work Activity: 39 out of 48 respondents (81%)
providing this service,

Day Activity: 38 out of 46 respondents (83%) providing this service,

Day Habilitation: 33 out of 43 respondents (77%) providing this service,

Competitive and Time Limited Employment: 23 out of 25 respondents (92%)
providing this service,

Programs for Elderly Individuals: 18 out of 27 respondents (67%) providing
this service, and

Integrated Day Programs: 16 out of 24 respondents (67%) providing this
service

The day and employment service data, at whatever level of aggregation, tend to be used more for mandated rather than voluntary reports (19 vs. 9 indicated the respective uses). Recipients tend primarily to be administrative/fiscal offices (16) as opposed to the legislature (8) or

Table 4
Day/Employment Service Data*

State	# of Csr.by Service	Consumer Characteristics							
		Comp. Emp.	Time Ltd. Emp.	Sup. Emp.	Shelterd Emp/Wk Activty	Day Activty	Day Hab.	Integ. Day Prgm.	Eldrly Prgm.
Alabama	S			S		S	S		S
Alaska	S**	S		S	S				
Arizona	S			S	S	S	S		
Arkansas									
California	S/R/C			S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C
Colorado	S/R	S/R		S/R	S/R	S/R	S/R	S/R	S/R
Connecticut	S/R			S				S	S
D. C.	S	S	S	S	S	S	S	S	S
Delaware	R		R	R	R	R	R		R
Florida***	S			S	S	S	S	S	S
Georgia	S			S	S			S	
Hawaii	S	S		S	S	S		S	
Idaho	S						S/R		
Illinois	S/R			S/R	S/R	S/R			
Indiana	S	S		S	S	S	S		
Iowa	S/C				S/C	S/C			
Kansas									
Kentucky	S/R			S					
Louisiana	S			S	S	S			
Maine	S/R	S/R		S/R	S/R	S/R	S/R		S/R
Maryland	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C		
Massachusetts	S/R			S/R	S/R	S/R	S/R	S/R	S/R
Michigan	S/C					S/C			
Minnesota									
Mississippi									
Missouri	S/R			S/R		S/R	S/R		
Montana	S			S	S	S	S		S
Nebraska	S	S		S	S	S	S		S
Nevada	S		S/C	S/C	S/C	S/C	S/C		
New Hampshire	S	S		S	S	S	S		S
New Jersey	S	S		S	S		S		
New Mexico	S			S	S	S	S		
New York	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C		
No. Carolina	S/R/C			S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	
No. Dakota	S/R/C			S/R/C	S/R/C	S/R/C	S/R/C		S/R/C
Ohio	S/C	S/C	S/C	S/C	S/C	S/C	S/C	S/C	S/C
Oklahoma	C		C	C	C			C	
Pennsylvania	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C		
Rhode Island	S	S	S	S	S	S	S	S	S
So. Carolina	S/R/C	S/R/C		S/R/C	S/R/C				
So. Dakota	S/C	S/C		S/C	S/C	S/C	S/C		
Tennessee	S/R/C			S/R/C	S/R/C	S/R/C	S/R/C		S/R/C
Texas	S	S/C		S/C	S/C				
Utah	S			S	S	S	S	S	S
Vermont	S/R/C		S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	
Virginia	S/R			S/R	S/R	S/R			
Washington	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C
West Virginia	R			R	R	R	R		
Wisconsin	S/C			S/C	S/C	S/C	S/C		
Wyoming	S	S	S	S	S	S			

*The reader will need to refer to Table 3 to know the specific consumer characteristics available (in most cases)

**Data sources are identified as state-level (S), regional (R) or county (C).

***Florida collects by two main categories which include these employment models.

service system (4). Only one state respondent indicated that the data were sent to a research office.

3. Consumer movement data. Our earlier survey work (Schalock, McGaughey & Kiernan, 1989) suggested that there has been movement over the last five years from sheltered employment and work activity into more integrated employment environments. However, as discussed earlier, the data reflecting this trend were obtained from individual vocational and employment service providers. Thus, a relevant item included in the present survey was the state's capability to answer movement-related questions. In general, few state MR/DD agencies have this capacity.

The specific state profiles regarding consumer movement data are found in Table 5. Two questions were asked regarding the availability of consumer movement data: (1) the number and service environment of consumers who moved from one day or employment setting to another; and (2) characteristics of consumers who moved. The number of states having such data at the state, regional or county level is summarized below.

Number and Services of Consumers Who Moved	Characteristics of Consumers who Moved
State level aggregation: 22	State level aggregation: 16
Regional level: 14	Regional level: 10
County level: 8	County level: 7

Table 5
Consumer Movement and Outcome Data*

State	Consumer Movement Data		Outcome Data		
	# and Service of those who moved	Char. of those who moved	Avg. Wage	Avg. Hours	Emp. Benefit Received
Alabama					
Alaska	S	S			
Arizona					
Arkansas	S	S			
California					
Colorado	S/R	S/R	S/R	S/R	S/R
Connecticut			S	S	S
D. C.					
Delaware	R	R			
Florida					
Georgia			S	S	
Hawaii	S		S	S	
Idaho			S/R	S/R	
Illinois			S	S	S
Indiana					
Iowa					
Kansas	S/R	S/R			
Kentucky					
Louisiana					
Maine					
Maryland			S/R/C	S/R/C	
Massachusetts					
Michigan	C	C	C	C	
Minnesota			S	S	
Mississippi					
Missouri	S/R	S/R			
Montana	S	S			
Nebraska	S/R				
Nevada	R	R	S	S	C
New Hampshire			S	S	
New Jersey	S/R	S/R	S/R	S	S
New Mexico	S	S	S	S	
New York	S/R/C	S/R/C			
No. Carolina	S/R/C		S/R/C	S/R/C	
No. Dakota	S/R/C	S/R/C	S	S	
Ohio	C	C	C	C	C
Oklahoma	C	C	C	C	C
Pennsylvania	S/R				
Rhode Island					
So. Carolina	S/C	S/C	S/C	S/C	S/C
So. Dakota	S/C	S/C			
Tennessee	S/R	S/R			
Texas	S	S			
Utah	R		S	S	
Vermont			S/R/C	S/R/C	S/R/C
Virginia	S		S	S	S
Washington	S/R	S/R	S/R/C	S/R/C	C
West Virginia			R	R	
Wisconsin	S				
Wyoming	S	S			

*Data sources are identified as state-level (S), regional (R) or county (C).

Certain states reported data collection efforts at multiple levels (state, regional, county). The number and services for consumers who moved was collected more frequently. Fewer respondents collected information on the characteristics of persons who moved. Most respondents were consistent with the level(s) of data collection for these two data sets. Respondents indicated that consumer movement data were used in both mandated (9 agencies) and voluntary (7) reports. Recipients were either administrative/fiscal (13) or service system (4).

4. Outcome data. One of the most important policy questions regarding the employment initiative for persons with disabilities is whether employment outcomes are improved in integrated employment. Thus, we requested the current status of states' information regarding: (1) three employment outcome data sets including average wages, average hours worked, and receipt of employment benefits; and (2) quality indicators of employment including consumer satisfaction, family satisfaction, integration with non-disabled co-workers, and other quality of work life (QWL) indicators.

a. Employment outcomes. State profiles regarding available employment outcome data sets are summarized in Table 5. Three generalizations regarding these data sets are apparent:

- (1) 23 states (46%) have wage and hour data available, with state-level aggregation the most common (79.2 %), followed by regional (33%) and county (33%) -
- (2) For those states which collected wage data, all respondents but New Jersey collected hourly data at the same level.
- (3) Only 11 states (22%) report collecting data on benefits received, with the data aggregated at the state-level in 63.6% of the states responding, 18.2% at the regional level, and 54.5% at the county level.

Where available, outcome data are used about equally for mandated (N=6) and voluntary

(N=5) reports. The majority (10 of 15) of these reports are forwarded to the administrative/fiscal office.

b. Quality indicators. Not only are employment outcomes important but also significant is the quality of the work environment and the satisfaction of the employee with a disability (Kiernan & Schalock, 1989; Schalock & Kiernan, 1990a). As a result, we requested information related to the availability of quality indicators. As shown clearly in Table 6, few states -- at any level of aggregation -- are collecting or using quality indicators of employment. The number of agencies that collect this information at either the state, regional or county level aggregation were:

Consumer (that is, employee) satisfaction: 12 responding agencies (8 state, 2 regional, and 5 county level)

Employer satisfaction: 7 respondents (3 state, 1 regional, and 5 county level),

Family satisfaction: 9 agencies (6 state, 1 regional, and 4 county level)

Integration with Non-Disabled Co-workers: 16 agencies (13 state, 4 regional, and 5 county level)

Other QWL Indicators: 5 agencies (4 state, 2 regional, and 1 county level)

5. Unmet needs data. Increasingly, concern is expressed about the lack of effective school to work transition programs (Snauwaert & DeStefano, 1990; Rusch, 1990) and the large number of persons waiting for integrated employment opportunities (Schalock & Kiernan, 1990b). Thus, we requested information about the availability of unmet needs data, including the number of students graduating who will need day and employment services; the number of persons not receiving services but waiting for day and employment services; and the number of persons receiving day and employment services who need a different service. The individual state response profiles are found in Table 7. Forty-six of the 50 respondents reportedly collect these data,

Table 6
Quality Indicators of Employment

State	Consumer Satisfaction	Employer Satisfaction	Family Satisfaction	Integration with non-disab. workers	Other QWL Indicators
Alabama	S		S		
Alaska					
Arizona					
Arkansas					
California					
Colorado	S/R			S/R	
Connecticut				S	
D. C.					
Delaware					R
Florida					
Georgia				S	
Hawaii	S		S		S
Idaho					
Illinois				S	
Indiana					
Iowa					
Kansas					
Kentucky					
Louisiana					
Maine					
Maryland					
Massachusetts					
Michigan					
Minnesota				S	
Mississippi					
Missouri	S				
Montana					
Nebraska					S
Nevada	C	C			
New Hampshire	S		S	S	
New Jersey					
New Mexico				S	
New York					
No. Carolina	S/R/C	S/R/C	S/R/C	S/R/C	S/R/C
No. Dakota				S	
Ohio				C	
Oklahoma	C	C	C		
Pennsylvania					
Rhode Island					
So. Carolina	C	C	C	S/R/C	
So. Dakota					
Tennessee					
Texas					
Utah	S	S	S	S	
Vermont	C	C	C	C	
Virginia				S/C	
Washington					
West Virginia				R	
Wisconsin					
Wyoming	S	S	S	S	S

*Data sources are identified as state-level (S), regional (R) or county (C).

Table 7
Unmet Needs Data

State	# of Students Graduating Needing Day/Emp. Services	# not Receiving but Waiting for Day/Emp. Services	# Receiving Day/Emp. Services but Needing Different Services
Alabama	S	S	
Alaska		S/C	
Arizona	S	S	S
Arkansas	S	S	S
California		S/R/C	
Colorado	S/R	S/R	S/R
Connecticut	R	R	R
D. C.			S
Delaware	R	R	R
Florida		S	S
Georgia	S	S	S
Hawaii		S	
Idaho		S/R	
Illinois			
Indiana		S	
Iowa			
Kansas	S/C	S/R	S/R
Kentucky		S/R	
Louisiana	S	S	S
Maine	S/R	S/R	S/R
Maryland	S	S/R/C	
Massachusetts	S/R	S/R	S
Michigan	S/C	S/C	S/C
Minnesota			
Mississippi		S	S
Missouri		S/R	S/R
Montana	S	S	S
Nebraska	S/R	S/R	
Nevada	C	C	
New Hampshire	S	S/R	
New Jersey	S	R	S
New Mexico		S	S
New York		S/R/C	S/R/C
No. Carolina	S/R/C	S/R/C	S/R/C
No. Dakota	S/R/C	S/R/C	S/R/C
Ohio	C	C	
Oklahoma	C	C	
Pennsylvania	S/R	S/R	
Rhode Island			
So. Carolina	C	S/R	S/R
So. Dakota	R/C	S/C	S/C
Tennessee	S/R/C	S/R/C	
Texas	S	S	S
Utah	S	S	S
Vermont	S/R	S/R	S
Virginia	S/R	S/R	S/R
Washington	R	R	R
West Virginia		R	R
Wisconsin		S/C	C
Wyoming	S		S

*Data sources are identified as state-level (S), regional (R) or county (C).

with state-level aggregation the most common response (in 84.8% of the responses across the three questions asked). Responses to each of the three questions indicated:

Students Graduating: 32 states collect (25 state level aggregation, 14 regional level aggregation, and 10 county level aggregation)

Persons Not Receiving: 44 states collect (36 state level aggregation; 24 regional level aggregation, and 13 county level aggregation)

Persons Needing A Different Service: 31 states (26 state level aggregation, 6 regional level aggregation, and 6 county level aggregation)

As in the case of the other tables, several agencies reported multiple level aggregation efforts. Table 7 provides this information.

With respect to utilization of these data, mandated reports were indicated by 14 states, and voluntary reports by 9. Recipients of the data included administrative/fiscal offices (15), state legislatures (7), and the service systems (3).

D. Data Utilization

In addition to asking respondents about the use of data for mandatory versus voluntary reports and the recipients of these reports, they were also asked to indicate the specific uses of data in reference to policy formulation, legislative activity, program development, program monitoring, program evaluation and research, and benefit/cost analysis. Definitions for each of these potential uses of day and employment program data are found in Table 8. Responses for this question were analyzed in two ways. The totals (across 49 respondents) for each potential use by type of data set are shown in Table 9. A graphic analysis of these data is presented in Figure 3(a).

Summary statements regarding these data include:

Table 8

Potential Uses of Day or Employment Program Data

Policy Formulation: Using data to change current policies, rules, and/or regulations, or to propose new policy initiatives (for example, the federal supported employment initiative)

Legislative Activity: Using data to support or justify funding requests or changes in state law (for example, budget narratives or legal briefs)

Program Development: Using data either to change existing program services or to add new service components

Program Monitoring: Using data to determine whether programs are meeting their goals and objectives and whether they are in compliance with current rules and regulations

Program Evaluation and Research: Using data to compare one program with another, (e.g., examine program outcomes or conduct systematic longitudinal studies of the program's impact such as impact studies of supported employment vs. sheltered workshops)

Benefit/Cost Analysis: Using data to weigh a service program's benefits and costs, including a monetary estimate of the benefits and an estimate of the benefits and costs

Table 9
Reported Uses of Day and Employment Data Sets*

Data Set	Policy Formulation	Legislative Activity	Program Development	Program Monitoring	Program Evaluation and Research	Benefit/Cost Analysis
Expenditure Data	36	35	33	27	16	24
Consumer Characteristics	30	24	32	22	20	14
Service Data	30	27	31	31	19	15
Movement Data	13	9	12	17	11	8
Outcome Data	13	8	16	13	10	9
Quality Indicators	12	7	12	14	6	5
Unmet Needs Data	29	32	31	14	10	6

*Based on 50 respondents

FIGURE 3 (A)
MR/DD DATA UTILIZATION PATTERNS

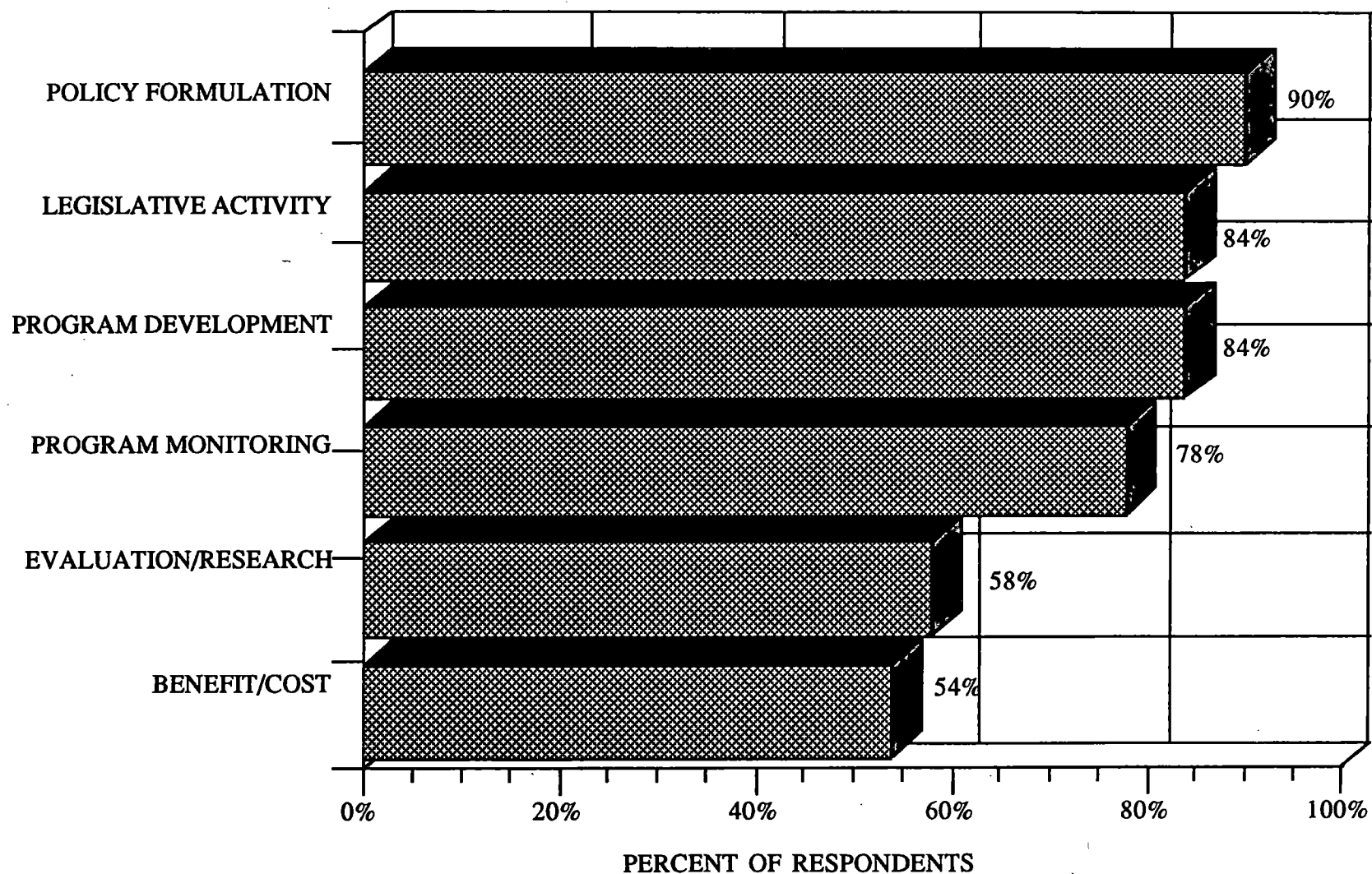


FIGURE 3 (B)
MR/DD DATA UTILIZATION PATTERNS

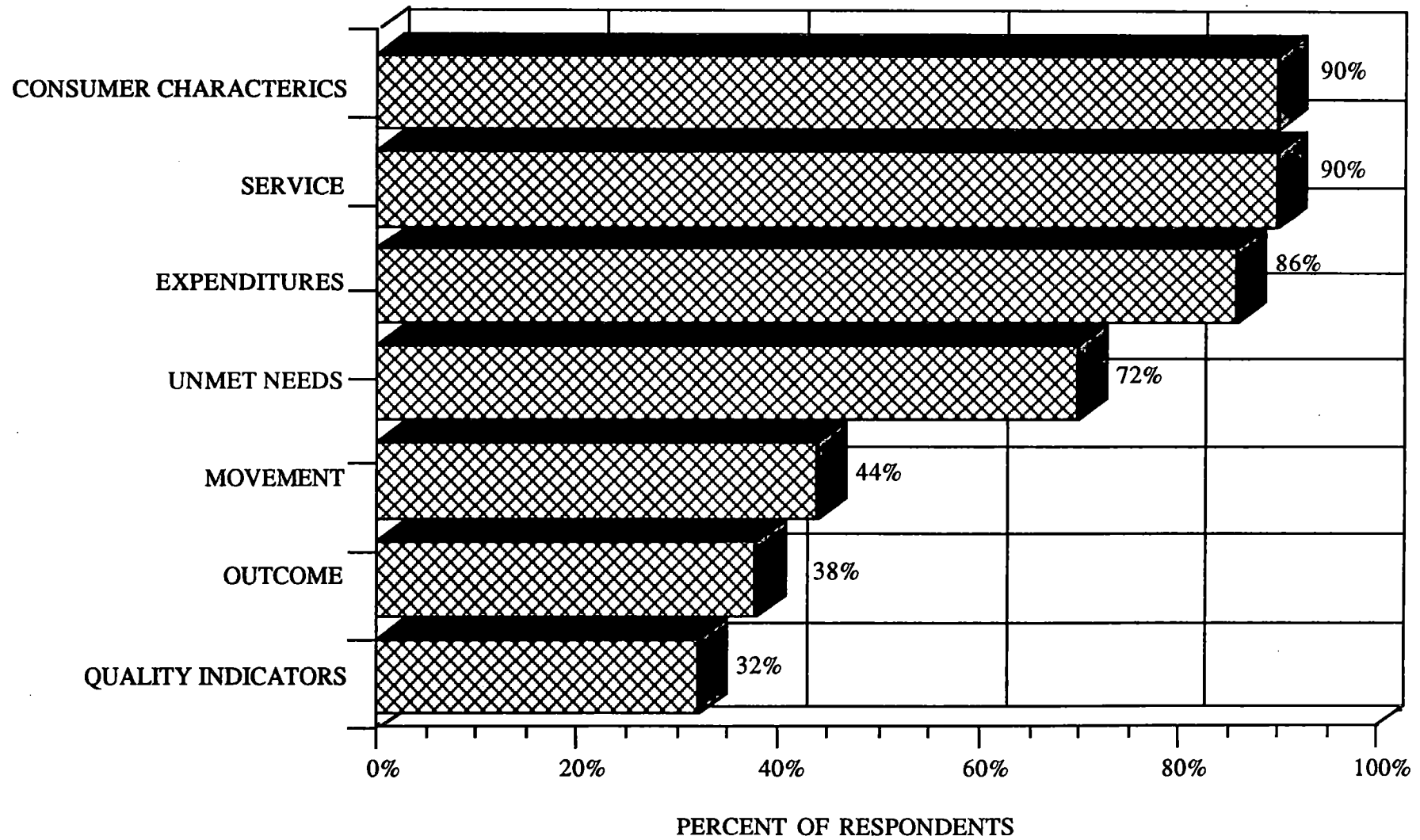


FIGURE 4 (A)
STRUCTURE OF CURRENT MR/DD
MANAGEMENT INFORMATION SYSTEMS

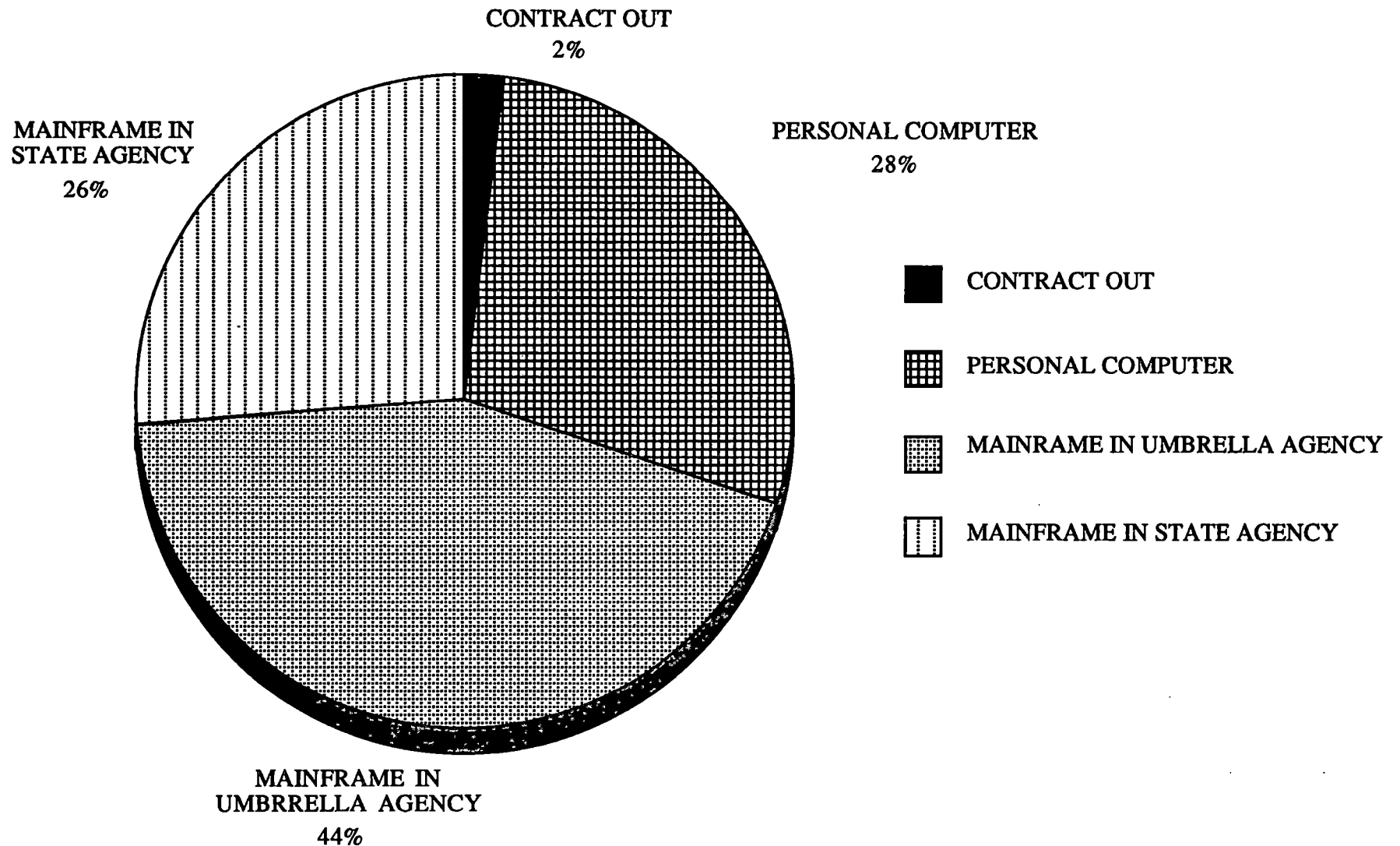


FIGURE 4 (B)
STRUCTURES FOR PLANNED MR/DD
MANAGEMENT INFORMATION SYSTEM

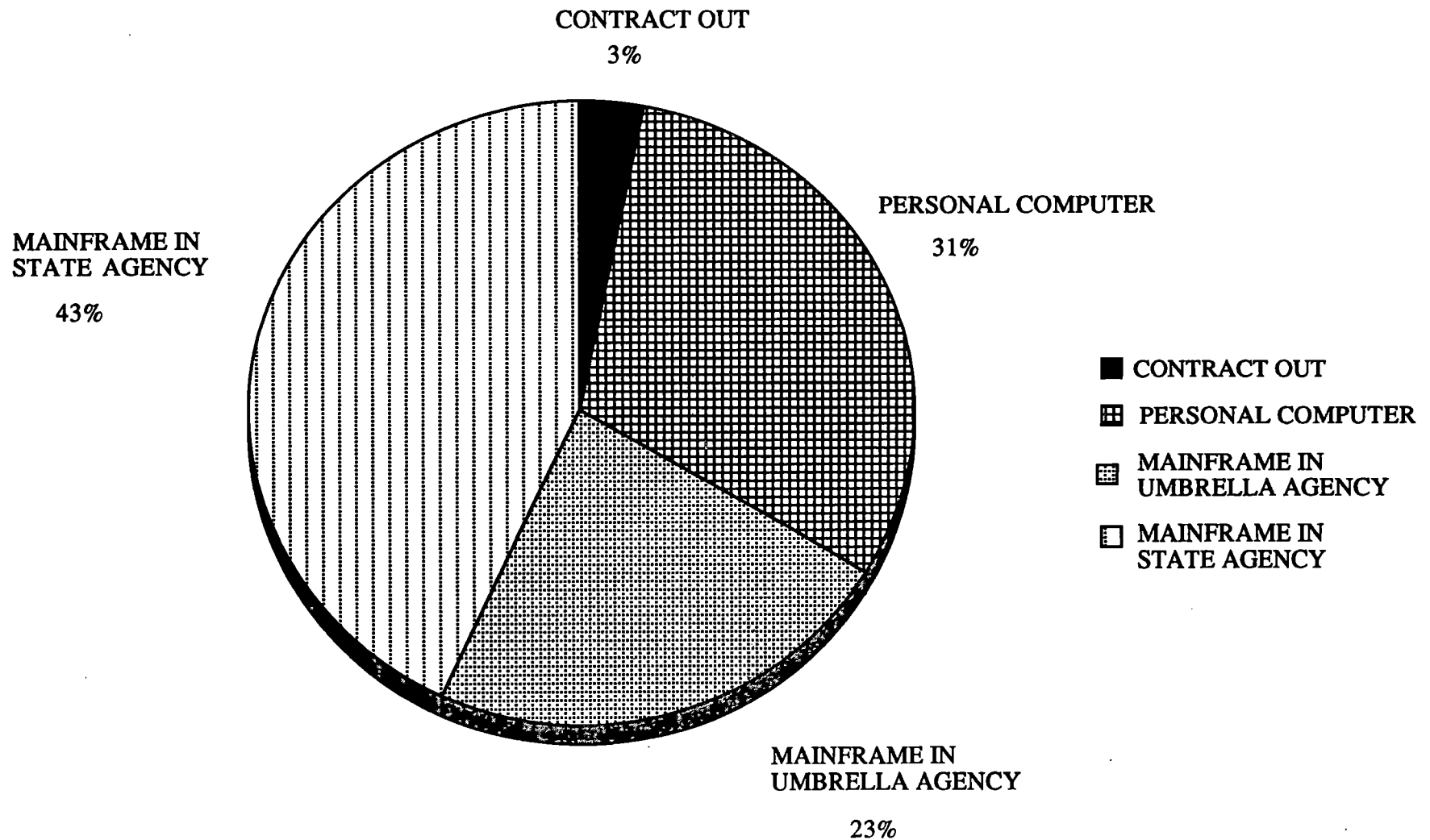


Table 10
Data Sets That States Plan To Collect
Or Not Collect Within The Next Two Years

Data Set	Plan To Collect Within Two Years	No Plans To Collect
A. Expenditure Data for Day and employment Services:		
Funding source	1	3
Service category	2	5
B. Consumer Characteristics:		
Age	6	2
Gender	6	5
Ethnicity	5	12
Primary Disability	5	2
Level of Retardation	7	4
Adaptive/Functional Skills (ABS, ICAP, etc.)	11	11
C. Day and Employment Service Data:		
Type of service by number of consumers	3	1
Consumer characteristics by service		
Age	9	2
Gender	8	5
Ethnicity	9	13
Primary Disability	9	3
Level of Retardation	11	4
Adaptive/Functional Skills	5	10

Table 10 (continued)

**Data Sets That States Plan To Collect
Or Not Collect Within The Next Two Years**

Data Set	Plan To Collect Within Two Years	No Plans To Collect
D. Consumer Movement Data:		
# and service of consumers who moved	6	16
Characteristics of consumers who moved	7	22
E. Outcome Data:		
Average wages	13	14
Average hours	13	14
Employment Benefits received	15	24
F. Quality Indicators of Employment:		
Consumer satisfaction	12	26
Employer satisfaction	14	29
Family satisfaction	12	29
Integration with nondisabled coworkers	13	21
Other indicators of work life quality	10	35
G. Unmet Needs Data:		
# graduating who will need day and employment service	10	8
# not receiving but waiting for day and employment services	2	4
# receiving day and employment services who need a different service	4	15

the state agencies still have no plans to collect quality indicator data, approximately one-third of the agencies not collecting this information currently have plans to add these data.

b. Use of new data. Thirty-five states indicated how they plan to use the new data sets that will be collected. In descending order, these include:

- Program Development (N=29)
- Policy Formulation (N=28)
- Legislative Activity (N=27)
- Program Monitoring (N=26)
- Benefit/Cost Analysis (N=24)
- Program Evaluation and Research (N=20)

c. Type of data by service option. MR/DD agencies also were asked to report the type of service options that they anticipated would be the focus of increased data collection. Agencies were most likely to expand data collection for supported employment and sheltered work/work activity. Time-limited training, integrated day programs, and programs for elderly individuals were least likely to be the focus of expanded data collection. Across all service environments, the data sets most likely to be expanded were consumer characteristics, outcome data, and expenditure data. The data on unmet needs were the least likely to be added across all service options.

F. Constraints on Data Collection/Analysis

One half (25) of the respondents noted that they perceive constraints on data collection or data analysis for employees of their respective state agency or department. In descending order, the constraints reported include:

- Resources (money, persons): N=19
- Coordination across agencies or levels within the system: N=9

- Needed expansion/updating of current system: N=5
- Confidentiality: N=3
- Quality of data: N=2
- No mandate regarding data use: N=2

G. MR/DD Survey Summary

Results of the National Survey of State Information Systems can be summarized according to the six major themes described above.

1. Administrative structure. State MR/DD agency service systems are currently structured according to three administrative models: The models that are most common include: (a) state MR/DD administrative agencies contracting with regional or county boards; (b) states contracting with private providers and also providing some state services; or (c) a combination of a and b.

2. Day and employment services provided. Most state MR/DD agencies currently are providing supported employment, sheltered employment/work activity, day activity, and day habilitation services.

3. Data sets collected. The majority of state agencies currently are likely to collect expenditure data (by funding source and service category), consumer characteristics (especially age and primary disability), consumer characteristics by service option (especially for supported employment, sheltered employment/work activity, day activity and day habilitation), and information regarding persons not receiving day and employment services but waiting for them. In the majority of cases, these data are aggregated at the state level. State MR/DD agencies are less likely to collect consumer movement data, outcome data, or quality indicators of employment.

4. Data utilization. The data sets collected by state MR/DD agencies are most frequently utilized for policy formulation, legislative activity, program development, and/or program monitoring purposes.

5. Current and planned MIS. State MR/DD agency management information systems tend to utilize mainframe computers within the state agency or personal computers (including PC networks within the department). State agencies that plan to develop information systems reflect the same pattern of organization with a slight increase toward use of personal computers. Agencies with plans to expand their data collection activities tend to focus on collecting data related to supported employment and sheltered work/work activity, including adaptive/functional skills, outcome data, and the number of high school graduates who will need day and employment services.

6. Constraints. The primary constraints reported for data collection/utilization are resources (money and personnel) and a lack of integration or coordination across agencies or levels (state, regional, county) of the service delivery system.

Section IV: STATE VOCATIONAL REHABILITATION INFORMATION SYSTEMS

As discussed in the Procedure section (II), each state's VR Director or designate was surveyed by phone during the summer and early fall, 1990 using the survey instrument in Appendix C. This survey was significantly shorter than the one used with state MR/DD agencies due to federal reporting guidelines affecting VR agencies, which have created a uniform national data system. The major areas addressed in the VR survey included:

- The availability and description of a computerized management information system (MIS) for data related to day and employment services.
- The VR agencies' plans within the next two years to develop or expand their MIS.
- Constraints affecting the data collection/analysis efforts.

A. Current MIS

All 52 respondents reported that they maintain a MIS for data related to employment services. The structure of these systems is shown in Figure 5(a). Compared with the structure of MIS systems utilized by MR/DD state agencies (Figure 4), VR agencies are more likely to use mainframe computers, with only 8 states reporting use of a PC or PC network and one contracting out to a private agency.

B. Planned MIS And Its Use

Twenty-one VR agencies reported plans to expand the type or amount of employment data that they currently collect. The planned structural MIS changes are shown in Figure 5(b). There

FIGURE 5 (A)
**VR AGENCIES: STRUCTURE OF CURRENT
MANAGEMENT INFORMATION SYSTEM**

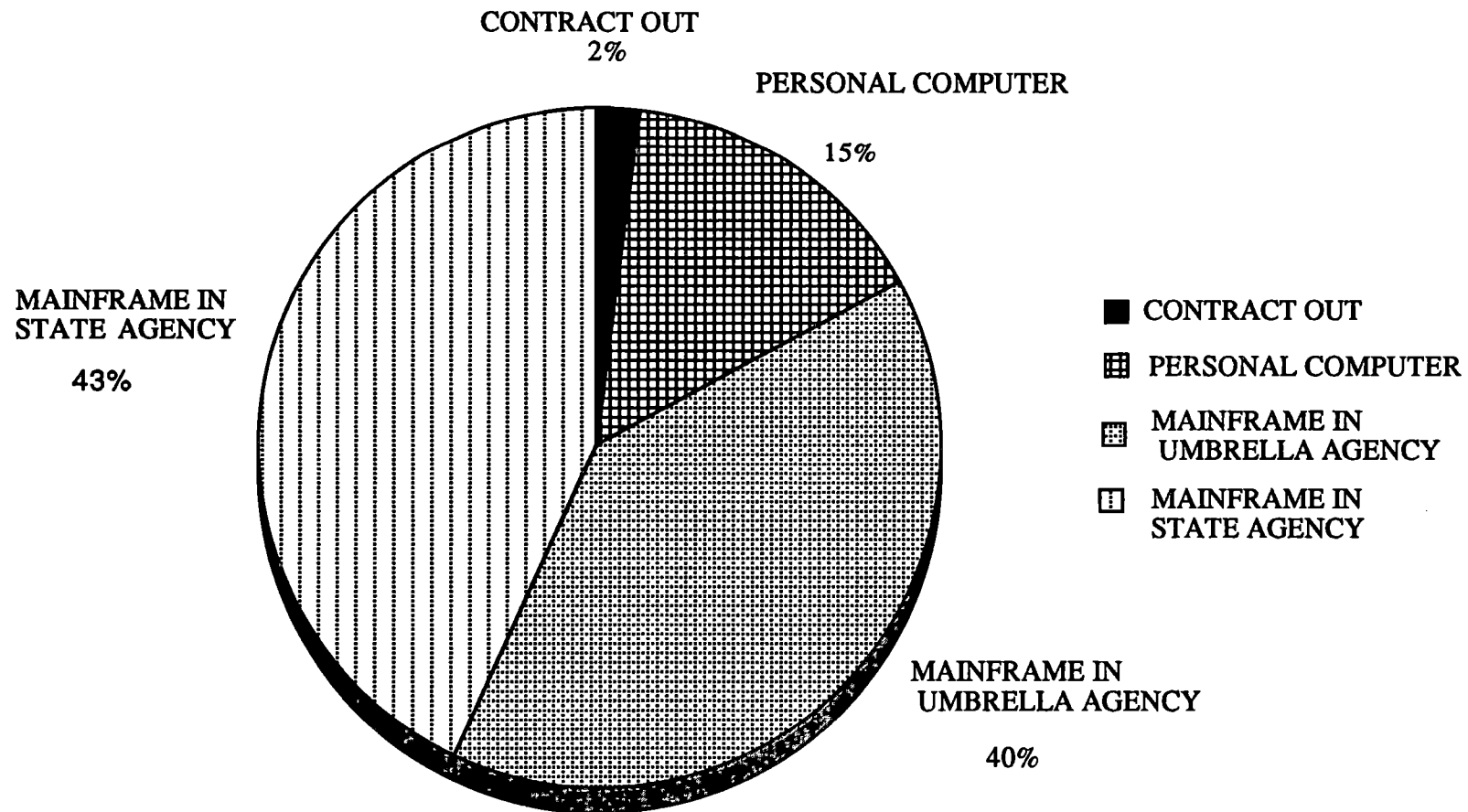
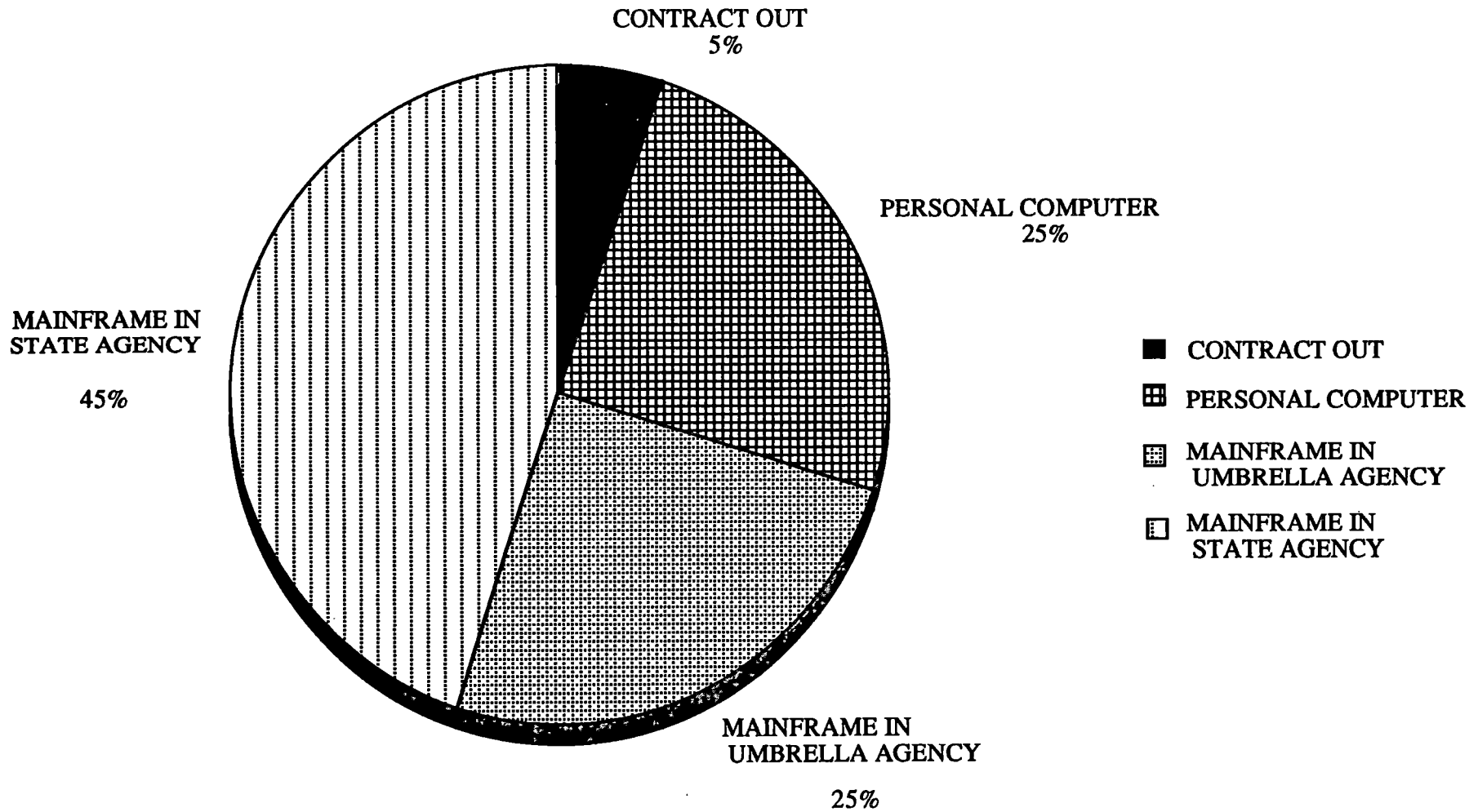


FIGURE 5 (B)

**VR AGENCIES: STRUCTURE OF PLANNED
MANAGEMENT INFORMATION SYSTEMS**



appears to be a tendency toward increased utilization of personal computers or pc networks within the state VR agency.

Respondents reported the type of information to be collected or expanded for each day and employment service. These included expenditure data (N=21), consumer characteristics (N=20), employment services data (N=18), quality indicators (N=12), and unmet needs data (N=7). State VR agencies reportedly plan to utilize data for the following purposes:

- Program Development (N=21)
- Benefit/Cost Analysis (N=19)
- Program Evaluation and Research (N=20)
- Legislative Activities (N=17)
- Program Monitoring (N=20)
- Policy Formulation (N=17)

C. Shared roles in management information.

Shared roles in data collection will enhance states' capacity to report unduplicated counts of persons served, and therefore, to improve their planning, service delivery, and monitoring and evaluation activities. Two significant questions were asked in both the MR/DD and VR surveys. One was, "does your agency utilize a client identification number of individuals served?" The second was, "if yes, please indicate other state agencies that also use this client identification number." Forty-two (of the 50) of the MR/DD respondents and 49 (of the 52) VR respondents answered the first question yes. However, few states apparently have the ability to share this information across agencies as reflected in Table 11.

D. Persons Served By More Than One Agency

Our previous work (Kiernan, McGaughey, Lynch, Schalock, & Morganstern 1990) indicated that there may be duplication across the MR/DD and VR agencies' annual statistics as a result of some individuals being funded in day and employment programs by both agencies during

Table 11
Common Identification Numbers

Other State Agencies that use the same <u>Client I.D. Number</u>	<u>Survey Respondent</u>	
	MR/DD	VR
VR	9	XX
MR-DD	XX	8
Education	5	3
State Medicaid Agency	14	11

one fiscal year. In an effort to identify those states that have the potential to determine the duplicate numbers, both the MR/DD and VR surveys asked the three questions noted in Table 12. The number of states responding 'yes' on either the MR/DD or VR survey is presented in this table.

In some states, the VR agency had a mechanism to identify their clients who were also served by the MR/DD agency, whereas in the same state, the MR/DD agency reported not being able to identify (through it's own information system) individuals currently served simultaneously by their agency and the state VR agency. The inverse was also true.

Individual MR/DD and VR state response profiles were used to identify those specific states where both agencies had the capacity to identify individuals served simultaneously as well as

Table 12
Persons Served by More Than One Agency

<u>Question</u>	<u>Number of States Responding Yes</u>	
	MR/DD	VR
1. Does your state agency have the capability to identify the number of persons who may be reported by both agencies?	15	17
2. The number served in day and employment programs who were funded simultaneously by the MR/DD and VR agencies?	13	11
3. The number who moved from a day and employment program funded by the MR/DD agency to a program funded by VR, or vice versa?	12	8

individuals who moved from one agency to the other during one fiscal year. The MR/DD and VR agencies in three states (Colorado, Montana, and Washington) reported having the capacity to determine the number of persons funded simultaneously. Similarly, the MR/DD and VR agencies in three states (Minnesota, Montana, and Wyoming) reported having the capacity to determine the number of persons who moved from one program to another. It is interesting that these capabilities were reported as infrequently by both agencies in the same state. This points out the need for better coordination and information sharing across the MR/DD and VR agencies within

states.

As was reported in table 12, state agencies were asked whether they utilized a common identification number for program participants. For those states which indicated that they use such a number they were asked if this same number was used by the MR/DD and VR agencies. Colorado, Montana, and Minnesota indicated that they utilize an identification number and that this same number is used by both the MR/DD and VR agencies. These same states, as was noted above, reported being able to track client movement and document joint funding of clients among state MR/DD and VR agencies.

E. Constraints on Data Collection/Analysis

VR respondents also were asked to identify constraints that they perceive or experience with respect to data collection or data analysis for employees of their state agency or department. In descending order, these constraints were reported as:

- Resources (time, persons): N=17
- Needed expansion/updating of current system: N=12
- Confidentiality: N=8
- Quality of data: N=5
- Coordination across agencies: N=3
- Turn around time: N=2

F. VR Survey Summary

In summary, the state VR information systems in a similar fashion to the MR/DD systems reported in the preceding section. The following summary statements can be made about the state VR information system based on the current survey.

1. Current MIS. Structurally, the current MIS system is most likely to be either a

mainframe computer within the state agency/department or a mainframe computer within a state umbrella agency or a separate state agency.

2. Planned MIS and its use. Among those 21 state VR agencies that reported plans to expand or change their current system, there is a tendency toward increased utilization of personal computers or pc networks within the department. Respondents indicated that they plan to expand data collection on expenditures, consumer characteristics, employment services, quality indicators of employment, and unmet needs. Planned utilization includes policy formulation, legislative activity, program development, program monitoring, program evaluation and research, and benefit/cost analysis.

3. Constraints on data collection/analysis. Primary constraints reported include resources, needed expansion/updating of the current system, and confidentiality.

Section V: IMPLICATIONS AND RECOMMENDATIONS

The third goal of this study was to provide recommendations regarding improvement and integration of state MR/DD and state VR information systems. This section of the report outlines these recommendations.

The present study is the first comprehensive survey, to our knowledge, of state MR/DD and VR information systems. It is apparent that the majority of states are making progress in the development of their information systems. Moreover, a large number of state MR/DD agencies (29) and state VR agencies (21) plan to expand their current systems. The expansion of state information systems brings an accompanying need for effective organization of these systems. Agency personnel need to consider a decision-oriented framework for designing their management information systems. This framework includes dividing the organization's data base into several levels, with each level reflecting unique characteristics (Hansen & McKell, 1977).

Based on the preceding analyses of state MR/DD and VR information systems, there are three levels around which a decision-oriented management information system (MIS) can be developed. These include planning, reporting, and evaluation. The value of these three components, which will be discussed in the next section, is that they allow an agency to organize its data around the following management and control activities (Anthony, 1965):

Strategic planning, which includes deciding on the objectives of the agency and on the resources needed to obtain these objectives.

Management control, which assures that resources are obtained and used effectively and efficiently in the accomplishment of the agency's objective.

Operational control, which is the process of assuring that specific tasks

are carried out effectively and efficiently.

It is also apparent from the survey data, however, that this framework needs to be considered within the constraints identified by the respondents, including issues related to data availability and coordination within and across agencies. These two issues will be discussed further in sub-section B.

A. Data Utilization

There is considerable literature on the need for a systematic approach to the specification, design, and development of information systems (Rouse, 1986; Wasserman, 1980). The focus of this section is on the specification and design of a decision-oriented management information system related to the three levels: planning, reporting, and evaluation.

1. Planning. Alvin Toffler in his recent book Powershift (Toffler, 1990) suggests that we are currently witnessing a shift away from the violence and wealth-based sources of power to a knowledge-based source of power. Similarly, the rapid social and political changes we are experiencing necessitate a planning process that is responsive to the rebirth of social activism and constituent groups (The Futurist, July-August, 1990). Both of these trends emphasize the importance of the availability and use of data for strategic planning purposes. At the most simplistic level, the necessary data sets include:

- At the consumer-level, the number of persons requiring the various day and employment service options (see Table 1) needed and level of support required by each individual in each environment, and
- At the systems-level, the service capacity available according to each of the service options.

These data sets would permit state agencies to match persons to appropriate services and to

develop new or expanded service options where there are apparent discrepancies between needs and availability. Current software programs are excellent for such planning efforts.

2. Reporting. The majority of respondents to the MR/DD survey (the question was not asked in the VR survey) indicated that they submit either mandated or voluntary reports to their administrative/fiscal office as well as to the legislature. These reports appear to be more descriptive than evaluative or analytic and, therefore, rely primarily on data sets summarizing expenditures and numbers served. Thus, again at the most basic level, the data sets necessary for reporting purposes include matrices of:

- Expenditures by number of persons served.
- Expenditures by service options.
- Number of persons served by service options.

3. Evaluation. The purpose of evaluation is to improve decision making. Thus, data sets at this level need to be responsive to decision and policy makers who are interested in questions relating to the efficiency and effectiveness of the services provided. Evaluation data sets are essential for strategic planning activities that analyze a program's strengths and weaknesses. Numerous books have been written about program evaluation, and the purpose here is not to summarize program evaluation models or processes. However, across evaluation models, there are a number of core data sets that are recommended for program evaluation including (Attkisson, Hargraves & Horwitz, 1978; Schalock & Thornton. 1988):

- Annualized costs per consumer;
- Movement patterns across support levels or service options;
- Employment outcomes per service option;
- Consumer demographics (by service option and placement environment);

- Waiting list numbers (to determine if one is impacting the system).

In summary, state VR and MR/DD agencies are attempting to collect data required for reporting and accountability purposes. Agency staff also indicated that they are planning to increase the type and amount of data collected. However, caution is needed, as reflected in two respondents' comments, "we can't collect all the information that people would like," and "we have more data than information." The caution is that agencies need to manage their information systems according to the decision-oriented parameters discussed above, with specific reference to the functions of planning, reporting and evaluation. There are some important utilization issues that also must be considered and overcome before information can be used readily for these three purposes. These issues are described in the following section.

B. Utilization Issues

The value of the decision-oriented approach is that it provides a framework around which a state (or agency) can organize information regarding persons with disabilities. However, the current survey identified a number of utilization issues that need to be addressed before the planning, reporting, and evaluation functions can occur. These issues are categorized as: knowledge, availability, and shared roles.

1. Knowledge. Information and information systems are advancing very quickly and, in many cases, faster than the user's ability to integrate technology with the desired product of the technology. Thus, as reflected in many respondents' comments from both surveys, "computer systems and the knowledge required to implement them are not totally in place." Simply having more data about "how the system works" is insufficient; the desired outcomes from the MIS are essential prerequisites.

2. Availability. Of the constraints identified in both surveys, the issue of availability was second only to lack of resources. The availability issue is multi-faceted, but based on qualitative comments from both surveys, it is related primarily to needed expansion of the current systems, turn around time, quality of data, and confidentiality issues. Each of these issues is very agency- and state-specific, and, frankly, must be dealt with at that level. When examining availability issues, however, persons might want to consider the following data collection criteria (Schalock & Thornton, 1988):

- Accessibility to providers.
- Completeness of the data items.
- Accuracy of the data.
- Timeliness, in that the data cover the period(s) of interest and are available in a relatively quick turn around period.
- Flexibility of the data collection and analysis efforts to respond to shifts in budgets, government policies, and research needs. In that sense, small core data sets are preferable to the "wish list."
- Cost of the data collection and analysis. Information systems need to consider the cost/benefit of their data sets and information system, as the desire for complete data can be prohibitively expensive.

3. Shared roles in management information. As noted earlier, the majority of state MR/DD and VR agencies utilize client identification numbers, although few have the ability to share client information across agencies. Moreover, few MR/DD and VR agencies reportedly are able to identify individuals served simultaneously by the other agency in their state. State agencies may want to examine the possibility of using a common identification system for planning and evaluation purposes. However, confidentiality issues will need to be addressed prior to

implementing such a system.

Another aspect of shared roles in management information is consideration of information needs at three levels; the provider, the state, and the federal government (Schalock & Hill, 1986). System designers need to ask seriously what the data needs are at each of these levels. A potential format for organizing data is suggested below:

- Provider (agency, county, region) level: Client-referenced data as listed previously under planning, reporting and evaluation
- State level: The ability to aggregate the provider data across service providers and service options
- Federal level: Aggregated data on movement patterns (such as placement and retention) across service options and employment outcomes per service option

This suggested format in management information is based on the assumption that providers are responsible for client-referenced information, that states are responsible for systems-level information and state-specific policies, and that the federal government is responsible for state level aggregation, state-level comparisons, and national policy evaluation. Additionally, the suggestion relies on the assumption that state MR/DD and VR agencies are expanding their data systems and potentially are receptive to the decision-oriented framework described earlier.

Section VI: Summary

This study is not intended to be the definitive word on data collection procedures, efforts, or designs for day and employment programs but, rather, a description of the current and planned MIS activities related to data collection and utilization, as conducted by state MR/DD and VR agencies. Though data are utilized for a variety of purposes and collected at several different levels (state, regional and county), there is little capacity for sharing data across agencies for the purposes of planning, reporting, and evaluation. Additionally, most of the current information is utilized is utilized for evaluation of resource allocation with much less emphasis on consumer satisfaction or quality of life outcomes. Several respondents did indicate that they planned to expand their information systems to include consumer satisfaction and quality indicators.

The authors hope that this report will serve as a resource book for the 'state of the practice' in MIS as well as to encourage a more comprehensive view of data collection in the future. The three "C's" of day and employment services (coordination, communication and cooperation) are going to be the backbone of any efforts to improve current management information systems. The age of information is upon us. The need for effective, efficient, and accurate documentation for planning, policy development, research and resource allocation purposes is becoming more and more obvious. The decade of the 90s must be one of innovation, documentation, and advancement in the provision of services to adults with disabilities. In the end, information systems are important only to the extent that they are used to evaluate and improve services, services that will, hopefully, lead to increased opportunities for interdependence in work, home and leisure environments for people with disabilities.

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APPENDIX A

MR/DD SURVEY OF STATE INFORMATION SYSTEMS

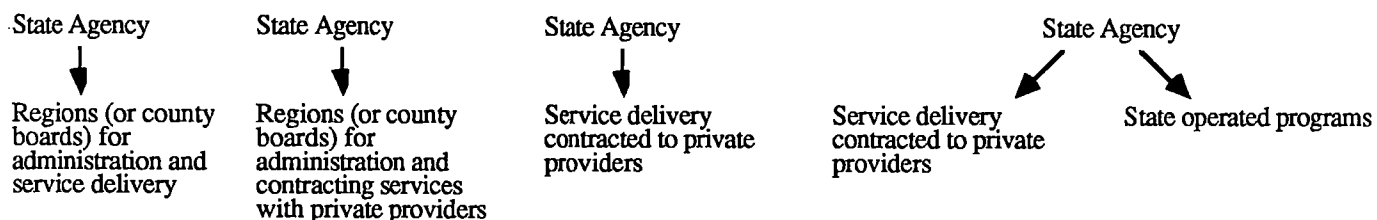
Survey of State Information Systems

Individual Completing Survey: _____ Phone Number: _____

Address: _____

1. Please explain or diagram the administrative structure of your state's MR/DD services, such as in the following examples.

Possible Administrative Structures



Your state's administrative structure:

2. Of the total funding for MR/DD services that were funded, operated or regulated by your agency, please indicate what percent was received from each of the following sources during Fiscal Year 1989.

A. _____	Federal government	D. _____	Local government
B. _____	State government	E. _____	(Other, eg., private sources)
C. _____	County government		

3. Please indicate, by checking the appropriate line, which of the following day/employment services are funded, operated, or regulated by your state or regional/county MR/DD service system.

- A. _____ Time-limited Training for Competitive Employment
- Environment where **most** workers do **not** have disabilities
 - **Time limited** job-related supports are provided to the worker with a disability in order to maintain employment
- B. _____ Supported Employment (*with ongoing support*)
- Environment where **most** workers do **not** have disabilities
 - **Ongoing** job-related supports are provided to the worker with a disability in order to maintain employment
- C. _____ Sheltered Employment/Work Activity
- Environment where **all** workers have disabilities
 - Continuous job-related supports and supervision are provided to all workers with disabilities
- D. _____ Day Activity
- Environment where **all** participants have disabilities
 - Primary program focus: psychosocial skills, activities of daily living, and recreation; however, some vocational services may be provided
 - Continuous supports and supervision are provided to all participants with disabilities

- E. _____ Day Habilitation
- Environment where all participants have disabilities
 - Primary program focus: professional therapies (e.g., O.T., P.T., Speech) and activities of daily living
 - Continuous supports and supervision are provided to all participants with disabilities
 - Funded by Title XIX
- F. _____ Integrated Day Programs
- Participants are adults or youth transitioning from school (no other age restrictions),
 - Primary program focus: community integration experiences with individuals who do not have disabilities (leisure activities, learning activities, etc.)
 - Program established to provide an alternative to segregated day programs
- G. _____ Programs for Elderly Individuals
- Environment where all participants are 55 years or older
 - Primary program focus: leisure recreation, nonvocational
 - May be integrated with elders who do not have disabilities

4. Of the following day or employment programs currently funded, operated, or regulated by your agency, please indicate which funding sources are used, by checking all that apply.

	Title XIX (General Medicaid, non-waiver funds)	Title XIX (Home & Community-Based Waiver funds)	Department of MR/DD	Other Funding Sources
Supported Employment	_____	_____	_____	_____
Day Activity	_____	_____	_____	_____
Day Habilitation	_____	_____	_____	_____
Integrated Day Programs	_____	_____	_____	_____
Programs for Elderly Individuals	_____	_____	_____	_____

5. Please indicate the availability of the following types of data in your state by checking the appropriate line:

Data Available and Aggregated at the Following Level:				Data Not Available	
	<u>State</u>	<u>Regional</u>	<u>County</u>	<u>Plan to Collect within 2 Years.</u>	<u>No Plans to Collect.</u>
A. <i>Expenditure Data for Day/ Employment Services :</i>					
Funding source	_____	_____	_____	_____	_____
Service category (See 3A - 3G)	_____	_____	_____	_____	_____

Data Available and Aggregated at the Following Level:				Data Not Available	
	<u>State</u>	<u>Regional</u>	<u>County</u>	<u>Plan to Collect within 2 Years.</u>	<u>No Plans to Collect.</u>
B. Consumer Characteristics:					
Age	_____	_____	_____	_____	_____
Gender	_____	_____	_____	_____	_____
Ethnicity	_____	_____	_____	_____	_____
Primary Disability	_____	_____	_____	_____	_____
Level of Retardation	_____	_____	_____	_____	_____
Adaptive/ Functional skills (ABS, ICAP, etc.)	_____	_____	_____	_____	_____
C. Day/Employment Service Data (Please see instructions below)*					
Type of service by number of consumers	_____	_____	_____	_____	_____
<i>Consumer characteristics by service*</i>					
Age	_____	_____	_____	_____	_____
Gender	_____	_____	_____	_____	_____
Ethnicity	_____	_____	_____	_____	_____
Primary Disability	_____	_____	_____	_____	_____
Level of Retardation	_____	_____	_____	_____	_____
Adaptive/ Functional skills (ABS, ICAP, etc.)	_____	_____	_____	_____	_____

*Please check below to identify the services for which data are available in part C (services defined in 3A - 3G).

☐ Competitive employment
☐ Time-limited training
☐ Supported employment
☐ Sheltered employment/work activity

☐ Day activity
☐ Day habilitation
☐ Integrated Day Programs
☐ Programs for Elderly Individuals

Data Available and Aggregated at the Following Level:				Data Not Available	
	<u>State</u>	<u>Regional</u>	<u>County</u>	<u>Plan to Collect within 2 Years.</u>	<u>No Plans to Collect.</u>
D. <i>Consumer Movement Data</i>					
# and service of consumers who moved	_____	_____	_____	_____	_____
Characteristics of consumers who moved	_____	_____	_____	_____	_____
E. <i>Outcome Data:</i>					
Average wages	_____	_____	_____	_____	_____
Average hours	_____	_____	_____	_____	_____
Employment Benefits received	_____	_____	_____	_____	_____
F. <i>Quality Indicators of Day/Employment</i>					
Consumer satisfaction	_____	_____	_____	_____	_____
Employer satisfaction	_____	_____	_____	_____	_____
Family satisfaction	_____	_____	_____	_____	_____
Integration with nondisabled coworkers	_____	_____	_____	_____	_____
Other indicators of work life quality (eg., safety, staff development; <i>please specify</i>):	_____	_____	_____	_____	_____
G. <i>Unmet Needs Data:</i>					
# graduating who will need day/ employment services	_____	_____	_____	_____	_____

Data Available and Aggregated at the Following Level:				Data Not Available	
	<u>State</u>	<u>Regional</u>	<u>County</u>	<u>Plan to Collect within 2 Years.</u>	<u>No Plans to Collect.</u>
G. <i>Unmet Needs Data:</i>					
# not receiving but waiting for day/employment services	_____	_____	_____	_____	_____
# receiving day/employment services who need a different service	_____	_____	_____	_____	_____

6. Does your agency have **instruments or data collection forms** for the following data categories related to the **day/employment services** listed in 3A - 3G? Please indicate by checking below.

- | | | | | |
|----------------------------------|-----|-------|----|-------|
| A. Expenditure data | Yes | _____ | No | _____ |
| B. Consumer characteristics data | Yes | _____ | No | _____ |
| C. Day/Employment service data | Yes | _____ | No | _____ |
| D. Consumer movement data | Yes | _____ | No | _____ |
| E. Outcome data | Yes | _____ | No | _____ |
| F. Quality indicators | Yes | _____ | No | _____ |
| G. Unmet needs data | Yes | _____ | No | _____ |

If available, please submit these forms with your completed questionnaire.

7. Please indicate the purpose for which your agency utilizes the following **day/employment data sets** by checking the appropriate box. (See definitions on the next page).

	Policy Formulation	Legislative Activity	Program Development	Program Monitoring	Program Evaluation & Research	Benefit/Cost Analysis
Expenditure data	_____	_____	_____	_____	_____	_____
Consumer characteristics	_____	_____	_____	_____	_____	_____
Service data	_____	_____	_____	_____	_____	_____
Movement data	_____	_____	_____	_____	_____	_____
Outcome data	_____	_____	_____	_____	_____	_____
Quality indicators	_____	_____	_____	_____	_____	_____
Unmet needs data	_____	_____	_____	_____	_____	_____

Potential Uses of Day or Employment Program Data

- A. Policy Formulation: •Using data to change current policies, rules, and/or regulations, or to propose new policy initiatives (for example, the federal supported employment initiative).
- B. Legislative Activity: •Using data to support or justify funding requests or changes in state law (for example, budget narratives or legal briefs)
- C. Program Development: •Using data either to change existing program services or to add new service components
- D. Program Monitoring: •Using data to determine whether programs are meeting their goals and objectives and whether they are in compliance with current rules and regulations
- E. Program Evaluation and Research: •Using data to compare one program with another, (eg., examine program outcomes or conduct systematic longitudinal studies of the program's impact such as impact studies of supported employment vs. sheltered workshops)
- F. Benefit/Cost Analysis: •Using data to weigh a service program's benefits and costs, including a monetary estimate of the benefits and an estimate of the benefits and costs

8. Please indicate which (if any) of the following information **related to day/employment services** is used by your agency for either mandatory or voluntary reporting (such as legislative or governing body reports, internal reports, advisory board reports, citizen newsletters, etc.).

	<u>Mandated Reports</u>		<u>Voluntary Reports</u>	
	How Often	To Whom	How Often	To Whom
Expenditure data	_____	_____	_____	_____
Consumer characteristics	_____	_____	_____	_____
Day/employment service data	_____	_____	_____	_____
Consumer movement data	_____	_____	_____	_____
Day/Employment outcome data	_____	_____	_____	_____
Quality indicators	_____	_____	_____	_____
Unmet needs data	_____	_____	_____	_____

If available, please include a copy of these reports with your completed questionnaire.

9. Does your agency have a computerized management information system for **data related to day/employment services**?

A) _____ Yes _____ No

B) If yes, which of the following best describes your computer resources?

_____ A personal computer or pc network within your department

_____ A mainframe computer within your state agency/department

_____ A mainframe computer within a state umbrella agency or a separate state agency

_____ Contract out to a private agency/organization

10. Within the next two years, does your agency have plans to **develop** a management information system or to **expand the type or amount** of day/employment data currently collected?

A) We plan to **develop** an MIS system within two years: _____ Yes _____ No

B) We plan to **expand** the type or amount of day/employment data in our existing MIS system: _____ Yes _____ No

C) If yes to A or B, please provide the following information:

(1) Target Implementation date: _____

(2) Structure of system:

_____ A personal computer or pc network within your department

_____ A mainframe computer within your state agency/department

_____ A mainframe computer within a state umbrella agency or a separate state agency

_____ Contract out to a private agency/organization

(3) Please indicate the type of information that will be collected or expanded for each day/employment service by checking the appropriate box.

	Expenditure Data	Consumer Characteristics	Consumer Movement Data	Outcome Data	Quality Indicators	Unmet Needs Data
Time-limited Training	_____	_____	_____	_____	_____	_____
Supported Employment	_____	_____	_____	_____	_____	_____
Sheltered Employment Work Activity	_____	_____	_____	_____	_____	_____
Day Activity	_____	_____	_____	_____	_____	_____
Day Hab.	_____	_____	_____	_____	_____	_____
Integrated Day Programs	_____	_____	_____	_____	_____	_____
Programs for Elderly Individuals	_____	_____	_____	_____	_____	_____

(4) Projected utilization of the new data to be collected:

_____	Policy Formulation	_____	Program Monitoring
_____	Legislative Activity	_____	Program Evaluation & Research
_____	Program Development	_____	Benefit/Cost Analysis

11. Some state MR/DD or VR agencies have indicated that there may be duplication across the MR/DD and VR agencies' annual statistics as a result of some individuals being funded in day/employment programs by both agencies during one fiscal year. Does your state agency have the capacity to identify the number of individuals who may be reported by both agencies in this manner?

A) Yes _____ No _____

B) If yes, can you also identify the following?

The number served in day/employment programs who were funded simultaneously by the VR & MR/DD agencies:

Yes _____ No _____

The number who moved from a day employment program funded by the MR/DD agency to a program funded by VR, or vice versa:

Yes _____ No _____

C) Does your agency utilize a client identification number for individuals served?

Yes _____ No _____

D) If yes, please indicate whether any of the following state agencies also use this client identification by checking the appropriate line.

1) _____ Vocational Rehabilitation

2) _____ Department of Education

3) _____ State Medicaid Agency

4) _____ Other (*Please specify*)

12. A) Are there constraints to data collection or data analysis for employees of your state agency or department?

Yes _____ No _____

B) If Yes, please describe the perceived constraints and note any potential solutions to overcoming them:

Thank you for your participation in this study. Please return this questionnaire and the requested documents/reports in #4 and #5 to:

Dr. William E. Kiernan, Director
Training & Research Institute for People with Disabilities, The Children's Hospital
300 Longwood Ave., Gardner 451, Boston, MA 02115

APPENDIX B

VR SURVEY OF STATE INFORMATION SYSTEMS

Survey of State Information Systems

Individual Completing Survey: _____ Phone Number: _____

Address: _____

1. Does your agency have a computerized management information system for **data related to day/employment services**?

A) _____ Yes _____ No

B) If yes, which of the following best describes your computer resources?

- _____ A personal computer or pc network within your department
 _____ A mainframe computer within your state agency/department
 _____ A mainframe computer within a state umbrella agency or a separate state agency
 _____ Contract out to a private agency/organization

2. Within the next two years, does your agency have plans to **develop** a management information system or to **expand the type or amount** of day/employment data currently collected?

A) We plan to **develop** an MIS system within two years: _____ Yes _____ No

B) We plan to **expand** the type or amount of day/employment data in our existing MIS system: _____ Yes _____ No

C) If yes to A or B, please provide the following information:

(1) Target Implementation date: _____

(2) Structure of the **new** data system:

- _____ A personal computer or pc network within your department
 _____ A mainframe computer within your state agency/department
 _____ A mainframe computer within a state umbrella agency or a separate state agency
 _____ Contract out to a private agency/organization

(3) Please indicate the type of information that will be collected or expanded for each day/employment service by checking the appropriate box.

Expenditure Data	Consumer Characteristics	Employment Service Data (type, intensity, etc.)	Quality Indicators	Unmet Needs Data
_____	_____	_____	_____	_____

...(4) Projected utilization of the new data to be collected:

_____	Policy Formulation	_____	Program Monitoring
_____	Legislative Activity	_____	Program Evaluation & Research
_____	Program Development	_____	Benefit/Cost Analysis

3. Some state MR/DD or VR agencies have indicated that there may be duplication across the MR/DD and VR agencies' annual statistics as a result of some individuals being funded in day/employment programs by both agencies during one fiscal year. Does your state agency have the capacity to identify the number of individuals who may be reported by both agencies in this manner?

A) Yes _____ No _____

B) If yes, can you also identify the following?

The number served in day/employment programs who were funded simultaneously by the VR & MR/DD agencies:

Yes _____ No _____

The number who moved from a day employment program funded by the MR/DD agency to a program funded by VR, or vice versa:

Yes _____ No _____

C) Does your agency utilize a client identification number for individuals served?

Yes _____ No _____

D) **If yes**, please indicate whether any of the following state agencies also use this client identification by checking the appropriate line.

1) _____ Vocational Rehabilitation

2) _____ Department of Education

3) _____ State Medicaid Agency or Medicaid Waiver Agency

4) _____ Other (*Please specify*)

4. A) Are there constraints to data collection or data analysis for employees of your state agency or department?

Yes _____ No _____

B) If Yes, please describe the perceived constraints and note any potential solutions to overcoming them:

Thank you for your participation in this study.

