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ABSTRACT

This panel longitudinal study, originally conducted in Washington and systematically replicated in New Mexico, investigated the long-term educational placements of students served in preschool special education programs. Subjects were the 4338 children who graduated from preschool programs for children with disabilities during two 5-year periods. Findings indicate that early childhood programs for children with disabilities rarely reduce the need for future special education services and then only for students with mild disabilities. About 15 percent of students were able to remain in regular education for up to 5 years without special education services. The paper reviews past longitudinal studies, discusses methodological issues involved in longitudinal studies, and discusses implications of the study's findings for policymakers and practitioners. (Contains 12 references.) (JDD)

Results of a Panel Longitudinal Study with Systematic Replication : Graduates of Preschool Special Education Programs in Washington and New Mexico

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Running head: RESULTS OF A PANEL LONGITUDINAL STUDY

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Abstract

A panel longitudinal study conducted in Washington (N=1659) was systematically replicated in New Mexico (N=2679). Subjects were the 4338 children who graduated from programs for children with disabilities during two five-year periods. Data were collected by trained local education agency personnel using instruments/procedures validated in the earlier Washington studies. Initial placements and stability of placements were analyzed for both states. Recommendations based upon findings are made for policy-makers and practitioners.

Results of a Panel Longitudinal Study with Systematic Replication: Graduates of Preschool Special Education Programs in Washington and New Mexico

Preschool programs for children with disabilities have become accepted practice in the United States. These programs have developed in response to value-based professional opinion that early intervention can substantially reduce the impact of disabilities on future acquisition of skills; reduce need for future intervention services; alleviate development of secondary handicapping conditions and provide needed support to families. Legislators have been lobbied to support the additional costs of preschool programs on the premise they will result in reduced need for special education by preschool graduates and, therefore, reduced overall costs of special education for school-aged children.

Despite twenty years of programs and considerable research effort, there are few definitive data on outcomes of early childhood programs for children with disabilities and their families and much debate on how best to interpret the available data (Shonkoff, Hauser-Cram, Krauss, & Upshur, 1988, Guralnick, 1989; 1991). As Guralnick has explained it (1989):

Studies available for professionals and decision-makers to assess prior to the passage of P.L. 99-457 were part of a first generation of efficacy research. Understandably, these studies did not form an exemplary data base, as the programs of this period were struggling to balance intervention and evaluation in a context of limited resources and experiences. (p.2)

Although the current empirical base is limited, policy decisions have been made that ensure, at least for the foreseeable future, the continuation of such programs. The current studies were conducted in an attempt to shed additional light on the issues and to discuss policy-maker and practitioner use of the data.

Past Longitudinal Studies

Longitudinal studies are difficult to conduct (Bricker, 1989) and often pose even more difficult analysis issues. However, many questions raised by preschool program advocates can only be answered through such studies. As Shonkoff, et al. (1988) have put it, "the measurement of early intervention effectiveness must move beyond the traditional focus on short-term effects and look increasingly at long-term impacts (p.89)."

In 1983, the State of Colorado conducted a study which explained educational placement of graduates of special education preschool programs (Edgar, McNulty, Gaetz, & Maddox, 1984). This study found that 31.4% of graduates were placed in regular education with no special education services, 37.1% were placed in regular education with support services from special education and 31.4% were placed in self-contained special education programs. Based on this study, a replication was conducted in Washington State in order to determine if similar results would be obtained (Edgar, Heggelund, & Fischer, 1988). Several major discrepancies were found in the Washington data as compared to Colorado. For example, fewer students were placed in regular education without special education support (16% in Washington, 31.4% in Colorado).

Since the Colorado study did not collect data on type of disability, the Colorado and Washington data could not be considered equivalent. In addition, the Washington study collected data on subsequent placements after preschool and found a high rate of stability in initial placement. In the Washington districts, approximately 90% of the graduates remained in the same type of placement as their initial placement up to four years after graduation from preschool.

A continuation of the Washington study was reported by Edgar, Heggelund, and Fischer (1988) which confirmed the initial Washington data both as to initial placement and stability of placement. While these data provided some additional insight to the post-preschool educational placements, the overall discrepancy with the original Colorado data raised some serious issues. For instance, what accounts for the rather large discrepancy in initial placement rates in regular education between Colorado and Washington? Could this be solely due to the types of students in the two studies, or were there substantial differences in the quality of preschool services? Also, stability data were only calculated for the entire population rather than for individual students. While these data are useful for practitioners (e.g., "how many preschool graduates can we expect to remain in a given placement"), the data do not address the placement status of individual students (e.g., "does the same individual remain in the same placement")? This latter question is important for teachers and parents.

Methodological Issues

Longitudinal studies can be of several types (Borg, & Gall, 1989).

Panel studies select one group of individuals (e.g., all preschool graduates from a specific district and of a specific year) and follow those same individuals over time, collecting data at several points in time. This method allows for the intepretation of individual change as well as that of the population. In contrast, cohort studies sample from a set population over time but may not collect data on the same individuals at each point in time. This method allows for generalization to the population but not to individuals within the population.

With any study, a question as to generalization to a larger population must be addressed. One method of addressing broader external generalization is to conduct systematic replication of a study using different populations. If similar findings are noted in replications, believability is increased for the larger population (i.e., all preshool students with disabilities). The current study is a series of panel longitudinal studies replicated both within state by using multiple panels (i.e., several graduating cohorts) and by conducting the study in two states (Washington and New Mexico).

Uses of the Results

The basic question addressed by this study was: "what are the long-term educational placements of students served in preschool special education programs?" These data may be used to address the policy issue: "do preschool special education programs reduce need for future special education services?" In addition, the data may be used to assist practitioners who must make decisions about individual students.

Procedures

Procedures used in this study were developed in earlier studies in Colorado and Washington (Edgar, et al., 1984).

Subjects

Washington. Twenty (20) school districts were selected using a convenience sample of districts (districts with long-term preschool special education programs willing to participate in the study). All preschool graduates from 1984 to 1988 were included. Gender and ethnicity data on these students are found in Table 1.

Insert Table 1 about here

New Mexico. Seventy Four of 88 (84%) school districts in the state participated in the study. The nonparticipating districts were invited but chose not to be included. Students from graduating panels from 1987 to 1991 were included. Basic demographic data on these students are also found in Table 1.

Instrumentation.

The same demographics and placement form was used in both states. Local school district personnel were trained in its use and paid to collect data on a yearly basis. Students are found eligible for preschool services based on classification as developmentally delayed in both states. Therefore, professional judgment was used to designate the specific type of disability of each student. This procedure undoubtedly resulted in some misclassification of students as to specific type of

disability. Overall, however, we believe disability classifications are generally equivalent across states.

In New Mexico, special education placement options are listed as A: regular education with itinerant special education services; B: regular education with special education resource room support; C: special education with some integration in regular education and D: self-contained special education. In Washington, the three original placement categories were, regular education with no special education support; regular education with special education support and self-contained special education. The New Mexico researchers merged the A and B and C and D placements and added the regular education with no special education support option. Thus, for purposes of analysis, both states had the same three placement categories.

Data Collection.

Data were collected annually by the local data collecters. Students who had moved out of the district or who died were placed in the "other" category.

Data Analyses

All children from one state (Washington or New Mexico) who graduated from preschool in the same year were placed in a panel (defined by year of graduation). For Washington there were five panels (1984, 1985, 1986, 1987 and 1988). For New Mexico there were also five panels (1987, 1988, 1989, 1990 and 1991). Within each panel, the data were analyzed by specific disability (i.e., mild retardation, communication disorders, multihandicapped, vision impairments, etc.). Collapsed groups were formed for these disabilities where similar

patterns were noted (i.e., CD, BD, LD formed a group identified as mildly handicapped). All analyses were then performed on collapsed groups as well as the total group for each panel.

Results

Initial Placements

Washington. Figure 1 describes initial placements of Washington graduates during 1984-1988. As shown, initial placement in regular education with no support (Level I) ranged from 8% to 24%. Initial regular education with special education support placements (Level II) ranged from 16% to 30%. Initial placements in special education classrooms (Level III) ranged from 45% to 63%. Initial placements for the five-year period in Washington were: regular education with no support (17%), regular education with support (21%) and special education (52%).

Insert Figure 1 about here

When types of disability were considered, the percentages of initial placements by level varied dramatically. These data are presented in Figure 2. Level I was the placement option for 14% of the students with mild mental retardation, 24% of the students with mild disabilities and 8% of those with severe handicapping conditions. Of students initially placed in Level II, 12% had mild retardation, 29% exhibited mild handicapping conditions and 16% had severe handicaps. Level III was the choice for 64% of the students with mild

retardation, 37% of those with mild handicaps and 69% of students with severe handicaps.

Insert Figure 2 about here

New Mexico. Initial placement data from New Mexico are presented in Figure 3 for 1987-1991. Respective ranges for the three types of placements were 8% - 12%; 34% - 45% and 37% - 49%. Overall percentages for the initial placements over the five years were 10% (regular education with no support), 40% (regular education with support) and 42% (special education).

Insert Figure 3 about here

Figure 4 describes initial placement in New Mexico by type of disability. As with Washington, the largest percentages of preschool graduates with mild retardation and severe handicaps were found in Level III. However, unlike Washington, this was not the case for New Mexico graduates with mild disabilities. Respective initial placement percentages at Levels I, II and III for New Mexico graduates with mild retardation were 14%, 12%, and 64%. For students with mild disabilities, the percentages were 12%, 29% and 16% for the three options. Percentages for students with severe handicaps were 8% (Level I), 16% (Level II) and 69% (Level III).

Insert Figure 4 about here

Stability

Stability data were not collected in New Mexico until the end of 1989 for the 1988 graduates. Thus, stability in New Mexico could only be analyzed for a three year period (1988-1991). Therefore, in order to make comparisons across states, stability data were only examined for students for whom three years of data after initial placements were available. This explains the large discrepancy between the total number of subjects and the numbers reported in Tables 2 and 3.

Washington. The chi square test was used to determine the statistical significance of the overall relationship between placement level and stability of placement. As shown, a statistically significant chi square value ($X^2 = 99.9$; df = 2: P = .0001) was obtained for the Washington data. This finding indicates large differences in the proportions of students moving from initial placements at the three levels. In Washington, the largest percentage of students moved out of Level II. The most stable placement was level III. These data are found in Table 2.

Insert Table 2 about here

New Mexico. Table 3 presents results of chi square analysis of New Mexico stability data. As shown, this chi square value was also

statistically significant at the .0001 level ($X^2 = 55.6$; df = 2). Again, the most unstable placements were at Level II; the most stable were at Level III.

Insert Table 3 about here

Table 4 describes results of chi square testing to determine the statistical significance of the difference between observed frequencies of stability. As shown, no statistically significant chi square values were obtained. This finding demonstrates very little difference in stability rates for the three levels of placements between the two states.

Insert Table 4 about here

Discussion

Do early childhood programs for handicapped children reduce the need for future special education services? Our response to that question is... rarely and then only for students with mild disabilities (e.g., communication disorders). Does this finding lead us to recommend a discontinuation of early intervention programs for handicapped children? No. First, some (15%) of the students appear to be "fixed" by early intervention programs and remain in regular education for up to five years without special education services. For these children and their families, early intervention programs were very important.

Second, there are many reasons to have early intervention programs other than reducing the costs to education. These reasons include learning specific skills, interacting with other children and providing emotional and physical support to parents. These reasons are, we believe, more important than reducing costs of education.

Some colleagues have suggested our data will give "ammunition" to those who are opposed to preschool programs. Our response is that perpetuating myths about outcomes of preschool programs will do more harm in the long run to damage funding levels then doing the "intellectually correct" thing of reporting data. Overpromising has a greater potential of harming our cause than does realistic predicting (Ziegler, 1985). In addition, we question the practice of implying to parents that early education programs will make their child nondisabled. This, for us, is a far greater tragedy than dealing with cost-cutting legislators.

Policy-makers. For the policy makers we would say, the post-preschool placements are not what we desired nor hoped for. But, here are our data. Additionally, we encourage policy to be made and maintained that will increase the quality of lives of young children with disabilities, both when they are young (in preschool) and when they are older (school-age and post-school age). We should not justify programs solely on reduced future costs in terms of dollars. We should place a high value on current quality of life. For young children with disabilities and their families, preschool programs play a very significant role in assuming a reasonable quality of life.

Practitioners. We believe these data have several important implications for practitioners. First, when making a placement decision at the end of preschool, if there is any doubt, place the child in regular education. If there is one hard finding from this study, it is that "once in special education, always in special education" is a truism. After initial placement, there is very little movement to regular education.

Second, we must be honest with parents. We can no longer imply that preschool will "fix" their children to the point they will be normal. First, this is simply not the truth and can only cause unrealistic parental expectations. Second, it implies that having a disability is very bad and devalued (Turnbull & Turnbull, 1988). We need to say, instead, that preschool programs are going to assist the child and family to have a better life now. That is sufficient reason to justify our programs.

Third, we need to lighten up. Rather than driving everyone (i.e., ourselves, parents and children) to achieve normality, we need to concentrate on providing caring, joyful interventions and opportunities for growth. Integrated preschools, developmentally appropriate curricula, and placement interaction should be our goals. By this we mean, no more "boot camps" for kindergarten.

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Figure Captions

Figure 1: Initial Placements of Washington Graduates

Figure 2: Initial Placement in Washington by Disability

Figure 3: Initial Placements of New Mexico Graduates

Figure 4: Initial Placement in New Mexico by Disability

Table 1
Number and Percentages of
Respondents by Gender and Ethnicity

Washington

Gender	Number	Percent
Male	1099	66
Female	558	33
	1657*	99

Ethnicity	Number	Percent
Caucasian	1296	78
Black	155	09
Hispanic	86	05
Asian	43	02
Native American	19	01
Other/Unknown	60	03
	1659	100

New Mexico

Gender	Number	Percent
Male	1777	66
Female	898	33
	2675**	99

Ethnicity	Number	Percent
Caucasian	1262	47
Black	65	02
Hispanic	1107	41
Asian	14	<01
Native American	218	08
Other/Unknown	13	<01
	2679	100

* Data unavailable for two students
** Data unavailable for three students

Table 2: Overall Relationships Between Level of Stability and Placement in Washington - Initial to 3rd placement. (1984-87, 1985-88, 1986-89)

Level of Placement	N in base*	N moved	Stability	Total Initial Placement all Panels
I: Regular Education with no Support	60	21	65%	286
II: Regular Education with Support	109	71	40%	344
III: Special Education	285	29	90%	869
Other/Unknown				160
$X^2 = 99.9$; df = 2;P<.0001				
				1659

*Students for whom three years of data after initial placements were available.

Table 3: Overall Relationships Between Level of Stability and Placement in New Mexico - Initial to 3rd placement (1988-1991)

Level of Placement	N in Base	N moved	Stability	Total Initial Placement all panels
I: Regular Education with no Support	15	6	60%	264
II: Regular Education with Support	91	57	37%	1082
III: Special Education	135	19	86%	1120
Other/Unknown				213
$X^2 = 55.6; df = 2; P < .0001$				
				2679

Table 4: Comparison of Placements within three Levels for Washington and New Mexico - Initial to 3rd placements.

Level of Placement	N Moved	Stability	X^2	df	p-value
I: Regular Education with no support					
Washington	21	65%	.13	1	.72
New Mexico	6	60%			
II: Regular Education with Support					
Washington	71	40%	.10	1	.75
New Mexico	57	37%			
III: Special Education					
Washington	29	90%	1.40	1	.24
New Mexico	19	86%			

Figure 1

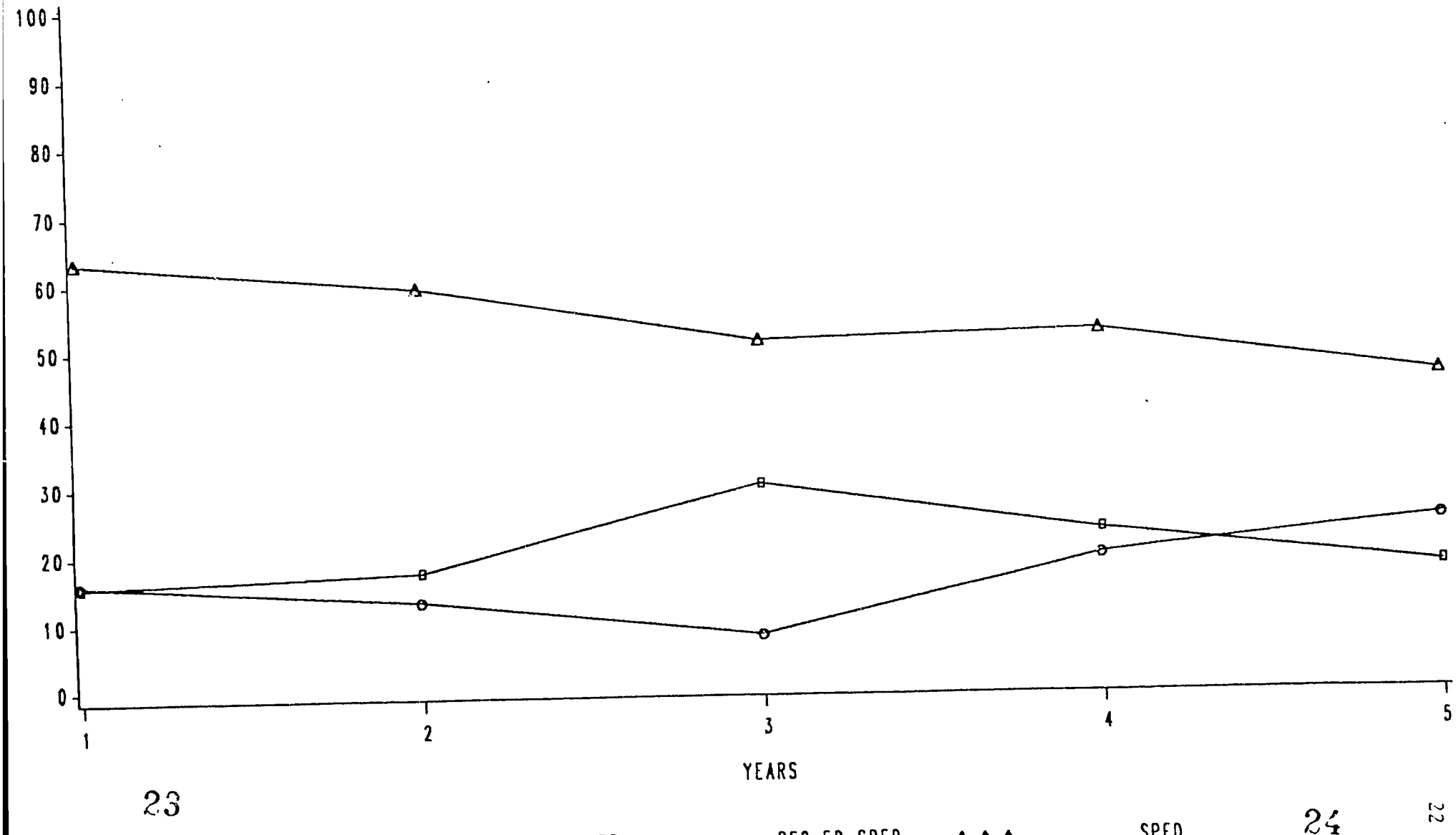
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Figure 2

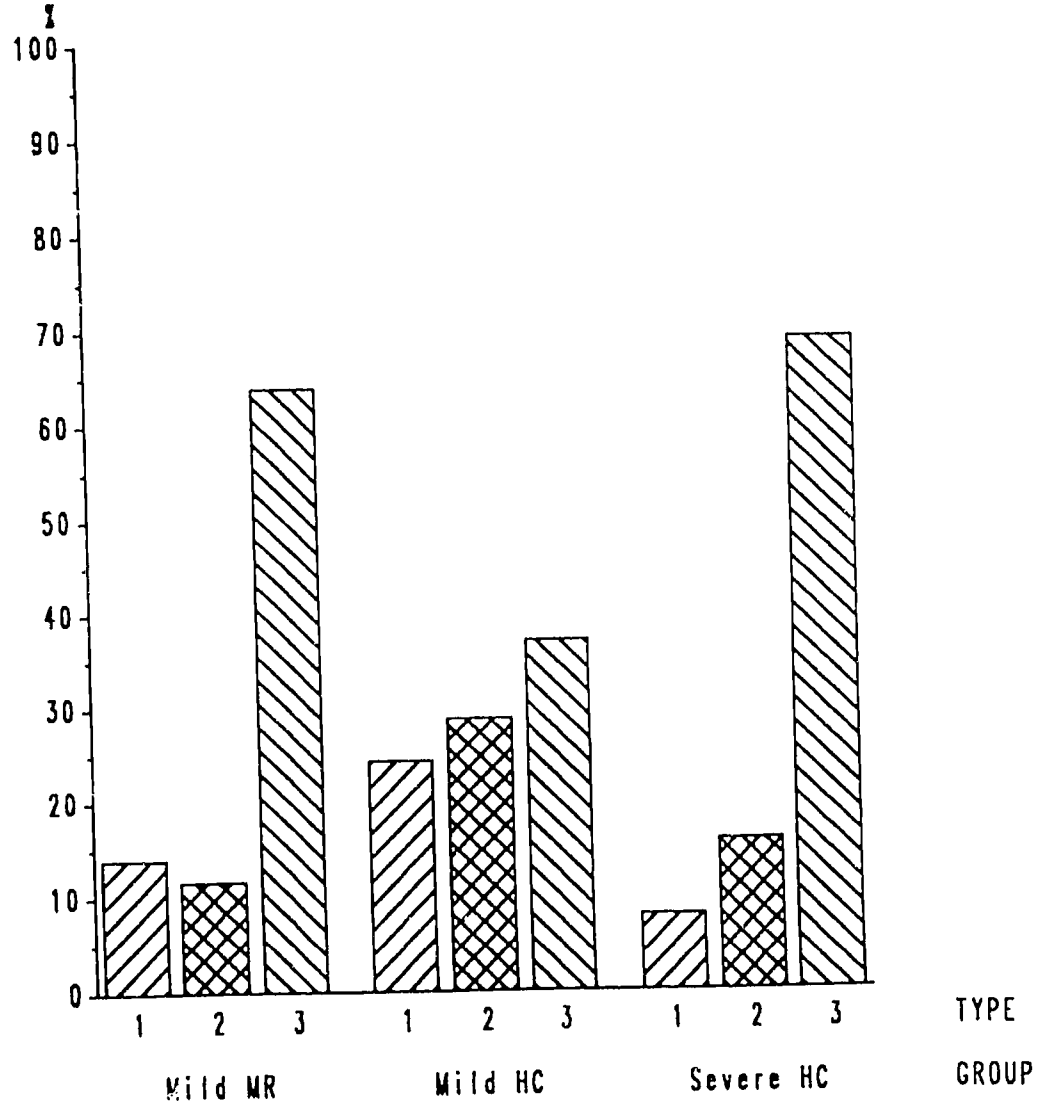
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Figure 3

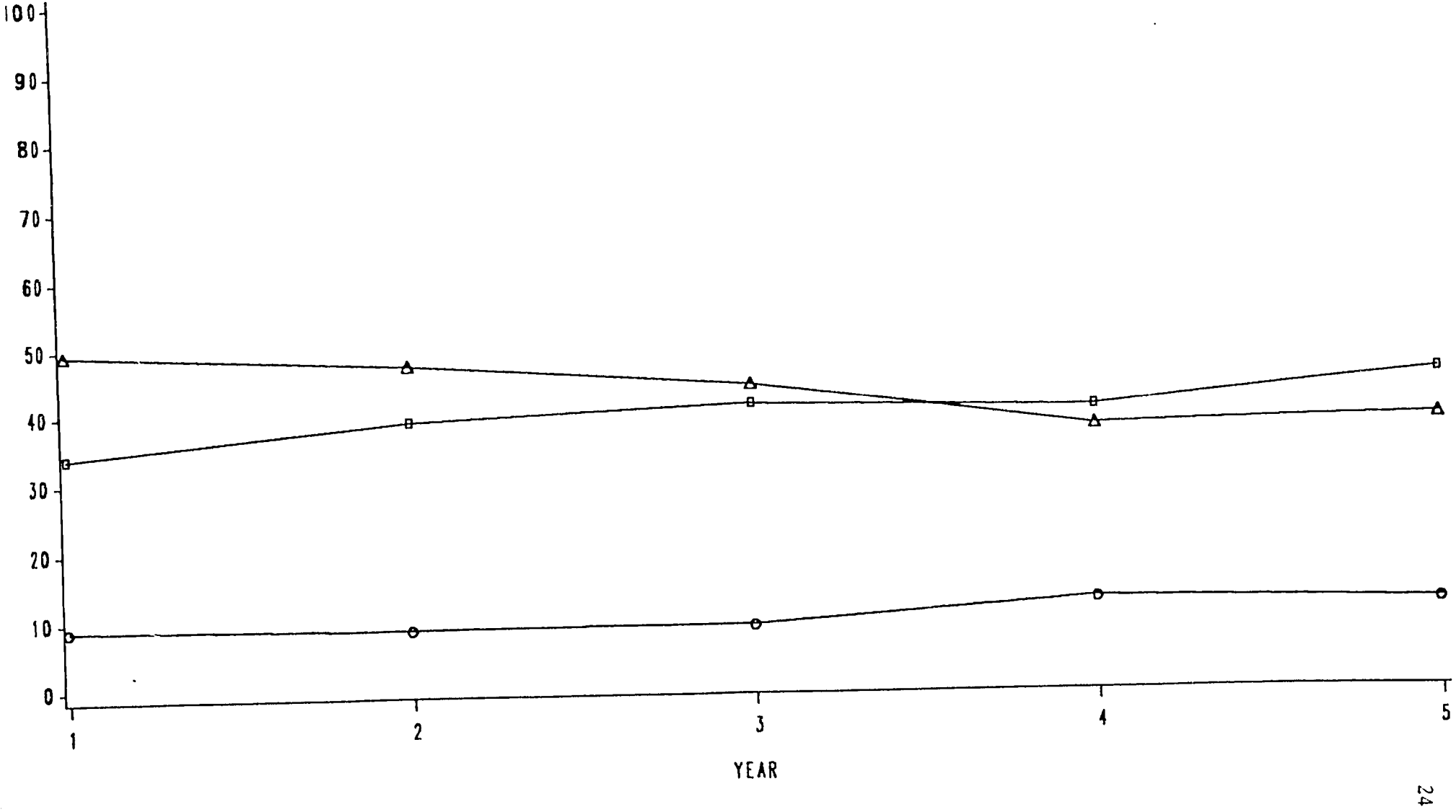
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Figure 4

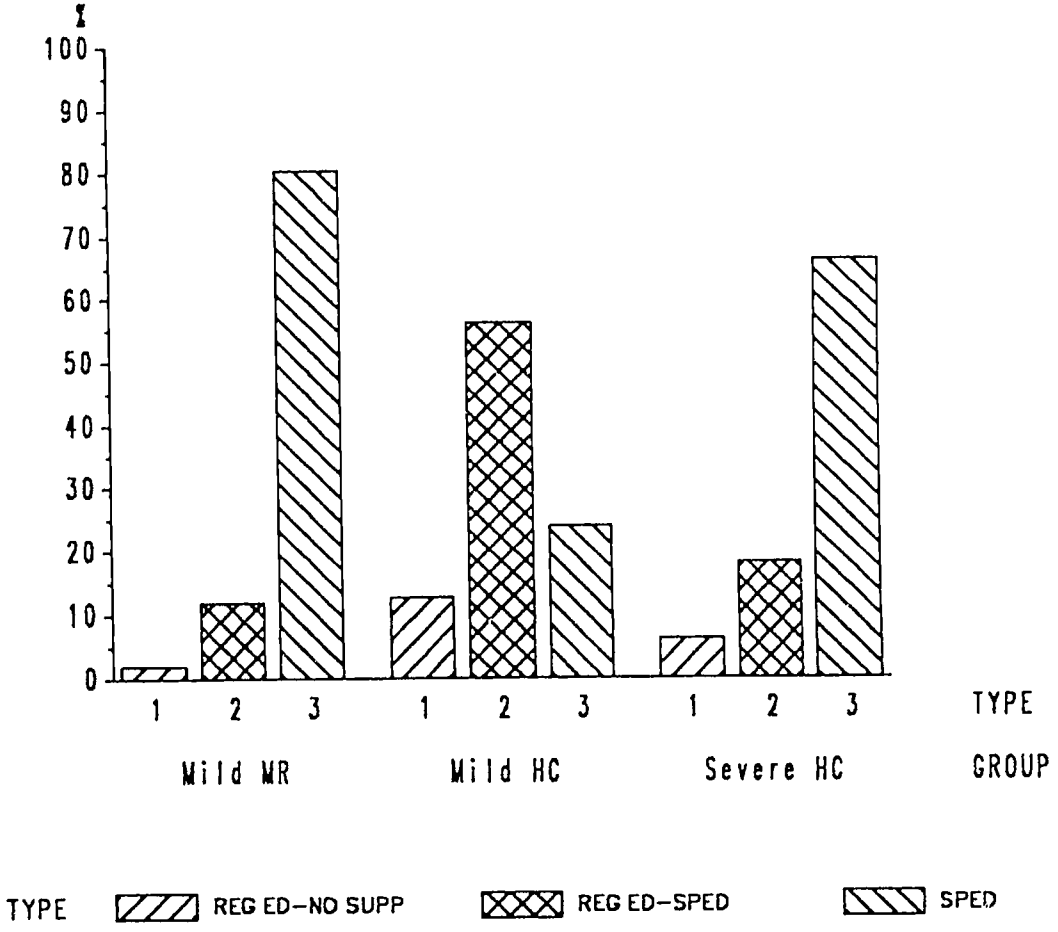

Figure 4: Initial Placement In New Mexico By Disability

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