
Parent Involvement in Preschool Programs for Children At Risk for Academic Failure

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Based on available records of 35,057 preschool-aged children enrolled in the Illinois Prekindergarten Program during FY 1994-1995, this study examined the association between demographic factors and families' involvement in their children's education. Results indicated that poor parents, single parents, and parents who primarily spoke a non-English language at home participated significantly less in most of the involvement opportunities available. Implications for practice and further research are discussed.

Parent involvement has been endorsed as a means toward increasing preschool children's success in school and later in life (Bronfenbrenner, 1979; DEC Task Force on Recommended Practices, 1993; National Commission on Excellence in Education, 1983). Parent involvement could be defined as "the degree to which a parent is committed to his or her role as a parent and to the fostering of optimal child development" (Grolnick & Słowiacek, 1994, p. 238). Because serious concerns have been raised about many parents' abilities to provide adequate developmental and educational nurturance to chil-

dren, parent involvement has now been incorporated into state and national program policies (e.g., Illinois State Board of Education, 1995; Individuals with Disabilities Education Act or IDEA; National Education Goals Panel, 1995). The benefits of parent involvement are thought to be (a) better child outcomes would be achieved with less cost to the programs; (b) better parent outcomes would be achieved, as well as increased competence in caregiving; and (c) better parent-professional alliances would be forged that would lead to positive perceptions and emotional experiences toward school by the child (Grolnick

& Slowiaczek, 1994; White, Taylor, & Moss, 1992).

Educational institutions have been called on to "promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children" (National Education Goals Panel, 1995, p. 13). However, involvement in the education of preschool-aged children may be difficult for many caregivers. Considering the complexity and demands of life imposed by today's demographic, economic, and social trends, parents may be forced to choose where to devote their time and energies (Carnegie Task Force on Meeting the Needs of Young Children, 1994). Some parents may not know how to be involved or the best ways to be involved (Rockwell, Andre, & Hawley, 1996). Unless parents are able and willing to be involved, involvement alternatives may have little impact (Dunst, Trivette, & Deal, 1988). The level of parent commitment to children's education is dependent on the values held by parents, time available to them, and the availability and dedication of resources to children by parents (Grolnick & Slowiaczek, 1994). Parent involvement, as a result, could be described as a "continuum varying in form, focus, and complexity depending upon the interaction of child, family, and program variables" (Simeonsson & Bailey, 1990, p. 435). Viewed on a continuum, parent involvement may range from nonexistent to very active and invested participation (Simeonsson & Bailey, 1990). Concrete manifestations of parent involvement include parent behavior that models to the child the importance of school, parent engagement in the delivery of education and related services to the child, and parent participation in self-help, personal development, or educational activities designed to increase favorable conditions for positive caregiving (Grolnick & Slowiaczek, 1994; Simeonsson & Bailey, 1990).

Because the healthy development and educational achievement of children living with families experiencing economic and social pressures are especially undermined (Carnegie Task Force on Meeting the Needs of Young Children, 1994; Garbarino, 1990), the focus of the current study is on parent involvement in the education of preschool children at risk for academic failure due to environmental factors. Among the environmental factors that could place children at risk are poverty, minority group identity, low parent education, young parent age, and limited knowledge and use of the English language (Natriello, McDill, & Pallas, 1990). Children living with families experiencing economic and social hardships are at risk because they "are more prone to social and familial stress" and may have "a limited view of their own personal worth and self-esteem" (Presseisen, 1988, pp. 19-20). Negative psychological, familial, and social experiences place children at risk for "developing achievement and behavior problems that could limit their success in school and as young adults" (Smith, Polloway, Patton, & Dowdy, 1995, p. 321). Family conditions can further influence parents' perceptions of their own roles in their children's learning and development, as well as the ease with which they are able to utilize opportunities for school involvement.

A number of studies addressed the effects of parent involvement on preschool children, but none used family characteristics as potential explanatory variables (e.g., Barnett, Escobar, & Ravsten, 1988; Boyce, White, & Kerr, 1993; Eiserman, McCoun, & Escobar, 1990; Innocenti, Hollinger, Escobar, & White, 1993; Keltner, 1990; Taverne & Sheridan, 1995; Taylor & Machida, 1994), or focused on children at risk for delay because of environmental factors (e.g., Keltner, 1990; Reynolds, 1995; Taverne & Sheridan, 1995; Taylor & Machida, 1994). Understanding family characteristics that may be associated with prefer-

ences in involvement can inform providers and educational institutions where to better support or assist families. The purpose of this study was to investigate the association between family demographic factors and the families' involvement in the education of their preschool children. Specifically, the study addressed the following two questions: (a) What involvement activities were most likely to be used by parents? and (b) What characteristics predicted the likelihood of parent involvement?

Method

Subjects

The subjects were the 35,057 children between the ages of three and five enrolled in 311 preschools in the state of Illinois in FY 1994-1995. The preschools, funded by the Illinois Prekindergarten Program For Children At Risk Of Academic Failure, were designed to serve children who "because of their home and community environment, are subject to such language, cultural, economic and like disadvantages that they have been determined, as a result of screening procedures, to be at risk of academic failure" (Illinois State Board of Education, 1995, p. 1). Eligibility, therefore, was based on both the child's membership in a particular group or family characteristic and individual screening or assessment results.

Demographic characteristics of these children and their families are shown in Table 1. Using children's school lunch status as a proxy for families' income levels, 60.3% of the families were poor (i.e., the children were eligible for free breakfast and lunch), 10.4% were near poor (i.e., the children were eligible for reduced-price lunch and breakfast), while 29.3% of the families were not poor. Fifty-two percent of the children were boys and 48% were girls, and 57% of the children

were 4 years old. In terms of ethnicity, 46.3% of the children were white, 28.3% were black, 21.2% were Hispanic, 3% were Asian, 0.2% were Native American, and 1.1% were of other ethnic backgrounds. Eighty percent of the children lived in homes where English was the primary language.

A large number of the children (61%) lived with both parents at home, whereas 34% lived with a single parent, 3.2% lived with adult(s) other than the parent such as grandparent(s), and 2.3% lived in other family arrangements. The majority of the children (80%) were reported to be healthy. However, close to 8% of the children had one health need or problem, while 2.7% of children had two or more health needs or problems. Seven percent of the children displayed speech delays severe enough to qualify for special education services. Children with sensory deficits (visual, hearing, or both) made up 2.5% of the population.

Settings

The Illinois State Board of Education's school code stipulates the administration of "grants to public school districts to conduct preschool educational programs for children ages 3 to 5 which include a parent education component" (Illinois State Board of Education, 1995, p. 38). At the discretion of the public school districts, districts "may subcontract with a private school, not-for-profit corporation or other governmental agency to conduct a preschool educational program" (Illinois State Board of Education, 1995, p. 38). However, no specific information regarding type of programs (e.g., Head Start, public school, day care) was reported in either the student records or the *Illinois Prekindergarten Program for Children at Risk of Academic Failure FY 94 Summary Report* (Illinois State Board of Education, 1995), the source of the data analyzed in this study. Ac-

Table 1. Characteristics of Families and Children

Variables and Subgroups	N	%
Family economic status		
Poor	15,398	60.3
Near poor	2,653	10.4
Not poor	7,468	29.3
Family structure		
Two-parent families	15,540	60.9
Single-parent families	8,594	33.7
Children living with relatives	804	3.2
Children living with other adults	581	2.3
Family ethnicity		
White	11,817	46.3
Black	7,214	28.3
Hispanic	5,408	21.2
Asian	757	3.0
Native Indian	39	0.2
Other	284	1.1
Language spoken at home		
English	20,312	79.6
Non-English	5,207	20.4
Health of child		
No problem	20,413	80.0
Speech problem	1,823	7.1
Sensory deficit	648	2.5
Health problem	1,947	7.6
Multiple problems	688	2.7
Age of child		
Three years	4,656	18.2
Four years	14,586	57.2
Five years	6,277	24.6
Gender of child		
Boy	13,293	52.1
Girl	12,226	47.9

According to Kalpana Desai, Principal Planning Consultant at the Illinois State Board of Education, the instruction or teaching of children was rarely subcontracted out by the public school districts with the exception of Chicago schools, who because of space reasons, may subcontract with other public or private agen-

cies (Personal communication, November 20, 1996).

In FY 1994-1995, 311 Illinois preschools offered 389 different types of program services (Illinois State Board of Education, 1995). Ninety-five percent of the children received only classroom-based instruction. These

children were served in about 85% of the schools. About 3% of the children received both classroom and home-based instruction, while another 2% of the children received only home-based instruction. Of the children receiving only classroom instruction, 81% attended schools which offered 9 to 14 hours of instruction per week (Illinois State Board of Education, 1995). Of the total population, only 5.5% of the children were enrolled in full-day classroom settings. The rules and regulations of the Illinois Prekindergarten Program set the teacher-child ratio at one adult to 10 children with no more than 20 children in each classroom (Illinois State Board of Education, 1995).

All participating schools were required to offer parent involvement activities and parent education services (Illinois State Board of Education, 1995). Furthermore, as a condition for eligibility, preschools had the option of making parent involvement a requirement, and 38% of the programs funded in FY 1994-1995 did so (K. Desai, personal communication, September 20, 1996). Information regarding the definition of the various parent involvement categories was not available in either the summary report or the student records. Generally, however, the parent involvement categories were fairly descriptive (e.g., classroom activities, enrichment activities with children, field trips). Activities coded as *other* included book fairs, family nights, holiday parties, and play times. Parent education was primarily interpreted to include parent-child interaction activities, parenting skill development activities, and workshops related to children's development. Adult literacy development, job development, and GED classes constituted only a small portion of parent education (K. Desai, personal communication, September 20, 1996).

Of the 1,091 full-time equivalent (FTE) teachers in the preschools in FY 1994-1995, 73.4% held early childhood education certificates (Illinois State Board of Education, 1995).

Because the early childhood certificate was relatively new, 22.3% of the teachers held elementary certificates with experience in early childhood, 2.5% had undergraduate degrees in child development, and 1.8% of the teachers held child care approval from the Department of Children and Family Services.

Procedure

All funded preschools in Illinois were required to complete an annual Prekindergarten Student Record Form for submission to the Illinois State Board of Education. The data set for this study was obtained with the assistance of Kalpana Desai of the Center for Strategic Planning and Budget Management at the Illinois State Board of Education, who had played a key role in preparing the state's 1994-1995 report for the prekindergarten program. Data were stored and analyzed in SAS for Windows.

The student record form provided information on each individual child's and family's characteristics and information on whether the child's parent or guardian had participated in classroom activities, field trips, parent education classes, enrichment activities at home, parent-teacher conferences, other involvement activities, or no activities. The forms, completed by each child's classroom teacher, provided categorical data, that is, whether parents participated or did not participate in the particular activities.

Statistical Analysis

Analysis of the data was performed in two major steps. First, descriptive analysis was utilized to determine the extent to which different types of involvement opportunities were accessed by families. Results were based on the number of families and proportions of families from the total population reported to have participated in each type of involvement activity.

Second, multiple logistic regression was used to analyze the relationship between demographic characteristics of families and types of participation or involvement. Several binary-choice models of analysis were available for analyzing these binary data (i.e., "0" for nonparticipation in a particular activity, and "1" for participation) (Hosmer & Lemeshow, 1989; Norusis, 1993; Weisburg, 1985). A logit model was selected because it provided a way to evaluate which explanatory variables were related to the dependent variable while statistically controlling for the effects of the other variables (Hosmer & Lemeshow, 1989). In logistic regression, the odds ratio of an event (i.e., involvement in an activity) occurring can be calculated. An odds ratio approximates how likely (or unlikely) it is for the outcome to be present in a group when compared to a reference group (Hosmer & Lemeshow, 1989). In the current study, the reference groups were chosen on the basis of their sample size. Thus, the largest subgroup within each independent variable became the reference group for that analysis.

The dependent variables were parent involvement in classroom activities, field trips, parent education classes, enrichment activities at home, parent-teacher conferences, other activities, and no involvement in any of the opportunities available. The independent variables were family income, family structure, family ethnicity, language spoken at home, health status of child, age of child, and gender of child. Logistic regression analysis was done in two steps. In the first step, only main effects were analyzed. In the second step, interaction effects were analyzed. Because the logit model used for analysis in the current study "statistically adjusts the estimated effects of each variable in the model for differences in the distributions of and associations among other independent variables," the ordering of the variables did not matter (Hosmer & Lemeshow, 1989). However, to facilitate an examination for possible interaction effects, the independent variables or

characteristics of families were sequenced based on a theoretical causal order of factors. For example, because family income may have an effect on the child's health condition, family income was placed higher in the sequence than child health variable. The sequence of independent variables selected in this study were family income, family structure, family ethnicity, language spoken at home, child health status, age of child, and gender of child. Based on the ordering selected, interaction effects were tested for (a) family income and family structure and (b) family income and family ethnicity. To ensure that the interaction effects examined were meaningful, only subgroups with a sample size of 1,000 or more were used. This eliminated all subgroups *except* the income subgroups (poor, near poor, not poor); single and two-parent families; and white, black, and Hispanic families.

Results

The frequency and percentage of family participation in each activity are shown in Table 2. Parent-teacher conferences were the most utilized activity, with about 78% of the parents or guardians participating. Other types of activities in which over half of the parents participated included enrichment activities at home (61.5%), classroom activities (58.7%), and field trips (54%). Parent education classes were used by 41.5% of the families. Other miscellaneous involvement activities (e.g., book fairs, family nights, holiday parties, play times) were the least used (30.6%). Overall, 95.3% of the families participated in one or more type of parent involvement opportunity and 66% participated in three or more types of involvement activities, indicating that the range of opportunities for involvement was well utilized. Only 4.7% of families did not participate in any of the available opportunities.

Table 2. Frequencies and Proportions in Involvement

Type of Involvement Opportunity	Participated*	% Participated
Parent-teacher conferences	19,989	78.3
Enrichment activities at home	15,701	61.5
Classroom activities	14,974	58.7
Field trips	13,768	54.0
Parent education	10,600	41.5
Other involvement	7,816	30.6
No involvement	1,188	4.7

*Note: Parents may participate in one or more types of activity.

Main effects found significant at the probability level of .01 are summarized in Table 3. Significant interaction effects ($p < .01$) were found for some outcome variables when (a) family income and family structure and (b) family income and family ethnicity were simultaneously considered (see Table 4). Family income and structure interacted to produce differential outcomes in parent involvement in field trips and parent education (e.g., significant mean differences were found between single and two-parent families from both *near poor* and *not poor* families in field trip participation, but no significant mean difference was found between poor single and poor two-parent families in field trips), whereas family income and ethnicity interacted in the involvement areas of classroom activities, enrichment activities, field trips, parent education, and other activities (e.g., significant mean differences were found between the ethnic groups who were *not poor* in classroom activities, but no significant mean differences in classroom activities involvement were found between black and Hispanic families from *poor* and *near poor* backgrounds). Because of the large and unequal sample sizes used as groups for the independent variables, the differences between means of a number

of subgroups were found to be statistically significant. To assist in making meaningful interpretations of the mean differences, effect sizes were calculated. As a general rule, a small effect may be defined as a d of .2, medium effect as a d of .5, and a large effect as a d of .8 (Cohen, 1988). With the exception of parent involvement in *other* activities, the majority of the statistically significant mean differences were weak in effect. (Effect size results may be obtained by writing to the first author.) Caution is therefore warranted in making programmatic changes based solely on these results.

Discussion

This study examined the association between several independent variables and parent involvement in the education of preschool children at risk for academic failure. Simeonsson and Bailey (1990) suggested the necessity of identifying relevant variables if parent involvement was to be understood in a meaningful context. In the current study the association between child and family variables, and parent involvement in school activities was examined. Overall, 95% of the families partici-

Table 3. Summary of Significant Main Effects at .01

	Odds Ratios		
	Parent-Teacher Conferences	Home Enrichment Activities	Classroom Activities
Family economic status			
<i>Poor</i>	1.000	1.000	1.000
Near poor	1.372***	1.399***	1.079
Not poor	1.886***	1.617***	1.387***
Family structure			
<i>Two-parent family</i>	1.000	1.000	1.000
Single-parent family	.806***	.828***	.722***
Living with relative	.886	.765***	.557***
Living with other adult	.810**	1.106	.529***
Family ethnicity			
<i>White</i>	1.000	1.000	1.000
Black	.538***	.823***	.754***
Hispanic	.657***	.896*	.879*
Asian	1.092	.786**	.518***
Native American	.384**	.522*	.420***
Other	.935	1.112	.880
Language spoken at home			
<i>English</i>	1.000	1.000	1.000
Non-English	.783***	.830***	.661***
Health of child			
<i>No problem</i>	1.000	1.000	1.000
Sensory problem	.875	.956	1.054
Speech deficit	1.490***	1.392***	1.017
Health problem	.982	.932	1.088
Multiple problems	1.131	1.137	1.040
Age of child			
<i>Three years</i>	.981	.960	1.083*
<i>Four years</i>	1.000	1.000	1.000
<i>Five years</i>	1.044	1.063	.941*
Gender of child			
<i>Boy</i>	1.000	1.000	1.000
<i>Girl</i>	.966	.985	1.009

Table 3. (continued)

	Odds Ratios		
	Field Trips	Parent Education	Other
Family economic status			
<i>Poor</i>	1.000	1.000	1.000
<i>Near poor</i>	1.065	1.020	1.310***
<i>Not poor</i>	1.480***	1.024	1.606***
Family structure			
<i>Two-parent family</i>	1.000	1.000	1.000
<i>Single-parent family</i>	.741***	.814***	.809***
<i>Living with relative</i>	.557***	.548***	1.258**
<i>Living with other adult</i>	.597***	.842	.985
Family ethnicity			
<i>White</i>	1.000	1.000	1.000
<i>Black</i>	.946	1.395***	.234***
<i>Hispanic</i>	1.076	1.731***	.302***
<i>Asian</i>	.712***	.993	.388***
<i>Native American</i>	.800	.902	.305**
<i>Other</i>	.781*	.716*	1.387**
Language spoken at home			
<i>English</i>	1.000	1.000	1.000
<i>Non-English</i>	.557***	.960	.560***
Health of child			
<i>No problem</i>	1.000	1.000	1.000
<i>Sensory problem</i>	.912	.924	1.474***
<i>Speech deficit</i>	1.020	.819***	1.309***
<i>Health problem</i>	.973	1.060	1.177**
<i>Multiple problems</i>	1.060	1.037	1.964***
Age of child			
<i>Three years</i>	1.034	.979	1.074
<i>Four years</i>	1.000	1.000	1.000
<i>Five years</i>	.952	1.031	.933
Gender of child			
<i>Boy</i>	1.000	1.000	1.000
<i>Girl</i>	1.007	.992	1.008

* $p < .05$, ** $p < .01$, *** $p < .001$

Note: Comparison or reference groups are in italics.

pated in at least one involvement activity. Considering the population served and that only 38% of the programs mandated parent involvement, the level of parent involvement can be considered high. The most utilized

form of parent involvement was parent-teacher conferences in which there was participation by 78% of the families. In comparison to parent involvement in parent-teacher conferences of first-grade children nationally,

Table 4. Summary of Significant Interaction Effects at .01

Dependent Variable	Interaction Effects Found for Income and Structure	Interaction Effects Found for Income and Ethnicity
Parent-teacher conferences	No	No
Enrichment activities at home	No	Yes*
Classroom activities	No	Yes*
Field trips	Yes*	Yes*
Parent education	Yes*	Yes*
Other involvement	No	Yes**
No involvement	No	No

* Weak effect

** Moderate effect

where there was participation by 95% of the families (National Education Goals Panel, 1995), there were fewer parents in the current study who participated in parent-teacher conferences. The contexts of the families' lives (e.g., poverty, minority status, or inability to speak the English language clearly or proficiently) can be assumed to have influenced the families' participation in parent-teacher conferences compared to the national population. However, no national data are available on populations similar to the one represented in this study. While participation in parent-teacher conferences for comparable populations in early intervention or school-age programs may differ from the population in the current study, there is no reason to believe that the same variables would not influence parent participation in early intervention or school-age programs.

The interaction effects found in this study reflect the multiple personal and environmental factors that may influence parents' responses and behaviors, including their participation in their children's education. The main effects yielded some interesting, but not totally unexpected, trends. Poor families were found to have participated significantly less in

most of the involvement opportunities available, as were single parents and parents who primarily spoke a non-English language at home. Parent education activities were an exception, where families of black or Hispanic ethnic backgrounds were significantly more likely to be involved. However, because significant interaction effects were found, caution is necessary in interpreting the main effects. Intuitively, it makes sense that the independent variables characterizing the families must somehow be related to each other. Effects should be interpreted judiciously despite the claim of statistical independence in the regression findings.

For parents who were caring for children with one or more health issues, parent-teacher conferences and enrichment activities appeared to be especially important. It is sensible that parents of children with health problems or needs are concerned about their children's well-being, and that parent-teacher conferences, enrichment activities at home, and participation in other activities such as parent support groups served as significant avenues to increase positive outcomes for their children.

Family income emerged as an important variable that influenced parent involvement in

all activities except parent education. Given that a large number of parents are employed in low paying jobs that may have inflexible and nonstandard work schedules (Board on Children, Youth, and Families, 1996), it is easy to understand why parents with low incomes may have less time and energy for involvement activities. The call for increased participation in the workforce by the poor, which recently became a mandate through the passage of The Personal Responsibility and Work Opportunity Reconciliation Act (a.k.a. welfare reform), will significantly increase the pressure for poor families to seek job training and employment. These demands will undoubtedly impinge even further on the types of parent involvement activities that are accessed by parents of young children.

In addition to income, social factors such as family structure and family ethnicity played a significant role in influencing parent behavior. Single parents may be at double jeopardy because, irrespective of income, single parents face extra demands in trying to make ends meet and caring for children at the same time (Vadas, 1986). When a single parent's ability to meet the family's need is strained, parent involvement may not be a priority in the scheme of support provided to children.

Ethnicity also emerged in the current study as being related to patterns of parent involvement. To many minority families, teachers may be perceived as authority figures. Thus, teachers' educational decisions may rarely be questioned and school personnel may make erroneous assumptions that can lead to (a) nonsharing of information, (b) sidestepping concerns of parents, (c) making decisions for parents, and (d) attributing cause of problems to parents (Harry, 1992).

Minority families new to the country may feel inadequate or be suspicious of unfamiliar institutions. These new parents may not be involved because of lack of experience and trust. Language differences can also be barriers, leading to misunderstandings and cultural

clashes. These misunderstandings can bring about discriminatory action against the parents by school staff (Rosado, 1994). Discriminatory practices, in turn, can lead to alienation and apathy among parents and jeopardize opportunities to form meaningful partnerships between schools and minority communities (Rosado, 1994).

Finally, many parent involvement opportunities also are "based on a deficit model that posits the inherent inferiority of lower-class and culturally different socialization styles" (Harry, 1992, p. 91). Because white middle-class values essentially dictate school activities, patterns of behavior are likely to differ between traditional white school personnel and minority parents. Such a mismatch could lead both parties to perceive each other as impersonal, uncaring, or disrespectful, erecting barriers to parent involvement.

A number of issues are raised in using an existing database, the foremost being the inability to control for variations in independent and dependent variables. For example, because a priori planning was not possible, programs may have defined different involvement activities differently. Another issue was that it was not clear if the preschool programs were all consistent in offering the same kinds and amounts of involvement opportunities to parents. It also was not clear if teachers and programs held a uniform expectation for parent involvement. Uneven expectations may lead to differing opportunities available for parent involvement, as well as differing demands or pressures on teachers to report parent involvement. Because of these internal validity concerns, external validity also is a concern. Generalization to other populations, settings, and conditions must be made with caution. Use of an existing database also necessitated that many potentially important variables were not available for analysis (e.g., age of parents, employment status of parents, number of siblings). Additional programmatic variables that may also be associated with par-

ent involvement, including availability of transportation and characteristics of teachers, were not considered.

Despite these limitations, the current study indicated that the majority of parents participated in one or more type of parent involvement activity. The results also indicated parent participation differed according to various background factors, especially family income, family structure, family ethnicity, and language spoken at home. Therefore, in today's climate, where economic survival entails job preparation, employment, and substantial work effort, new models for parent involvement need to be developed (Board on Children, Youth, and Families, 1996). The model for parent involvement that emanated from the Economic Opportunity Act (EOA) in the 1960s, which provided incentives for the "maximum feasible participation" of families in children's education served in antipoverty and compensatory education programs (Harry, 1992, p. 90), is not very pragmatic anymore. A fundamental challenge "involves identifying strategies that can be tailored, first, to demand that characterize parents' lives, and, second, to their motivation and capacity to get involved (Board on Children, Youth, and Families, 1996, p. 46).

While the data did not include families who were caring for infants and toddlers with disabilities, economic and social conditions of parents with young children can be expected to influence their participation in early intervention. Because trusting, flexible, and individualized relationships are a foundation in helping young children progress optimally, it is critical for early intervention personnel to consider conditions that affect their relationships with parents. The nature of the relationships can affect the level and type of involvement by parents. By seeking to understand individual parent behaviors and incorporating parents' feedback regarding involve-

ment opportunities, staff and administrators can develop and implement innovative and individualized strategies to build and maintain both trusting relationships and meaningful involvement of families.

Bronfenbrenner's (1979) ecological framework suggests the need for studies to examine the association with not only family and child variables but also programmatic variables such as teacher qualifications, type and amount of service delivery, location of educational and related service programs, parent involvement policies, funding mechanisms, and preschool collaboration with other agencies. Because the results in this study indicated less parent involvement when parents came from a poor, minority ethnic or linguistic background, or were single, future research must continue to include these characteristics in future analyses.

Similar research also may be suggested for involvement studies in early intervention. Intervention studies addressing the effectiveness of various strategies for increasing the involvement of parents with different characteristics could further inform the field. First, however, research that identify parent involvement preferences and strategies that are effective for families of poor, single, or ethnic minority backgrounds is needed. In identifying possible strategies, qualitative studies are potentially useful in exploring and identifying possibilities in preferences and strategies that have a high level of compatibility with different types of families. In the current climate where independence of families from government assistance is becoming status quo, information is especially needed about strategies that support families in both employment-related factors and parent involvement in children's education. Following the identification of strategies, well controlled experimental studies are needed to test the effectiveness of the strategies.

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