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ABSTRACT

Students in poverty areas still perform poorly on achievement tests, have high dropout rates, and are not receiving the kind of assistance they need. This paper reports the educational experiences and needs of middle school students in poverty. Specific topics include: (1) the distribution of middle school students in poverty by social background, community type, and geographic region; (2) educational opportunities for middle school students in poverty as measured by school characteristics, curriculum, teacher qualification, and special services; (3) deficiencies in student performance in school; and (4) educational emphases for the future. In addressing most of these topics, students in poverty are compared with less economically disadvantaged students. Study results do not show any significant differences in curriculum requirements and offerings; thus, no special effort would be necessary in that area. However, the study does reveal deficiencies in teacher qualifications for students in poverty. More qualified and experienced teachers, especially teachers with positive attitudes toward students, are needed in schools where students in poverty concentrate. In these schools, emphasis should be placed on programs for improved safety and discipline, teacher improvement, improved student attendance and classroom behaviors, and improved communication with parents including support to parents in teaching students what is right. (Contains 7 references.) (GLR)

Educational Experiences and Needs of Middle School Students in Poverty[1]

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Over the years, improving the performance of students from low-income families has been a top national education priority. Under Chapter 1 of Title 1 of the Elementary and Secondary Education Act of 1965 (ESEA), as amended by the Augustus F. Hawkins-Robert T. Stafford Elementary and Secondary School Improvement Amendments of 1988, Federal government has provided a significant amount of financial assistance to local education agencies to meet special needs of these students. In 1992 alone, Congress appropriated $6.1 billion for basic Chapter 1 services, the Federal government's largest investment in elementary and secondary education, which accounts for 19 percent of the total budget of the U.S. Department of Education (Commission on Chapter 1, 1992, p.vii). As a result of this assistance, the majority of school districts and schools have Chapter 1 programs. In 1987-88, it was estimated that over 90 percent of school districts and 60 percent of public schools provided such services (Anderson, 1992).

With such a significant amount of government assistance, one would expect a substantial improvement in the school performance of these students. Unfortunately, students in poverty still perform poorly on achievement tests, have high dropout rates, and have not received the kind of assistance they need. As summarized in Making Schools Work for Children in Poverty, "to those who need the best our education system has to offer, we give the least. ... Less, indeed, of everything that we believe makes a difference" (Commission on Chapter 1, 1992, p.4).

Thus, the method of assisting students in poverty is still a highly contended question, and a clearer understanding of the current educational experiences and specific needs of these students is needed before devising strategies for future assistance. This need is particularly urgent for students in secondary schools since data on the implementation of Federal programs at the secondary education level are scarce. Although most programs that work in elementary schools may also work in secondary schools, secondary school students may have unique needs as a result of their different physical, psychological, and social development stages. Any successful instructional strategies and program emphases must match student needs.

The purpose of this chapter is, therefore, to report the educational experiences and needs of middle school students in poverty. Specific topics covered in this chapter include: a) the distribution of students in poverty by social background, community type, and geographic region; b) educational opportunities as measured by school characteristics, curriculum, teacher qualification, and special services; c) deficiencies in student performance in school, and d) educational emphases in the future. In addressing most of these topics, students in poverty were compared with students not in poverty.

Data Source

This chapter is based on the base-year data of the National Education Longitudinal Study of eighth graders in 1988 (NELS:88), administered by the National Center for Education Statistics, U. S. Department of Education. NELS:88 involved a national representative sample of 24,599 students from 1,051 schools across the country. Students were selected with a highly stratified, two-stage sample design -- the schools were selected first, and then an average of 26 students were selected within each school. Certain

schools and certain students such as Asian Americans were oversampled with a higher selection probability (Ingels, Scott, Lindmark, Frankel, Myers, & Wu, 1992).

The base-year data were collected in the spring of 1988. Over 93 percent of the sampled students completed a questionnaire that tapped information about their backgrounds and educational experiences. Students also took achievement tests designed for the study. Additionally, parents were surveyed to obtain information about family characteristics and home educational activities, and school administrators were asked to complete a questionnaire about school practices, curriculum requirements, and school environments. Selected English, mathematics, science, and social studies teachers of the sampled students were also asked to provide information about their backgrounds and to rate their students' behavior in the classroom. The response rates for all these surveys were over 90 percent (see Ingels, et al., 1992). These comprehensive data were the basis for this study. The sample sizes for major subgroups used in this study are presented in Table 1.

It should be noted that this chapter is based on a secondary analysis of an existing national data base. One strength of such an analysis is the ability to examine multiple topics of interest. However, the data may be insufficient for in-depth analyses because some desirable variables may be missing. So while this analysis tried to take advantage of the strength of the data base by including a number of topical areas of interest, it remains descriptive in nature.

Table 1. Sample sizes for major subgroups

Subgroup	Sample size
Community type	
Urban	6,509
Suburban	8,925
Rural	6.160
Region	
Northeast	3,915
North Central	5,634
South	7,670
West	4,342
Race-ethnicity	
Asian American	1,304
Hispanic	2,603
African American	2,591
White	14,667
American Indian	206

Note: Details may not add to totals due to missing data. Hispanic include all races.

Source: National Education Longitudinal Study of eighth Graders in 1988, National Center for Education Statistics, U.S. Department of Education.

Prevalence and distribution of students in poverty

Parents of the sampled students provided information on family income in categories. Based on this information, students were classified into two categories: in poverty if their family income was less than $15,000; not in poverty, otherwise. This classification matched quite closely with the poverty definition provided by the U.S. Bureau of the Census. In 1988, the poverty threshold was $12,092 for a family of four and $16,149 for a family of six (U.S. Bureau of the Census, 1989).

Based on this classification, it was estimated that over 21 percent of the eighth graders in 1988 were from families below the poverty level. Assuming this rate is consistent across the K-12th grades, there were over 7 million students in poverty in this country who generally needed special

assistance in school in 1988.

The prevalent rate of students in poverty, as expected, varied somewhat by geographic regions, ranging from 25.7 percent in the South and 20.2 percent in the West to 18.5 percent in the North Central and 17 percent in the Northeast. Similarly, the rate varied by the type of community, with the urban community showing 26.9 percent, rural community, 25.8 percent, and suburban community, 14.5 percent (Table 2). These results indicate that more students in the South and more students in the urban and rural areas required assistance.

Table 2. Percentage of 1988 eighth-grade students in poverty in each geographic region and type of community

	Percent in poverty
Total students	21.1
Geographic region	
Northeast	17.0
North Central	18.5
South	25.7
West	20.2
Type of Community	
Urban	26.9
Suburban	14.5
Rural	25.8

Note: Poverty -- family income < $15,000.

Source: National Education Longitudinal Study of eight Graders in 1988, the National Center for Education Statistics, U.S. Department of Education.

Further analyses revealed that students in poverty were likely to be minority -- 51 percent (Table 3 and Figure 1). In contrast, about 80 percent of students not in poverty were white.

Students in poverty were also more likely to have parent(s) with low education levels -- 27 percent of these students' parents did not complete high school and 29 percent only had a high school education. In contrast, only 5 percent of the parents of students not in poverty had less than a high school education, 44 percent had some college education, and 32 percent had a college education (Table 3 and Figure 1).

Moreover, students in poverty were more likely to come from single-parent families. Some 36 percent of these students came from two-parent families, another 44 percent came from single-parent families, and the remaining 21 percent came from families of other arrangements (e.g., mother with male companion). In contrast, 72 percent of students not in poverty came from two-parent families (see Table 3 and Figure 1). The percentage of students in poverty from single-parent families was highest among African American students -- 55 percent as compared to 43 percent for white students and 32 percent for Hispanic students (not shown in the table).

Table 3. Percentage distribution of students by social background and poverty status

Social background	Poverty status	
	In poverty	Not in poverty
Race-ethnicity	100.0	100.0
Asian American	2.8	3.5
Hispanic	17.3	7.6
African American	28.6	8.6
White	49.1	79.5
American Indian	2.0	.8
Parental education	100.0	100.0
Less than high school	27.4	5.2
High school only	28.6	18.0
Some post high school ed.	40.0	44.4
College and above	4.1	32.3
Family composition	100.0	100.0
Two-parent family	35.9	71.8
Single-parent family	43.5	12.0
Other	20.6	16.1

Note: Poverty -- family income < $15,000.
Hispanic includes all races.

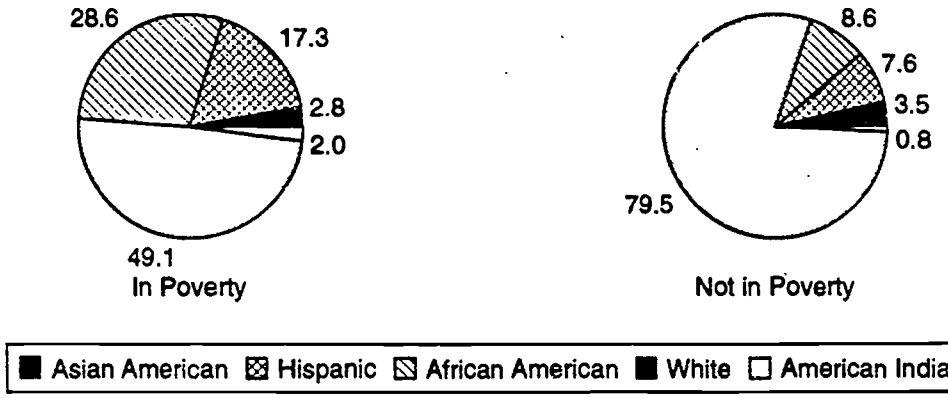
Source: National Education Longitudinal Study of eighth graders in 1988, National Center for Education Statistics, U.S. Department of Education.

Insert Figure 1 about here

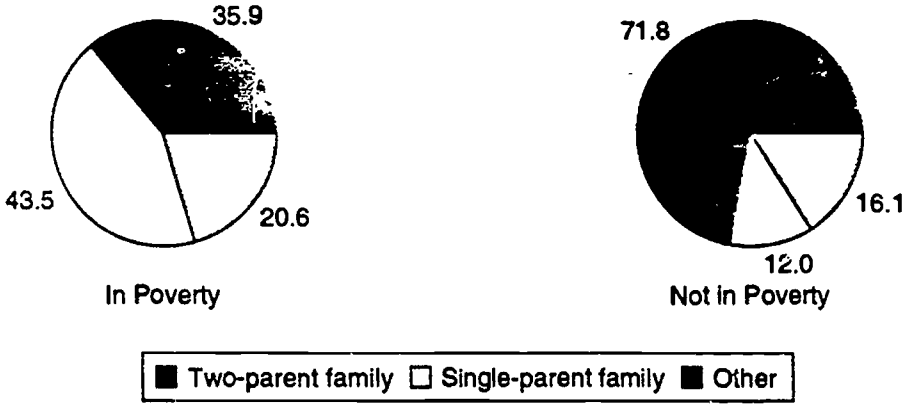
Consistent with the population distribution pattern, the racial-ethnic composition of the students in poverty varied by community type. In the urban community, the majority of students in poverty were minorities -- 46 percent African American, 25 percent Hispanic, and 4 percent Asian American as compared to 24 percent white. In contrast, the majority of poor students in the suburban community were white -- 54 percent white vs. 21 percent African American, 19 percent Hispanic, and 4 percent Asian American. Similarly, in

Figure 1.--Percent Distribution of Students in Poverty by Social Background

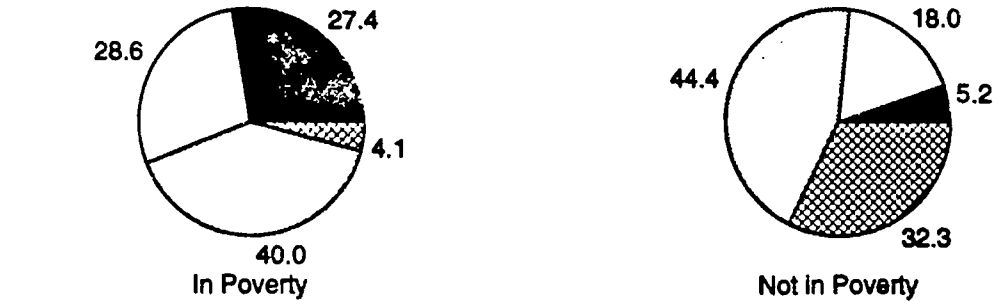
Race/Ethnicity



Family Composition



Parental Education



the rural community, the majority of students in poverty were also white -- 65 percent white vs. 21 percent African American, 10 percent Hispanic, and 1 percent Asian American. American Indians represented about 2 percent of the poor students in each type of community.

Likewise, the racial-ethnic composition of students in poverty also varied by geographic region. For example, there was a higher percentage of African Americans in the South (43.2 percent) and a higher percentage of Hispanics and American Indians in the West (35.7 percent Hispanic and 6.1 percent American Indian).

It is interesting to note that students in poverty were likely to concentrate in certain areas within a community (i.e., disadvantaged areas). As shown in Table 4, a substantially higher percentage of urban students in poverty than students not in poverty enrolled in schools where over 50 percent of the students participated in free or reduced-price lunch programs. The percentages were 70, 58, 45, and 32, respectively, for the Northeast, North Central, South, and West. The suburban and rural communities in the South and West also had a high concentration of poverty students in disadvantaged areas. Schools with a high concentration of poor students would have more problems and thus require greater assistance than schools with a low concentration of poor students.

Table 4. Percentage of students enrolled in schools where over 50 percent of students participated in free or reduced-price lunch programs, by region, community type, and poverty status

Region	Urban		Suburban		Rural	
	P	NP	P	NP	P	NP
Northeast	70.4	41.4	13.7	3.7	20.5	19.2
North Central	58.0	15.5	6.2	1.4	1.3	.8
South	44.9	16.3	33.8	7.4	30.0	14.4
West	31.7	10.0	20.7	7.2	46.3	23.9
Average	51.3	20.8	18.6	4.9	24.5	14.6

Note: P -- students in poverty, NP -- students not in poverty

Source: National Education Longitudinal Study of eighth graders in 1988, National Center for Education Statistics, U.S. Department of Education.

Equality of Educational Opportunity

Did students in poverty receive the same quality of education as students not in poverty? To answer this question, the type of schools students attended, the environments of the school, curriculum requirements, instructional practices, and teacher qualification and attitudes toward students were compared. Results showed that although there were not obvious differences in most of the school characteristics and curriculum requirements, there were some differences in the type of services students received and the environments the students were exposed to. These results are described below.

Type of School Attended. Overall, 96 percent of students in poverty as compared to 87 percent of students not in poverty attended public schools. This difference was most marked in the urban community where 93 percent of students in poverty attended public schools and 6 percent attended Catholic schools. In contrast, only 72 percent of students not in poverty enrolled in

public schools, while 17 percent enrolled in Catholic schools and the remaining 11 percent enrolled in other private schools. In the suburban community, 95 percent of students in poverty attended public schools and 4 percent attended Catholic schools while 88 percent of students not in poverty were enrolled in public schools and 8 percent in Catholic schools. In the rural community, almost all students in poverty (99 percent) attended public schools (see Table 5). Thus, public schools, as one would expect, assume a greater responsibility and burden than private schools for providing education and services to students in poverty. If the services of public schools were reduced and quality consequently declined, students in poverty would be hurt more than students not in poverty.

Table 5. Percentage distribution of students by school type, community type, and poverty status

Student type	School type		
	Public	Catholic	Other private
All students			
In poverty	95.9	3.3	0.8
Not in poverty	86.7	8.1	5.2
By community type			
Urban --			
In poverty	93.0	5.9	1.1
Not in poverty	72.1	17.0	10.9
Suburban --			
In poverty	94.8	4.3	0.9
Not in poverty	87.5	8.2	4.3
Rural --			
In poverty	99.1	0.6	0.3
Not in poverty	96.2	1.5	2.4

Note: Poverty -- family income < $15,000

Source: National Education Longitudinal Study of eighth graders in 1988, National Center for Education Statistics, U.S. Department of Education.

Moreover, students in poverty in the urban and suburban communities were more likely to attend schools where safety and discipline were a major concern. For example, over 90 percent of the students in poverty as compared to 80 percent of the students not in poverty attended schools where hall passes were required to visit libraries, lavatories, or the school office (Table 6). These students also were more likely to attend schools where robbery or theft, vandalism and weapons, student tardiness, absenteeism, class cutting, physical conflicts and verbal abuse of teachers were a serious problem (Tables 6 & 7). Although it is not clear whether such practices and problems reflect the students' lack of discipline or motivation for learning, they nevertheless point out areas of deficiencies that may affect student learning and thus should be emphasized in any future improvement efforts.

Table 6. Percentages of students attending schools with specified characteristics, by community type and poverty status

School practice	Urban		Suburban		Rural	
	P	NP	P	NP	P	NP
Hall passes required to						
a. visit library	90.3	80.9	87.2	84.5	81.5	79.8
B. visit lavatory	91.4	80.1	90.9	86.1	78.0	79.3
c. visit office	90.3	78.4	89.8	80.5	76.5	76.8
d. visit counselor	86.0	73.2	86.4	80.8	74.8	74.2
Schools had a problem of						
a. Robbery or theft	75.7	63.9	73.0	62.0	69.7	67.2
b. Vandalism	74.2	62.0	70.2	58.2	61.6	57.6
c. Weapon use	41.9	25.2	21.7	15.9	17.5	15.1

Note: P -- students in poverty; NP -- students not in poverty

Source: National Education Longitudinal Study of eighth graders in 1988, National Center for Education Statistics, U.S. Department of Education.

Table 7. Percentages of students attending schools with specified problems, by community type and poverty status

Student problem	Urban		Suburban		Rural	
	P	NP	P	NP	P	NP
Teachers had difficulty motivating students	91.4	85.8	96.7	88.1	94.3	92.5
School had a moderate or serious problem in student						
a. tardiness	57.5	36.5	44.3	29.8	32.2	26.7
b. absenteeism	47.7	26.8	42.7	26.5	36.8	28.3
c. class cutting	23.2	10.3	10.6	4.8	8.6	5.2
d. physical conflicts	33.9	16.9	22.3	15.3	18.3	14.8
e. verbal abuse of teachers	13.7	5.5	10.3	5.8	3.7	2.1

Note: P -- students in poverty; NP -- students not in poverty

Source: National Education Longitudinal Study of eighth graders in 1988, National Center for Education Statistics, U.S. Department of Education.

Curriculum Requirements and Offerings. Did students in poverty receive the same kind of curriculum and offerings as students not in poverty? In terms of curriculum requirements, data did not show any substandard. For example, the requirements for English, mathematics, science, and social studies courses were basically the same for all students. This was not surprising since curriculum requirements and standards are usually set for all students by the school district office.

Similarly, students in poverty also enjoyed the same kind of extracurricular activities as students not in poverty. These activities included band, computer clubs, drama clubs, subject matter clubs, student council, student newspaper, interscholastic sports, and intramural sports.

However, in urban and suburban communities, students in poverty were less likely than students not in poverty to receive moral/ethics and religious

instruction. This difference may reflect the fact that more non-poverty students enrolled in private schools where instruction of these subjects is often offered.

Teacher Qualification and attitudes. There were slight differences in educational preparation and experiences between teachers for students in poverty and teachers for students not in poverty. As shown in Table 8, slightly more students in poverty in public schools were taught by new teachers (2 years or less in the school) and by teachers without certification for teaching or for teaching the subject course. This pattern is consistent across the four subject matters -- English, mathematics, science, and social studies -- and across the three community types, even though some of the individual differences are not statistically significant. Furthermore, as reported by school administrators in the urban and suburban schools, more students in poverty than students not in poverty were taught by teachers who had negative attitudes toward students and were less likely to encourage students to do their best or to do homework (Table 9).

Special Programs and Services. Did schools provide extra services to students in poverty in response to their special needs? Based on the limited information from the data base, it was found that certain programs were more readily available for students in poverty. As shown in Table 10, more students in poverty attended schools where the following special programs were offered: vocational counseling and English, mathematics, science, and social studies taught in a non-English language (Table 10), reflecting the fact that more of students in poverty were language minorities.

Table 10. Percentage of students attending schools that had special programs

Special program	Community type and poverty status					
	Urban		Suburban		Rural	
	P	NP	P	NP	P	NP
Vocational counseling	65.3	54.5	60.3	55.7	60.8	60.4
English taught as ESL	16.5	10.4	12.0	4.8	9.0	5.0
Math in non-English.	15.9	9.7	8.2	2.4	2.6	1.8
Science in non-English	15.6	9.0	7.3	2.4	5.1	2.6
Social studies in non-Eng.	16.0	10.3	8.2	3.2	6.0	3.3
Foreign language offered	45.4	51.2	30.3	41.3	29.5	30.1

Note: P -- students in poverty; NP -- students not in poverty

Source: National Education Longitudinal Study of eighth graders in 1988, National Center for Education Statistics, U.S. Department of Education.

Student Performance in School

Achievement Test Scores. Previous studies have documented that students in poverty have lower test scores than other students. The results of this analysis, as expected, were consistent with this common phenomenon. Based on the standardized combined scores of reading and mathematics tests specially designed for NELS:88, a large percentage of the students in poverty were in the lowest quartile. For example, 53 percent of students in poverty living in

Table 8. Percentage of public school students taught by new teachers (2 years or less in the school) and by non-certified teachers

	Urban		Suburban		Rural	
	P	NP	P	NP	P	NP
New teachers						
English	19.0	16.7	16.1	12.9	20.0	14.9
Mathematics	27.7	24.2	26.3	21.0	16.9	13.3
Science	30.4	21.4	23.1	22.8	15.4	15.1
History	21.2	20.1	23.8	18.4	14.5	12.1
Teachers not certified						
English	13.2	10.0	15.0	11.0	17.7	13.2
Mathematics	18.2	15.2	16.2	11.1	16.9	14.9
Science	11.3	5.8	11.4	10.1	15.9	14.3
History	16.0	11.0	10.1	6.8	11.3	9.3

Notes: P -- students in poverty; NP -- students not in poverty.
Non-certified teachers include those certified for other subjects, but not the subject they were teaching.

Source: National Education Longitudinal Study of eighth graders in 1988, National Center for Education Statistics, U.S. Department of Education.

Table 9. Teacher characteristics by community type and poverty status

	Urban		Suburban		Rural	
Teacher characteristics	P	NP	P	NP	P	NP
Very much encouraged/expected students to						
a. do their best	45.3	62.3	47.8	57.4	52.2	52.8
b. do homework	57.0	68.5	52.2	60.4	51.5	53.2
Morale was high	22.1	29.0	27.3	31.3	25.8	24.5
Had negative attitude about students	71.2	54.7	64.4	54.7	59.5	60.3
Responded to individual needs	20.8	33.3	25.9	30.5	27.4	26.5

Note: P -- students in poverty; NP -- students not in poverty

Source: National Education Longitudinal Study of eighth graders in 1988, National Center for Education Statistics, U.S. Department of Education.

urban communities in the South were in the lowest quartile. Similarly, over 50 percent of students in poverty living in urban communities in the northeast and north central regions were in the lowest quartile. The percentages in the lowest quartile among students in poverty in other communities ranged from 27 to 47 percent (Table 11). In contrast, the percentages of students not in poverty who scored in the lowest quartile stayed around 20 percent or less except for those in northeast urban and west rural communities.

Table 11. Percentage of students in the first (the lowest) quartile of the combined reading and mathematics standard scores, by region, community type, and poverty status

Region	Urban		Suburban		Rural	
	P	NP	P	NP	P	NP
Northeast	50.2	27.5	39.4	13.6	27.3	13.5
North Central	50.6	20.6	36.4	15.4	26.8	15.0
South	53.0	22.2	47.5	19.9	45.3	24.3
West	44.8	23.7	39.0	16.8	38.5	27.6

Note: P -- students in poverty; NP -- students not in poverty

Source: National Education Longitudinal Study of eighth graders in 1988, National Center for Education Statistics, U.S. Department of Education.

A further analysis of the data revealed that students in poverty who attended schools with a low concentration of poor students had higher test scores than their counterparts in schools with a high concentration of poor students. In this analysis, schools were sorted into four categories on the basis of the percentage of students participating in free or reduced-price lunch programs: ranging from the low group (i.e., schools with no students participating in a program) to the high group (i.e., schools with more than 50 percent of their students participating in a program). As the data in Table

12 shows, students in poverty in the low-group schools had higher achievement than their counterpart students in the high-group schools. The percentage of students in the lowest achievement quartile increased as the schools had more students participating in a free or reduced-price lunch program. This finding is consistent with the finding of a study by Anderson, Hollinger, and Conaty (1992).

Table 12. Percentage of students in poverty whose combined reading and mathematics standard scores were in the lowest quartile, by community type and school SES

Community type	School SES Low	Mid 1	Mid 2	High
Urban	30.5	38.7	51.5	56.1
Suburban	29.1	33.9	48.9	49.1
Rural	38.8	37.9	33.2	45.9
Average	32.8	36.8	44.5	50.4

Notes: School SES was based on the percentage of students in the free or reduced-price lunch program. Low -- none; Mid 1 -- 1 to 20 percent; Mid 2 -- 21 to 50 percent; High -- more than 50 percent.

Source: National Education Longitudinal Study of eighth graders in 1988, National Center for Education Statistics, U.S. Department of Education.

Student Behaviors. Four subject matter teachers -- English, mathematics, science, and history -- were asked about their students' behavior in the classroom. The percentages of students having the selected problems, averaged across four teachers, are presented in Table 13. It is quite consistent that students in poverty, regardless of the type of community, exhibited more behavioral problems than students not in poverty. For example, in urban schools 36 percent of students in poverty as compared to 25 percent

of students not in poverty were rated as performing below their ability. The suburban and rural schools exhibited similar differences. Likewise, proportionally there were more students in poverty than students not in poverty who rarely completed homework and were frequently absent, tardy, inattentive in class, exceptionally passive/withdrawn, and frequently disruptive.

Table 13. Percentage of students reported by teachers as having the selected behavioral problems, by community type and poverty status

Student behavior	Urban		Suburban		Rural	
	P	NP	P	NP	P	NP
Perform below ability	36.0	24.5	38.3	23.7	33.3	22.9
Rarely complete homework	34.2	19.1	31.8	17.0	26.1	15.9
Frequently absent	19.3	9.4	21.0	9.0	15.4	8.0
Frequently tardy	13.0	5.8	9.2	4.8	7.5	3.6
Inattentive in class	30,2	19.2	28.7	19.1	27.1	18.0
Exceptionally passive	11.0	7.9	9.7	6.6	13.5	7.1
Frequently disruptive	20.5	12.1	17.7	12.6	15.9	11.1

Notes: 1. Each figure is the average of ratings by English, mathematics, science, and history teachers.
2. P -- students in poverty; NP -- students not in poverty.

Source: National Education Longitudinal Study of eighth graders in 1988, National Center for Education Statistics, U.S. Department of Education.

Summary and Discussion -- Educational Emphases in the Future.

In summary, about one in five of the nation's eighth graders in 1988 was classified as being in poverty. The ratio was even higher among students in the South and in urban and rural communities. Many of these students suffered multiple disadvantages. In addition to poverty, they were likely to have parent(s) with low education and/or to live with a single parent in an economically depressed area. As shown in the previous studies (Peng, Wang, &

Walberg, 1992; Peng, & Lee, 1992), each of these disadvantages represents a major challenge to schools and teachers. Thus, helping these students to overcome their problems would require an extraordinary effort.

About 96 percent of students in poverty as compared to 87 percent of students not in poverty attended public schools. Since students in poverty generally require extra help in school, public schools would need greater resources than private schools to achieve the education goals. In many areas, particularly in urban communities, any decrease of resources in public schools would greatly affect students in poverty.

In urban communities across the country and in rural communities in the west region, students in poverty were likely to concentrate in certain public schools located in areas where the majority of households were on welfare. These are "ghetto" schools that need the most assistance because the concentration of the students in poverty compounds the problems in learning and discipline. These schools would require much more resources than are currently available in order to bring forth any significant improvement in student learning.

But what can be done to help improve the quality of these schools and how would it be done? Commission of Chapter 1 (1992) argued that the focus should be placed on improving the overall quality of the schools. To do so, one needs to examine the overall practices and environments of the schools and to determine the areas of deficiencies. Results of this study do not show any significant differences in curriculum requirements and offerings; thus, no special effort would be necessary in that area. However, this study does reveal deficiencies in teacher qualification for students in poverty. More qualified and experienced teachers, especially teachers with positive

attitudes toward students, are needed in schools where students in poverty concentrate. Furthermore, this study has identified several deficiencies among students in poverty and among schools where these students concentrated. Future efforts should focus on the diminishing of these deficiencies. In particular, the following programs should be emphasized:

- Programs to improve the safety and discipline in the school.
- Programs that help teachers and schools place a priority on learning and encourage students to do their best.
- Programs to improve student attendance and classroom behaviors.
- Programs to improve communication with parents and to support parents in teaching students what is right.
- Programs to improve students' attitudes toward learning and education and to motivate them to study.

Footnote:

The paper is intended to promote the exchange of ideas among researchers and policy makers. The views are those of the authors and no official support by the U.S. Department of Education is intended or should be inferred.

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