Transitional Employment Training for SSI Recipients With Mental Retardation

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Transitional employment training is a promising method for assisting persons with mental retardation to gain and hold regular marketplace jobs. The Social Security Administration (SSA) has concluded a large scale demonstration project in which this training was provided to recipients of Supplemental Security Income (SSI) with mental retardation. This article introduces the concepts and practices of transitional employment and presents findings of the SSA demonstration derived from observation of demonstration operations. A followup article will discuss the effects of the demonstration services on the employment, earnings, and SSI payments of the trainees, as derived from analysis of SSI administrative records and other quantitative data.

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There has been an explosion of interest in the concept of transitional employment training for helping persons with mental retardation increase their economic and social self-sufficiency. Fifteen years ago, the idea that this program model, which places and trains workers on marketplace jobs, would be appropriate for moderately or severely mentally retarded persons was a novel one about which there was considerable skepticism. Today, transitional employment programs around the country are providing this bridge to regular employment. Successful efforts to place persons with mental retardation in regular jobs have led to the recognition that the primary barrier to such employment is often inadequate training and support rather than a lack of ability.

Three trends have fueled this growing interest. First, enhanced public awareness about the rights and abilities of persons with disabilities in general and persons with mental retardation in particular has led to greater social pressures to assimilate such persons into the mainstream of society. Second, rapid progress in the development and application of new training techniques has made employment in the marketplace feasible for a greater number of persons with retardation. Finally, budgetary pressures on Federal, State, and local governments have encouraged the search for effective ways to increase the self-sufficiency of otherwise dependent persons.

The Social Security Administration (SSA) has a particular interest in methods of fostering employment and greater self-sufficiency among persons with mental retardation, because of the disability programs that it administers. Mental retardation is the most frequent impairment among disabled recipients of Supplemental Security Income (SSI), accounting for 29 percent of the cases in 1988 (Kochhar, 1991).

Since experience has made it clear that placing and training mentally retarded persons on the job is feasible, the primary focus of research in this area has moved toward determining the costs and long-term effects of these programs, which program variations are most cost effective, how employment outcomes can be improved through improvements in training techniques, how services can be targeted to persons who will benefit from them, and whether programs can be operated on a policy relevant scale.

This article examines these issues, drawing, in particular, on an analysis of the Transitional Employment Training Demonstration. The demonstration was conducted by SSA, which funded eight training organizations to provide transitional employment services to SSI recipients with mental retardation as well as an independent evaluation conducted by Mathematica Policy Research. The demonstration operated in 13 cities from May 1985 until June 1987.

The article is organized in four sections. The first provides background on transitional employment training for persons with mental retardation. The second section describes the Transitional Employment Training Demonstration. The third section examines issues that must be addressed in designing transitional employment programs and describes how the issues were resolved in the demonstration. The last section presents findings of the demonstration with respect to these and other issues.

Transitional Employment Training

Population Characteristics

Mental retardation is characterized by two conditions (Grossman, 1983). The first is evidence of a significant intellectual limitation. This condition is generally defined by a measured IQ score below 70. The other condition is an inability to engage in activities that are age appropriate. This condition is harder to measure since it pertains to how well persons can function in their respective social environments and how tolerant or demanding those environments are.

The distribution of IQ scores in the general population can be described approximately by the bell shaped curve of the normal distribution. The average IQ score for the general population is 100 and the standard deviation is 15 or 16, depending on the IQ test used. This distribution

implies that fewer than 3 percent of the population would be classified as mentally retarded on the basis of an IQ score. Furthermore, among those classified as mentally retarded, more than 90 percent of their IQ's would fall between 55 and 70, indicating mild mental retardation.

The distribution of adaptive behavior is less well known. Many persons whose IQ scores are less than 70 are employed and lead essentially normal lives. Others are less self-sufficient and depend on a variety of services for support. Kiernan and Bruininks (1986) review the available evidence on the prevalence of mental retardation in the population and conclude that 1 percent of the adult population, or approximately 2 million persons, have substantial adaptive behavior limitations due to mental retardation.

Unemployment and dependence on support programs that are consequences of these limitations are costly to society and the individuals. Society, and the unemployed individuals, forego the goods, services, and income that could be produced if more persons with mental retardation were employed. There are also psychological costs, including those due to a lack of social integration and to absence of the self-esteem that can be derived by working and contributing to society.

Rates of employment and program participation of persons with mental retardation are not well known except in terms of general magnitudes. The notion that persons with mental retardation generally cannot work is a misconception. A large fraction, probably half, were employed even decades ago, when specialized employment services were not as widely available as today. On the other hand, many others do not find employment, despite their desire to work.[1]

Persons with mental retardation may be eligible for SSI.[2] The program provides Federal income support payments to aged, blind, and disabled persons with limited income and resources. The benefit rate, definitions of disability, and the other elements of the program are uniform nationally. States have the option to supplement the Federal SSI benefit rate for all or selected categories of recipients.

The SSI statistics suggest that roughly 679,000 working-age adults receive approximately $2.9 billion per year in SSI payments on the basis of a primary diagnosis of mental retardation.[3] Other assistance and service programs in which adults with mental retardation may participate include the Social Security disability program, Medicare, Medicaid, Food Stamps, sheltered workshops and work activity centers, and residential and transportation programs.

The promise that transitional employment has shown for reducing dependence on these programs by increasing employment and self-sufficiency is a primary source of support for this program model.

Elements of Transitional Employment

Transitional employment, as expressed well in its name, is temporary training provided on a real job to facilitate the transition to regular, marketplace employment. Although the concepts are still evolving, there is consensus on certain basic characteristics:

- Training services are available for a limited time, and placement in a potentially permanent, competitive-level job is an integral part of program services.
- Training takes place on a real job, that is, a paid job that consists of tasks that another worker would otherwise perform for the employer and in which the worker has an opportunity to interact with nonhandicapped coworkers or the public.
- Special training is provided by job coaches. Training support is reduced over time to promote independence.

The first key element, competitive employment within a limited time, reflects the intention of transitional employment to provide a bridge to employment rather than ongoing support. The duration of transitional employment services varies (generally between half a year and 1½ years), but the goals of the program are always to phase out services and promote independent employment.

The second key element of transitional employment specifies a real job for training. This can be a job that has the potential to be **permanent** or it can be a **temporary** job from which the worker will be transferred once he or she has mastered the necessary job and social skills. (The advantages and disadvantages of each training venue are discussed on page 22.) However, when the training is conducted on a temporary job, the model requires that additional job coaching be provided after placement in the potentially permanent job. That is, transitional employment programs may follow a place-train or train-place-train sequence, but not simply a train-place sequence.

In an integrated environment, the examples and expectations of coworkers influence trainees' behavior. Trainees frequently respond to the demands that are implicit in the workplace with regard to both social behavior and level of productivity. In contrast, a segregated, sheltered environment may convey a less demanding message, since workshops and activity centers are involved in

evaluation, social activities, and general skill development, as well as the production of goods and services.

The third element, job coaching, distinguishes transitional employment programs from other types of on-the-job training programs. Although the job-specific training that the job coach provides is, in other circumstances, frequently provided by supervisors or coworkers, the coach must use specialized training techniques appropriate to the specific learning abilities of the client. Coaches also deal with behavioral, communication, transportation, and other nonvocational aspects of a job, which are not typically part of ordinary on-the-job training. Finally, the job coach's time is fully dedicated to training, and can be devoted in the amounts necessitated by the individual situation.

Supported Employment Alternative

An alternative service model, when competitive employment appears unachievable, is supported employment. This newer model seeks to serve persons who would be unable to hold a job in the regular labor market without long-term support. It provides the same types of services as transitional employment and differs primarily in that support and training are expected to last indefinitely.

There is no consensus as yet on the precise program features or on the characteristics of the target population of supported employment. However, the U.S. Department of Education has defined supported employment for the purpose of its rehabilitation programs to include the following features (**Code of Federal Regulations**, title 34, part 363, section 7):

- Paid employment of a least 20 hours per week.
- An integrated setting in which coworkers are predominantly persons without disabilities.
- Ongoing support services that must include training provided at the worksite at least twice a month, and may also include transportation, counseling, and similar services.

Individuals eligible to be served must "require these ongoing support services for the duration of their employment" (U.S. Department of Education, 1987; page 30546). Supported employment is thus inappropriate for persons who can be served adequately in time-limited preparation programs leading to independent employment.

The costs of supported employment are of different magnitudes, and the benefits generally of a different nature, than the costs and benefits of transitional employment. Specifically, the costs of time-unlimited services are greater, and benefits may be realized mainly in terms of personal advantages to the client, rather than savings in government and private program expenditures.

The goals of supported employment, therefore, are frequently different from those of transitional employment. Supported employment places greater emphasis on integrating persons with disabilities in the workplace, particularly persons with more severe disabilities, and less emphasis on economic independence than does transitional employment. As a result, public expenditures on supported employment programs are justified largely in terms of promoting equity and social integration while transitional employment programs are justified as a means of fostering economic self-sufficiency.

Despite the differences in their orientations, however, these two programs provide similar types of services. Moreover, because it is often quite difficult to determine the likelihood of a person's achieving competitive employment, particularly within a limited time, the two programs often enroll similar clients.

As the methodologies of both models develop, further and more precise distinctions may be drawn for programmatic and funding purposes, and more will be learned about the types of individuals for which each model is most appropriate. In any event, both types of programs will need to remain flexible since the labor market is dynamic, and clients of either program are likely to need different types and levels of service under different labor market and personal circumstances (Kiernan and Stark, 1986).

Job Retention Services

Although transitional employment services are by definition time bound, it is often necessary to provide certain limited ongoing services in order to help the person remain on the job. Job retention services are needed because many persons with mental retardation experience difficulty coping with nonroutine or crisis situations like substantial changes in the responsibilities of a job, breakdowns of transportation arrangements, personality conflicts with a supervisor or coworker, or family problems. These situations arise in the work and personal lives of everyone, regardless of cognitive abilities, and the resolution of such problems ordinarily demands an extra measure of analytic ability and resourcefulness. Job retention services assist clients to overcome these kinds of problems and remain on their jobs.

The inclusion of ongoing job retention services blurs the distinction between transitional employment and supported employment. In fact, some practitioners view the combination of short-term job coaching followed by

periodic checks and occasional retraining services as a form of supported employment.

Other Employment Assistance Programs

Other government and private programs are also available to assist mentally retarded persons with training and employment. These include, among others, the Federal-State vocational rehabilitation program, the vocational education component of special education programs, Targeted Jobs Tax Credits, the on-the-job training program of the Association for Retarded Citizens, and the system of sheltered workshops and day activity centers. Despite the frequent lack of coordination and integration of these programs with each other, their services are used as adjuncts by some transitional employment programs.

Vocational rehabilitation agencies pay for evaluation services and pre-placement training that can be helpful to transitional employment programs. These agencies also fund transitional employment services directly.

The special education system provides prevocational training to which transitional employment can be a sequel. Sometimes vocational education includes work-study programs that offer placement and training services to students. However, these services may end abruptly when the student finishes formal schooling. Transitional employment can provide continuity of programming for these students.

Sheltered workshops have traditionally placed only a small proportion of their clients in regular jobs (Bellamy et al., 1986). However, increasing numbers of workshops have initiated transitional employment programs or have begun to refer clients to such programs. Kiernan, McGaughey, and Schalock (1988) found that in fiscal year 1985 approximately 20 percent of clients of sheltered workshops were placed into "real work settings," which included transitional and supported employment programs as well as direct placements onto jobs.

The Targeted Jobs Tax Credit program provides no direct services but rather an incentive to employers to hire and train specific categories of workers, including handicapped persons and eight other groups (U.S. Congress, 1989). Under this program, employers who hire a worker from one of the targeted groups can take a tax credit equal to a fraction of the wages paid to that worker during the first year of his or her employment. This tax credit has special relevance to transitional employment because many provider agencies promote the tax credit when developing jobs for clients. Agencies also help employers file for the credit.

The national on-the-job training program of the Association for Retarded Citizens is funded by the U.S. Department of Labor. Like the Targeted Jobs Tax Credit program, this program provides incentives to employers. In this case, the incentive is a wage subsidy for newly hired workers with mental retardation. The subsidy can last up to 8 full-time weeks, and is widely used by transitional employment programs in conjunction with their other services.

Brief History of Transitional Employment Programs

The inception of transitional and supported employment programs for persons with mental retardation dates back more than 15 years. Transitional employment programs designed for persons with mental illness have existed since 1958 (Fountain House, 1980, page 1).[4] The first programs described in the literature were a few university-based programs. Among them are the Food Service Vocational Training Program at the University of Washington (Moss, 1980), the University of Illinois Food Service Training Programs (Rusch and Mithaug, 1980), Project Employability at Virginia Commonwealth University (Wehman, 1981), and Project Earn at Southern Illinois University (Bates, 1986). These programs were typically small, generally serving fewer than 15 persons at a time, and they usually employed staff with backgrounds in special education, rehabilitation, and training. The university-based programs collected substantial information about the services delivered to clients and the resulting outcomes. The data provided a basis for research as well as a means to measure with accuracy the developing skills of clients. Interest in understanding long-term outcomes led these programs to provide essentially open-ended services. Programs would continue to monitor clients and would resume providing appropriate services whenever needed.

Not long after these university-based programs began, some foundations and private organizations also started transitional employment programs for persons with mental retardation. Examples of early efforts are the Job Path program in New York City (Vera Institute of Justice, 1983), the Menninger Foundation transitional employment program in Topeka, Kansas, and Transitional Employment Enterprises in Boston (Krauss and MacEachron, 1982).

Large programs in Massachusetts and Virginia were among the first established by State governments. The programs of both the private organizations and the States tended to be larger than the university-based programs and to serve less severely disabled individuals. They also tended to limit the duration of services to a greater extent than did the university-based programs.

Further, these programs also generally collected less detailed data about the services provided to clients and the resulting outcomes.

Beginning in 1985, the U.S. Department of Education has encouraged State vocational rehabilitation departments to implement supported employment programs. This effort was made permanent by the Rehabilitation Act Amendments of 1986 (Public Law 99–506), which authorized supported employment as a vocational rehabilitation activity for the States. Since 1986, over 2,000 new supported employment programs have been established and operate in all 50 States (Kregel, 1991).

Assessments of Transitional Employment

Following the early evaluation efforts of the prototype programs, a large-scale demonstration was undertaken in 1981 to measure the costs and benefits of transitional employment for persons with mental retardation. This demonstration, the Structured Training and Employment Transitional Services (STETS) demonstration, was funded by the U.S. Department of Labor and administered by the Manpower Demonstration Research Corporation (Riccio and Price, 1984). The STETS enrolled 284 trainees and 211 control group members aged 18–25 in five cities. The STETS projects provided the participants with up to 18 months of placement, training, and followup services in 1981 through 1983.

The evaluation, performed by Mathematica Policy Research (Kerachsky et al., 1985), was designed to detect the **net** impact of the services, that is, the **difference** between actual employment, earnings, and other outcomes and the situation that would have prevailed absent the services. The evaluation found that this transitional employment program successfully moved many young adults with mental retardation into competitive employment. Twenty-two months after enrollment, 19 percent of the control group members were in competitive jobs while 31 percent of the treatment group were in such jobs, an increase of 62 percent. Thus, although the program was clearly not successful for all enrollees, it nevertheless produced dramatic increases in post-program competitive employment.

A benefit-cost study done as part of the STETS evaluation indicated that this model of transitional employment had the potential to generate benefits that were greater than the program costs. The benefits included increased participant earnings and employment and reductions in the use of alternative services, particularly reductions in the use of sheltered workshops. The costs were primarily those associated with operating the program.

The findings also indicated that within the range of persons served in STETS, whose measured IQ scores ranged from 40 to 80, the program had the greatest net effect in the lower end of this IQ range. These effects were greatest largely because the most impaired members of the control group achieved so little. The net benefits to the least impaired trainees were smaller because, as observation of the control group showed, many of those trainees would have become employed even without the demonstration services.

This finding is similar to that of experiments with other hard-to-employ groups. The National Supported Work Demonstration, in 1975 to 1979, provided transitional-employment-type services to persons who were not disabled but were disadvantaged in other respects. The net effect was the greatest for the most disadvantaged participants (Hollister, Kemper, and Maynard, 1984).

The STETS demonstration and other transitional employment projects for persons with mental retardation have provided important information, but other essential information is still missing. In particular, there has been no rigorous evaluation of the impact on persons with moderate and severe mental retardation. Although there were some such individuals in the STETS demonstration, the number was inadequate for a focus on that group. Also, evaluations have lacked the necessary followup data to assess long-term effects. The STETS demonstration followed the treatment and control groups for only 22 months after their application to the program. This time period enabled the evaluation to capture virtually all operating costs, but excluded long-run benefits. At the end of the 22-month observation period, the evaluation estimated that continued benefits could entirely repay the investment in training. This outcome seemed likely, but could not be confirmed for lack of data.

More information is needed about the service-delivery approaches, within the broad definition of transitional employment, that are most effective and the characteristics of staff necessary to deliver those services. The Social Security Administration's Transitional Employment Training Demonstration has attempted to further clarify the issues and provide additional answers about training methods and long-term outcomes for persons with more severe retardation.

The SSA Demonstration

The Social Security Administration's Transitional Employment Training Demonstration studied the experiences of 745 SSI

recipients with mental retardation. Half (375 persons) were randomly assigned to a treatment group and were offered transitional employment services. The other half (370 persons) were assigned to a control group whose experiences would form the standard for judging the effect of the services. Persons in the control group were precluded from receiving demonstration services, but were free to seek other services available in their communities.

This SSI demonstration was conducted under authority of section 1110(b) of the Social Security Act. Section 1110(b) authorizes the conduct of "experimental, pilot, or demonstration projects which ... are likely to assist in promoting the objectives" of the SSI program. One program objective is to encourage work by SSI recipients. This objective is furthered by provisions of the law that provide work incentives to recipients and reduce barriers to becoming employed.

The outcomes of the demonstration are described in two evaluative reports. The process report (Thornton, Dunstan, and Schore, 1988) analyzes issues in the implementation and operation of the demonstration, including the design of training programs. The process analysis and report are the main basis for the findings presented here. The second report (Thornton and Decker, 1989) compares the earnings and employment of the training group with those of the control group to determine the net impact of the training over the 3½ years of the evaluation. A followup article will summarize the net impacts.

Organization of the Demonstration

The project was conducted on a scale adequate to produce statistically valid results on transitional employment training, especially for SSI recipients. The research contractor, Mathematica Policy Research, Inc., designed the demonstration in detail, based on requirements specified by SSA. The contractor was also responsible for:

- Developing the requirements for applications for grants to operate demonstration sites and reviewing the applications,
- Developing the data collection instruments and procedures,
- Monitoring the training operations and collecting the data from the program operators,
- Conducting a post-program survey of participants, and
- Evaluating the results.

The training was provided by eight nonprofit organizations selected from 80 applicants in a competitive process. The Social Security Administration awarded grants totaling $2,624,000 to these eight organizations. The U.S. Department of Education, Office of Special Education and Rehabilitative Services contributed $110,000 of the funding through an interagency agreement. The eight organizations matched their grants with a total of $1,022,000 from other sources, so that overall resources for demonstration site operations were $3,646,000.

The grantees were three universities and university affiliates, three local units of the Association for Retarded Citizens and Goodwill Industries, and two independent rehabilitation organizations. Four of the sites—as the grantee organizations are referred to in this article—also operate sheltered workshops. The grantees were:

- Children's Hospital, Boston, Massachusetts.
- University of Washington, Seattle, Washington—serving Portland, Oregon, in cooperation with Portland Community College.
- The University of Wisconsin-Stout, Menomonie, Wisconsin—serving a rural area in west central Wisconsin.
- Association for Retarded Citizens-Monmouth Unit, Monmouth County, New Jersey.
- Exceptional Children's Foundation, Los Angeles, California (a unit of the Association for Retarded Citizens).
- Goodwill Industries-Milwaukee Area, Milwaukee, Wisconsin.
- AHEDD, Inc., Lemoyne, Pennsylvania—serving Harrisburg, Lancaster, Philadelphia, Pittsburgh, and York, Pennsylvania, and Dover, Delaware.
- The Center for the Rehabilitation and Training of the Disabled, Chicago, Illinois.

Grant application guidelines specified certain features of the operations and left other features to the discretion of the grantees. As a result, the styles of the sites differed in some important respects. Observation of differences among the sites in methods and outcomes, together with analysis of other site data, are a main source of information for the process analysis of the demonstration and for the analytic conclusions of this article.

All sites provided job development, placement, and job coaching services. The intensity and duration of each of these services varied among providers. At some sites clients were generally provided less than a month of full-time, one-on-one job coaching, while other sites averaged several months of services per client.

Placement in a potentially permanent job was a responsibility of

the sites. At least some of the training had to be provided on **that** job. However, grantees were permitted, if they chose, to provide the greater part of the necessary training before the permanent placement, on another real job that was for training only and had no potential for permanence.

All urban sites provided travel training for participants who were not able to travel by bus independently. Some sites provided transportation. Sites varied in the extent to which they provided other social services and case management of these services.

Sites were required, under the terms of the grants, to provide or arrange for followup job retention services for permanently placed trainees. Job retention services generally include periodic monitoring of a worker's job performance and the provision of training, counseling, and other supports necessary to enable the worker to remain employed. In order to ensure the provision of these long-term services after a worker's year of eligibility for demonstration services expired, sites were expected to arrange for referral to nondemonstration programs that would provide these services.

Experimental Design and Data Collection

Participants were enrolled before they or the sites knew whether or not the participant would be assigned to the training or control group. After enrollment, the site submitted the participant's identifying information to the research contractor, which recorded an assignment of the individual based on a random number selection procedure with a 50 percent probability of either assignment. Members of the control group were often referred to the local vocational rehabilitation agency, but they received no services under the demonstration.

The site interviewed each participant before the assignment to the training or control group. The same questionnaire was administered at all sites, permitting aggregation of the data. Information was collected on household composition, health, vocational experience and training, education, and the interviewer's observations of the participant.

Detailed records on staff hours of direct services provided to a subsample of the training group were kept by all sites in a uniform manner prescribed by the contractor. These data were used to assess the level and costs of services.

Data on earnings and SSI payments were collected for both the training and control groups. The data are derived from periodic review of SSI administrative records and from a reinterview of the participants conducted in late 1988. These data cover up to 40 months following enrollment in the demonstration.

Longitudinal data are usually beyond the reach of training projects because of the expense of tracking sample members and low response rates to surveys. This project, however, can draw on SSI records and records based on the Social Security tax reports of employers over the long term.

Client Recruitment

Enrollment in the demonstration took place in May 1985 through June 1986, and was voluntary. The Social Security Administration sent approximately 12,000 letters with informational material to mentally retarded SSI recipients who lived in the localities served by the sites. Followup letters from the providers were also sent to most individuals who did not respond to the initial mailing. In about 80 percent of the cases, the recipient's SSI benefit was being paid to a representative payee, usually a parent or other relative, because of the recipient's inability to manage his or her own funds. In these cases, the information about the demonstration was sent to the representative payee.

A pool of names for the mailing list was drawn from SSI computerized administrative records and consisted of recipients aged 18–40 who lived in the ZIP Code areas served by the sites. Diagnosis is shown on the computer record only for recipients whose applications were filed or whose cases were reviewed since 1983. Therefore, to limit the mailing list to persons with mental retardation, the case folders of over 30,000 recipients whose names were selected from the computer record were checked for the nature of the impairment. When the primary or secondary diagnosis was retardation, the name was added to the mailing list.

An SSI recipient who received an informational letter could contact the respective training provider by mailing a postage-paid postcard that was enclosed with the letter. The recipient's name, address, and Social Security number had been pre-entered on the back of the postcard, and no additional information had to be entered by the recipient except for corrections. The recipient could also contact the site by telephone or in person.

One reason for recruiting participants from the mailing list was to ensure representation of all SSI recipients with mental retardation in the sample, not just those persons who were already known to the service system. In particular, the demonstration sought to serve at least some recipients who had not previously been receiving vocational services. However, when it appeared that enrollment would be insufficient to meet sample size requirements based on this method of recruitment

alone, sites were permitted to solicit referrals of SSI recipients from other agencies. These individuals were randomly assigned in the same way as the earlier enrollees.

Following the initial contact, the training site arranged one or more interviews with the recipient on the basis of which the recipient decided if he or she was interested in the program and the site decided if the individual appeared appropriate. The concept of the control group and the process of assigning participants to the training and control groups were explained. Parents, guardians, and representative payees were involved in the entire process. Written consent was required for participation.

The rules of the demonstration limited the amount of pre-enrollment testing and evaluation to less than half a day in order to limit the degree of personal involvement of participants so long as they were still subject to assignment to the control group. One purpose of this limitation was to assure that the intervention would be as neutral as practical with regard to the control group's desire to seek training and employment. Another purpose was to reduce the possible disappointment to participants who were subsequently assigned to control status. Sites varied within the limitation in the extent to which they evaluated the abilities and needs of potential participants. In addition to testing, where clients were known to other agencies in the community, sites had the opportunity to obtain collateral information.

The outreach and recruitment process produced a sample of 745 persons representing approximately 5 percent of all eligible SSI recipients living in the catchment areas. This sample is statistically sufficient for testing hypotheses about the overall effect of the demonstration and supports analysis of program effectiveness for key subgroups defined by demographic characteristics, prior employment, living arrangements, and level of retardation.

A key element of the recruitment process was the admonition to the sites that they try to make enrollment as open as possible, given the capacities of their training operations. It appears that sites successfully implemented this suggestion and enrolled many persons with severe handicapping conditions. However, most sample members have mild to moderate impairments, reflecting the general distribution of handicapping conditions in the population.

Characteristics of Sample

As shown in table 1, over 40 percent of the sample was concentrated in two sites, AHEDD and Exceptional Children's Foundation. The remainder of the sample was distributed fairly evenly across the other sites. Males constituted almost 60 percent of the sample. The average age at enrollment was 26 years, 22 percent were younger than 22 (and hence eligible for special education services) and 11 percent older than 35. Thirty percent of the sample was black.

The IQ data indicate that sample members had a wide range of measured intellectual capacities. The IQ scores were obtained from SSA case folders, where the evidence used to determine SSI eligibility resides. The scores, generally from the Wechsler or Stanford-Binet tests, averaged 57. Six percent had scores that classified them in the severely retarded group, 35 percent were classified in the moderate range, and 49 percent classified as having mild mental retardation. It is likely that the 10 percent of the sample members who had an IQ score of 70 or greater also had other handicapping conditions that were considered in SSA's determination of disability.[5]

When individuals applied to the sites, the staff recorded any conditions other than mental retardation that would seriously limit the individual's abilities to work. Because intake staff had only a limited opportunity to meet with the applicants prior to enrollment, they could record only those conditions that were reported by applicants or referral agencies or those that became obvious during the intake process. This information suggests that at least 83 percent of the sample members had a physical or psychological limitation in addition to their mental retardation.

Data collected at enrollment indicate that sample members received income support from a number of sources. All of them were SSI recipients as required by the eligibility criteria. In approximately one-third of the cases, the sample member was also a Social Security beneficiary. Virtually all sample members received Medicaid benefits and 14 percent of them received other welfare supports. Most sample members appeared to be dependent on other individuals for assistance. Over 80 percent of all the sample members lived in a supervised type of setting, with approximately 60 percent living with their parents. In addition, 77 percent of the sample members had a representative payee to handle their SSI payments.

Not surprisingly, very few of the recipients who enrolled in the demonstration had recent work experience in the regular unsubsidized labor market. Almost 70 percent of the sample members had engaged in some type of vocational activity during the year prior to enrollment, but only 11 percent had held a regular job—that is, paid employment that entailed working without special supervision, with nonhandicapped

coworkers, and performing work that is typically done by nonhandicapped workers. The predominant vocational activity was sheltered employment. One-third of the sample members worked in sheltered workshops in the prior year. In addition, at the time of enrollment, 15 percent of the sample members were attending school or participating in an educational program.

Waivers

Trainees in the project were granted waivers that protected their SSI status while in training. Section 1619 of the Social Security Act, as revised in July 1987, protects SSI status more comprehensively by the regular law than did the waivers, so the waivers may now be considered an approximation of, rather than a departure from, the real-world situation.

The waivers did not alter the provision of the Social Security Act that reduces the SSI payment because of earnings (section 1612). None of the waivers in the demonstration applied to benefits under the Social Security insurance programs for those who were concurrently entitled under both the SSI and insurance programs.

Other Features

The structure and organization of the demonstration as a whole lent uniformity to the operations of the sites. This uniformity was furthered by the requirement that all sites provide certain services. Nevertheless, the sites had the freedom to design many other elements of their programs.

Features and Issues in Program Design

Transitional employment training can be implemented in a wide variety of ways while still exhibiting its essential characteristics of time-limited training by a job coach in a real job. Some of the most interesting findings of the demonstration involve comparisons across sites of design features and employment outcomes.

This section describes the key features of the demonstration: the location and intensity of job coaching, the duration of training, the provision of transportation and other supports, competencies of provider staff, training techniques, and types of jobs developed. Although the immediate focus of the discussion is the design of the demonstration, this section aims to highlight several key design decisions that must be made in the operation of any transitional employment program. Such decisions can substantially affect the cost and effectiveness of the training.

The design of a transitional employment program involves a complex balancing of services and the provider's target population. Programs that intend to serve a wide range of persons must be able to provide a correspondingly wide range of services. For example, a decision to enroll persons who cannot travel independently obligates the program to provide (or arrange the provision of) travel training. Similarly, if persons with disruptive behaviors are enrolled, it is incumbent on the program to supply appropriate behavioral training. Thus, the demonstration providers tended to design their service packages and enrollment criteria simultaneously.

Location of Training and Intensity of Job Coaching

The amount of job coaching time that the agency is prepared to provide a client varies widely among agencies and is a key issue in the design of a transitional employment program. A closely related issue is the context in which the training occurs.

A transitional employment position is a real job. The job may be a permanent one or it may be temporary and arranged specifically to be a setting for training. In the latter case the client, if and when successfully trained, is placed and receives additional training in a position that is permanent. (Of course, jobs held by persons with disabilities, like all other jobs, are subject to the vicissitudes of the market and may not continue indefinitely. Retraining will likely be necessary on any future job the client enters.)

The training organization stations a job coach at the transitional workplace for as little as a few days to a number of months. The responsibilities of the job coach, in addition to teaching the client, include working with the employer, particularly the first line supervisor, and providing advice on issues that arise in supervising an employee with mental retardation. The job coach may also help coworkers relate appropriately to the employee with retardation and may perform a variety of other functions as described below in the discussion of staff competencies.

Four prototypical contexts of training are discussed here. The most intensive (and expensive) is a coach responsible for only one client for several months. If the training is successful, at some point the job coach will begin to withdraw gradually over a period of some additional weeks to the level of visiting the job site only once every week or two. This was the method

used most often by the demonstration sites.

A second service model trains as many as six to eight clients in various positions with a single employer, with one job coach responsible for all of them. In a hotel, hospital, or nursing home, for example, the trainees of a single job coach may be distributed among the laundry, food service, housekeeping, janitorial, and grounds maintenance departments.

These groups of jobs are sometimes dedicated to training only, such that clients, once trained, are placed on similar, potentially permanent jobs with other employers. Employers are usually induced to allocate positions to training-only jobs by, among other things, a guarantee that the agreed upon production levels will be maintained, even if it requires the job coach's doing the work. Wages based on productivity can be less than the normal legal minimum.

The costs of training are lower than for one-on-one job coaching, yet this model can frequently serve clients who need as much skill or behavior training as those served one on one. Typically, placement of the trainees is staggered over time so that a newly placed client can initially receive more of the job coach's attention. However, this approach does reduce the provider's flexibility in matching jobs and clients and requires all clients in the group to be able to travel to the common job site. In addition, some one-on-one training must be available if clients must be placed subsequently on permanent jobs with a different employer. One demonstration site had two such training locations with three to five clients active at any one time at a location.

A third context in which the job coaching can take place is in one or more departments within the training organization's own facilities. Most commonly, a college (or other

Table 1.—Sample characteristics at enrollment, by randomization status

[Entries are percent of sample with characteristics unless otherwise specified]

Characteristic	Total sample	Treatment group	Control group
Grantee [1]			
AHEDD, Inc.	21.2	21.6	20.8
ARC/MU	10.7	10.4	11.1
The CENTER	7.1	7.2	7.0
Children's Hospital	7.7	7.7	7.6
ECF	20.7	20.5	20.8
Goodwill Industries	9.5	9.6	9.5
UWash/PCC	12.3	12.0	12.7
UWis/Stout	10.7	10.9	10.5
Age			
Under 22	22.3	22.4	22.2
22–25	29.7	30.4	28.9
26–30	25.9	25.1	26.8
31–35	11.8	11.5	12.2
36–40	7.8	8.8	6.8
41 or older	2.6	1.9	3.2
Average (in years)	26.5	26.4	26.6
Sex			
Female	40.8	41.1	40.5
Male	59.2	58.9	59.5
Race			
Black	30.3	32.5	28.1
White and other	69.7	67.5	71.9
Measured IQ score			
Greater than 70	9.9	10.9	8.9
55–70	48.6	50.4	46.8
40–54	35.0	32.5	37.6
Below 40	6.4	6.1	6.8
Average score	56.6	57.1	56.0
Income per person			
Total	$5,058	$5,113	$5,004
Supplemental Security Income [2]	3,638	3,691	3,584
Other unearned	970	970	971
Earned	450	452	449
Average years of SSI receipt	6.5	6.4	6.6
Benefit receipt			
Transfer payments: [3]			
Food stamps	18.4	19.0	17.8
Medicaid	14.0	15.6	12.4
Other [4]	93.0	93.0	93.0
Concurrent receipt of SSI and Social Security benefits	31.0	32.3	29.7
Vocational activity during year prior to enrollment			
Some activity [5]	68.6	66.7	70.5
Regular job	10.5	9.9	11.1
Mainstream job training or volunteer	8.3	8.3	8.4
Sheltered workshop or enclave	33.4	32.8	34.1
Other	16.4	15.7	17.0
No activity	31.4	33.3	29.5

Table 1.—Sample characteristics at enrollment, by randomization status— Continued

[Entries are percent of sample with characteristics unless otherwise specified]

Characteristic	Total sample	Treatment group	Control group
School attendance at enrollment			
Attending	14.7	15.7	13.6
Not attending	85.3	84.3	86.4
Living arrangement			
In a supervised or semi-supervised setting	18.4	15.6	21.2
With parents	62.6	64.5	60.6
Independent	19.1	19.9	18.2
Unassisted use of transportation			
Used regularly	77.2	76.7	77.6
Not used regularly	22.8	23.3	22.4
Physical, social, emotional status [3]			
Has been institutionalized	18.0	17.9	18.1
Receiving psychiatric treatment	14.3	12.5	16.1
Disabilities that limit employment:			
Physical [6]	39.9	38.9	40.8
Emotional [7]	24.3	22.3	26.3
Social behavior inadequate for interview [8]	46.1	46.9	45.3
Cannot speak clearly in sentences	26.4	27.0	25.7
Exhibits at least one of above characteristics	82.8	82.7	82.9
Intake worker opinion			
Success in competitive job:			
High probability	35.0	36.0	34.1
Medium probability	52.9	52.3	53.5
Low probability	12.1	11.7	12.4
Sample size (number of persons)	745	375	370

[1] For the full names of the grantees and the project location, see page 8.
[2] The SSI payment includes an imputation of the State supplemental payment for sample members at The CENTER and UWash/PCC because individual-level data on the State supplementation were not available for Illinois and Oregon.
[3] Categories are not mutually exclusive.
[4] Welfare includes Aid to Families with Dependent Children and General Assistance.
[5] For persons with a job, the classifications are hierarchical and mutually exclusive. Thus, some persons who held regular jobs may also have been in a workshop for part of the year.
[6] Includes severe visual or hearing impairment, seizure disorders, cerebral palsy, general health problems, arm/head mobility problems, whole body range-of-motion limitations, and ambulatory limitations.
[7] Includes mental illness, chemical or drug dependency or abuse, and maladaptive, anti-social, or disruptive behavior.
[8] Includes inattention to interview, inability to respond appropriately to questions and conversation; inability to make eye contact with interviewer; inability to display appropriate greetings, postures, or gestures; inadequate grooming or attire; physical appearance and characteristics that are not "normal;" and exhibition of unusual behavior or gestures.
Source: Intake data collection form and SSA records data.

institution) that conducts a transitional employment training program trains its clients in the institution's cafeteria. Trainees may work in the dishroom—clearing trays, washing pots, and/or operating a dishwashing machine—or they may work in positions in which there is contact with the public, such as bussing tables or serving on a counter line. When a dishroom is staffed primarily by program trainees the setting is less integrated than other modes of transitional employment training, but the relationship to the larger environment of the cafeteria staff and customers compensates to an extent. Two sites used this type of training venue extensively.

This model has the advantage of accommodating clients whose initial behavior or low level of production would be unacceptable to a private employer even during training. A related advantage is that the job is flexible enough to be used to evaluate the strengths and weaknesses of the client, thereby reducing the risk of a subsequent inappropriate job placement. One site initially placed its clients with the most pronounced disabilities in jobs in its own cafeteria for evaluation.

The least intensive form of job coaching is assisting the regular supervisor in the employing firm to train the client. The job coach may spend a few full days with the client, but quickly reduces personal contact to daily or weekly visits with the supervisor and/or client. This model only marginally meets the definition of transitional employment and is clearly suitable only for the highest functioning clients. This model was not adopted as a primary approach by any of the demonstration sites, although there were some clients who needed only this level of training in order to become employed.

Duration of Training

Another element in the design of a model for transitional employment training is the duration of training services the provider will offer. Although some existing programs have a time-regulated curriculum, generally based on a school semester, most programs adjust training time to the needs of the client. However, to ensure that the services be transitional and not permanent, a transitional employment program will usually impose a time maximum for the provision of services. Programs also exercise implicit control over the duration of services provided by rejecting applicants whom they feel they cannot train within some maximum amount of time.

Typically the transitional period is limited to between half a year and a year and a half. The amount of time a program allows will vary not only with the type of population it intends to serve but also with the mode of training it employs, especially the type of job coaching. Thus, the design of a service model must resolve simultaneously the issues of the intensity and location of job coaching, the duration of service, and the type of client to be served. The costs of job coaching in its various forms and the other services provided over time are clearly an important element in this set of decisions.

The time limit on services generally does not apply to ongoing monitoring for problem situations. This monitoring and retraining function may be performed by the initial provider of transitional employment training or by some other agency. The monitoring agency would typically call the employer and/or the employee every 2 to 6 months to ascertain that there are no problems that need attention and to remind the employee and employer that service remains available. One model currently in use accomplishes most of the necessary monitoring through family or other nonprofessionals who volunteer as mentors. The mentor keeps in constant contact with the worker, brings problems to the agency's attention, and offers the individual guidance in many other areas as well.

Transportation and Other Necessary Services

An organization operating a transitional employment program may be an agency that provides a full range of services for persons with mental retardation or some of those services. Or it may be strictly an employment and training agency. Thus, the training organization may or may not provide a trainee with counseling, group home or other residential services, recreational activities, and case management within the agency. A client who has achieved the ability to work independently may still need such services and may even need some services not required before becoming employed.

Transportation is a service that deserves particular attention because of its close connection with working and its sometimes high cost. The demonstration found transportation issues to be of overwhelming influence on the success or failure of the efforts to habilitate clients (see page 21). The training sites often faced tradeoffs between placing the client on the job site that best matched that client's interests and abilities and placing that client on the job for which transportation could be most easily arranged.

The local mass transit system may be sufficient for the purpose but frequently is not. First, the system may not serve both the client's residence and the place of employment, or may impose an unreasonably long commuting time because of indirect routes or infrequent schedules. Second, the trainee or employee may have difficulty negotiating the system, such as in reaching or leaving transit stops, identifying the correct bus, knowing where to get off, or paying the correct fare. Third, the client or his or her family or other caregivers may feel that the client's physical security is too vulnerable to risk his or her using public transportation.

Some of these problems can be overcome through measures like travel training and finding jobs at convenient times and places. Alternative forms of transportation may be developed, such as ride sharing, contract taxis, specialized transportation services, or the client's family.

Staff Competencies

Professional qualification of staff for transitional employment services is a current subject of debate. A convenient focus for the discussion of this issue is the role and training of the job coach. The job coach can have a broad range of responsibilities, including developing jobs, evaluation of clients and matching them with jobs, counseling clients and their families, case managing the social services clients may need, and travel training. The job coach can be responsible for analyzing the tasks of a job as an industrial engineer might, so as to be able to design appropriate training protocols.

Alternatively, the job coach's role may be confined to implementing a prescribed training plan and resolving immediate on-the-job problems. In this case, the other responsibilities may be assigned to specialists within the agency or delegated to other agencies.

If the job coach's responsibilities are broad, the coach may need extensive education and/or experience in social services, as well

as in training techniques and business practices. Some universities are beginning to offer this type of curriculum in their special education degree programs with the explicit purpose of qualifying graduates to provide job coaching or similar services. At the other extreme, it is common for agencies to employ job coaches with little or no related education, preferring, instead, close supervision of the job coaching by supervisors with the requisite background. Since the training element of the job coach's duties is quite time-intensive, it may be economical for job coaches without professional skills, working at commensurately lower salaries, to perform that element of the work.

The demonstration sites varied considerably with respect to this design feature. In the section below, the variation is described in greater detail, along with the demonstration's finding that adequate services can be provided in the less costly format, employing coaches with less formal education.

Training Technique

Clients very often require substantial training in social and life skills besides job tasks. Common focuses of attention are understanding the role of the workplace supervisor and the meaning of supervisory instruction, respect for the job as manifested in attendance, appropriate social behavior with coworkers and supervisors, grooming and personal hygiene, avoiding behavior that is disruptive to the workplace or disconcerting to coworkers, attending to tasks without becoming distracted, telling time or otherwise recognizing when to move from task to task or return from breaks, and, as mentioned earlier, traveling to and from the job.

Curricula and methodologies have been developed for training in many of these areas and, as experience accumulates, will be further developed and refined. Techniques characterized as behavior modification are adapted to some of these training needs. In the area of job-skill training, a system of task analysis can be employed to break a task down into an extended series of steps. This permits a detailed reckoning of the clients' strengths, weaknesses, and progress. It also facilitates training in small increments. Six of the sites used standardized forms and charts for this purpose.

Another possible feature of a training program that can be classified as a training technique is peer support. Some of the early practitioners of transitional employment training for persons with mental retardation regarded this element of their programs as essential. Peers with similar disabilities share experiences through working together or at weekly meetings of clients who work at separate locations. The benefits derived from these forms of peer support resemble the benefits that support groups in general provide their participants, particularly the confidence that comes with knowing that others face and cope with difficulties similar to one's own.

Types and Characteristics of Jobs

The focus of transitional employment is the job. The type of job is a transitional employment design issue: Some programs specialize in certain kinds of jobs, such as food service, and programs may require a job to have certain characteristics, such as health coverage, to be acceptable for placement of clients.

Programs ordinarily require that a training job be flexible. Flexibility may include the employer's allowing the job to be done in nonstandard ways and at an altered pace and schedule. Frequently the training organization guarantees production during the training period by having the job coach make up any shortfall. Flexibility can be important on a permanent job, as well. However, while lower production standards may be permitted during training, just as they are frequently permitted in the training period of a nondisabled worker, over a longer period of time either normal production rates must be maintained or wages may be reduced to reflect productivity.

Job modification is another aspect of flexibility. A worker with mental retardation may be able to perform most but not all of the tasks of a given job. A minor redistribution or restructuring of tasks among jobs in a workplace can result in a job whose responsibilities can be met by the client. Persons who also have physical disabilities can be accommodated by modifying equipment or methods.

Another approach to ensuring the compatability of the worker and the job is job matching. Clients can be matched to jobs based on both abilities and interests. Standardized evaluation tests are available for testing clients' abilities to perform specific tasks, although the demonstration sites generally found these tests to have low predictive power with respect to the persons in this project. Important evaluative information can also be derived from a job trial, which can last as long as 1 or 2 months. Clients' interests may be more difficult to discover, since many persons are unfamiliar with the range of jobs that exist in the economy and how these jobs are performed, and any interests clients express may be based on a very limited exposure to and understanding of the alternatives.

Wages and fringe benefits are an area in which existing programs design their services in differing ways. The training agency may consider a job at minimum wage with no fringe benefits to be better than sheltered or no employment. Or the agency's policy may be that health insurance coverage, paid vacation, and other benefits are necessary for the clients' well being and a job should not be accepted without them.

The jobs for which transitional employment clients are presently trained most frequently are in food service, janitorial services, groundskeeping, and laundry. However, smaller numbers of clients are working in clerical, microfilming, light assembly, and other such jobs. Table 2 shows the occupational categories of the 127 trainees who completed the Transitional Employment Training Demonstration with a permanent job.

Some of these jobs, such as dishwasher or janitor, seem to be selected not because they are simple to perform but rather because they are the most available in the job market. For example, dishwasher jobs are generally available due to relatively high staff turnover in these positions. However, a dishwasher may have a broad set of responsibilities that make the job less than ideal for a new worker with mental retardation. A dishwasher's tasks frequently include loading and unloading the dishwashing machine; sorting dishes, glassware, and flatware; checking that they are clean; delivering them to the appropriate places in the cafeteria or restaurant; regulating the dishwashing machine, cleaning its filters, and stocking it with detergent; and keeping the dishroom generally clean. When more than one task is waiting to be done the dishwasher may have to establish priorities that depend on the circumstances of the moment.

Table 2.—Occupational categories of clients successfully placed on permanent jobs

Type of job	Number of clients	Percent
Total	127	100.0
Food service	41	32.3
Janitorial	40	31.5
Light assembly	22	17.3
Clerical	16	12.6
Personal service	8	6.3

Source: Thornton, Dunstan, and Schore (1988, table VI.2).

In contrast, the job duties of a person doing light assembly work may be relatively straightforward, making the job ideal for transitional employment programs. However, light assembly jobs are more difficult for transitional employment programs to develop, in part because they are characterized by less turnover.

These are some of the design variations that are possible in a transitional employment program. The variations identified as having been incorporated in the demonstration form the context for the findings presented in the next section.

Findings of the Process Analysis

The analyses and findings of the Transitional Employment Training Demonstration fall into two general categories. The **impact analysis** is based on measured differences in outcomes between the training and control groups. The **process** or **implementation analysis** is based on observation of and information about the manner in which the demonstration was conducted. This article is in the latter category.

A report on the impact analysis (Thornton and Decker, 1989) deals primarily with earnings and employment of participants and costs and benefits of the project. Outcomes for subgroups of the sample are analyzed and correlated with various characteristics of the participants. Because the evaluation was fielded as an experiment, with participants randomly assigned to the treatment and control groups, the estimated impacts can be attributed to the transitional employment with a known degree of precision.

The process analysis is partly descriptive and partly inferential. The findings presented in the process report (Thornton, Dunstan, and Schore, 1988) and in this article are largely based on the site monitors' close observation of demonstration operations. Site monitors periodically reviewed the policies and procedures of the sites, interviewed the sites' administrators and staff, reviewed sites' budgets and expenditures, conducted joint meetings of personnel from all sites to discuss operations, observed client intake interviews, and observed clients being trained on jobs. The analysis also considered data on the local economies, the availability of sheltered workshop and other services in the respective localities, and statistics by site on placement of trainees in training jobs and potentially permanent jobs.

The reliability of the conclusions drawn from this information is enhanced by the multi-site structure of the demonstration. On the one hand, the differences among the eight sites permitted comparisons on several interesting points. On the other hand, the operations of all sites had very much in common, and they were all monitored from a uniform perspective by a single evaluation team.

Nevertheless, by its nature the process analysis does not have the same degree of scientific validity as the impact analysis. The findings presented in this section are thus suggested, rather than clearly demonstrated, by the analysis.

Outcomes

Three short-term outcomes for the 375 persons who were enrolled in the training group and associated programmatic conclusions are as follows.

- A total of 127 participants, 34 percent of the 375 trainees, were holding potentially permanent jobs when they completed the project.

Another 57 participants (15 percent) were placed in one or more potentially permanent jobs but failed to retain those jobs. An additional 70 participants (19 percent) were placed in training jobs but could not be subsequently placed in potentially permanent jobs. The remaining 121 participants (32 percent) were not placed even in a training job.

- The average holder of a permanent job was earning $111 per week for 27 hours' work as of the end of his or her enrollment in the program.

In an average month in which the worker had no unpaid time off, earnings would be approximately $480. This amount of earned income would lead to a reduction in the individual's monthly SSI payment of almost $200 for a person who would have had no income in the absence of the training program. However, this information alone is not an adequate basis for projecting future reduced SSI payments based on earnings. Even the most optimistic expectations of job retention allow for some decline over time in the number of persons employed.

If earnings from permanent jobs at exit from the demonstration are averaged over all members of the training group, rather than just over those in permanent jobs, average earnings would be $38 per week. This does not include earnings of trainees who were in training jobs at exit.

Hours of employment, amount of earnings, and reduced SSI payments based on earnings are being followed over time through the reinterview of participants in late 1988 and periodic review of SSI administrative records.

- Demonstration services cost about $7,650 per participant[6] and would cost about $5,600 per client in a similar but ongoing program.

Of the $7,650 cost, somewhat more than $2,000 per person is attributable to the resources used in starting up and terminating the demonstration program. It is estimated that the same service could have been provided for about $5,600 per client by similar organizations operating in a steady state over the long run. This amount includes expenditures for job coaching, job development, outreach, and other tasks performed by direct service personnel, as well as program administration and an allocated portion of agency overhead.

These figures are a weighted average of the experiences of the demonstration sites. Cost per participant can be much lower or higher, depending on the resources that an agency devotes to job coaching and job development, the efficiency of management, success in placing clients for training, and similar considerations.

Findings and Implications

Eight findings of the process analysis are presented as suggestions for future research and as considerations for providers and planners of transitional employment services.

- Clients' needs are diverse and wide ranging.

The experience of the demonstration confirmed the diversity of persons with mental retardation. Participants entered the program with a wide range of needs, interests, and abilities. Of particular relevance to the demonstration and its focus on employment is that they came with different levels of work experience, prior education and training, family support, orientation toward work, desire for social integration, general health status, and presence of secondary impairments.

Some of the persons enrolled were able to learn their jobs in a day or two. Others required months of training. Still others were able to learn the production aspects of their job quickly, but needed extended training in interpersonal and other skills. For example, many of the trainees lacked the skills to communicate or work appropriately with supervisors, coworkers, and customers. Some participants were inappropriately friendly to their coworkers while others were overly distant or hostile. There were problems in accepting criticism from supervisors and distinguishing between the relative authority of supervisors and coworkers.

Some stayed on their work breaks longer than scheduled while others enjoyed working so much they failed to take their scheduled breaks. Training was needed in areas such as personal hygiene and attendance. Behavior problems, which caused tensions between the participant, supervisors, and other workers, needed to be addressed.

Behavior problems posed some of the strongest challenges, particularly when these problems were due to mental illness. For example, sites enrolled several persons with schizophrenia in addition to mental retardation. These clients could learn the production aspects of the job, but had recurring episodes of disruptive behavior. Such clients generally

required a disproportionate amount of service.

Providers had to decide whether to devote extra resources to serving a person with mental illness considering, among other things, whether the individual could be stabilized on a job within the 1 year limit on services. After the experiences of working with several early enrollees with difficult behavior problems, a few sites determined that they lacked the necessary service structure, and they began to screen out applicants with mental illness.

Besides the training needs, sites also faced clients' needs for case management services. These services, when needed, were considered directly related to the employment and training responsibilities of the sites, because it is unlikely that any job placement would be viable if a client has nonvocational problems that are not being addressed. Staff devoted considerable time to providing case management services.

Coordination and management of services was often necessary even among participants whose needs for other services were adequately met before enrollment. A new job could potentially disrupt an existing support network involving parents, friends, and the staff of various service agencies. These networks may have helped participants with virtually all aspects of their lives: decision making, travel, money management, homemaking, interpersonal relations, hygiene, and grooming. The participant and the persons who provided assistance had to adapt to new schedules and adjust to new demands and expectations in order to accommodate to a new job.

Case management services were needed to maintain this network intact or to effectively replace it so that the overall needs of the participant would continue to be met. For example, the rules of many group homes precluded residents from remaining in the home during the day. These homes were unsupervised during the day when residents were expected to be in daytime activities such as sheltered workshops or activity centers. Unless special arrangements could be negotiated with the home, a resident could be constrained from accepting an otherwise suitable job whose hours did not coincide with the standard business day. Coordination was also necessary with group homes over issues such as the timing of meals and the extent to which the home's staff would reinforce the work behaviors that job coaches were trying to teach participants.

Getting a job also created needs for new services as clients began to travel to and from their jobs, to interact with a wider range of persons on and off the job, and to earn and spend money.

- Programs that are more flexible in responding to client needs are more successful in placing clients.

The counterpart of such diversity in client needs and abilities is that programs must be quite flexible in provision of services. Thus, it is not surprising that the demonstration sites that placed clients in a wide variety of jobs were more successful than sites that restricted clients to food service and janitorial jobs. Agencies that routinely put all trainees through a food service or similar curriculum foreclose the possibility of successfully serving some clients.

Programs with fixed curriculums were at a decided disadvantage in the demonstration. In essence, the recruitment process presented each of the eight programs with a cross-section of those SSI recipients with mental retardation who were interested in jobs. Programs with rigid structure were hard pressed to serve this cross-section and generally either had to select only those persons for whom the program's specific structure was appropriate or had to enroll persons who might have been better served with a different approach. For example, two of the programs initially placed all of their participants in training positions available at only a few job sites. These programs could not well serve participants who found travel to those training-job sites difficult or whose interest or aptitude was in other jobs.

This finding suggests that unless a program can screen applicants carefully to assess aptitudes, interests, and abilities, the program is likely to have greater success if it adopts a more flexible curriculum than if it focuses on providing training for specific jobs or in specific locations. Programs that enroll a diverse mix of persons, as the demonstration sites did, need to have the capacity to find jobs that interest and suit their diverse caseload and the capacity to provide a wider rage of training intensities and durations. Programs with this capacity will place a higher fraction of their participants on jobs and are likely to make longer lasting placements.

- Job development is a major challenge for transitional employment programs.

Acceptance of transitional employment by employers is not widespread in any industry, as this demonstration confirmed. Relatively speaking, however, the food service and hotel industries appear to be the most open to transitional employment placements. Comments and observations of employers of demonstration clients indicate that those "hospitality industries" commonly hire workers who do not fit the full-time, long-term, prior-work-

experience mold. It appears that firms in these industries are, therefore, also more amenable to hiring workers who are atypical in other respects, such as transitional employment workers with mental retardation.

Although placement in nonhospitality jobs was difficult, it was not impossible. Over a third of the demonstration's participants who got and held potentially permanent jobs were working in light manufacturing, clerical, and similar jobs. Clients showed that they could perform such jobs successfully, as well.

The challenge facing job developers is to find a job that matches the participant's interests and abilities with the characteristics of the job and the capacities of the program. The match must consider the client's travel needs, vocational interests and aptitude, and social functioning and the job's hours, wages, fringe benefits, level of supervision, and skill requirements. The success of a training program depends on its ability to make good job matches and its capacity to support those matches with the services that the clients need in those jobs.

- Referrals of clients may be difficult to obtain.

Only about 5 percent of individuals eligible to participate in the demonstration enrolled either as trainees or members of the control group. This fraction is more than adequate from the perspective of the size of a demonstration project. But considering that virtually all eligible persons were invited to enroll, it seems to show a less than enthusiastic attitude toward transitional employment within the client community.

The demonstration encountered reluctance on the part of some parents and social workers of persons with mental retardation to permit and encourage participation. This was unexpected, since advocacy groups had expressed the conviction that persons with mental retardation and their parents and advisers were eager to use transitional employment services. The proportion of enrollees at some sites who were not receiving services from **any** agency was a surprise to those sites and led to the surmise that parents who were more active and successful in arranging services for their children were satisfied with the status quo and were not receptive to considering a quick change to transitional employment.

Schutz (1986) has pointed out that many parents are confused about the appropriateness of competitive employment for persons with more severe retardation. Many had accepted that the best that their son or daughter could hope for was a sheltered workshop job. Their present service provider may be reinforcing that belief. Furthermore, over the past 10 years parents have seen changes in professional and nonprofessional opinion about the feasibility and desirability of community integration and competitive employment and may have been skeptical about this latest round of new service.

Even parents who are sure that they want competitive employment for their children may have doubts about the ability of the service system to deliver all the appropriate services. In particular, they are likely to fear that individuals would be placed on jobs without a long-term support system necessary to maintain those jobs. They may fear that the system has not really changed from what Rusch (1983) described as "place and pray" to a "place, train, and maintain" approach to employment.

Families may have also been concerned about the circumstances of the demonstration, which was scheduled to run for only 30 months. In addition, SSA's sponsorship of the demonstration may have raised doubts. The demonstration began shortly after a period of substantial adverse publicity about the disability review process. Although special waivers were instituted to protect participants' SSI eligibility and a national moratorium on disability reviews was announced just prior to the demonstration, SSI recipients may have been worried that enrolling in an SSA-sponsored program might lead to a finding that they were no longer disabled.

The lesson from this experience is that there are many SSI recipients who at this time are uninterested in transitional employment services provided by SSA. Although it is impossible to identify the separate effects of general concerns about transitional employment from specific concerns about the demonstration or SSA, it nevertheless seems wise to include specific plans for addressing these types of concerns in planning future transitional employment programs.

Changes in SSI rules in 1987 protect persons who work despite a severe impairment and should help address these concerns. Program operators can also plan for and emphasize the availability of long-term support, and they can include parents and other interested parties in the service-planning process. Finally, additional evidence about the success of transitional employment training will help to encourage individuals to learn about the services and the advantages of competitive employment.

Although clients enrolled in the demonstration largely in response to the informational material mailed to them by the Social Security Administration, sites also solicited referrals from other agencies serving persons with mental retardation.

Relationships among agencies vary from place to place and over time, so it is difficult to generalize about them. But it can be said, at the very least, that most of the demonstration's sites did not gain the full cooperation of the sheltered workshops in their areas, despite strong attempts. This may have been due to a variety of reasons, including, possibly, simple competition for clients. Or it may be, as sometimes alleged, that workshops are more pessimistic about what their clients might achieve through transitional employment services. Changes are taking place, however, in this area of social service, so this situation is likely to improve.

- Training can be provided effectively by job coaches without professional education.

The professional background needed by job coaches is, among other things, a cost issue. Some practitioners of transitional employment for mentally retarded persons advocate that job coaches have graduate or undergraduate degrees in relevant disciplines and broad responsibilities for task analysis, job development, counseling, and other services, as well as coaching. Because such personnel generally command higher salaries, and because job coaching is a particularly time-intensive part of transitional employment services, the issue of the formal training needed by job coaches has significant cost implications.

The demonstration sites adopted a variety of staffing configurations to provide the needed services. The major differences pertained to the educational backgrounds of the staff, the extent to which direct service staff were supervised, and the degree of specialization among the staff. Some job coaches had masters degrees in special education or rehabilitation while others had not attended college or were undergraduate students. Most job coaches had experience in education, training, or rehabilitation, but some coaches were hired because of their experience with business or industry or simply because they seemed sufficiently mature and enthusiastic to provide the training. Except for staff at agencies that had previously operated transitional employment programs, very few staff came to the demonstration with experience in transitional employment.

The modes of job coach supervision also differed substantially. All coaches were required to make regular reports on client progress to their supervisors, but the content and expected level of detail of those reports varied. Some supervisors monitored clients' progress by talking directly with the clients and employers.

Supervisors also required different degrees of recordkeeping and direct monitoring. The records generally dealt with the participant's job progress. Record formats ranged from logs maintained by the job coaches to detailed quantitative records of participants' performance of all of the tasks and subtasks of their job.

Finally, sites differed with respect to the degree to which their staff specialized. One staffing approach had the job coaches responsible for virtually all services to the participants. These coaches, who were often given more general job titles such as employment specialist, developed jobs, provided all of the necessary training (including travel training and training in social skills, if necessary), and provided any necessary case management of community services.

Under another staffing approach, staff members specialized in specific services. In this model a participant may be provided services from an intake worker, an evaluator, a job developer, a counselor, and a job coach.

Demonstration sites delivered effective services using a variety of staffing and supervisory structures. The key design element was to match the level and content of staff supervision to the staff's abilities. Thus, the demonstration found that transitional employment services can be delivered effectively even if job coaches have little formal training in rehabilitation and education, so long as a professionally prepared and effective service coordinator designs the training plan and monitors the coaches. One site that had employed only coaches with master's-level education changed its policy while the project was in progress. The qualities that the sites valued most in a prospective job coach were experience with business and industry, maturity, enthusiasm, patience, communication skills, and a good attitude toward persons with mental retardation.

- It is difficult to identify the clients who are likely to succeed in achieving permanent employment.

Good methods to screen participants would make it possible to target transitional employment training only to persons who are likely to benefit from it. This would reduce expenditures on clients for whom the service is not appropriate. Better assessment tools would also encourage referrals to transitional employment because the referring agency would have more confidence in the appropriateness of transitional employment for the person being referred.

The demonstration did not attempt extensive screening, in part to determine specifically what sort of clients are best served. That is, one goal was to discover strong correlations between particular characteristics of the individuals and

success or failure in the program, so that screening methods could be recommended for use in future programs.

The finding of the demonstration in this regard was that success in achieving permanent employment was not well correlated with IQ score, secondary handicaps (except behavioral, as noted), or any other single characteristic measured. However, a subjective prediction by the intake worker of the likelihood of success in the program was recorded at the time of enrollment. This prediction was significantly correlated with the probability that a participant would be placed successfully on a job.

One interpretation of the intake worker's ability to predict success is that the intake worker forms his or her opinion on the basis of many potentially compensating client abilities and behaviors, some of which are not readily quantified. Thus, an intake worker may be able to correctly assess the person's motivation to work or the support that will be provided by the person's family and other service providers. In addition, intake workers may be able to judge that a client who is weak in some few areas can still succeed, because the individual has some compensating strengths. Further research might develop an index for weighting the strengths and weaknesses of clients and produce more objective and accurate evaluations of success potential.

A characteristic that appeared to be related to client failure was emotional disturbance or mental illness. As the demonstration progressed, sites discovered they could work with most persons regardless of the level of functioning presented if the trainee was able to get to the job. However, sites also found that behavioral problems were difficult to resolve and that these problems could not always be addressed fully within the timeframes of transitional employment.

The extent to which the behavior was subject to improvement was difficult to predict. Inappropriate workplace behavior exhibited in a sheltered, segregated environment did not appear to indicate reliably that the client could not be trained to conform to the requirements of an integrated workplace. One of the principal advantages of transitional employment training in a real job is the influence of the environment on the behavior of the trainee.

Site personnel have expressed the belief that their predictions would have gained in accuracy over the first 4-8 weeks of service to the point of being quite reliable by that time. This assertion is as yet not verified, but it suggests that transitional employment programs should afford applicants a trial period of training on a job, even when the prospective client appears somewhat less than ideally suited for the service. Such a trial would give clients a better understanding about work and would provide the programs a more complete picture of the strengths and weaknesses of the clients (particularly with respect to motivation, family support, behavior, and other characteristics that are difficult to measure).

- Transportation problems severely limit the success of transitional employment programs.

Limitations on the availability of transportation between clients' homes and jobs made the process of job development and training difficult. Transportation issues pervaded all aspects of placement and training. Program operators reported that there were clients who could have been integrated successfully into available full-time jobs that matched their abilities, but were instead relegated to part-time work, jobs for which they were not as well suited, or no placement at all, because of transportation problems.

It is notable that transportation was a critical issue at the large-city sites, where there are extensive mass transit systems, in the medium size cities, and in the more rural areas. Bus routes and schedules that did not accommodate a prospective job, or the client's inability to travel by bus, were the main limitations. In general, sites found it easier to arrange for transportation the more extensive was the local public transit system. However, the availability of such a system did not always eliminate transportation problems. In several large cities, participants refused to use the public transportation system because of fears of crime. Participants who lived in sections of cities where there were few jobs often faced long commutes to work. Some participants had bus rides exceeding an hour and a half and had to make one or more transfers. In these instances, the presence of a public transportation system made getting to a job feasible, but not easy.

When sites trained a participant to travel, they used a variety of approaches. When the route was difficult or the participant had difficulty learning, the trainer might meet the trainee regularly at the bus stop to ensure that the trainee got on the correct bus or might follow the bus to ensure that the trainee got off at the right stop. Aids to travel training included bus passes so that the trainee would not have to figure and carry the exact fare and pictures of the route sign carried by the right bus.

Bus service is simply unavailable at worksites in some suburban and rural areas. Where public transportation was unavailable or participants could not be trained to get to their jobs by themselves

alternative arrangements were attempted. These attempts included finding a job where parents or friends could get the participant to the job, where car pool arrangements could be made with coworkers, or which was close to the participant's home. Also, sites drew on the services of other community agencies. For example, one site was able to find a participant a job that was on the route used by the private bus the participant had previously taken to a sheltered workshop.

The transportation issue also interacted with the issue of client recruitment. An unknown but possibly substantial number of eligible recipients declined to enroll in the program because of inadequate transportation opportunities, inability to travel by bus independently, or fear of the risks to a mentally retarded person's traveling by bus. Some sites decided to screen out applicants who could not quickly be trained to travel independently.

- Training on a potentially permanent job is generally a more effective method than training in a training-only job.

Clients can receive their major training on jobs they are expected to retain or on training-only jobs that are followed by transfers to potentially permanent jobs. The experience of the demonstration suggests that programs that train on permanent jobs transition more clients successfully than do programs that use training-only jobs.

In this demonstration, the locations of training-only jobs included a college cafeteria, a hospital cafeteria, and a hospital housekeeping department, all of which belonged to grantees, and similar operations in outside for-profit and not-for-profit organizations.

Training on the permanent job has several advantages. First, the training can be tailored exactly to the characteristics of that workplace, with less reliance on the trainee's ability to generalize from one situation to another. The job coach can teach clients to recognize and respond to requests, situations, and cues, many of which cannot be simulated elsewhere. The coach can also identify unusual features of the particular job that might create problems for the client and respond with appropriate training.

By training on the permanent job, it is possible to work with both the trainee and other persons in the workplace to facilitate good communication and to increase mutual understanding. Communication between the client and the supervisor and coworkers, and the associated social interactions, are a central element of many jobs, and problems in this area are often cited as a major reason that mentally retarded persons lose their jobs (Hill et al., 1986, or Kochany and Keller, 1981).

Another advantage of training on the job the client expects to keep is that the agency has more opportunity to ensure that appropriate services are in place and functioning smoothly. This includes transportation to and from the workplace and coordination of other social and residential services to help the client remain employed. When the permanent job is preceded by a training-only job, transportation to both must be feasible for a successful outcome to be realized.

In contrast, moving the client from a training-only job to a potentially permanent job demands greater adaptability of the client because of new responsibilities, the layout of new workplace, new work rules, and new personalities of supervisors and helpful coworkers. Moving clients from job to job can deprive them of on-the-job friendships, leading them to drop out, just as some were observed to quit their transitional employment jobs and return to their sheltered workshops because they missed their old friends.

The benefits of training on the permanent job not withstanding, there are a number of practical advantages to training-only jobs. An agency need develop only a limited stock of jobs for fresh trainees. The jobs can be recycled to new clients as trainees graduate into permanent placements. Agencies' job development needs are then primarily for clients who are job-ready. It is often easier to find jobs for such clients.

Job coaching is less costly when a number of clients are in training jobs at the same location and can share a coach. Therefore, it is economical for an agency that has found a group of jobs at one location to reserve them for training purposes. However, developing groups of training-only jobs in other than food service and cleaning occupations proved to be very difficult. As noted above, limiting training to food service and cleaning jobs imposes a constraint on the range of clients who can be served.

From the point of view of training technique, training-only jobs have a significant advantage in training the most severely disabled clients. Clients with disruptive behavioral problems, or whose productivity is extremely low at the start, can be accommodated more easily in a training-only job, especially in the agency's own facilities.

Summary

Transitional employment is a feasible method for training SSI recipients with mental retardation to work in regular marketplace jobs. Persons with a wide range of IQ's and levels of functioning, including those whose performance in sheltered workshops and work activity centers had been mediocre,

are succeeding on integrated jobs through transitional employment training.

A number of difficulties remain, however, in the implementation of transitional employment programs. First, some caregivers of persons with mental retardation and many employers are unaware or unconvinced that transitional employment can lead to successful performance in marketplace jobs. Second, unmet transportation requirements of many jobs and of many people with mental retardation prevent clients from being placed in full-time jobs that best match their abilities. Third, it is difficult to determine in advance whether a given candidate for transitional employment training is likely to succeed. This uncertainty raises the costs to providers and the trainees. Fourth, some programs are not sufficiently flexible in conforming to the diverse needs of their clients, instead expecting clients to conform to a standardized program.

Despite these difficulties, transitional employment in its various forms is a highly promising means to help persons with mental retardation become more self-sufficient, achieve greater community respect and self-respect, and lead generally more productive lives.

Notes

[1] Employment studies were reviewed 18 years ago by Conley (1973, table 36), who estimated that half of working-age adults with mental retardation did not have a job. For persons with severe mental retardation, competitive employment was virtually nonexistent. More recent studies of persons with all disabilities, not just mental retardation, indicate that unemployment still affects persons with disabilities disproportionately (see, for example, Louis Harris Associates, 1986; Bennefield and McNeil, 1989).

[2] The level of severity of retardation currently required for SSI is met if the individual's verbal, performance, or full-scale IQ is less than 60 or if the IQ is 60 to 70 combined with marked difficulties in functioning or combined with some other impairment. The requirements are presented in the Listing of Impairments, **Code of Federal Regulations**, title 20, part 404, subpart P, appendix 1.

[3] Kochhar (1991, table 12) estimates that the primary disabling condition of 28.7 percent of adults under age 65 receiving SSI due to disability is mental retardation. All disabled adults under age 65 receiving SSI numbered 2,364,900 in December 1990. Their average payment to such adults, including federally administered State supplements, was approximately $358 per month in December 1990. Thus, the annual SSI expenditure for working-age adults with mental retardation is approximately $2.9 billion.

[4] It should be noted that programs for persons with mental illness are called **transitional** even when the objective is not necessarily permanent placement in a competitive job within a limited time (see, for example, **Code of Federal Regulations**, title 34, part 363, section 7).

[5] To be found disabled for SSI purposes based on a diagnosis of mental retardation, the applicant's IQ must be less than 70, among other criteria. There are several possibilities that could account for IQ's over 70 in the demonstration. For one, if the applicant was found disabled based on another impairment but had alleged retardation in his or her application, a secondary diagnosis of retardation might be recorded in the case folder even if that diagnosis was not fully substantiated. It is possible that a few such persons were accepted into both the training and control groups. Also, a person may qualify for SSI based on a score of less than 70 in one IQ subscale, even if the full-scale score is 70 or greater (**Code of Federal Regulations**, title 20, part 404, subpart P, appendix 1). The full-scale score is the one used in the statistics of the demonstration and in this article.

[6] This amount includes costs that were funded by the grants as well as costs borne by the grantees in the form of grant matching.

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