

DOCUMENT RESUME

ED 272 691

CE 044 779

**AUTHOR** Barker, Linda Toms; And Others  
**TITLE** Development of Performance Measures for Supported Employment Programs: Establishing Consensus about Recommended Data Items and Developing a Data Collection Strategy.

**INSTITUTION** Berkeley Planning Associates, Calif.  
**SPONS AGENCY** National Inst. of Handicapped Research (ED), Washington, DC.

**PUB DATE** 31 Jul 86  
**CONTRACT** 300-85-0138  
**NOTE** 63p.; For a related document, see CE 044 780.  
**AVAILABLE FROM** Berkeley Planning Associates, 3200 Adeline Street, Berkeley, CA 94703 (\$8.00).  
**PUB TYPE** Guides - Non-Classroom Use (055) -- Reports - Evaluative/Feasibility (142)

**EDRS PRICE** MF01/PC03 Plus Postage.  
**DESCRIPTORS** Accountability; Client Characteristics (Human Services); Counseling Objectives; Data Analysis; \*Data Collection; Employment Level; Employment Opportunities; \*Employment Services; \*Evaluation Criteria; Evaluation Methods; Federal Programs; Financial Support; Mainstreaming; \*Performance Factors; Program Effectiveness; Program Evaluation; Program Improvement; Quality of Life; \*Severe Disabilities; State Programs; Work Environment  
**IDENTIFIERS** \*Consensus; \*Supported Work Programs

**ABSTRACT**

This guide, which is based on a 12-month study that examined the feasibility of and procedures for evaluating federal, state, and local supported employment programs for individuals with severe disabilities, discusses recommended data items and measures and presents guidelines for developing a data collection strategy and implementation plan. Examined in the first part of the guide are measures for assessing the following aspects of supported employment programs: employment outcomes, quality of employment, worksite integration, ongoing support, quality of life, participant characteristics, systems change, and program costs. The basic building block required for analysis of most of these topics is the collection and recording of basic client-level data by supported employment projects around the country on program participants, services provided, and outcomes experienced by clients. The issue of consistency versus variation as it applies to developing a data collection strategy and implementation plan is discussed. The questions of who collects data, maintains a client-level database, aggregates the data and generates summary reporting measures, and analyzes the data are addressed. Also covered are timing issues and perspectives on project and state accountability. An appendix contains the current Office of Special Education and Rehabilitation Services definition of supported employment. (MN)

ED 272 691

BEST COPY AVAILABLE

DEVELOPMENT OF PERFORMANCE MEASURES FOR  
SUPPORTED EMPLOYMENT PROGRAMS:

Establishing Consensus About Recommended Data Items and  
Developing a Data Collection Strategy

Contract No. 300-85-0138

July 31, 1986

Prepared for:

U.S. Department of Education  
National Institute of Handicapped Research  
Office of Special Education and Rehabilitation Services  
330 C Street, S.W., Room 3419B  
Washington, D.C. 20202

Submitted by:

Berkeley Planning Associates  
3200 Adeline Street  
Berkeley, CA 94703

Linda Toms Barker, Project Director

BPA Contract No. 184

"PERMISSION TO REPRODUCE THIS  
MATERIAL HAS BEEN GRANTED BY



U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

This document has been reproduced as  
received from the person or organization  
originating it.

Minor changes have been made to improve  
reproduction quality.

• Points of view or opinions stated in this docu-  
ment do not necessarily represent official  
OERI position or policy.

The BPA study team included:

Linda Toms Barker, Project Director\*  
Frederick C. Collignon, Ph.D.  
Deborah Kogan\*  
Chesca Piuma  
Andrea Youngdahl\*

\*Authors of this report

This project has been funded with federal funds from the Department of Education under Contract No. 300-85-0138. The contents of this publication do not necessarily reflect the views or policies of the Department, nor does mention of organizations imply endorsement by the U.S. Government.

TABLE OF CONTENTS

INTRODUCTION . . . . . 1

I: IDENTIFYING RECOMMENDED DATA ITEMS AND MEASURES . . . . . 7

Introduction . . . . . 7

Employment Outcomes . . . . . 9

Quality of Employment . . . . . 12

Opportunities for Worksite Integration . . . . . 18

Ongoing Support . . . . . 22

Quality of Life . . . . . 28

Participant Characteristics . . . . . 31

Systems Change . . . . . 37

Supported Employment Costs . . . . . 43

II. DEVELOPING A DATA COLLECTION STRATEGY  
AND IMPLEMENTATION PLAN . . . . . 51

APPENDIX A: Current OSERS Definition of Supported Employment

## INTRODUCTION

### OVERVIEW

This material is taken from the final report of a twelve-month study performed by Berkeley Planning Associates (BPA) for the U.S. Department of Education/Office of Special Education and Rehabilitation Services (OSERS) to develop performance measures for supported employment programs.<sup>1</sup> The term "supported employment" refers to a broad family of local programs and state-level projects designed to establish or expand supported employment opportunities for individuals with severe disabilities. The supported employment concept includes the provision of ongoing publicly-funded support services that participants need in order to sustain employment (hence the name "supported employment").

As defined by the five-year National Supported Employment Demonstration program implemented by OSERS in September 1985, supported employment consists of the creation or expansion of compensated, meaningful work opportunities for individuals with severe disabilities.<sup>2</sup> These work opportunities are to be created in job settings where disabled workers have opportunities for social interaction with nondisabled workers or the general public, and are intended to offer a significant number of hours of compensated work each week. The National Supported Employment Demonstration offers states additional financial resources to be used for "system transformation"--i.e. to transform existing day activity and work activity programs into systems that emphasize the opportunity for individuals to realize their potential for productive work in integrated settings. In many states, supported employment activities are also increasing in response to local initiative by projects expanding options within local service systems (with or without formal state plans for system transformation, and with or without federal incentive funding).

It has been the intent of this BPA study to help clarify supported employment program objectives and identify performance measures that can be used at a variety of different levels --federal, state, and local-- to document the practices and achievements of supported employment

programs as they continue to receive greater attention and are provided with a greater share of program resources throughout the nation.

The activities carried out under the BPA study were framed as activities to "seek consensus" across a large number of actors involved in supported employment activities throughout the United States. One of the reasons for the emphasis on seeking consensus is that supported employment represents a loose envelope of closely-related and like-minded program efforts, rather than a program with a single clearly defined identity supported by a single legislative mandate, a single funding source, or a single agency or organizational setting. In such an environment, it is likely that any efforts to generate summary data on program accomplishments will be the result of voluntary cooperation rather than hierarchically imposed data collection or reporting requirements. The second reason for emphasizing consensus is the need to arrive at a core group of objectives and performance measures that adequately describe the common elements and intentions of supported employment programs that vary widely in their details of operation. At the heart of this study has been a recognition of, and a respect for, the diversity of supported employment approaches--ranging from individual placement models to mobile work crews to work enclaves within industry--as well as the diversity of program participants, funding sources, and agency roles. Thus, rather than being imposed on a homogeneous set of programs or being viewed as a way to increase program uniformity, the data items and performance measures discussed in this report are attempts to identify and reflect movement toward common goals, objectives and desired outcomes by a very diverse universe of supported employment projects.

The potential users of information about the accomplishments of supported employment include a variety of actors, including:

- federal and state policy makers, interested in whether the supported employment initiative is accomplishing its goals;
- state and local administrators, interested in whether system transformation is occurring, and if so, in what are its related cost and service impacts;

- program operators, interested in tracking project resources and services provided to participants, as well as the outcomes of services for participants, and in refining service designs to maximize project effectiveness;
- consumer groups, and individual parents and participants, interested in expanding community-based employment options and in choosing the best program for themselves or their children with disabilities;
- employers, who may be considering whether to hire a supported employment participant, or whether to sponsor a supported employment group work site; and
- social scientists, interested in tracing the net impacts of the investment in supported employment from the participant and taxpayer perspectives, as well as in analyzing the factors influencing project effectiveness.

Each of these individuals or groups is interested in reviewing the accomplishments of supported employment efforts. Some users are primarily interested in outcomes at the local project level; others are interested in local system or state system outcomes, or in aggregate federal statistics. Each of these different information users has a stake, then, in the collection and reporting of data that will address their concerns.

After exploring the degree of agreement about supported employment objectives with representatives of a variety of program models and system level perspectives (e.g., individual project, local system, state system, and federal perspectives) as well as researchers on and proponents of the supported employment concept, we were able to identify a remarkable degree of consensus regarding six broad areas of desired program performance:

- Meaningful Work;
- Compensation;
- Ongoing Support;
- Worksite Integration and Community Participation;

- Quality of Life; and
- Community Change.

Each of these goal areas, or domains, stands for a common desired program objective or a set of related objectives of supported employment. These performance domains became the initial framework for the development of sets of candidate data items and potential performance measures to measure supported employment program accomplishments. Ultimately, the performance domains have been expanded into eight data collection and measurement topics:

- Measures of Employment Outcomes
- Measures of Quality of Employment
- Measures of Worksite Integration
- Measures of Ongoing Support
- Measures of Quality of Life
- Measures of Participant Characteristics
- Measures of Systems Change
- Measures of Program Costs

The basic building blocks required for analysis of most of these topics will be the collection and recording of basic client-level data by supported employment projects around the country on (1) the participants, (2) the services provided, and (3) the outcomes experienced by supported employment clients. Additionally, project-level data on program costs and service models will be critical to most analysis efforts. Thus, it is our hope that the collection of a core set of client-level data on an ongoing basis will come to be viewed as a part of the normal cost of "doing business" as a supported employment service provider. However, because collection does have clear costs associated with it, the data designated as "core data" clearly have to be kept to a minimum.

The purpose of this study has been two-fold: (1) to facilitate discussion and encourage the development of consensus about the most important core data items and performance measures which, it is hoped, will come to be considered the bare minimum for data collection and

reporting for the national supported employment initiative as a whole and for its constituent state and local projects, and (2) to establish conceptual framework for the collection and analysis of additional data to address supplementary performance questions of interest to a wide audience. Some of these additional or "supplementary" data elements may be feasible and appropriate for data collection by some or most projects on an ongoing basis for all supported employment participants. Others may be feasible or appropriate for data collection by some projects on a periodic basis (e.g., one month out of every twelve) or for a random sample of all participants (i.e., a special study sample). The collection of still other data elements is clearly beyond the resources and/or capacity of local projects, and would require special research funding and/or special data collection efforts.

NOTE

<sup>1</sup>This material has been extracted from Berkeley Planning Associates' full Final Report to the U.S. Department of Education/Office of Special Education and Rehabilitation Services (OSERS) titled Development of Performance Measures for Supported Employment Programs, where it constitutes Part II: Establishing Consensus About Recommended Data Items and Developing a Data Collection Strategy. The full Final Report includes an expanded discussion of the conceptual framework on which performance measures for supported employment must be based (in Part I: Establishing Consensus About Program Objectives and the Role of Performance Measurement), and a discussion of future research priorities to develop additional measures and to address supplementary evaluation questions (in Part III: Developing a Research Agenda). Readers interested in the full text of BPA's Final Report should contact the Publications Coordinator, Berkeley Planning Associates, 3200 Adeline Street, Berkeley, CA 94703, Telephone (415) 652-0999.

<sup>2</sup>For a more detailed definition, developed by OSERS for designing the National Supported Employment Demonstration projects, see Appendix A.

## I. IDENTIFYING RECOMMENDED DATA ITEMS AND MEASURES

### INTRODUCTION

While the introduction to this material provided an overview of the conceptual framework within which the study evolved, the following section presents a practical framework for implementing common ongoing measures of supported employment efforts. These common measures fall within the eight data collection and measurement topics discussed previously:

- employment outcomes;
- quality of employment;
- opportunities for worksite integration;
- ongoing support;
- quality of life;
- participant characteristics;
- systems change; and
- supported employment costs.

Within each topic or domain, the BPA study team used the wide range of information gathered, through the literature and discussions with informed respondents, to identify which data items and measures might best be considered as:

- core, or universal measures that provide information on an ongoing basis, including data necessary for ongoing program monitoring and for summarizing performance at state and federal levels. These are also measures that would be most useful if implemented across projects and/or states;
- supplementary, or additional measures that need not be the same across states and projects. These may include particular areas that a project would want to monitor for itself on an ongoing basis, as well as measures that reflect local and/or project model peculiarities; and

- evaluation, or periodic measures or special studies that would be conducted for a representative sample, occasionally, or only after the program has demonstrated longevity.

Using these criteria, the study team presented a potential set of core, supplementary, and evaluation measures to 35 individuals from around the country for discussion and consensus building during a day and a half seminar. These individuals represented federal agencies, state and local public and private agencies from the fields of developmental disabilities, vocational rehabilitation, and special education, as well as educational institutions and research centers. The National Consensus Seminar occurred on May 20-21, 1986 in Washington, DC, and was structured to (1) generate response to the potential measures; (2) create an opportunity for a diverse group of involved persons to explore the extent of theoretical agreement and consistency in practice on program goals, implementation practices, and measures of program accomplishment; (3) allow federal, state, and local representatives to exchange information to develop an understanding of the dimensions of supported employment as it emerges around the country; and (4) establish communication links between program operators, researchers, and policy maker. During the seminar, consensus-building focused largely on individual proposed data items rather than on the aggregate performance measures that might be constructed from them. The consensus-building process centered on those measures considered by the group to be core or universal.

This chapter reflects the group's work during this consensus-building process through tables displaying the set of core consensus measures and a set of supplementary or additional measures for each domain. In addition, each section attempts to briefly address:

- Why is this domain important to measure/what do we want to know?
- What are the constraints in measuring this domain? and
- What are the implications for collecting data in terms of the consistency and timing of data to be collected?

The lists of core consensus measures represent a set of data items and measures that would ideally be implemented by all supported employment programs in a consistent way. While these consensus measures do not mean to imply a federal intention to mandate standardized data collection, they do represent a minimal set of agreed-upon measures and a statement from those active in the field about what the supported employment program might hold itself accountable for and/or what describes the program's intent. In addition, areas were identified where further research will be needed to develop measures and methodologies.

The supplementary sets include measures that would entail choices made at project and/or state discretion about what particular information would be useful to collect. The specific measures included are suggestions or representations of ways to expand the core set of ongoing measures. Other measures which reflect project or community-specific concerns could certainly be added to the list of possibilities, along with special studies or evaluation topics. Chapter II discusses the various concerns which arise when attempting to develop a data collection strategy and implementation plan for ongoing performance monitoring.

## **EMPLOYMENT OUTCOMES**

The key feature of supported employment that distinguishes it from day activity programs is **paid employment**. Employment exists when an individual's activities create goods and services that have economic value, and when he or she receives payment for work from an employer or customer. Therefore, the first step in measuring performance and perhaps the most important measure of success of supported employment programs is assessing the extent to which employment outcomes are achieved. These outcomes can be organized into four general dimensions: (1) actual placement/employment; (2) stability of that employment; (3) earnings; and (4) hours worked. These areas were identified as the key aspects of employment outcomes during the study, and are reflected

Figure 1A

## EMPLOYMENT OUTCOMES

## Core Consensus Data Items and Recommended Measures

Consensus Data Items	Recommended Core Measures
<ul style="list-style-type: none"> <li>Enrolled in SE program</li> </ul>	<ul style="list-style-type: none"> <li>total # of participants served (active enrollees) during reporting period</li> </ul>
<ul style="list-style-type: none"> <li>Obtained paid employment</li> </ul>	<ul style="list-style-type: none"> <li># and % of participants in paid employment (at any time during reporting period)</li> </ul>
<ul style="list-style-type: none"> <li>Achieved SE outcome (current OSERS definition)</li> </ul>	<ul style="list-style-type: none"> <li># and % of participants who have achieved supported employment outcome (current OSERS definition)</li> <li>% of participants in paid employment who have achieved supported employment (current OSERS definition)</li> </ul>
<ul style="list-style-type: none"> <li>Hourly wage at placement</li> </ul>	<ul style="list-style-type: none"> <li>mean hourly wage at placement</li> </ul>
<ul style="list-style-type: none"> <li>Hourly wage at end of reporting period</li> </ul>	<ul style="list-style-type: none"> <li>mean hourly supported employment wage (mean wage for all participants who have achieved supported employment outcomes)</li> <li>mean hourly wage for all participants in paid productive work (including participants who have not [yet] achieved supported employment outcomes)</li> <li>mean monthly earnings for all participants in paid productive work (including participants who have not [yet] achieved supported employment outcomes)</li> <li>% of employed participants/participants achieving supported employment earning minimum wage or above</li> </ul>
<ul style="list-style-type: none"> <li>Received fringe benefits: health coverage <ul style="list-style-type: none"> <li>— yes</li> <li>— no</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>mean monthly supported employment earnings (mean monthly earnings for all participants who have achieved supported employment outcomes)</li> <li>total earnings across all participants who have achieved supported employment outcomes for reporting period</li> <li>total earnings across all participants (including those who have not yet achieved supported employment outcomes) for reporting period</li> </ul>
<ul style="list-style-type: none"> <li>Total hours worked during reporting period</li> </ul>	<ul style="list-style-type: none"> <li>mean hours worked per week in supported employment</li> </ul>
<ul style="list-style-type: none"> <li># weeks employed since enrollment, for participants with SE outcomes</li> </ul>	<ul style="list-style-type: none"> <li>mean # weeks employed since enrollment for current participants with SE outcomes</li> </ul>
<ul style="list-style-type: none"> <li># weeks employed during reporting period, for participants with SE outcomes</li> </ul>	<ul style="list-style-type: none"> <li>mean # weeks employed during reporting period for current participants with SE outcomes</li> </ul>
<ul style="list-style-type: none"> <li># weeks employed with present employer, for participants with SE outcomes</li> </ul>	<ul style="list-style-type: none"> <li>mean length of time (# weeks) with present employer for participants with SE outcome</li> </ul>

in the core consensus data items and recommended measures listed in Figure 1A.

Measuring these dimensions will enable us to answer the questions: To what extent is the participant in supported employment involved in paid productive work, how paid and how productive is the work, and is that work retained over a period of time? In addition, this information will be an integral part of an internal assessment of project performance as well as providing bench marks against which to compare outcomes across projects. These comparisons will facilitate the identification of: (1) differences among supported employment projects; (2) differences between supported employment and other programs; (3) "best practices," or exemplary methods for achieving best outcomes; and (4) a long range picture of the supported employment program as it develops.

As evidenced in Figure 1A, the issue of defining who is a participant in supported employment is central to the consistent measurement of employment outcomes. The National Consensus effort resulted in a determination to collect data on all supported employment participants, defined as active enrollees, with certain measures designed specifically to capture outcomes for those who fall within or achieve the current OSERS supported employment guidelines (i.e., working at least 20 hours per week, in a group of eight or fewer disabled workers, and receiving publicly-supported, on-the-job support). Thus, the consensus items reflect a decision about questions of definition and priorities -- decisions which will be necessary to make on a broader scale to promote the greatest possible consistency in data collection. Other National Consensus decisions which are evident in the core data items are:

- an agreement to measure both **hourly wage** (to capture individual client level progress and changes in productivity) and total **monthly earnings** over the reporting period -- collected at the client level on a monthly basis and reported either monthly or quarterly on an aggregate level; and
- an agreement to collect both **total hours** and **number of**

**weeks worked** during the reporting period for participants with SE outcomes (as defined by OSERS).

Measures of weeks worked for participants who have not (yet) achieved supported employment (as defined by OSERS) were determined to be supplementary (see Figure 1B). In addition, measures that looked at changes in earnings and employment status over time (by quarters) were also considered supplementary, as were measures of fringe benefits other than health coverage and more detailed information about hours worked per week. It is interesting to note the consensus reached about measuring hours and weeks worked in addition to earnings measures. Participation in work on a regular and sustained basis is valued as a goal in and of itself, independent of the wages and production yielded by that activity.

The potential for collecting consistent employment outcome data across states and projects seems high, given an effort to utilize common definitions. Projects and states must also consider implementation issues. Much of this information can be collected at the client level relatively easily, and then aggregated at the project and state level. It may be somewhat more difficult to collect client level data on fringe benefits, but measuring these at the employer level might not accurately represent whether or not participants actually receive fringe benefits. Ultimately, it is critical to look at all employment outcomes of supported employment in light of its goal for "normalized" employment. This will mean considering the data in the context of nondisabled coworkers and/or the standards of that particular industry.

#### **QUALITY OF EMPLOYMENT**

One of the goals of the supported employment initiative is to offer participants an opportunity to shift from the often monotonous tasks performed in sheltered employment to productive and meaningful work involving variety in tasks, the opportunity to acquire new skills, increased job satisfaction and security, and employment mobility. Some programs have goals that even go further than placing clients in "real"

Figure 1B

## EMPLOYMENT OUTCOMES

## Additional or Supplementary Data Items and Other Possible Measures

Additional or Supplementary Data Items	Other Possible Measures
<ul style="list-style-type: none"> <li>Received fringe benefits: sick leave, vacation time, other               <ul style="list-style-type: none"> <li>-- yes</li> <li>-- no</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>% of employed participants receiving: sick leave, vacation leave, other fringe benefits</li> </ul>
<ul style="list-style-type: none"> <li>Value of fringe benefits as a percentage of earnings</li> </ul>	<ul style="list-style-type: none"> <li>mean fringe benefit rate (value of fringe benefits as percentage of earnings)</li> </ul>
<ul style="list-style-type: none"> <li>Mean hours worked per week during period employed</li> </ul>	<ul style="list-style-type: none"> <li># of supported employment participants working:               <ul style="list-style-type: none"> <li>-- 1-10 hours per week</li> <li>-- 11-20 hours per week</li> <li>-- 21-30 hours per week</li> <li>-- 31-40 hours per week</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Total hours spent in day program or work activity other than supported employment during reporting period</li> </ul>	<ul style="list-style-type: none"> <li>% of total day program hours spent in supported employment</li> </ul>
<ul style="list-style-type: none"> <li># weeks employed since enrollment (for participants who have not [yet] achieved supported employment outcomes)</li> </ul>	<ul style="list-style-type: none"> <li>mean # weeks employed since enrollment (for current participants who have not [yet] achieved SE outcomes)</li> </ul>
<ul style="list-style-type: none"> <li># weeks employed during reporting period (for participants who have not [yet] achieved SE outcomes)</li> </ul>	<ul style="list-style-type: none"> <li>mean # weeks employed during reporting period (for participants who have not [yet] achieved SE outcomes)</li> </ul>
<ul style="list-style-type: none"> <li># weeks employed with present employer (for participants who have not [yet] achieved SE outcomes)</li> </ul>	<ul style="list-style-type: none"> <li>mean length of time (# weeks) with present employer (for participants who have not [yet] achieved SE outcomes)</li> </ul>
<ul style="list-style-type: none"> <li>% weeks employed since first placement (for all participants)</li> </ul>	<ul style="list-style-type: none"> <li>mean % weeks employed since placement (for all participants)</li> </ul>
<ul style="list-style-type: none"> <li>Duration of program participation               <ul style="list-style-type: none"> <li>-- # quarters in program</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>mean # quarters in program for current participants</li> <li>mean # quarters in program for terminees</li> </ul>
<ul style="list-style-type: none"> <li>Employment status at end of 2nd quarter, 4th quarter, 8th quarter, 12th quarter, etc., after enrollment (based on consensus data items)</li> </ul>	<ul style="list-style-type: none"> <li>number and % of total program participants employed at end of 2nd, 4th, 12th quarter after enrollment (a participant is included in this measure if the reporting period is his or her 2nd, 4th, 8th, 12th quarter after enrollment)</li> </ul>
<ul style="list-style-type: none"> <li>Earnings during 2nd, 4th, 8th, 12th quarter after enrollment (based on core data items)</li> </ul>	<ul style="list-style-type: none"> <li>mean monthly earnings during 4th, 8th, or 12th quarter after enrollment (a participant is included in this measure if the reporting period is his or her 4th, 8th, or 12th quarter after enrollment)</li> </ul>

jobs in the community and have given priority to finding "non-traditional" placements for individuals with severe disabilities, as alternatives to what some consider to be stereotypical placements. Thus, in order to measure the performance of supported employment efforts, the first step is to collect information about the nature of the work itself.

In addition to the employment outcome measures described previously, most of the existing measurement systems reviewed and analyzed by the BPA study team included some information about the nature and adequacy of the work placement. While this was often informal and descriptive in nature, a number of potentially useful examples of more formal procedures for collecting and reporting data about work placement characteristics exist. Much more work is needed, however, to develop measures that can address the full range of important questions about the quality of the employment situation including:

- What is the nature of the work -- is it an improvement over "make-work" in sheltered settings? Is it real work? Is it meaningful work? Is there a good match between the worker and the job tasks? Is stereotyping occurring?
- What is the quality of the work environment -- are appropriate job accommodations being made? What is the quality of the physical environment -- is there enough light and air? What is the quality of the interactions between workers and supervisors -- are there appropriate avenues for communication and exchange of information?
- Why do supported employment participants leave their jobs and where do they go after termination -- are supported workers leaving job situations for reasons similar to other workers? Where could improved supported employment program practices enhance job stability and retention? What are the external barriers that prevent supported workers from retaining employment? Where do participants go after termination from supported employment?
- How is supported employment interacting with the labor market -- what kinds of jobs are being accessed by

supported workers? What kinds of labor markets developed on behalf of supported employment projects are being tapped successfully? Unsuccessfully? Is supported employment filling existing jobs, creating new jobs, or both, and to what extent?

While not intended to comprise a comprehensive assessment of quality, several measurement areas describing basic employment characteristics were included by the National Consensus Seminar in the core measure set (see Figure 2A). These measurement areas include: **type of employer, type of job, and reason for termination** from the supported employment project, and were viewed by seminary participants as descriptive or proxy measures rather than measures of quality or program performance accountability. While the basic set of descriptive data gathered from these core measures will provide some of the information necessary to address the performance questions above, the current state of the art in defining and measuring quality of employment has certain gaps. For example, measuring the appropriateness of the job match is difficult. Current measures reviewed for this study are being used during the job placement process itself as a part of job task analyses and skill assessments during service delivery. However, these processes do not lend themselves to evaluating the ongoing quality of the match or the goodness-of-fit between the worker and the job over time. Further development of measures in this area are needed, so they can be included in a set of core measures. In addition, any measurement of the quality of the work environment itself requires the development of new measures.

Another factor integral to measuring quality of employment involves relating the particular supported employment jobs to the opportunities in the labor market. While a comprehensive picture of the types of jobs performed by supported workers would be useful on national, site and local levels for policy makers and project implementors alike, caution must be used in comparing the range of jobs developed by individual projects given the wide variation in local settings. These measures

Figure 2A

**QUALITY OF EMPLOYMENT**  
 (Employment Characteristics)  
 Core Consensus Data Items and Recommended Measures

Consensus Data Item	Recommended Core Measures
<ul style="list-style-type: none"> <li>● Type of employer               <ul style="list-style-type: none"> <li>-- private nonprofit</li> <li>-- private for profit - small business or large corporation</li> <li>-- government - local, state or federal</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● # and % of participants employed by different types of employers</li> </ul>
<ul style="list-style-type: none"> <li>● Type of job (develop standardized categories, referencing L.O.T., S.O.C. codes, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>● # and % of participants in different types of jobs</li> </ul>
<ul style="list-style-type: none"> <li>● Who pays wages?               <ul style="list-style-type: none"> <li>-- SE program</li> <li>-- employer</li> <li>-- other</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● # and % of participants receiving wages from each source</li> </ul>
<ul style="list-style-type: none"> <li>● Reason for termination by category (primary and secondary reason)               <ul style="list-style-type: none"> <li>-- employee performance reasons (involuntary departure)</li> <li>-- employer reasons other than employee performance (involuntary departure)</li> <li>-- employee reasons (voluntary departure)</li> <li>-- provider reasons</li> <li>-- other</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● # and % of participants terminating for primary reason by category</li> <li>● # and % of participants terminating for secondary reason by category</li> </ul>
<ul style="list-style-type: none"> <li>● Participant destination/status after termination from supported employment program, for example:               <ul style="list-style-type: none"> <li>-- school</li> <li>-- wait list</li> <li>-- no service</li> <li>-- institution</li> <li>-- another SE program</li> <li>-- day activity program</li> <li>-- sheltered workshop</li> <li>-- independent competitive employment</li> <li>-- retired</li> <li>-- other</li> <li>-- unknown</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● # and % of terminating participants leaving supported employment for each type of destination</li> </ul>

QUALITY OF EMPLOYMENT

Additional or Supplementary Data Items and Other Possible Measures

Additional or Supplementary Data Items	Other Possible Measures
<ul style="list-style-type: none"> <li>• Type of industry (develop standardized categories, referencing D.O.T., S.O.C., etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• # and % of participants employed by type of industry</li> </ul>
<ul style="list-style-type: none"> <li>• <u>Reason for termination by specific types</u> (more than one may be indicated)</li> </ul>	<ul style="list-style-type: none"> <li>• # and % of participants terminating for each type of employee reason (involuntary departure)</li> </ul>
<ul style="list-style-type: none"> <li>A. Employee performance reasons (involuntary departure), for example:               <ul style="list-style-type: none"> <li>-- attendance</li> <li>-- compliance</li> <li>-- emotional outbursts</li> <li>-- personal hygiene</li> <li>-- independence</li> <li>-- on task (off task)</li> <li>-- quality of work</li> <li>-- responding to instructions</li> <li>-- social skills</li> <li>-- speed</li> <li>-- task completion</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>B. Employer reasons other than employee performance (involuntary departure), for example:               <ul style="list-style-type: none"> <li>-- change in job duties</li> <li>-- laid-off, facility closed</li> <li>-- laid-off, cutback in staff</li> <li>-- laid-off, seasonal</li> <li>-- replaced by another worker</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• # and % of participants terminating for each type of employer reason (involuntary departure)</li> </ul>
<ul style="list-style-type: none"> <li>C. Employee reasons (voluntary departure), for example:               <ul style="list-style-type: none"> <li>-- quit, due to change in relationship status (e.g., married, divorced, etc.)</li> <li>-- quit, due to pregnancy and/or parenting responsibilities</li> <li>-- quit, for better job</li> <li>-- quit, didn't like job</li> <li>-- quit, health reasons</li> <li>-- leave of absence</li> <li>-- moved from area</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• # and % of participants terminating for employee reasons (voluntary departure)</li> </ul>
<ul style="list-style-type: none"> <li>D. Provider reasons, examples to be developed</li> </ul>	<ul style="list-style-type: none"> <li>• # and % of participants departing for provider reasons</li> </ul>
<ul style="list-style-type: none"> <li>E. Other reasons, for example:               <ul style="list-style-type: none"> <li>-- quit, due to parental caregiver pressure</li> <li>-- quit, due to financial aid interference</li> <li>-- quit, due to transportation problems</li> <li>-- deceased</li> <li>-- other</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• # and % of participants terminating for other reasons</li> </ul>

will also be useful descriptors in analyzing reasons for termination and participant destination status after program termination.

Figure 2B provides examples of expanded response categories for each of the categories of reasons for termination, which have been grouped according to employer, employee, or provider reasons. As supplementary data, this measure permits recording more than one reason for job termination. For example, an employee's behavior which results in an involuntary termination may be the worker's only way of expressing dislike for the job. Thus, two explanations, and possibly more, exist for that termination. The more detailed response categories would permit recording all the reasons for termination that apply to each situation.

It would appear, then, that data on termination reasons may be collected at the client level, while other quality of employment measures may be appropriate to project level data collection and measures to demonstrate overall trends in job placement and movement within the context of local communities and projects. Research efforts needed to refine measures of job quality include not only studies of new approaches to measuring quality and job match, but also studies to add depth to the ongoing descriptive data, such as: (1) job mobility comparisons between those in supported employment and other workers; (2) studies of how supported employment projects are (or are not) accessing nontraditional jobs within the labor market; and (3) studies of how to use participant self-reports to define and describe the quality of employment and changes over time. The current core set of measures should be viewed as initial attempts to develop valid descriptive measures of the nature and adequacy of jobs. The importance of expanding current expertise in measuring employment quality will need to be reflected in future research efforts as the supported employment program evolves.

#### **OPPORTUNITIES FOR WORKSITE INTEGRATION**

The integration of individuals with severe disabilities into the workplace is a key element in the supported employment effort. Worksite

integration focuses on providing opportunities for disabled and non-disabled co-workers to interact in a variety of settings and situations including the immediate work environment, lunchroom, break times, or during travel to and from work.

The results of this study have indicated the importance of going beyond measures that simply indicate whether individuals with severe disabilities are being placed into jobs where there are nondisabled co-workers present. A more complete definition of integration needs to include the existence and extent of meaningful contact between disabled and nondisabled coworkers. Evidence indicates that this type of interaction provides a teaching and reinforcement mechanism for social and work skill development. It is also an indicator of normalized working conditions and the opportunity to establish social relationships between people who have formerly been isolated from one another.

While integration at the worksite is the primary integration objective of supported employment programs, study results have also stressed the multidimensional nature of integration and the importance of integration outside of work. For many participants, success at work will be dependent in part on participation and success in integrated non-work environments. Persons with disabilities interact with non-disabled individuals when buying clothes to wear to work, when buying food, and while riding public transportation, as well as during participation in recreation/leisure activities. For many disabled individuals, community integration is not only an essential pre-requisite to successful integration at the worksite, but is also an outcome of successful participation in supported employment. (See also Quality of Life.)

Community integration is a concern that has been given a great deal of attention in recent years by administrators, service providers, researchers and policy makers in the fields of independent living, developmental services and special education. It is an area that is relatively new to vocational rehabilitation and employment policy. Perhaps because it is considered by many to be a secondary outcome in the context of employment programs, measuring community integration is not yet well-developed or well-defined in the field. Thus, few concrete

examples exist of measures of the performance of supported employment programs in furthering community integration objectives. Further development would be needed to construct simple summary measures that could be included in the evaluation of supported employment impacts. It appears unlikely that community integration measures would be included in ongoing performance assessment, at least in the initial stages of program development. Thus, the proposed core measures listed in Figure 3A concentrates on opportunities for integration in the worksite only.

A major constraint in measuring integration is the question of how to define and collect information on the extent and nature of contacts between individual workers. Monitoring the proportion of persons with disabilities to nondisabled individuals is somewhat easier and the data are relatively easy to collect. However, study results indicate that developing indicators of the degree and kinds of interaction would result in measures that are more reflective of the accomplishment of integration objectives than measures of the numbers of nondisabled workers at the job site.

Some attempts have been made to develop client-level measures of integration which include features of both work setting and community interaction. While still in the initial stages of implementation and reliability testing, such attempts bode well for the development of such measures.

Until such developments occur, or until adaptations are made of existing integration measures from other related fields, current measurement of integration focuses on measures of proportion, proxy measures, and/or qualitative evaluation efforts. As Figure 3A indicates, the core consensus measures include basic quantitative measures of **the numbers of supported workers in the group support structure**, such as work crew or a work station, **and the presence or absence of nondisabled workers** (other than staff) in the immediate work setting. In addition, the seminar participants proposed an additional measure describing the **supervisory structure** utilized in the supported employment model which includes distinctions between mobile versus stationary and individual versus group structures. Each type of supervisory model

Figure 3A

## WORKSITE INTEGRATION

## Core Consensus Data Items and Recommended Measures

Consensus Data Items	Recommended Core Measures
<ul style="list-style-type: none"> <li>● Type of supervisory structure:               <ul style="list-style-type: none"> <li>-- mobile versus stationary</li> <li>-- individual versus group</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● # and % of supported workers in each type of supervisory structure</li> </ul>
<ul style="list-style-type: none"> <li>● Presence of nondisabled workers (other than staff) in immediate work setting during work day:               <ul style="list-style-type: none"> <li>-- yes</li> <li>-- no</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● % of employed participants who work in a setting with nondisabled workers present</li> </ul>
<ul style="list-style-type: none"> <li>● Number of supported workers in group support structure (group work station or work crew)</li> </ul>	<ul style="list-style-type: none"> <li>● % of program participants in group support structures of eight or less supported workers</li> <li>● % of program participants in group support structures of six or less supported workers</li> <li>● % of program participants in group support structures of four or less supported workers</li> </ul>

has different implications for degree of opportunity for integration, such as increased opportunities in individual/stationary structures for contact and interaction between disabled and nondisabled workers. Thus a description of the structure would provide valuable insights about the possibilities for worksite integration. This is true, also, in the case of measuring the number of supported workers in the group support structure -- another core consensus measure. All of those measures, however, were viewed by seminar participants as proxy measures until future research efforts can address these measurement issues further.

Another proxy measure was developed during the Consensus Seminar and was included as a supplementary measure (see Figure 3B). **Tracking whether contacts are required between the supported worker and supervisors, coworkers and customers** was viewed as one way to begin to study interactions, although this still does not answer the question of how to measure the extent and nature of those contacts.

Determining the proposed supplemental and core data items measuring integration raised a number of other issues or constraints. The questions were raised: Is integration a practice or an outcome? A guideline or a measure? A part of quality of life within and outside of the workplace? Although no conclusions were reached, the group was able to determine that the current sets of proxy integration measures would be most appropriately collected at the project level, as they are not meant to be measures of individual participant success or failure. However, as client level measures of social interaction begin to emerge as supported employment programs mature, further discussion is needed to develop a common understanding of the role of integration measures in measuring program performance.

## ONGOING SUPPORT

The provision of ongoing support is the "mainstay" of the supported employment concept and that aspect which most distinguishes supported employment from other employment outcomes. The primary objective of ongoing support is to enable an individual with severe disabilities to

Figure 3B

## WORKSITE INTEGRATION

## Additional or Supplementary Data Items and Other Possible Measures

Additional or Supplementary Data Items	Other Possible Measures
<ul style="list-style-type: none"> <li>● % of disabled workers in work setting               <ul style="list-style-type: none"> <li>-- total # of workers in work setting</li> <li>-- total # of workers with disabilities in work setting</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● # and % of supported workers in work settings where less than 10% of the workers have disabilities</li> <li>● # and % of supported workers in work settings where 11-50% of the workers have disabilities</li> <li>● # and % of supported workers in work settings where more than 50% of the workers have disabilities</li> </ul>
<ul style="list-style-type: none"> <li>● During the course of the work day, is the supported worker required to interact with the following:               <ul style="list-style-type: none"> <li>-- supervisors,</li> <li>-- coworkers,</li> <li>-- customers?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● % of supported workers required to interact with:               <ul style="list-style-type: none"> <li>supervisors</li> <li>coworkers</li> <li>customers</li> </ul> </li> </ul>

sustain employment at a level that he or she would be otherwise unable to achieve.

The most common concept of support is the presence of a supported employment program staff person to provide on-the-job training and assistance. While concepts about the nature of these responsibilities vary, most models of supported employment include on-the-job support in three major areas: training, supervision, and behavior management. In addition to specific work-related support, the concept of supported employment may also include support that is indirectly related to the employment objectives such as transportation assistance, "peer support," and services to employers. Other types of support indirectly related to employment are those related to life activities outside of work such as assistance with independent living and social skills development. There is substantial difference of opinion about the role of supported employment programs in addressing needs outside of the workplace.

Diversity also exists in the intensity and duration of the support provided to participants. While the basic premise of ongoing support is that it is provided on a potentially permanent basis, some programs operate models in distinct phases in which on-the-job training is faded out over time and replaced with follow-along services that focus more on independent living, social skills, and general problem solving than on the work itself. In other programs, the structure of the job-related support is ongoing by its very nature, as in group work station or mobile crew models.

Although the concept of ongoing support is key to understanding how supported employment differs from other forms of employment, discussions about the implementation of performance measures related to ongoing support have been inconclusive. It was suggested that measures of ongoing support should be used as descriptive measures of different supported employment models, rather than as normative measures, since it is not the case that providing one level or type of support is better or worse than another. The ideal is to provide the necessary support to assist each participant to work as independently as possible, which will be a different mix for each participant and may vary for a given participant over time.

As described in Figure 4A, three data items were identified as core measures for the domain of ongoing support. These include:

- a description of the **types of support which the project generally provides** to its participants (e.g., assistance in transportation to and from work or self-care, training in job skills, social interaction/behavior, or community living skills, or other support);
- whether the project generally provides support at the **work place, outside the work place, or both**; and
- a description of the **general framework within which support is provided** by the project (i.e., in an individual placement setting, in a group work station, in a mobile work crew, or in a small business run by or for employees with disabilities).

These data items can be used to develop project-level measures that describe the features of particular supported employment projects. Discussions with representatives of a variety of projects revealed that not all projects document variations in the types or amounts of support received by individual participants for use in a client-level measure. However, it would be useful in describing each supported employment project to know **the approximate proportion of participants who received each type of support** during a given reporting period, in addition to knowing whether the project has the ability to provide support of each kind.

Figure 4B describes several additional data items and measures that could be used to describe the delivery of ongoing support in more detail. These data items may be perceived as relevant to some supported employment models and not others, and may be available at some projects and not others. The data items include:

- **what funding source(s) are used to provide ongoing support**;
  - **what organizations or individuals actually provide ongoing support** (e.g., supported employment staff versus
- .cp2

Figure 4A

## ONGOING SUPPORT

## Core Consensus Data Items and Recommended Measures

Consensus Data Items	Recommended Core Measures
<ul style="list-style-type: none"> <li>● Type of support provided:               <ul style="list-style-type: none"> <li>-- transportation</li> <li>-- self care</li> <li>-- job skills</li> <li>-- social interaction/behavior</li> <li>-- community living skills</li> <li>-- other</li> </ul> </li>   <li>● Whether support is provided:               <ul style="list-style-type: none"> <li>-- at the work place</li> <li>-- outside the work place</li> <li>-- both</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● type of support provided by project during reporting period</li> </ul>
<ul style="list-style-type: none"> <li>● Type of support structure:               <ul style="list-style-type: none"> <li>-- individual setting</li> <li>-- group work station</li> <li>-- mobile crew</li> <li>-- small business run by or for employees with disabilities</li> <li>-- other</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● # and % of participants in different types of support structures</li>   <li>● approximate proportion of supported employment participants receiving each type of support during reporting period</li> </ul>

Figure 4B

## ONGOING SUPPORT

## Additional or Supplementary Data Items and Other Possible Measures

Additional or Supplementary Data Items	Other Possible Measures
<ul style="list-style-type: none"> <li>● Funding source(s) for publicly-funded ongoing support (i.e., agency and budget line)</li> </ul>	<ul style="list-style-type: none"> <li>● Funding sources utilized</li> </ul>
<ul style="list-style-type: none"> <li>● Provider(s) of publicly-funded ongoing support (i.e., supported employment staff versus compensation to employer, coworker, or local service agency)</li> </ul>	<ul style="list-style-type: none"> <li>● Providers utilized</li> </ul>
<ul style="list-style-type: none"> <li>● Total monthly hours of support per participant</li> <li>● Total monthly hours of support across all participants for each type of support</li> <li>● Total monthly costs of support per participant</li> </ul>	<ul style="list-style-type: none"> <li>● Mean hours of ongoing support per participant during reporting period</li> <li>-- by type of support</li> <li>-- in total</li> </ul>
<ul style="list-style-type: none"> <li>● Total monthly costs of support across all participants for each type of support</li> <li>● Total earnings by supported employment participants during the reporting period*</li> </ul>	<ul style="list-style-type: none"> <li>● Mean and distribution of ratio of cost of ongoing support to earnings generated per participant during reporting period</li> </ul>

\*See Data Items under Employment Outcomes

employers or coworkers, versus another local service agency);

- how many hours of support are provided each month, in total, and by type of support; and
- what the monthly cost of providing ongoing support is, in total and by type of support.

These data items can be used to compute descriptive statistics including the mean hours and dollars of ongoing support provided each month per participant. By using data on mean monthly earnings (described under Employment Measures) an additional summary measure can be computed of the mean monthly cost of providing ongoing support compared to the mean monthly earnings generated per participant during the reporting period.

In summary, while the descriptions of ongoing support are not intended, by themselves, to provide an assessment of program success, they are critical for understanding variations in the service strategies and resulting costs of different models of supported employment. The institutional linkages and funding flows by which continuity of services/ongoing support is maintained over time is another key implementation issue with wide variation. A careful study of this aspect of supported employment may yield ideas about "best practices" that will prove valuable in replication efforts.

#### QUALITY OF LIFE

Improved quality of life for individuals with severe disabilities has consistently been raised as a desired outcome of supported employment. How improved quality of life is defined and measured varies from person to person, but in general the concept is viewed as increasing those activities which bring pleasure and self-worth to the severely disabled individual over his/her lifetime. The activity of work by its very nature has intrinsic values which can bring a sense of satisfaction and fulfillment, and can increase access to and privileges from society

which are most commonly associated with work (i.e., making friends, sharing resources, and expanding social skills and environments).

Parallel to the personal intrinsic gains obtained by an individual with severe disabilities when he/she has the opportunity to work are the positive changes that can occur for the family or primary caregiver of the employee in supported employment. Reduced family stress, and freeing up time for family members are additional quality of life outcomes. Quality of life can also improve as a result of the expanded activities an individual can participate in or the additional items he/she can obtain because of his/her increased purchasing power and/or greater access to choices. In addition, improved quality of life can result from a combination of more self-confidence, self-direction and increased exposure to a greater array of options in the world.

It is only reasonable that quality of life issues focus on the individual and how the individual makes choices to obtain greater satisfaction. Yet, in the area of supported employment, the project and the overall system provide the structure which determines whether the individual with severe disabilities understands choice, has had practice making choices, and knows how to choose for the purpose of satisfying his/her needs. The concept of individual choices is considered to be an important aspect of quality of life.

Through discussions with respondents and reviews of the current available literature on measure development, the BPA study team identified the following aspects of quality of life as areas for potential measurement:

- **type of living arrangement** at program entry and over time;
- **use of mainstream transportation** at program entry and over time;
- **degree of community integration and participation;**
- **changes in Quality of Life Indicators, e.g., health status, self-direction and opportunity for choice, attitudes of family, participants and/or caregivers, self-esteem, skills levels, etc.; and**

- **expendable income of participants, at program entry and over time.**

During the National Consensus Seminar participants indicated that the above areas did not adequately define the concept of quality, suggesting that these aspects actually described "lifestyle characteristics" rather than "quality of life." Some participants raised the issue that using the term "quality" implied a value judgment, whereas looking at changes in characteristics over time would not involve defining the standards for quality. Participant self-report was suggested as a way to capture this information without arbitrary values being placed on changes by non-participants. No specific data items, however, received group approval for inclusion in the core data set, although the domain itself was considered important to continue to pursue through research and special studies.

Several constraints emerge when considering the "how-to's" of measuring quality of life. At this point in time, a refined and reliable quality of life questionnaire and response index, which could be used across supported employment participants, family members and caregivers, does not exist. This kind of instrument would enable baseline client-level data to be collected at program entry and then compared over time with results from administering the same questionnaire at regular intervals. Some work is currently being done in this area, and there appears to be growing interest in further research efforts. There is a concern, however, that a standardized questionnaire may not be feasible, given differences in local communities and services. Limitations in what are considered "acceptable" evaluation methods, i.e., use of participant observation techniques or self report, may also curtail the development and use of innovative creative approaches to quality of life measurement, to the extent that policy makers and funding agencies may not consider them to be valid. For non-verbal participants, however, using alternative forms of self-report may be the most effective method.

The measurement of quality of life changes also involves the issue of whether defining or standardizing terms, such as choice and autonomy,

is possible or even desirable. While most seminar participants agreed that these concepts were integral parts of quality of life, the question of definition and ultimately, of feasibility of measurement arose. When considering choice, there appear to be three major dimensions: (1) the opportunity for choice, i.e., whether an individual is living, working and playing in an environment where the possibility of self-direction exists; (2) the extent of choice, i.e., how much possibility for decision-making exists; and (3) the kind of choice, i.e., the range of areas available within which to make decisions.

While no consensus was reached on core measurers, as shown in Figure 5, several measures were included as supplemental proxies for changes in "lifestyle characteristics." These include **type of living arrangement**, **use of mainstream transportation**, and a self-report measure of **degree of independence in living situation**. It was noted that measuring type of living arrangement should include lateral movement within the category as potentially more or less independent than the participant's previous situation. Measuring use of mainstream transportation would also be a supplementary measure used at project discretion, given that transportation and community mobility is locality specific. The self-report measure was added during the seminar to allow for participant definition of independence.

Assessing quality of life changes for persons with disabilities remains a critical issue for development and refinement of current measures. The intent of supported employment is to positively influence quality of life through meaningful paid work in integrated settings. Whether or not it ever becomes the responsibility of programs to track these influences remains to be seen, but as an avenue for encouraging the active self-assessment of the impact of supported employment on participants' lives, quality of life measurement represents an essential part of evaluation efforts.

## **PARTICIPANT CHARACTERISTICS**

The target population for supported employment programs is that group of individuals traditionally excluded from vocational

Figure 5  
**QUALITY OF LIFE**  
 (Lifestyle Characteristics)  
**Supplementary Data Items and Other Possible Measures**

Supplementary Data Items	Other Possible Measures
<ul style="list-style-type: none"> <li>● Type of living arrangement at program entry and over time, for example:               <ul style="list-style-type: none"> <li>-- with parents or relatives</li> <li>-- in group home or residential facility</li> <li>-- in semi-independent living situation</li> <li>-- in state hospital</li> <li>-- other</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● # and % of participants in each type of living arrangement at the end of each reporting period</li> <li>● # and % of participants changing to more independent settings during reporting period (self-report)</li> </ul>
<ul style="list-style-type: none"> <li>● Self-report of degree of independence within living setting</li> </ul>	<ul style="list-style-type: none"> <li>● # and % of participants reporting increased independence within living situation</li> </ul>
<ul style="list-style-type: none"> <li>● Use of mainstream transportation at program entry and over time:               <ul style="list-style-type: none"> <li>-- does not utilize mainstream transportation</li> <li>-- utilizes mainstream transportation with assistance/prompts</li> <li>-- utilizes mainstream transportation independently</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● # and % utilizing mainstream transportation with assistance</li> <li>● # and % utilizing mainstream transportation independently</li> <li>● # and % of participants increasing use of mainstream transportation during reporting period</li> </ul>

rehabilitation services due to the severity of their disabilities. Supported employment is designed as an alternative to day activity and habilitation programs. Most proponents of supported employment subscribe to the concept of the "zero reject model", which suggests that no individuals would be turned away from supported employment programs solely on the basis of limited abilities. This does not imply "total inclusion" or that all individuals must work. However, the "zero reject" concept does imply that individuals will not be denied the opportunity to do productive work just because their capacity for work is less than the standards set for individuals without disabilities.

Because of the interest in using supported employment to reach out to individuals excluded from work opportunities in the past, and because the supported employment approach may be appropriate for a wide range of individuals with physical, mental, or emotional disabilities, it will be important for programs to collect data which capture the range of participant characteristics. Three major questions arise when assessing the performance of supported employment programs:

- (1) Who is being served:
- (2) Who is being successfully served?
- (3) How do outcomes and service approaches vary for different types of participants?

In the past, the client characteristics recorded on supported employment intake/assessment records at the project level have usually included variables that are viewed as relevant by program operators in the development of a service plan to meet each individual's needs, as well as data that are readily available at the time a participant enters the program. Given the potential interest in using participant data (1) as an indication of whether appropriate individuals are being served, and (2) as an interpretive tool in assessing and comparing reported project outcomes, a broader range of participant descriptors needs to be developed. The candidate measures can be divided into several categories:

- **demographic data** that are easy to measure and record (e.g., age, sex, ethnicity);

- descriptors of the participant's disabling condition and functioning levels (which are less easy to measure and categorize);
- the individual's situation immediately prior to entering the supported employment project; and
- previous work history and previous service history.

### Participant Demographics

Supported employment programs are all currently collecting the basic demographic information on participants served. An issue which needs additional discussion in efforts to further a consistent reporting system is "who is considered a participant in supported employment" -- all individuals referred to the system, all individuals for whom an assessment is completed, all individuals who enter a training phase of services, or all individuals who are currently being compensated for work under the program? While variations in program models may make it impossible to arrive at complete standardization on this issue, more discussions are necessary to promote the greatest possible consistency.

### Descriptions of Disabling Condition and Functioning Level

There are two distinct reasons for collecting data in this category. One reason is descriptive: to capture the variations in types of disabilities and functioning levels exhibited by project participants across projects and across states. Another reason is evaluative: to assess the "severity" or potential difficulty of the participants selected for services, both to monitor whether the group selected for services matches the stated program goals, and to assess the level of project outcomes, taking into account the characteristics of the clients served. For the second purpose, it may be useful to construct a "client difficulty index" based on the answers to the individual data items listed here. However, until projects finalize the types of disability categories and groupings they anticipate including in their participant population, it may be premature to suggest how to construct such a measure. In addition to referring to the variables describing disabling condition and functioning level, a client diffi-

culty index would probably also be based on some of the variables in the last category -- previous work and service history.

#### Situation at Program Entry

The three variables that the study team clustered into this category included (1) **current living arrangements**, (2) **public assistance status at enrollment**, and (3) **service setting immediately prior to entry** into the supported employment program. These are each data items that should be relatively easy to collect, since they are based on participant status at a given point in time (i.e., project entry) rather than reconstructions of experience over a longer preprogram period. The description of living arrangement and public assistance status are important not only as descriptors to capture the range of variation in participants across projects and states, but are also important baseline measures for use in tracking individual changes brought about as a result of project participation.

#### Previous Work and Service History

The variables clustered in this category can be used in three different ways: (1) to identify participant characteristics that may influence the level of outcomes a participant is likely to achieve (i.e., capturing some aspects of client difficulty); (2) to record more complete descriptions of an individual's preprogram experience that can be compared to the same individual's experiences after entering supported employment in order to construct change measures (e.g., change in employment intensity, change in earnings, and change in work setting); and (3) to identify more completely what groups of people are being reached by the supported employment demonstration (and what groups are not being reached) in order to assess the extent of system transformation that is occurring.

According to the individuals involved in the national consensus process, those participant characteristics considered important for inclusion in the core data set (see Figure 6A) included measures from each of the four categories of demographics, disability information, situation at entry and prior setting. The core measures were generally

Figure 6A

## PARTICIPANT CHARACTERISTICS

## Core Consensus Data Items and Recommended Measures

Consensus Data Items	Recommended Core Measures
<ul style="list-style-type: none"> <li>• Age (date of birth, with aggregate data reported in categories Under 18, 18-21, 22-30, 31-40, 41-64, 65+ older)</li> </ul>	<ul style="list-style-type: none"> <li>• mean age</li> <li>• % by age categories</li> </ul>
<ul style="list-style-type: none"> <li>• Sex</li> </ul>	<ul style="list-style-type: none"> <li>• % by sex</li> </ul>
<ul style="list-style-type: none"> <li>• Primary disability (by major category)</li> </ul>	<ul style="list-style-type: none"> <li>• # and % of participants with each primary disability type</li> </ul>
<ul style="list-style-type: none"> <li>• IQ</li> </ul>	<ul style="list-style-type: none"> <li>• mean IQ level</li> </ul>
<ul style="list-style-type: none"> <li>• Public assistance status at time of program entry               <ul style="list-style-type: none"> <li>-- SSI</li> <li>-- SSDI, etc.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• # and % of participants receiving public assistance by category</li> </ul>
<ul style="list-style-type: none"> <li>• Amount of cash grant (check state of art for feasibility and definition of what to include)</li> </ul>	<ul style="list-style-type: none"> <li>• mean monthly grant</li> </ul>
<ul style="list-style-type: none"> <li>• Service setting immediately prior to program entry, such as:               <ul style="list-style-type: none"> <li>-- special education - segregated</li> <li>-- special education - integrated</li> <li>-- adult ed/community college</li> <li>-- sheltered workshop</li> <li>-- work activity center</li> <li>-- day activity center</li> <li>-- institution</li> <li>-- other SE program</li> <li>-- no day program</li> <li>-- employed</li> <li>-- other</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• % of participants from immediately prior service settings by category</li> <li>• % of participants from day activity programs</li> </ul>
<ul style="list-style-type: none"> <li>• # of participants <u>ever</u> in each prior setting (if research shows this has predictive value)</li> </ul>	<ul style="list-style-type: none"> <li>• # and % of participants ever in each prior service setting</li> </ul>

felt to be descriptive in nature rather than measures to which programs should be held accountable, though consensus was not reached on this issue.

There was much discussion about participant characteristics and concern that they not be used inappropriately in conjunction with outcome data to target the program towards certain types of individuals. Historically, under a medical model, characteristics and especially functional assessments have three uses, descriptive, prescriptive, and predictive, with the predictive end considered to be of the "highest good." The goal of this information for the supported employment program, however, is not one of attempting to predict success (because the program is designed to succeed for those who would otherwise fail), but rather one of providing appropriate accommodations to individual needs and providing opportunity for choice. Thus, evaluation using participant data would look at **what** works for different individuals, not **whether** it works. It can also be used to predict costs.

The following data items were considered core by some seminar participants and supplementary by others. These issues were not resolved in the large group consensus process and are included as supplementary items in Figure 6B:

- ethnicity;
- primary language;
- presence of disability by category (more than one may be indicated);
- severity of disability (other than mental retardation), with the suggestion of developing a summary score or index for severity of disability across all types of disabilities;
- living situation (at time of program entry); and
- communication skills.

## **SYSTEMS CHANGE**

According to those who are active in supported employment efforts, project-level endeavors need to be accompanied by system-level

## PARTICIPANT CHARACTERISTICS

## Additional or Supplementary Data Items and Other Possible Measures

Additional or Supplementary Data Items	Other Possible Measures
<ul style="list-style-type: none"> <li>● Ethnicity               <ul style="list-style-type: none"> <li>-- White</li> <li>-- Black</li> <li>-- Hispanic</li> <li>-- Asian</li> <li>-- Native american</li> <li>-- Other</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● % by ethnicity categories</li> </ul>
<ul style="list-style-type: none"> <li>● Primary language</li> </ul>	<ul style="list-style-type: none"> <li>● % with English as a second language</li> </ul>
<ul style="list-style-type: none"> <li>● Presence of disability by category (more than one category may be indicated)</li> </ul>	<ul style="list-style-type: none"> <li>● % and % of participants with each disability type</li> </ul>
<ul style="list-style-type: none"> <li>● Detailed diagnosis</li> </ul>	<ul style="list-style-type: none"> <li>● % with secondary disability</li> </ul>
<ul style="list-style-type: none"> <li>● Expressive communication skills               <ul style="list-style-type: none"> <li>-- unclear speech</li> <li>-- clear speech</li> <li>-- vocalization only</li> <li>-- uses aids or sign language</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● list and number by diagnosis</li> </ul>
<ul style="list-style-type: none"> <li>● Receptive communication skills               <ul style="list-style-type: none"> <li>-- understands gestures</li> <li>-- understands words and phrases</li> <li>-- understands conversations</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● % by category of expressive communication skills</li> </ul>
<ul style="list-style-type: none"> <li>● Assessment of severity of mental retardation               <ul style="list-style-type: none"> <li>-- profound</li> <li>-- severe</li> <li>-- moderate</li> <li>-- mild</li> <li>-- not applicable</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● % by category of receptive communications skills</li> </ul>
<ul style="list-style-type: none"> <li>● Assessment of severity of <u>other</u> types of disabilities (measures to be developed)</li> </ul>	<ul style="list-style-type: none"> <li>● % by category of severity of mental retardation</li> <li>● % by category of severity of other disability</li> </ul>

procedural and policy changes to enable program and individual level outcomes to occur within a statewide framework of coordination, support, and cooperation. The ability of existing systems to facilitate the transition to supported employment from the current configuration of vocational, pre-vocational, and day activity service programs will depend on the ability to confront and redefine policies, procedures, funding streams, and program structures. Without these changes on all system levels, supported employment may flounder and fail to develop a comprehensive resource allocation and coordination strategy.

There is some disagreement about whether system transformation is a secondary outcome that results from effectively addressing participants' supported employment needs, an interim set of procedural steps necessary to accomplish supported employment outcomes at more than a token level, or whether it is a primary objective in and of itself. Some program administrators, operators, and state policy makers have indicated that their primary concern is for participant outcomes, and that if these outcomes are pursued, systems change will occur to the extent that it is required. Others suggest that measurement of participant outcomes alone is insufficient for assessing performance, noting that it may be possible to achieve supported employment outcomes for a limited number of individuals without bringing about the broader structural changes. These changes in the service system would be needed to ensure the availability of supported employment opportunities to the larger population that could benefit from access to these opportunities.

If a performance measurement system is to include an assessment of the extent to which system transformation has actually occurred, then system change measures need to be developed and implemented. A review of existing measurement systems reveals little in the way of existing measures of system change currently in use, presumably because most of the supported employment activity occurring to date has been in the form of specific projects rather than as a system transformation activity. However, a review of existing literature and programs has been helpful in identifying the areas in which measurement is needed.

These measurement areas include (1) **the extent of local systems changes**, such as changes in local case management and referral

mechanisms; (2) **the influence of the supported employment initiative on the state service delivery system**, including achievement of state objectives, and changes in service delivery mechanisms; (3) **the volume of supported employment outcomes**; and (4) **the funding flows or amounts of funding by source** and the relations between the funding flow and the participant flow into supported employment.

Those systems change outcomes considered important to include in the core data set included the more concrete measures such as the proportion of individuals being served and the flow of funding by different agencies. The systems change measures included are constructed using data items from other clusters, as well as using an additional data item asking for amount of supported employment funding by source (see Figure 7A).

Rather than focusing on individual core data items for this domain, the participants in the National Consensus Seminar chose emphasized summary performance measures of systems change. It was noted that when considering systems change, one must answer the question: What are we trying to change? The suggested answers to this question included:

- (1) increasing opportunities for individuals with severe disabilities;
- (2) reducing the numbers of individuals in day activity programs; and
- (3) shifting funding patterns from traditional day programs into supported employment.

Thus, the three measures in the core set provide the mechanisms for assessing the extent to which these changes have occurred.

Measures of achievement of state objectives, shifts in local service delivery systems and data items requiring information data from outside of the supported employment system (e.g., number of participants in day activity programs) were included in the supplementary set of measures (Figure 7B). These supplementary measures, then, include measures and data items that are particular to states and local communities, requiring development and collection at state and/or local

Figure 7A

## SYSTEMS CHANGE

## Core Consensus Data Items and Recommended Measures

Consensus Data Items	Recommended Core Measures
<p>[The first two recommended core measures use data items from the Employment Outcomes section, in conjunction with data from outside of the supported employment system on number of total participants in other programs and waiting lists]</p>	<ul style="list-style-type: none"> <li>● Volume of supported employment outcomes over time</li> <li>● Proportion of eligible target population being served</li> <li>● Ratio of supported employment participants to total publicly-funded day program participants (including day activity, work activity, and sheltered workshop programs)</li> </ul>
<ul style="list-style-type: none"> <li>● Amount of funding for supported employment programming by source</li> </ul>	<ul style="list-style-type: none"> <li>● Amount and proportion of funding for supported employment programming by different funding sources over time</li> </ul>

## SYSTEMS CHANGE

## Additional or Supplementary Data Items and Other Possible Measures

Additional or Supplementary Data Items	Other Possible Measures
<ul style="list-style-type: none"> <li>• State objectives for systems change</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence of state objectives of systems change in legislation, regulation, agency roles and relationships, funding mechanisms, etc.</li> </ul>
<ul style="list-style-type: none"> <li>• Achievement of state objectives of systems change</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence of achievement of systems change objectives</li> </ul>
<ul style="list-style-type: none"> <li>• Changes in local service delivery system, e.g., <ul style="list-style-type: none"> <li>-- referral structures</li> <li>-- interagency cooperation</li> <li>-- centralized coordination responsibility</li> <li>-- funding sources for ongoing support</li> <li>-- involvement of parents, consumers, and caregivers</li> <li>-- case management procedures</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Evidence of change over time in each of the components of the local service delivery systems</li> </ul>
<ul style="list-style-type: none"> <li>• Changes in state service delivery mechanisms such as: <ul style="list-style-type: none"> <li>-- case management procedures</li> <li>-- rate setting structures</li> <li>-- ability to provide ongoing funding</li> <li>-- referral mechanisms</li> <li>-- documentation and monitoring</li> <li>-- interagency coordination mechanisms</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Evidence of change over time in each of the components of the state service delivery system</li> </ul>
<ul style="list-style-type: none"> <li>• # of participants in supported employment (uses data from client characteristics)</li> <li>• # of participants in day activity programs, work activity programs, and sheltered workshop programs (uses data from outside of the SE system)</li> </ul>	<ul style="list-style-type: none"> <li>• Ratio of supported employment participants to participants in <u>each</u> of the following programs (who have not achieved supported employment): <ul style="list-style-type: none"> <li>-- day activity</li> <li>-- work activity</li> <li>-- sheltered workshops</li> </ul> </li> <li>• Changes in above ratios over time</li> </ul>
<ul style="list-style-type: none"> <li>• Immediately prior setting (see participant characteristics data)</li> </ul>	<ul style="list-style-type: none"> <li>• Changes in proportion of participants from different immediately prior settings over time</li> </ul>
<ul style="list-style-type: none"> <li>• Amount of system funding for each component of supported employment (e.g., ongoing support, administration, staff training) by source</li> </ul>	<ul style="list-style-type: none"> <li>• Proportion of funding for each component of supported employment which is paid for by the different funding sources over time</li> </ul>

discretion. Constructing measures using data collected from outside of the supported employment system would require coordination between different agencies for some states -- a measure of interagency cooperation itself.

System change measures reflect the information that a state or local system will choose to collect for monitoring its own transformation. These data would likely be collected annually and would provide both a statistical and descriptive record of what has occurred since the program's inception. This information will become increasingly valuable as the program's longevity increases. Not only will system change measures document the system's commitment to and follow-through on long-term plans for increasing opportunities for persons with severe disabilities, these measures will also prove useful for looking across states at a national picture of the program's accomplishments.

#### **SUPPORTED EMPLOYMENT COSTS**

The implementation of any new program or service approach raises questions about how much the program costs and how its costs compare to those of other programs. This is especially a concern when, as in the case of the supported employment initiative, the goal is one of system transformation, not merely one of starting new programs. Thus, observers not only want to know how much the program costs, and how these costs compare to other programs, but also want to explore the relationship between the costs and the outcomes achieved through the program.

Program costs are a critical data element in order to (1) compute cost effectiveness measures for the delivery of supported employment services; (2) track how the public investment in supported employment programming is changing over time; and (3) assess how the public and societal financial investment in supported employment compares to the taxpayer financial benefits generated by the program.

Attention to the performance of supported employment on cost measures implies a series of comparisons. One such comparison is

between supported employment and other day programs, to address questions such as the following:

- How do supported employment costs per participant compare to the costs of alternative day programs, such as day activity centers, work activity centers, and sheltered workshops?
- How do the financial returns of supported employment (tax revenues and reduced transfer payments from the taxpayer's perspective, and increased disposable income from the participant's perspective) compare to the financial returns generated by public investment in alternate day programs?
- Do the cost savings generated justify the public outlay for these programs?

A second set of comparisons is among different supported employment projects, and particularly across different models of service delivery (e.g., across projects that utilize individualized job settings versus mobile work crew models versus enclaves within industry) to answer questions such as the following:

- How do the costs of supported employment vary from project to project?
- Do cost-effectiveness or benefit-cost measures vary according to the model of supported employment that is being used?

It is important to note here the need for caution in conducting comparisons such as these. Care will need to be taken to ensure that program context is taken into account as well as the characteristics of program participants. There are many variables that can influence costs besides the operation of the programs themselves.

In negotiating consensus about the cost data items that should be considered core or universal data elements, several constraints were identified. First, not all supported employment projects monitor costs in a way that would permit them to identify the actual costs associated

with serving a given individual. (Group-oriented models, for example, are less likely than individual placement models to keep track of the specific levels of support provided to individual participants). Thus, the recommended core measures focus on collecting aggregate project data on program costs and computing mean costs per participant, rather than on recording costs for each participant. Second, a number of projects would find it difficult or impossible to distinguish the costs associated with different program activities (e.g., ongoing support versus supervision, since in many projects these activities are closely intertwined or conceptually merged). Thus, the recommended core data items ask only for total program expenditures.

Figure 8A summarizes the data items that are recommended for universal data collection, and the recommended performance measures that are based on these data items. The core data elements document **supported employment funding sources and expenditure levels for a given reporting period** (such as an annual period), and document any restrictions on the services, participants or time frames imposed by the funding sources. **Public funding as well as privately-generated revenue** are included.

The recommended performance measures based on these data items summarize **total project expenditures from public and other revenues**, and compute **mean total annual cost per enrollee, mean annual public cost per enrollee**, and the **mean public cost of supporting one participant in supported employment for one month**. A final recommended performance measure utilizes aggregate statistics on mean monthly participant earnings (described under Employment Measures) to compute the **mean public cost per dollar of participant earnings**.

Figure 8B summarizes a series of supplementary cost analyses that are needed to answer performance questions about the costs, benefits, and relative cost effectiveness of supported employment compared to other programs. Each of the items listed in Figure 8B really represents an extended set of data elements and a series of computations.

The first supplementary analysis involves **comparing the total costs and mean monthly costs computed for supported employment projects to**

## SUPPORTED EMPLOYMENT COSTS

## Core Consensus Data Items and Recommended Measures

Core Consensus Data Items	Recommended Measures
<p><u>Amount of Public Funding by Source</u></p> <ul style="list-style-type: none"> <li>• Funding agency</li> <li>• Total amount by funding source</li> <li>• Constraints by funding source               <ul style="list-style-type: none"> <li>-- Funding constraints about time frame(s)</li> <li>-- Funding constraints about service</li> <li>-- Funding constraints about eligible or target populations</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• # and type of public funding sources</li> <li>• Amount of public funds from each source</li> <li>• Total public expenditures during reporting period</li> <li>• % of public funds from each source</li> </ul>
<p><u>Amount of Other Funding by Source</u></p> <ul style="list-style-type: none"> <li>• Nonpublic sources of funding               <ul style="list-style-type: none"> <li>-- Foundation grants</li> <li>-- Community fundraising</li> <li>-- User fees</li> <li>-- Revenue generated by sale of products</li> </ul> </li> <li>• Total amount by funding source</li> <li>• Constraints by funding source               <ul style="list-style-type: none"> <li>-- Funding constraints about time frame(s)</li> <li>-- Funding constraints about services</li> <li>-- Funding constraints about eligible or target populations</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• # and type of other revenue sources</li> <li>• Amount of funds from each source</li> <li>• Total expenditures of other-than-public funds during reporting period</li> <li>• % of other revenues from each source</li> </ul>
<p><u>Total Program Costs</u></p> <ul style="list-style-type: none"> <li>• Total public costs for supported employment during (annual) reporting periods</li> </ul>	<ul style="list-style-type: none"> <li>• Total expenditures (public and other)</li> <li>• % of total expenditures that are public</li> <li>• Mean total cost per enrollee</li> <li>• Mean public cost per enrollee</li> <li>• Mean public cost per person month of supported employment</li> <li>• Mean public cost per dollar of participant earnings during reporting period</li> </ul>
<p><u>Total Public and Private Costs During (Annual) Reporting Period</u></p> <p>(For revenue producing projects and projects with nonpublic sources of support for total expenditures including revenue generated by project or other non-public funds)</p> <ul style="list-style-type: none"> <li>• Total enrollees served during reporting period*</li> <li>• Total individual person-months of supported employment accumulated during the reporting period*</li> <li>• Total earnings by supported employment participants during the reporting period</li> </ul>	

\*See Data Items under Employment Outcomes

Figure 8B

## SUPPORTED EMPLOYMENT COSTS

## Additional or Supplementary Data Items and Other Possible Measures

Additional or Supplementary Data Items	Other Possible Measures
<p><u>Funding Details</u></p> <ul style="list-style-type: none"> <li>• Amount of funding for each type of service (if applicable)</li> <li>• Amount of funding for each type of participant (if applicable)</li> </ul>	<ul style="list-style-type: none"> <li>• Services provided under each funding source</li> <li>• # and % of participants served under each funding source</li> </ul>
<p><u>Relative Costs of Alternative, Adjunct or Complementary Programs Utilized by Supported Employment Participants</u></p> <ul style="list-style-type: none"> <li>• Total monthly cost of other programs during reporting period</li> <li>• Total monthly cost per enrollee in paid work through other programs</li> <li>• Total monthly cost per participant dollar earned through other programs</li> <li>• Cost of participation in day services as an adjunct to supported employment</li> </ul>	<ul style="list-style-type: none"> <li>• Generation of summary cost data; comparison of cost measures (see <u>recommended measures</u>) between supported employment and other day programs such as sheltered work activity programs, day activity programs</li> </ul>
<p><u>Taxpayer Impacts: Computation of Taxpayer Benefit-Cost for Supported Employment Programs Compared to Other Programs</u></p> <ul style="list-style-type: none"> <li>• Mean monthly transfer payments</li> <li>• Mean monthly cost of social services (including cost of day programs)</li> <li>• Mean value of tax revenues generated</li> </ul>	<ul style="list-style-type: none"> <li>• Generation of summary cost data; comparison of taxpayer costs and benefits between supported employment and other programs</li> </ul>
<p><u>Participant Impacts: Computation of Participant Benefit-Cost for Supported Employment Compared to Other Programs</u></p> <ul style="list-style-type: none"> <li>• Mean monthly earnings, net withheld taxes</li> <li>• Mean reimbursed work expenses</li> <li>• Mean monthly transfer payments</li> </ul>	<ul style="list-style-type: none"> <li>• Generation of summary cost data; comparison of mean participant expendable income between supported employment and other programs</li> </ul>
<p><u>Employer Impacts: Costs and Benefits of Employing Supported Versus Non-Supported Workers</u></p> <ul style="list-style-type: none"> <li>• Provision of training and supervision</li> <li>• Job accommodation costs</li> <li>• Productivity levels</li> <li>• Absenteeism</li> <li>• Job turnover rates</li> <li>• Wages paid</li> <li>• Fringe benefits provided</li> </ul>	<ul style="list-style-type: none"> <li>• Generation of summary cost data; mean net costs (benefits) of employing supported workers (in comparison to labor industry standards or co-workers in similar jobs)</li> </ul>
<p><u>Costs by Type of Project Activity</u></p> <ul style="list-style-type: none"> <li>• Cost or percentage of total budget allocated to: <ul style="list-style-type: none"> <li>-- general administration</li> <li>-- outreach, job development</li> <li>-- participant intake, assessment, case management</li> <li>-- direct participant supervision, training, ongoing support</li> <li>-- purchase of outside services for participant revenue producing activities (including cost wages paid for work performed)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Percentage of budget allocated to each type of activity</li> <li>• Shifts in budget percentages from one reporting period to another</li> </ul>

**data on the costs associated with other day programs.** For the purposes of comparison with other programs, the full costs of supported employment also include the cost of participation in other day services as an adjunct to supported employment. In addition to comparing total program costs, it will also be important to do comparisons using standardized units such as "cost per participant hour" and "cost per participant dollar earned." The generation of data on costs of other programs would have to be undertaken at the state level or local system level, since these data are not available to local supported employment projects.

The second supplementary analysis involves **comparing the financial costs and benefits of supported employment from the perspective of the taxpayer.** To generate these measures, it will be necessary to collect data on:

- supported employment program costs; and
- other changes in public costs resulting from participation in supported employment, such as:
  - changes in transfer payments received by participants
  - changes in participant utilization of other publicly-funded community services
  - savings from increased tax revenues paid by participants.

It is likely that collection of these data, even for a limited research sample, will be beyond the capacity of most supported employment projects, unless special research funding and research staff are made available. In order to compare the taxpayer benefits and costs from supported employment to the other day programs, similar data on costs and benefits would have to be generated for these other programs as well.

The third supplementary analysis, involves **comparing the costs and benefits of supported employment from the perspective of society as a whole.** To generate these measures it will be necessary to collect data on:

- total costs of supported employment and other social services to participants including non-governmental costs; and
- the value of participants' production or contribution to the productivity of society as a whole -- i.e. net contribution to the social product.

This analysis also provides the specific vehicle for addressing the non-economic benefits of the program such as increased community integration and participation and improved quality of life for participants and their families.

The fourth supplementary analysis involves **comparing the financial costs and benefits of supported employment from the perspective of the program participant.** In computing these measures, it will be necessary to collect data on:

- unreimbursed participant expenses associated with participating in supported employment;
- increases in participant take-home earnings;
- changes in earnings of other household and family members due to reduced need for participant care;
- changes in transfer payments or other financial support received by participants; and
- estimated value of any changes in life quality experienced by participants.

Like the previous taxpayer benefit/cost measures, the collection of data for the participant benefit/cost measures is likely to be beyond the capacity of individual supported employment projects, even for a limited study sample, except as part of a specially-funded research effort.

The fifth supplementary analysis listed on Figure 8B is the collection of data on the **benefits and costs to employers hiring supported employees.** Once again, a variety of data would have to be collected for a sample of participating employers, including:

- additional training and supervision costs;
- other job accommodation costs;

- costs or cost savings from supported worker productivity compared to other workers;
- costs or cost savings from supported worker absenteeism/job turnover rates compared to other workers; and
- COSTS OR cost savings from supported worker wages and fringe benefit-costs compared to other workers.

These data are not likely to be part of the ongoing data collection efforts of a supported employment project. A special research study at the state or federal level could be used to generate data on these measures.

The final supplementary analysis which may be of particular interest to some projects or some project models is an analysis of **how total project costs are allocated to various activities**, such as general administration, outreach, job development, direct participant supervision and/or training, and indirect case management services. The measures based on these data would be used to compare the percentage of the project budget allocated to different activities, as well as shifts in these percentages from one reporting period to another, or from one project to another.

## II. DEVELOPING A DATA COLLECTION STRATEGY AND IMPLEMENTATION PLAN

### CONSISTENCY VERSUS VARIATION

By suggesting common data elements and measures that may be used across different supported employment projects and/or states, the set of core consensus measures represents an attempt to define common approaches to measurement rather than mandatory or standardized information systems. Variation or flexibility in data collection practices across projects and across states will be expected due to: 1) variations in project models, 2) how long the projects have been in existence, 3) particular local or state characteristics, and 4) the priority given to different objectives. For example, on a local level, the data collection and monitoring system for a new free-standing project which uses group work stations in an urban industrial area with accessible public transportation and a priority on serving individuals from day activity centers may look somewhat different from an information system for a project using an individual placement model based in an existing service organization located in a rural area.

On a state level, data systems will also vary based on whether an existing information system is expanded to include supported employment variables or whether an entirely new system is developed. The utilization of an existing system may provide a state with a broader base of participants, but may be more limited in the types of data able to be collected, and the timing of that collection. Definitional problems may also arise when expanding an existing state system, given any changes from historically accepted to current terminology. Other states may choose to design and implement an entirely new data system especially for supported employment programs. While this may enable those states to develop a unique system reflecting the timing, definitions and participants involved particularly with supported employment, a separate system may be limited by its specific supported employment focus rather than on providing more global information about the entire potential target population. Thus, a range of both local and

state level data systems have and will continue to emerge along with the development and refinement of supported employment programs.

However, there does appear to be keen interest in potential for promoting consistency in data collection where possible, through the defining and implementation of a set of broadly applicable measures such as the ones presented in Chapter I. These may be useful to projects for internal uses, including the refinement of service practices and the self-monitoring of project development. Additional potential uses of standardized data include accountability to funding agencies and "cross-fertilization" through sharing of information between programs which are collecting data using the same data elements. The suggested core data set also represents a framework for state systems to consider in designing monitoring systems for grantees, in order to include data on outcomes the states want to encourage as well as to include measures they want all projects to be held accountable for. On a national level, these measures represent the building blocks for federally initiated evaluation or research about supported employment, and provide a framework for designing such an effort which addresses the necessity for basic uniformity in definitions, data elements, and documentation procedures.

Whether or not a large-scale federal overview of supported employment efforts ever occurs, this study's findings are an encouragement for states and projects to determine the important questions to be asked about the effectiveness of supported employment efforts and the best ways to answer key performance questions. The core or minimum set of measures described in this report are measures that are intended to be used flexibly by states, with respect to individual service providers. Some states may only be able to look toward implementation for programs receiving specific supported employment funding. Others will be able to collect information from all programs offering supported employment alternatives regardless of funding source. However states choose to implement a system of program monitoring and evaluation, it will be critical to carefully document: (1) the range of participants served; (2) the accomplishments of the program; (3) the best practices; and (4) systems changes with an eye toward generating a rich data base of

common information on a cross-project scale as well as the unique aspects of particular programs.

### OVERVIEW OF IMPLEMENTATION OPTIONS

#### Who Collects the Data and Who Maintains a Client-level Data Base?

With the exception of systems change and costs measures, the core and supplemental data items and measures described in the previous chapter are generally stated in the form of client-level data elements. However, state or national level core consensus measures could be constructed from project-level summary reporting measures, rather than necessarily requiring the maintenance of a client-level data base at the state or national level.

There are two basic alternatives for collecting client level data -- either at the project level or at the state level. In either case, it is the service provider maintaining the participant files who will have ultimate responsibility for initially extracting and recording these data. Thus, there are two basic options:

- The data from the individual client files are reproduced and simply passed on to the state for aggregations; or
- Projects maintain the only set of participant-level records due to concerns about:
  - participant confidentiality,
  - familiarity with the information, consistency of the data, and/or
  - choice of state to not collect or require reporting of client-level data?

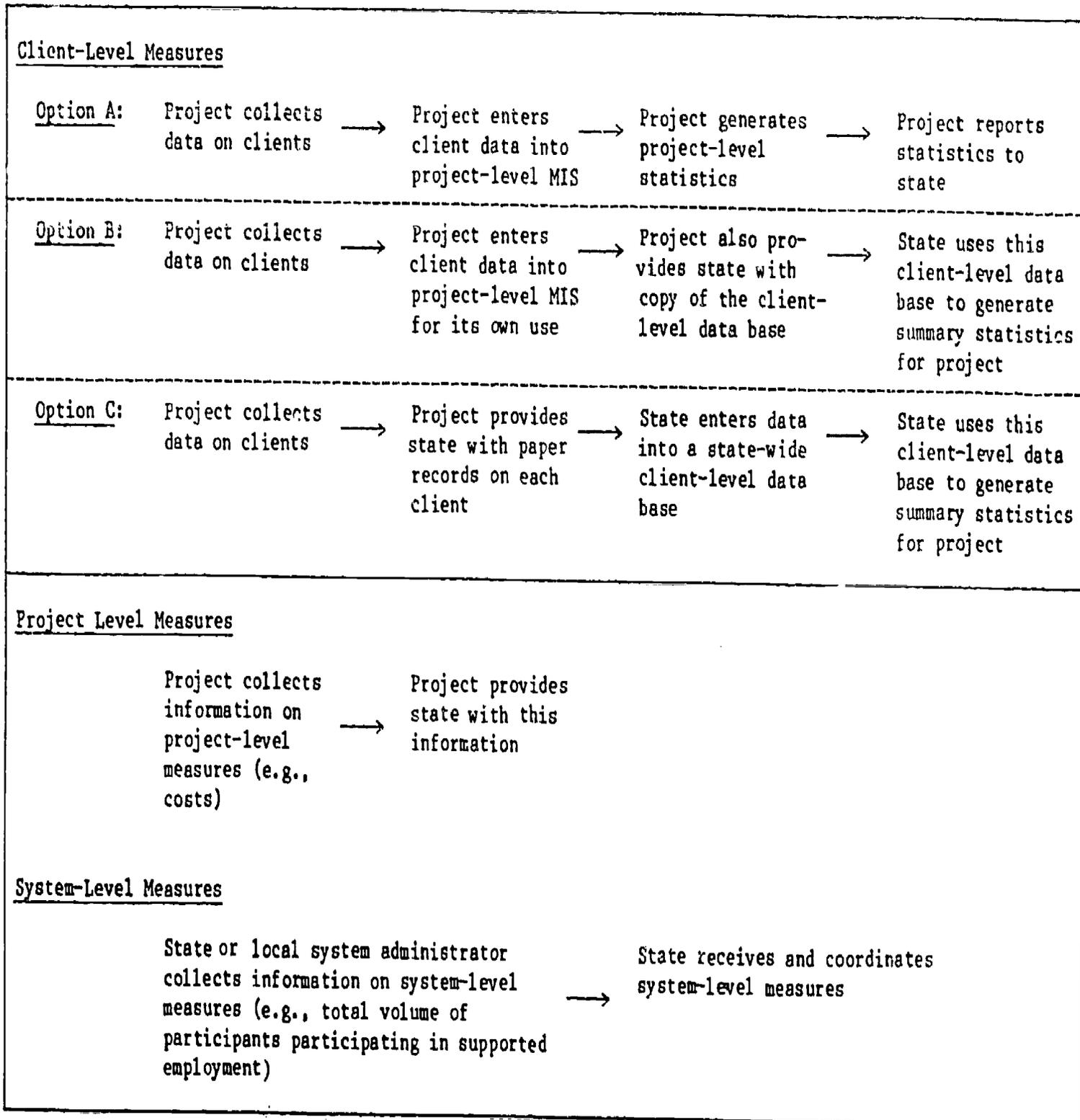
In this last instance, projects would prepare aggregate statistics for submission to state-level monitors/evaluators.

#### Who Aggregates the Data and Generates Summary Reporting Measures?

Figure 9 illustrates options for collecting and reporting data describing the project, state and national perspectives on supported employment accomplishments. As mentioned previously, a client-level

Figure 9

Data Collection and Reporting Options



data base can be maintained at either the state or the project levels. Which way this occurs and how often the data are summarized depends upon state and local project negotiations and intended uses of the data. It may be more meaningful for the projects' internal use if the summary statistics are prepared and reviewed by project staff before the data are passed on to the state. If aggregation and preparation of summary performance measures occurs at the state level, however, states can be assured of consistency and quality control across projects and can also somewhat relieve the burden of data management at the project level. Again, who does what and at what level needs to be negotiated among the involved actors. System level measures, as shown in Figure 9, will need to be generated and analyzed at the state or federal level.

#### Timing Issues

The timing of data collection and reporting activities is another important aspect to consider. It seems likely that most projects would prepare quarterly reports of the collected information. The timing of the preparation of data summaries would vary somewhat, depending on the nature of existing information systems and whether client-level or project-level data are being used. Thus, reporting measures may be collected on an ongoing or monthly basis even though they are likely to be reported only quarterly, or, in the case of cost and system change measures, annually.

Some measures may be collected at program entry (for baseline data) for each participant and again when changes occur in participant status. Collection of data as changes occur would require an ability to manage data collection in terms of client time. That is, the ability to trigger a data collection activity at any time during the reporting period. In some projects, rather than initiating data entries when changes occur, information on current client status may be collected at the end of each reporting period.

#### Who Analyzes the Data?

All involved actors in supported employment program efforts will be interested in analyzing the data, or portions of the data, for different

purposes. Beyond information for internal monitoring and external accountability, projects will find the data useful for disseminating state-of-the-art information to service providers across projects and across different states through conferences, publications, and direct sharing of experiences.

States will analyze information to:

- look at accountability issues;
- develop funding criteria;
- identify barriers and disincentives for employment;
- develop and refine policies; and
- design and fund training and technical assistance activities.

On a periodic or voluntary basis, national or cross-state analyses would provide information on variation and commonalities among projects and states, as well as overall changes in the service delivery system. Nationally, some combination of data from other sources, such as labor market characteristics, would also be useful as a part of this national effort. Finally, at all levels of aggregation, consumers, parents, and caregivers will be looking toward this information to assist in informed decision-making about services, increased options, and improved quality of life for participants.

#### PERSPECTIVES ON PROJECT AND STATE ACCOUNTABILITY

During the initial stages of implementing a supported employment data collection system, most projects will be in the start-up phases of project implementation. Even the experienced projects will still be adjusting to the new mechanics of defining performance data items, and collecting and summarizing data on project performance measures. Under these circumstances, it is recommended that the initial outcome data generated by a supported employment information system be used as descriptive information about program experience, and as broad indications of whether state projects and the national program initia-

tive are moving in the desired directions, but not as measures of the relative effectiveness of different projects or program models.

Ultimately, after the initial start-up phase of data collection is completed, performance measures can become useful for assessing individual project accomplishments as well as national performance. The potential assessment-related uses of the proposed data items and performance measures include (1) ongoing self-assessment by projects themselves; (2) ongoing monitoring of project performance by an external funding agency or administrative agency; and (3) summary measures of system change and system effectiveness.

Performance assessment efforts for supported employment will be most effective in furthering program objectives if all relevant actors agree on which measures should be used to demonstrate program accomplishments, as well as on the relative priority among different measures of performance. If this level of consensus can be achieved and maintained, then any performance assessment exercise will be viewed as a way to further agreed-upon program goals.

Performance assessment becomes dangerous only when the performance measures are viewed merely as an externally imposed monitoring tool that can be used to reward or sanction projects based on how well they perform. The danger in such a situation is that a supported employment project might decide to "play it safe," i.e., enroll only participants who they know will succeed in supported employment jobs. This would be counter to the program goals since the whole concept of supported employment is to take a chance on serving individuals who have already been rejected as bad risks by all previous employment service providers. If accepted as reflecting consensus about program objectives, it is hoped that performance measures can have the opposite effect -- that of encouraging projects to enroll individuals who have not previously had the opportunity to work, and of disseminating information about how to enable such individuals to succeed in supported employment.

**APPENDIX A:**

**CURRENT OSERS DEFINITION OF SUPPORTED EMPLOYMENT**  
(Developed for National Demonstration Projects)

## DESIGNING SUPPORTED EMPLOYMENT DEMONSTRATION PROJECTS

Because Supported Employment Demonstration Projects constitute a new priority in the Rehabilitation Services Administration's Program of Special Projects and Demonstrations for Providing Vocational Rehabilitation Services to Severely Handicapped Individuals, this additional information is provided to assist applicants in design of proposed projects. The information is descriptive, not regulatory. Information in the regulations takes precedence if there is any apparent conflict.

The design of a supported employment demonstration project requires four steps:

1. An analysis and description of the current system of ongoing day and vocational services for persons with severe disabilities. This analysis should include descriptions of the State's administration of the program or programs, provide information on the characteristics of local services, and show exactly how many service recipients are currently engaged in supported employment. Additional information on program philosophy, waiting lists, current program outcomes and so on, should be included, as should a description of how services targeted for the supported employment program differ from other day and vocational services for persons with disabilities in the State.
2. A description of the desired statewide system of supported employment. This requires a detailed analysis of the system of services the State expects to have in place at the end of the proposed project. Information on anticipated State administration and evaluation procedures, characteristics of local services, relationships with the business community, and consumer outcomes should be included.

3. An analysis of the discrepancy between the current and desired system of services. This analysis should include a precise description of the critical features of service content, delivery, management, and administration that must be addressed to eliminate discrepancy.
  
4. Development of project objectives to remove the identified discrepancy. These objectives and activities should constitute a comprehensive, longitudinal and coordinated effort to move systematically from the current to desired system of supported employment services.

It is anticipated that different states will identify different issues to be resolved in order to implement statewide supported employment programs. Nevertheless, most states will be able to achieve lasting statewide change only by developing strategies for: adjusting state plans, regulations, and funding and evaluation procedures for day services to reflect the characteristics and outcomes of supported employment; developing procedures for inter-agency coordination in establishing and funding supported employment; expanding the work opportunities available to persons engaged in supported employment; developing the capacity of existing and new community organizations to provide supported employment; building a cadre of staff who are skilled in providing supported employment; and informing consumers, parents, advocates, employers and others about the nature and purpose of supported employment. Naturally the strategies that will be effective in resolving these and other issues will be determined by the characteristics of the State, the existing services, and employment opportunities.

Both assessing the current service delivery system and projecting the desired one require a thorough understanding of supported employment and a reliable process for determining when an individual is or is not engaged in supported employment. The definition in the regulations for

th's program establishes four criteria for supported employment. To be in supported employment, an individual must be (1) engaged in employment, (2) in regular (integrated) work settings, (3) with ongoing support, and (4) he or she must experience a disability so severe that ongoing support is essential to maintaining employment.

To help applicants apply these criteria to evaluate their current services and define the statewide system that should result from the project, we recommend use of the following measures and standards to determine whether an individual or program fits the definition of supported employment:

1. Employment. Supported employment is paid employment which cannot exist without a regular opportunity to work. An individual should be considered to meet the employment criterion if he or she engages in paid work for at least an average of our hours each day, five days per week or another schedule offering at least 20 hours of work per week. This standard does not establish a minimum wage or productivity level for supported employment.
2. Integration. Work is integrated when it provides frequent daily social interactions with people without disabilities who are not paid caregivers. Since few state or local agencies currently are able to describe the extent of integration of individuals in day services, we recommend that the following criteria be used to estimate the capacity for integration in supported employment: an individual's work can be considered integrated when he or she works in a place (a) where no more than eight people with disabilities work together and which is not immediately adjacent to another program serving persons with disabilities and (b) where persons without disabilities who are not paid caregivers are present in the work setting or immediate vicinity.

For example, an individual who works in a local bank creating microfilm records of transactions clearly meets the integration criteria for supported employment. So do: six individuals with disabilities who work together in an enclave within an electronic factory; a mobile janitorial crew that employs five persons with disabilities in community work sites; and a small bakery that employs persons with and without disabilities.

While integration is much more likely when persons with disabilities work singly or in small groups among persons who are not disabled, the social interactions necessary for integration are also possible in other program sizes.

3. Ongoing support. Supported employment exists only when ongoing support is provided. An individual should be considered to be receiving ongoing support: (a) when public funds are available on an ongoing basis to an individual or service provider who is responsible for providing employment support, and (b) when these funds are used for interventions directly related to sustaining employment.
4. Severe disability. Supported employment exists when the persons served require ongoing support and is inappropriate for persons who would be better served in time-limited preparation programs leading to independent employment. The priority for the Supported Employment Demonstration Projects is those individuals: (1) who previously have not been served or served successfully by vocational rehabilitation because of the lack of ongoing services needed to sustain employment after time-limited rehabilitation services are completed. With the development of supported employment programs in a state, however, it is expected that the vocational

rehabilitation agency will provide services to these individuals that lead to successful closure into supported employment; and (2) who are or may be funded for ongoing services in day programs. If those individuals who fit these two criteria are included on a priority basis, a state may also use the Supported Employment Demonstration Projects to establish supported employment for other groups of individuals whom it chooses to fund for ongoing day services.