

Integrated Employment for People with Developmental
Disabilities Who Moved from Institutions to
Community Placements in the Nineties:
A Comparison of Two States

Brief Report Number 19
Of a Series on the Well Being of People with
Developmental Disabilities in Oklahoma

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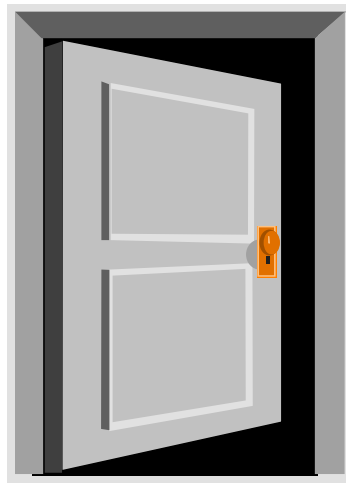
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“In 1990, these people were surrounded by walls.
In 1994, they're surrounded by doors.”

The quotation above is from David Loconto, a graduate student at Oklahoma State University. When he wrote this in 1995, Mr. Loconto was studying the well-being of people who moved from Hissom to community. He personally visited more than 200 Hissom class members in 1995.

Executive Summary

This study compares integrated employment for people in two states who moved from institutional placements to community placements in the 1990s. The samples in the two states were similar with regard to the distribution of diagnosed level of mental retardation. Oklahoma had a higher percentage of people in integrated employment settings than State 2. Other characteristics such as age, gender, ethnicity, and secondary disabilities (autism, cerebral palsy, hearing and vision impairment, mental illness, physical disability, the presence of seizures), family contact, types of services received, earnings, and adaptive and challenging behavior scores were examined on two levels, first across states and then across day program placement types by state, to determine whether these characteristics were different enough to contribute to the difference in the percentages of people involved in integrated employment in the two states.

Introduction

In the last three decades, a common theme regarding employment issues emerged in the field of developmental disabilities research. This theme was that people with disabilities, including people with significant or severe disabilities, had the right to work in integrated employment settings, and could work competitively when given the opportunity and the necessary supports to do so (Mank, Cioffi, & Yovanoff, 1998; West, Revell, & Wehman, 1998). In fact, Hill et al. (1987) found that people with severe disabilities benefited more from employment within the community than did people with milder disabilities.

This study was a comparison of the characteristics of people in two states who participated in integrated employment programs with people who participated in any other kind of day program in 1999. While the two states were very similar in terms of the distribution of people across labels of mental retardation, they are very different in terms of the percentages of people who participated in integrated employment programs, with 32% (31.8%) of people in Oklahoma participating in integrated employment, and 5% (4.6%) of people in State 2.

The benefits gained by people with developmental disabilities by working in integrated employment settings have been richly documented in

the research literature. Benefits cited have included higher wages, greater independence and economic self-sufficiency, greater integration with people without developmental disabilities in the workplace and the community, more opportunities for choice and self-determination, as well as expanded career options and increased job satisfaction (Kiernan & Stark, 1986; Jiranek & Kirby, 1990; Revell, Wehman, Kregel, West, & Rayfield, 1994; McGaughey, Kiernan, McNally & Gilmore, 1995; Parent, Kregel & Johnson, 1996; Wehman, West, & Kane-Johnston, 1997; Wehman, West & Kregel, 1999; Mank, Cioffi & Yovanoff, 1999).

In addition to the benefits gained by people with developmental disabilities, integrated employment has also been shown to provide benefits to taxpayers. It has been shown that people with significant disabilities can be served cost-efficiently in supported employment programs (Cimera, 1998; Wehman, West & Kregel, 1999). Indeed, several researchers have shown that the more income people with developmental disabilities are able to generate for themselves, the less dependent they are on state and federal funds for providing supports (Wehman, West, Kregel, 1999). In addition, Wehman et al. (1997) have suggested that, "...growth of Social Security Administration beneficiaries could be slowed if the administration funded

competitive employment initiatives for persons currently served in nonremunerative, segregated employment or day support programs.”

In spite of these benefits of integrated employment to people with developmental disabilities and society, many researchers have expressed concern that legislation and systems change grants have largely failed to bring about a substantial shift from segregated employment to integrated employment (Revell et al., 1994). McGaughey et al. (1995) found that when asked to identify day and employment services for 24,072 Waiver participants during FY 1990, state MR/DD agencies reported that 84% of the individuals were in facility-based nonwork programs, 11% were in pre-vocational programs, and only 5% of the participants were in supported employment. West, Revell, and Wehman (1998) reported that the supported employment programs maintained by many provider agencies were small compared with facility-based employment services. These authors state further that most provider agencies that expanded their supported employment programs also maintained or even increased their levels of facility-based employment services, and that even for those agencies which had made attempts at conversion to integrated employment services, “...the majority of consumer and agency funds remained within the facility-based

programs after an average of five years of conversion efforts”(West, Revell, and Wehman, 1998).

Traditionally, barriers to integrated employment for people with developmental disabilities have been associated with characteristics of the individuals with developmental disabilities themselves. In looking at supported employment placement and primary classification of mental retardation for people in 32 states, Revell et al. (1994) found that 46.8% were reported to be in the mild mental retardation category, 30.4% were in the moderate category, 8.7% were in the severe or profound category, and the remaining 14.1% were reported to be in a borderline category. A national survey of day and employment programs found that individuals with cerebral palsy, severe/profound mental retardation, and epilepsy accounted for less than 20% of all persons with developmental disabilities represented in supported employment, work adjustment, and OTJ (On The Job) programs supported by state Vocational Rehabilitation agencies (Wehman, West & Kregel, 1999). Those authors also found that consumers with other disabilities, such as physical disabilities, autism, and deaf-blindness appeared to be under represented in supported employment programs. Racial and ethnic minorities and women have also been reported as being under represented in integrated employment settings (Levy, Botuck,

Levy, Kramer, Murphy, and Rimmerman, 1994; Wehman, West & Kregel, 1999).

Other barriers cited to expanding integrated employment programs for people with developmental disabilities have included such things as family reluctance, community, employer and coworker attitudes, and resistance from agency staff (West, Revell, Wehman, 1998; Wehman, West, Kregel, 1999).

In fact, the literature suggests that the greatest barriers to expanding the number of people served in integrated employment settings have been issues of funding, both state and federal; and the absence of a clear and unifying commitment within and between states' leadership and agencies at all levels to converting resources from segregated to integrated employment programs. Wehman, West, & Kregel (1999) state, "Rather than encouraging the provision of supported employment services, current funding approaches effectively prohibit conversion of facility-based programs," and add that, "In many states, local agencies providing supported employment services are reimbursed at far lower levels than they would be if they provided sheltered employment services to the same group of individuals." In their study of state MR/DD agency trends in integrated employment and facility-based services, McGaughey et al. (1995) found that, "Compared with the influence

of federal policy, state commitment to integrated employment may exert more influence on its development because state MR/DD dollars accounted for 91% of all integrated employment resources in FY1990.”

Through the passage of such legislation as the 1984 Developmental Disabilities Assistance & Bill of Rights Act & Title VI, Part C, of the 1986 Rehabilitation Act Amendments, as well as through systems change grants funded through Title III of the Rehabilitation Act, a series of state and federally funded projects were initiated in the seventies and eighties to provide opportunities and supports for individuals with disabilities to work at competitive sites in the community (Gilson, 1998; West, Revell, & Wehman, 1998). Since then, it has been reported that the Rehabilitation Services Administration has administered \$125 million dollars for supported employment systems change grants and community-based demonstration grants, and over \$300 million has been spent in Title VI-C funds for the purpose of providing supported employment services (Wehman, P., West, M. & Kregel, 1999). In light of this, researchers in the field of developmental disabilities must begin to examine what makes states that are providing integrated employment services for high percentages of the people they serve different from states that are not.

In attempting to gain an understanding of why these two states were so dramatically different in terms of percentages of people who participated in integrated employment in 1999, we examined demographic variables (age, gender, ethnicity), as well as other characteristics of the people living and working in both states in terms of diagnosed level of mental retardation and secondary disabilities (autism, cerebral palsy, hearing impairment, mental illness, physical disabilities, seizures, and vision impairment) first across states, and then across type of day program activity to identify existing patterns in the distributions of people with these characteristics in each state that might influence participation in integrated employment.

Other variables examined in this study included the average number of hours per week spent in the types of day programs, the average weekly earnings, frequency of various types of family contact, the percentages of people receiving developmentally oriented services, as well as comparisons of scores on measures of adaptive and challenging behavior between the people in the two states and across type of day activity program.

Methods

Participants

Participants in this study were 403 people in Oklahoma and 2,143 people in State 2. People in both states had moved from institutional residential placement to community placement during the 1990s. In Oklahoma there were 128 people working in integrated employment settings (self-employed, competitive employment/regular job, and supported employment) and 275 people participating in all other types of day program activities, while State 2 had 99 people participating in integrated employment and 2044 people participating in all other day program activities.

Instrumentation

Data in both states were collected by trained staff (Visitors) working on a contractual basis. Information on individuals who moved from institutional to community residential placements were collected by the Visitors using instruments developed by The Center for Outcome Analysis to measure dimensions of quality of life for people with developmental disabilities.

It was necessary to recode some of the variables as the coding schemes were sometimes slightly varied on the instruments for each state. For example, Oklahoma collected data on secondary disabilities by either marking the item corresponding to a disability if it was present for the individual or leaving the item blank if the disability was not present for the individual (1 = Disability Present, System Missing = Disability Not Present). State 2 used the scheme of coding each secondary disability item as either “0 = No Disability”, “1 = Some Disability”, or “2 = Major Disability”. These items were recoded for each state as “1=Disability Present” and “0 = Disability Not Present.”

In addition, Oklahoma collected the number of hours worked by the individuals in terms of average monthly hours, whereas State 2 collected this data in terms of average weekly hours. For the purpose of comparison, for Oklahoma the number of hours worked was recalculated in terms of average weekly hours. The variable for the amount of money earned monthly was recalculated for the people in Oklahoma into the amount of money earned weekly as well.

Scaled scores of adaptive and challenging behavior were obtained using adaptations of the Adaptive Behavior Scale (Nihura, Foster, Shellhaas,

Leland, 1974). Full descriptions of these scales are available in the literature (Conroy, Seiders, 1995b; Fullerton, Douglass, Dodder, 1999).

Procedures

As stated previously, data were analyzed on two levels. First, variables of interest were compared for the entire sample between states. Second, variables of interest were examined for those people who participated in integrated employment settings versus those who participated in all other day activity programs for each state. Differences in age, average weekly hours spent in employment activities and other day program activities, earnings, scores on adaptive and challenging behavior scales, and the frequency of various types of family contact were tested using t-tests at the first level between states, and by using 2 x 2 (state by day program) analysis of variance at the second level. The nominal variables of gender, level of mental retardation, secondary disabilities, and the percentage of people receiving each type of developmentally oriented service were tested for differences at both levels using chi square analysis.

Results

Level 1 Analysis

Table 1 shows the results at the first level of analysis for the characteristics of all of the people in the samples from both states. T-tests at this level revealed a significant difference in the mean ages of the two groups ($t = -17.43$; $df = 1113.53$; $p < 0.01$) and also in the average number of hours spent per week in day programs for the two groups ($t = -16.05$; $df = 503$; $p < 0.01$). There was a significant difference between the two states when it came to weekly earnings as well, with people in Oklahoma averaging \$56.58 and people in State 2 averaging \$5.96 ($t = 9.64$; $df = 142.96$; $p < 0.01$). The two groups were not significantly different on percentages of males and females (Oklahoma – 60% male; State 2 – 61% male). Significant differences were found between the two groups on ethnicity. It is clear by looking at Table 1 where to suspect the significant differences lie in terms of ethnicity. State 2 has a much higher percentage of people who are Hispanic (15%) than Oklahoma (0%). Oklahoma has a higher percentage of people who are Native American (7%).

In terms of level of mental retardation label, the chi-square test for linear by linear association showed no significant differences between the distribution of people across labels of mental retardation in the two states.

The chi square analyses for the Secondary Disabilities categories revealed significant differences between the two groups on the presence of autism (Oklahoma = 11%, State 2 = 17%), cerebral palsy (Oklahoma = 10%, State 2 = 21%), physical disabilities (Oklahoma = 37%, State 2 = 24%), and seizures (Oklahoma = 50%, State 2 = 44%). The remaining categories, mental illness, hearing impairment, and vision impairment did not show statistically significant differences between the two groups.

Table 1
Comparison of Characteristics by State

| Characteristics | Oklahoma | State 2 |
|-------------------------------|--------------------------------|-------------------------------|
| | N = 403 | N = 2143 |
| | Mean Age*: 34 | Mean Age*: 41 |
| | Ave. hours*: 14.23 | Ave. hours*: 26.02 |
| | Ave. earnings*: \$56.58 | Ave. earnings*: \$5.96 |
| Gender | | |
| Male | 60% | 61% |
| Female | 40% | 39% |
| Ethnicity** | | |
| White | 80% | 70% |
| Black | 13% | 10% |
| Hispanic | 0 | 15% |
| Native American | 7% | 1% |
| Asian | 0 | 2% |
| Other | 0 | 2% |
| Level of MR | | |
| Mild | 14% | 19% |
| Moderate | 12% | 11% |
| Severe | 20% | 15% |
| Profound | 54% | 55% |
| Secondary Disabilities | | |
| Autism** | 11% | 17% |
| Cerebral Palsy** | 10% | 21% |
| Hearing Impairment | 11% | 14% |
| Mental Illness | 25% | 28% |
| Physical Disability** | 37% | 24% |
| Seizures** | 50% | 44% |
| Vision Impairment | 34% | 30% |

* Indicates t-test significance at .01 level.

** Indicates Chi square significance.

Table 2 shows the percentages of people in each state receiving developmentally oriented services. State 2 was consistently higher on the percentages of people receiving each service with the exception of Speech/Communication Therapy. For Physical Therapy services, both states reported the same percentage (36%).

Table 2
Percentages of People Receiving Developmentally-Oriented Services by State

| | Oklahoma | State 2 |
|--|-----------------|-----------------|
| Type of Service | N = 403 | N = 2143 |
| Self Care Training ** | 61% | 76% |
| Community Living Skills Training | 56% | 57% |
| Social Skills Training ** | 49% | 73% |
| Occupational Therapy ** | 26% | 36% |
| Physical Therapy | 36% | 36% |
| Speech/Communication Therapy ** | 55% | 43% |
| Recreation Therapy ** | 61% | 68% |
| Psychotherapy | 40% | 45% |
| Programs to Reduce Challenging Behavior ** | 37% | 60% |
| Nursing Services ** | 16% | 52% |

** Indicates chi square significance

T-tests indicated significant differences between the two states in all reported types of family contact during the past year. The people in the two states were very close in terms of adaptive development. A significant difference was found between the people in the two states with regard to the

ability to control challenging behavior, with people in Oklahoma scoring higher on this measure. These results are presented in Table 3.

Table 3.

| | Oklahoma | State 2 |
|----------------------------------|-----------------|----------------|
| Family contact by phone/mail* | 30.18 | 24.88 |
| Family visits to person's home * | 22.86 | 9.01 |
| Person visiting family's home * | 16.89 | 7.04 |
| Adaptive Behavior Scale | 49.40 | 49.92 |
| Challenging Behavior Scale * | 93.40 | 78.72 |

* Indicates t-test significance at .01

To summarize the findings at the first level of analysis, we know that the people in the two states are similar in terms of gender, level of adaptive functioning and how they are distributed among the labels of level of mental retardation. Although the two states differ on the ethnic distribution, the majority of people in the samples from both states are white. People in State 2 are slightly older than people in Oklahoma. People in Oklahoma are reportedly more able to control the frequency of challenging behaviors than people in State 2. People in Oklahoma have higher frequencies of all types of family contact than people in State 2. Results of the analysis of secondary disabilities are mixed, with Oklahoma having higher percentages of people with some disabilities and State 2 having higher numbers of people with others.

We will now look at the second level of analysis and how these characteristics are distributed among the people in both states across type of day program (integrated employment versus all other types of day activity programs).

Level 2 Analysis

To look further into the question of why the two states are so different in terms of the overall percentages of people in integrated employment, at the second level of analysis we examined characteristics of the people in both states across type of day activity program (people in integrated employment versus people in all other types of day program activities). Again, there was a statistically significant difference between the groups on age. The groups also showed significant differences in terms of the average number of hours worked per week, with people in other day program activities in State 2 involved the most hours per week (26.25 hours), and people in other day program activities in Oklahoma involved the least hours per week (10.24 hours). In addition, there was a significant difference in the average weekly earnings between the two groups in the two states. People in Oklahoma who are in integrated employment earned the highest average weekly earnings at \$73.19, and people in other day program activities in State 2 received the lowest weekly earnings at \$3.92 per week.

Analysis at this level also revealed a significant difference on the proportion of males to females between the groups. It is clear by looking at the percentages in Table 4 that males are over represented in integrated

employment settings in State 2. The other groups appear to be very close to the overall distribution of males and females in each state.

Chi square analysis was less clear at this level on ethnicity. Several cells contained 0 cases which impacted the results. Visual inspection of the data reveals that this variable follows the same general trend as that shown in the analysis done between states, with the majority of people being white, State 2 consistently higher in percentages of people who are Hispanic across type of day program, and Oklahoma consistently higher in percentages of people who are Native American across type of day program.

Table 4
Comparison of Characteristics by State and by Employment Type

| Characteristics | Oklahoma | | State 2 | |
|-----------------------------------|-----------------------------------|-------------------------------|----------------------------------|--------------------------------|
| | Integrated Emp N = 128 | Other Act. N = 275 | Integrated Emp N = 99 | Other Act. N = 2044 |
| Mean Age* | 34.45 | 34.15 | 36.85 | 41.16 |
| Ave. Weekly Program Hours* | 22.8 | 10.24 | 21.31 | 26.25 |
| Ave. Weekly Earnings* | \$73.19 | \$29.00 | 48.03 | \$3.92 |
| Gender** | Percentages | Percentages | Percentages | Percentages |
| Male | 64% | 58% | 81% | 60% |
| Female | 36% | 42% | 19% | 40% |
| Ethnicity** | | | | |
| White | 78% | 81% | 62% | 70% |
| Black | 16% | 12% | 20% | 9% |
| Hispanic | 0% | <1% | 14% | 16% |
| Native American | 6% | 7% | 2% | <1% |
| Asian | 0% | 0% | 0% | 2% |
| Other | 0% | <1% | 1% | 2% |
| Level of MR** | | | | |
| Mild | 26% | 8% | 74% | 17% |
| Moderate | 19% | 9% | 17% | 10% |
| Severe | 23% | 19% | 5% | 16% |
| Profound | 32% | 63% | 3% | 58% |
| Secondary Disabilities | | | | |
| Autism | 8% | 13% | 11% | 17% |
| Cerebral Palsy** | 6% | 12% | 6% | 22% |
| Hearing Impairment | 10% | 11% | 9% | 14% |
| Mental Illness** | 13% | 31% | 44% | 27% |
| Physical Disabilities** | 24% | 43% | 9% | 24% |
| Seizures** | 31% | 59% | 18% | 45% |
| Vision Impairment | 27% | 37% | 20% | 30% |

* Indicates Analysis of Variance significance at .01.

** Indicates Chi Square significance.

At this level of analysis, significant differences were found between the groups on the variable of diagnosed level of mental retardation. Visual inspection of the expected and observed values suggest that both states have higher than expected numbers of people labeled with mild mental retardation in integrated employment settings (Oklahoma = 26.6%, State 2 = 74%) and fewer people labeled with mild mental retardation in all other day activity programs (Oklahoma = 8%, State 2 = 17%). The expected and observed values also suggest that people labeled with profound mental retardation are under represented in integrated employment settings in both states and over represented in all other day activity programs. It should be noted however, that Oklahoma had a higher percentage of people labeled “severe” in integrated employment settings than in other day program activities, and that when looking at the percentages of people with the labels “severe” and “profound” in integrated employment settings in Oklahoma (55%), we are struck by the comparison of the percentages of people with the same labels in integrated employment settings in State 2 (8%).

While the presence of autism as a secondary disability was significantly different for the people in the two states in the Level 1 Analysis, when looking at people across type of day program, the differences no longer achieved statistical significance. Differences in the

number of people with cerebral palsy, the presence of physical disabilities, and the presence of seizures as secondary disabilities remain statistically significant between the groups at this level of analysis. People with cerebral palsy appear to be over represented in other day activities and under represented in integrated employment in both states. This same pattern appears to hold true for people with physical disabilities. People who experience seizures appear to be under represented in both states' integrated employment settings and over represented in all other day activities in both states.

Differences between the groups in terms of mental illness as a secondary disability also achieved statistical significance at this level of analysis. It is interesting to note that State 2 had much higher percentages of people diagnosed with mental illness in integrated employment settings (Integrated Employment = 44%) both in terms of within the state and in comparison with Oklahoma, while Oklahoma had more people diagnosed with mental illness in all other types of day program activities (31%) than in integrated employment settings (13.%). Consistent with analysis at level 1, there were no significant differences between the groups in terms of hearing and vision impairments.

Table 5
Developmentally-Oriented Services by State and by Type of Day
Activity

| <u>Types of Services</u> | <u>Oklahoma</u> | | <u>State 2</u> | |
|---|------------------------------------|-------------------------------------|-----------------------------------|--------------------------------------|
| | Int. Emp. N = 128 | Other Act. N = 275 | Int. Emp. N = 99 | Other Act. N = 2044 |
| Self Care Training ** | 61% | 62% | 63% | 77% |
| Community Living Skills Training | 63% | 53% | 63% | 57% |
| Social Skills Training | 55% | 46% | 67% | 73% |
| Occupational Therapy ** | 9% | 34% | 24% | 36% |
| Physical Therapy ** | 17% | 45% | 13% | 37% |
| Speech/Communication Therapy ** | 48% | 58% | 19% | 45% |
| Recreation Therapy ** | 62% | 60% | 53% | 69% |
| Psychotherapy | 47% | 36% | 55% | 44% |
| Programs to Reduce Challenging Behavior | 36% | 37% | 56% | 61% |
| Nursing Services ** | 8% | 20% | 32% | 53% |

** Indicates chi square significance.

In terms of the percentages of people receiving certain developmentally-oriented services across states and across types of day program activities, the results are mixed. In services providing self-care training, the people in Oklahoma are very close in terms of percentages across day program type. State 2 however, had a significantly higher percentage of people who received services to develop self-care skills in other day program activities than in integrated employment. Both states had higher percentages of people receiving services addressing community living skills in integrated employment settings than in all other day program activities. People in other integrated employment settings in Oklahoma received more services to develop social skills than did the people in all

other day programs in that state, although differences across states and across day programs did not reach statistical significance on this variable.

Both states had significantly lower frequencies than expected of people receiving occupational therapy in integrated employment settings, and higher frequencies than expected in all other day programs. The distribution of people receiving physical therapy services followed the same pattern, and these differences also achieved statistical significance. Delivery of speech and communication therapies followed the same pattern as well, although the differences for Oklahoma were not statistically significant, while for State 2 they were.

The two groups (those in integrated employment settings and those in other types of day activities) in Oklahoma were very close in terms of the percentages of people receiving some type of recreational therapy. For State 2, however, there were less than the expected number of people receiving these types of services in integrated employment settings, and more than the expected number of people receiving some type of recreational therapy in all other day activities. These differences also achieved statistical significance.

More people in integrated employment settings in both states received some kind of psychological services than those people in other types of day program activities. Differences in the proportions of people receiving

psychological services across states and across type of day activity were not statistically significant. In contrast, there were significantly more people receiving services designed to reduce challenging behavior in other types of day program activities than in integrated employment in both states.

In terms of nursing services, both states had higher percentages of people receiving these kinds of services in other types of day activities than in integrated employment settings. Oklahoma, however, had significantly fewer people in integrated employment settings who received nursing services than were in all other day activity programs receiving the same kinds of services.

Table 6

| | Oklahoma | | State 2 | |
|----------------------------------|------------------|-------------------|------------------|-------------------|
| | Int. Emp. | Other Act. | Int. Emp. | Other Act. |
| Family contact by phone/mail * | 33.48 | 28.65 | 73.48 | 22.23 |
| Family visits to person's home * | 19.25 | 24.55 | 15.85 | 8.64 |
| Person visiting family's home * | 16.63 | 17.02 | 17.10 | 6.48 |
| Adaptive Behavior Scale * | 68.16 | 40.61 | 83.22 | 48.31 |
| Challenging Behavior Scale * | 95.31 | 92.51 | 82.71 | 78.53 |

* Indicates significant at .01 level

In looking at the various types of family contact to occur within the past year across states and across type of day program activity, we see that in both states, people in integrated employment settings have, on average, significantly more contact with their families by phone or mail than people

in other types of day program activities. In Oklahoma, people in other types of day programs receive more visits to their home by family members than do people in integrated employment settings, while for people in State 2, the opposite case is true, people in integrated employment settings receive more visits to their home from family members than people in other day program activities. Differences on this variable across states and across day program type were also statistically significant. The identical pattern holds true for the average number of focus person visits to the families' homes, with more people in other day program activities in Oklahoma having this type of family contact, while more people in integrated employment settings in State 2 had the same type of family contact.

The mean scores on Adaptive Behavior follow the same trend as would be expected when examining the variable label of mental retardation across states and across day program types. People in integrated employment settings scored higher, on average, than people in other types of day program activities. As we saw in Table 4, the people in integrated employment settings in Oklahoma are fairly evenly distributed across the labels of mental retardation categories, while for people in other day program activities, the majority of people fall in the category of the labels severe or profound mental retardation. This is consistent with the mean

scores on adaptive behavior for the two groups in Oklahoma. In State 2, the percentage of people in the category of the label of mild mental retardation is by far the majority of the people in integrated employment settings, and this seems to be reflected in the mean adaptive behavior scores across day programs in this state.

Analysis of scores on Challenging Behavior across states and across type of day program activity also revealed a trend that would be expected when looking at the scores at the first level of analysis, across states. People in Oklahoma were significantly better able to control their challenging behaviors, regardless of type of day program activity, than people in State 2.

To summarize the findings at Level 2 analysis: significant differences were found with regard to age, sex, average number of hours worked per week, average weekly earnings, label of mental retardation, percentages of people with cerebral palsy, physical disabilities, seizures and mental illness across states and across type of day program activity. While differences were found with regard to ethnicity, it remained true that the majority of people across state and across type of day program activity were white.

In terms of the percentages of people receiving certain developmentally-oriented services across states and across type of day program activity, State 2 had a significantly higher percentage of people in

other types of day programs activities who received services to develop self-care skills than in integrated employment. Percentages of people who received services addressing community living skills were higher in both states for people who worked in integrated employment settings. Oklahoma had more people in integrated employment who received training to develop social skills than in other types of day program activities. For occupational therapy, physical therapy, and speech and communication therapies, both states had higher percentages of people who received these types of services in other types of day program activities than in integrated employment settings. State 2 had a significantly higher percentage of people in other types of day program activities who received some type of recreational therapy than either group in Oklahoma and those people in integrated employment settings in State 2.

It was interesting to note that more people in integrated employment settings in both states received some kind of psychological services, although these differences were not statistically significant, while the percentages of people who received services designed to reduce challenging behavior were higher in both states for people in other types of day program activities. Likewise, people who received nursing services in both states

were likely to be in other types of day program activities than in integrated employment settings, and this is particularly true for Oklahoma.

Results of the analysis of various types of family contact within the past year across states and across type of day program activity were mixed. The mean scores on adaptive behavior and challenging behavior across the groups reflected the overall pattern of the distribution of the labels of mental retardation in the two states.

Discussion

Oklahoma had 32% (31.8%) of the 403 people who moved out of institutional residential placements in the nineties participating in integrated employment programs in 1999. State 2 had 5% (4.6 %) of the 2143 people who moved out of institutional residential placements in the nineties participating in integrated employment in 1999. The mean ages of the people in the two states were significantly different statistically, but whether in practical terms a difference in age of approximately 7 years constitutes a substantive difference when talking about integrated employment is debatable. The two states were not significantly different on the proportions of males to females, and the differences in ethnicity are to be expected when talking about two very different parts of the country. The question is, are these differences enough to “explain” the difference in the percentage of people in integrated employment in the two states?

Differences in the level of mental retardation and the percentages of people with secondary disabilities between the two states seem to be distributed in such a way as to make the differences in the percentages of

people in integrated employment settings more perplexing. For example, State 2 had higher percentages of people with autism (17%) and more than double the percentage of people with cerebral palsy (21%) than Oklahoma (11% with autism and 10% with cerebral palsy). Yet Oklahoma is almost double the percentage of people with physical disabilities (37%) than State 2 (24%), and much higher on the percentage of people who experience seizures (50% in Oklahoma to 44% in State 2). State 2 had more people diagnosed with mild mental retardation (19% to Oklahoma's 14%), while Oklahoma had more people diagnosed with severe (20% to State 2's 15%) mental retardation, yet Oklahoma has the higher percentage of people participating in integrated employment.

When looking at people across type of day program activity in both states, the general trend of the data presented here supports the findings of current research, and this is particularly true when looking at State 2. This study found that males and people diagnosed with mild levels of mental retardation were over represented in integrated employment in both states, while people diagnosed with profound mental retardation were under represented in integrated employment settings in both states. The comparison of Oklahoma and State 2 though, revealed that State 2 conforms much closer with what one would expect from the review of the literature in

terms of these characteristics of people (gender and label of mental retardation) in integrated employment versus those in all other types of day activity programs, with 81% of these people being male and a full 74% having the label of “mild” mental retardation. In addition, people with cerebral palsy were also under represented in integrated employment settings in both states. As stated above, these results are consistent with the findings in previous research.

The differences between the two states are striking enough to warrant closer qualitative examination. For example, although people diagnosed with profound levels of retardation were under represented in integrated employment in both states, it remains that Oklahoma had 32% of these people in integrated employment while State 2 had 3%. Also, the percentage of people with physical disabilities who participated in integrated employment in Oklahoma is much higher (24%) than the percentage of people with physical disabilities who participated in integrated employment in State 2 (9%). Finally, the percentages of people who experience seizures and who participated in integrated employment in 1999 were 31% for Oklahoma and 18% for State 2. Average number of hours in day program per week and average weekly earnings are consistently higher in integrated employment settings in both states. Of the ten areas of services delivery

examined in this study, higher percentages of people were receiving six of these services in State 2, while Oklahoma had higher percentages of people in integrated employment settings on only three of these service areas; physical therapy, speech/communication therapy, and recreation therapy. The two states had the same percentage of people in integrated employment receiving training in community living skills.

It appears there is more to the question of why these two states are so different on the percentage of people who participated in integrated employment programs in 1999 than just the characteristics of the people in both states. The people in the two states are very comparable when looked at on the first level of analysis, and it becomes even clearer when looking at the second level of analysis that characteristics of the individuals do not “explain” the difference in the percentage of people participating in integrated employment. Oklahoma is simply getting more people with all levels of physical and cognitive disabilities into integrated employment settings. State 2 is more consistent with what is to be expected from the literature in all cases. Why?

The current literature suggests that states’ level of commitment to converting their service delivery systems to integrated employment options is a major factor in how expansive these programs are (McGaughey, et al.

1995; West, et al., 1998). A high level of commitment to integrated employment for people with disabilities in a state's leadership would appear to be a major influence in the policy directives given by that state in terms of employment issues.

The issue appears to be a very complex one, with such things as family attitudes toward integrated employment, the extent of interagency collaboration in developing and funding integrated employment options, and the approaches provider agencies take in coordinating employment services within the community all being contributing factors. Investigations into the types of jobs available in each state for people with disabilities and the union rules and regulations, as well as qualitative work on how much "value" is placed on work and work identity in the two states and peoples' fears of losing benefits by participating in integrated employment should be continued. The data on family contacts presented in this study showed that although overall, people in Oklahoma have more contacts of all kinds with family members, the picture becomes cloudy when we look at family contacts across states and across type of day program activity. At this level, the difference appears between the states in that people in integrated employment in State 2 have higher frequency of family contact than people in other day program activities in that state, while for Oklahoma, on most

types of family contacts, the higher frequencies occur for people in other day program activities. Do these differences point to differences in family attitudes and fears toward integrated employment in State 2 as evidenced by the higher frequency of family contact?

Further research must be done into these issues in order to get a comprehensive solution to the question of why these two states differ so dramatically on the percentages of people in integrated employment. As the data presented here show that characteristics of the people cannot be the full explanation, investigations into state leadership and commitment and family attitudes in terms of integrated employment for people with developmental disabilities must be conducted.

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