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## ABSTRACT

One of the issues in bilingual education is whether programs designed to provide immigrant children with special aid in learning English are adequate. To provide factual data this study reports on a survey conducted on all classroom and home teachers in the public schools of New York City. Each teacher is asked to list all pupils in the class who have moderate or severe difficulty speaking English and then to indicate the extent of each pupil's participation in specialized programs designed either to improve English language skills or to provide instruction in the pupil's native language. Although the survey inquires about all pupils in the schools who have difficulty with English, the present report is restricted to those of Spanish heritage. Three issues are considered: (1) How many Hispanic pupils have difficulty with English? (2) How many of these are receiving specialized remedial services or instruction in Spanish? (3) How many of these are in contact with school personnel fluent in Spanish? The data presented in this report shows both a substantial need for special services for Hispanic pupils with English language difficulty and a substantial effort on the part of the schools to meet that need. Whether these efforts are sufficient remains a central pending issues. (Author/RM)

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PRELIMINARY REPORT ON A SURVEY OF EDUCATIONAL SERVICES  
FOR HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY,  
CONDUCTED IN THE NEW YORK CITY SCHOOLS, MAY 1974

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EDUCATION & WELFARE  
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EDUCATION

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## PREFACE

In conjunction with a pending Federal suit, Aspira of New York, Inc., et al., vs. Board of Education of the City of New York, et al., 72 Civ. 4002 (S.D.N.Y.), the hearing judge, Hon. Marvin E. Frankel, ordered in a memorandum dated April 30, 1974, that:

Defendants will make or commission a survey to determine with all feasible precision the number and locations of affected children, the varieties and scope of existing programs and the availabilities of instructional personnel. Plaintiffs and their counsel will participate in formulating the scope and nature of the survey. The court will resolve disputes over this as well as other steps to be taken. The survey will be completed, and its results made available to plaintiffs and the court by July 1, 1974. (p. 5)

In response to this order, the Board of Education commissioned the Center for Policy Research to consult on the design of a survey, which was then carried out in the schools by the Board of Education; to prepare a report presenting the results of the survey; and to prepare various tabulations requested by the defendants or the plaintiffs. The present document represents our first report on the results of the survey. This report provides an estimate of the number of Hispanic pupils with English language difficulty in the City and in each Community School District, and an estimate of the availability of special program services and personnel for these pupils in the City. The report also contains five Appendices. Appendix I describes the data collection and processing procedures. Appendix II contains an analysis of

allegations that pupils with English language difficulty were under-counted in the May survey. Appendix III contains a set of tables on hours of participation in various services, which was too large to be included in the body of the text. Appendix IV, which is separately bound, contains tables presenting data for each Community School District. Finally, Appendix V contains various documents pertinent to the execution of the survey.

The present report is based on data drawn from two sources:

(1) the language censuses conducted each October by the Board of Education, for the period 1970-1973; (2) the recently completed survey ordered by Judge Frankel. Because of the extremely limited time allowed to execute the survey and analyze the resulting data, this report must be considered preliminary. The tabulations presented here are based on an unedited data tape for the entire population from which data were received. Although, for reasons elaborated in Appendix I, we had planned to base this report on an edited sample of data, we did not receive a functioning computer tape containing these data until Saturday afternoon, June 29. In view of these considerations, we plan to submit a second report on July 15. This report will present a comparison of data based on the unedited population tape with data based on the edited sample tape. It will also present the results of a special validity check procedure undertaken to assess the accuracy of data reported by teachers on the extent of pupil participation in special program services. The July 15 report will also include various tabulations requested by the plaintiffs, on a District by District basis and, if the data warrant, on a school by school basis.

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## INTRODUCTION

New York has been a polyglot city for well over 100 years and as each wave of immigrants from non-English speaking homelands has reached our shores they have looked to the schools to provide their children with a sufficient command of English to secure their place in the life of the city. The relatively recent immigration of Puerto Ricans and others of Spanish heritage is but the latest manifestation of this historical process. And, like earlier groups, they too look to the schools to provide their children with English language skills which they themselves often do not possess.

Like other groups, their children often begin school knowing little English. Fortunately, and in contrast to earlier generations of immigrants, the legitimacy of the right of these children to special aid in learning English is widely accepted by those who run the school system. Special programs are available in many schools, although until now no one has known exactly how many programs existed and how many children were being served. One of the issues of contention in *Aspiva vs. Board of Education* is whether these programs are adequate. To provide the factual data upon which this issue must turn, the Board of Education in May of this year conducted a survey of all class room and home room teachers in the public schools of the city. Each teacher was asked to list all pupils in the class who had moderate or severe difficulty speaking English and then to indicate the extent of each pupil's participation in specialized programs designed either to improve English language skills or to provide instruction in the pupil's native language.

In addition, the teacher was asked to indicate which personnel with whom the pupil had contact were fluent in his native language. The questionnaire and overall design of the survey were the product of the joint effort of members of the Chancellor's staff, counsel for the plaintiffs, and the authors of this report, who served as consultants to the Board of Education. This somewhat arduous process resulted in the material described in detail in Appendix I.<sup>1</sup>

Although the survey inquired about all pupils in the schools who have difficulty with English, the present report is restricted to those of Hispanic heritage. Specifically, this includes Puerto Rican pupils and pupils who are "Spanish speaking but not Puerto Rican."<sup>2</sup> Data in this report will be presented for the combined groups, designated "Total Hispanic." A more detailed breakdown will be made at some future date. The report will consider three issues: (1) How many Hispanic pupils have difficulty with English; (2) How many of these pupils are receiving specialized remedial services or instruction in Spanish; and (3) How many of these pupils are in contact with school personnel fluent in Spanish. The first topic relies heavily upon data collected in earlier surveys while the latter two topics rely exclusively upon data from the current survey, which make analysis of these issues possible for the first time.

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<sup>1</sup>We are reminded of the description of a camel as "a horse designed by a committee"; this survey may be viewed in an analogous way.

<sup>2</sup>Both the language group and language competence classifications used in the present survey are identical to those used in the annual language census conducted by the Board of Education. Although in our judgment these definitions are far from ideal, their use enables comparisons with earlier data which otherwise would not be possible. Appendix I contains a more detailed discussion of the wording of these items.

## HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY

To determine the extent of the need for remedial and bilingual services, it is necessary to know not only how many pupils currently have difficulty speaking English, but how many pupils with English language difficulty can be expected to be enrolled in the schools in coming years. The best way to get an estimate of future trends is to analyze past trends. Thus, the first topic in this section will be an analysis of the extent of English language difficulty among Hispanic pupils since 1970. Second, because under decentralization the schools are administered by Community School Districts which have independent budgetary and policy making authority, it is necessary to know in which districts pupils with English language difficulty are concentrated. Third, in designing effective remedies, it is necessary to know in what grades the need is greatest. We consider these topics one at a time.

Trends in the extent of English language difficulty. Of approximately 1.1 million pupils attending public schools in the City of New York each year since 1970, about a quarter of a million were of Puerto Rican origin and another 40,000 from other Spanish speaking groups. Of these, about a third of the Puerto Ricans and about half of the other Hispanics had at least some difficulty speaking English, as reported by their teachers.

Table 1 provides the details. The table shows a stable pattern of enrollment of both Puerto Rican and other Hispanic pupils over the past four years, together with a basically stable although slightly improving pattern of English language competence. Over 20 per cent of Puerto Rican pupils were judged at the beginning of

Table 1 - Per cent of Hispanic pupils with English language difficulty in New York City Schools, 1970-1974

|                        | Per cent with moderate difficulty (Cat. I) | Per cent with severe difficulty (Cat. II) | Total per cent with difficulty (Cats. I & II) | Number of Pupils |
|------------------------|--|---|---|------------------|
| <b>Total Hispanic</b>  |  |   |   |                  |
| October, 1970          | 27   | 15  | 42  | 282,960          |
| October, 1971          | 23   | 12  | 35  | 301,583          |
| October, 1972          | 23   | 11  | 34  | 298,197          |
| October, 1973          | 22   | 11  | 33  | 297,008          |
| May, 1974 <sup>a</sup> | 15   | 8   | 25 <sup>b</sup>                               | 261,099          |
| <b>Puerto Rican</b>    |  |   |   |                  |
| October, 1970          | 26   | 13  | 39  | 245,082          |
| October, 1971          | 22   | 10  | 32  | 262,265          |
| October, 1972          | 22   | 9   | 31  | 257,752          |
| October, 1973          | 21   | 9   | 30  | 256,492          |
| May, 1974 <sup>a</sup> | 14   | 6   | 21 <sup>b</sup>                               | 225,544          |
| <b>Other Hispanic</b>  |  |   |   |                  |
| October, 1970          | 34   | 26  | 60  | 37,878           |
| October, 1971          | 28   | 23  | 51  | 39,318           |
| October, 1972          | 29   | 18  | 47  | 40,445           |
| October, 1973          | 28   | 21  | 49  | 40,516           |
| May, 1974 <sup>a</sup> | 23   | 19  | 44 <sup>b</sup>                               | 36,379           |

<sup>a</sup> Estimated from preliminary unedited data tape; about 10 high schools and a number of special schools are excluded because data were returned too late for inclusion. All figures for May, 1974 were computed from this tape. See Appendix I for details.

<sup>b</sup> Includes those for which language difficulty code missing.

the school year to have moderate difficulty speaking English and about 10 per cent to have severe difficulty. For other Hispanics, the comparable percentages were 30 and 20. Despite the slight tendency for the percentage of pupils with English language difficulty to decline over the years, the best estimate of the situation to be expected for the next several years is that it will remain essentially what it is now.

The reader will note that the data for May, 1974 appear to indicate a substantial improvement of English language competence between October and May of the past school year. Be that as it may, these data should not be taken as indicating a trend which will continue to hold next year. Rather, as was just stated above, the best guess is that the data for October, 1974, will look very much like the data for October, 1973. There are two reasons why the May data exhibit a lower percentage of pupils with English language difficulty than the data for the previous October. First, a certain amount of improvement in English language competence does occur during the course of the school year, after which high school seniors graduate and are replaced by kindergarteners and first graders with a much higher level of English disability. Second, there was apparently some under-reporting of pupils with English language difficulty especially those with moderate difficulty, in the May survey; thus, the May figures are in fact somewhat too low. Both of these points are discussed in detail in Appendix II.

Variations in extent of English language difficulty by district.

Not surprisingly, the extent to which Hispanic pupils are deficient in English varies substantially among Community School Districts.

In October, 1973, for example, the percentage of Puerto Rican pupils who experienced severe difficulty speaking English ranged from one per cent in District 26 to 15 per cent in District 7; while the percentage experiencing severe or moderate difficulty ranged from 10 per cent in District 26 to 41 per cent in District 7 and District 13 (the data are shown in Table 2). A comparable degree of variability across districts in the English language competence of other Hispanic pupils can be seen in Table 3.

These differences are extremely stable over time. Tables 2 and 3 show the per cent of Puerto Rican and other Hispanic pupils, respectively, who have severe difficulty with English and the per cent who have either severe or moderate difficulty for each year since 1970. Inspecting the tables, it is evident that in most districts the level of English language competence of Hispanic pupils has remained essentially stable since 1970. Although some districts seem to be improving the level of English language ability of their pupils, the improvement is for the most part slight and thus the most reasonable expectation is that for the next few years essentially the same distribution of English language competence will continue to hold.

The pattern of stability over time in each district is further confirmed by the data in Tables 4 and 5, which give the number of Puerto Rican and other Hispanic pupils, respectively, in each district for each year since 1970. These numbers are extraordinarily similar from year to year, suggesting that neighborhoods have remained stable in their ethnic distributions and hence that we can continue to expect similar numbers of Hispanic pupils in each of these districts for the next several years.

Table 2 - Per cent of Puerto Ricans in each District with severe English language difficulty (Category II) and per cent with any difficulty (Categories I & II), 1970-1974

| District     | Per cent with severe difficulty |           |           |                 |          | Per cent with any difficulty |           |           |                 |          |
|--------------|---------------------------------|-----------|-----------|-----------------|----------|------------------------------|-----------|-----------|-----------------|----------|
|              | Oct. 1970                       | Oct. 1971 | Oct. 1972 | Oct. 1973       | May 1974 | Oct. 1970                    | Oct. 1971 | Oct. 1972 | Oct. 1973       | May 1974 |
| City Total   | 13                              | 10        | 9         | 9               | 6        | 39                           | 32        | 31        | 30              | 21       |
| 1            | 16                              | 13        | 10        | 12              | 6        | 44                           | 39        | 38        | 36              | 22       |
| 2            | 13                              | 10        | 9         | 9               | 6        | 42                           | 34        | 34        | 34              | 23       |
| 3            | 13                              | 11        | 9         | 10              | 7        | 42                           | 37        | 35        | 35              | 28       |
| 4            | 14                              | 12        | 8         | 11              | 8        | 46                           | 38        | 34        | 32              | 28       |
| 5            | 7                               | 8         | 6         | 9               | 6        | 34                           | 31        | 28        | 36              | 21       |
| 6            | 13                              | 11        | 10        | 10              | 6        | 45                           | 35        | 39        | 33              | 20       |
| 7            | 16                              | 14        | 13        | 15              | 10       | 44                           | 41        | 41        | 41              | 31       |
| 8            | 12                              | 10        | 10        | 10              | 6        | 33                           | 30        | 28        | 28              | 18       |
| 9            | 14                              | 11        | 9         | 10              | 7        | 39                           | 29        | 27        | 29              | 18       |
| 10           | 11                              | 6         | 11        | 11              | 5        | 39                           | 21        | 35        | 30              | 18       |
| 11           | 5                               | 4         | 4         | 3               | 2        | 29                           | 23        | 23        | 19              | 20       |
| 12           | 20                              | 15        | 14        | 14              | 10       | 44                           | 39        | 38        | 37              | 29       |
| 13           | 12                              | 12        | 10        | 12              | 10       | 40                           | 38        | 40        | 41              | 33       |
| 14           | 17                              | 13        | 13        | 12              | 7        | 49                           | 42        | 44        | 39              | 23       |
| 15           | 12                              | 10        | 9         | 7               | 4        | 39                           | 31        | 32        | 27              | 18       |
| 16           | 14                              | 12        | 13        | 7               | 5        | 40                           | 37        | 41        | 25              | 21       |
| 17           | 9                               | 8         | 8         | 8               | 5        | 28                           | 25        | 25        | 23              | 17       |
| 18           | 6                               | 6         | 4         | 5               | 3        | 27                           | 20        | 23        | 17              | 12       |
| 19           | 14                              | 11        | 10        | 9               | 7        | 40                           | 32        | 32        | 28              | 28       |
| 20           | 13                              | 12        | 11        | 10              | 9        | 45                           | 40        | 36        | 30              | 28       |
| 21           | 13                              | 11        | 9         | 7               | 5        | 42                           | 37        | 38        | 32              | 26       |
| 22           | 8                               | 5         | 6         | 5               | 4        | 38                           | 24        | 28        | 29              | 22       |
| 23           | 14                              | 12        | 10        | 11              | 15       | 41                           | 33        | 28        | 34              | 39       |
| 24           | 13                              | 11        | 7         | 10              | 4        | 50                           | 40        | 34        | 34              | 22       |
| 25           | 10                              | 6         | 7         | 7               | 5        | 34                           | 25        | 28        | 29              | 25       |
| 26           | 1                               | 3         | 4         | 1               | 1        | 14                           | 12        | 10        | 10              | 12       |
| 27           | 7                               | 6         | 5         | 6               | 3        | 32                           | 19        | 23        | 21              | 19       |
| 28           | 11                              | 10        | 10        | 9               | 5        | 36                           | 29        | 31        | 32              | 24       |
| 29           | 6                               | 4         | 3         | 5               | 3        | 26                           | 22        | 24        | 24              | 22       |
| 30           | 11                              | 9         | 10        | 10              | 4        | 37                           | 29        | 32        | 33              | 18       |
| 31           | 5                               | 4         | 5         | 4 <sup>a</sup>  | 1        | 26                           | 19        | 22        | 22              | 19       |
| 32           | -                               | -         | -         | 14 <sup>a</sup> | 8        | -                            | -         | -         | 39 <sup>a</sup> | 27       |
| High Schools | 7                               | 5         | 5         | 6               | 3        | 27                           | 22        | 22        | 25              | 9        |

<sup>a</sup> District 32 was created in 1973 by partitioning District 16. Thus to make comparisons with earlier years, District 16 and 32 should be combined.



Table 3 - Per cent of other Hispanic pupils in each district with severe English language difficulty (Category II) and per cent with any difficulty (Category I & II), 1970-1974

| District     | Per cent with severe difficulty |           |           |           |          | Per cent with any difficulty |           |           |           |          |
|--------------|---------------------------------|-----------|-----------|-----------|----------|------------------------------|-----------|-----------|-----------|----------|
|              | Oct. 1970                       | Oct. 1971 | Oct. 1972 | Oct. 1973 | May 1974 | Oct. 1970                    | Oct. 1971 | Oct. 1972 | Oct. 1973 | May 1974 |
| City Total   | 26                              | 23        | 18        | 21        | 19       | 60                           | 51        | 47        | 49        | 44       |
| 1            | 35                              | 34        | 31        | 30        | 33       | 67                           | 61        | 62        | 68        | 54       |
| 2            | 37                              | 32        | 23        | 24        | 24       | 64                           | 61        | 55        | 57        | 53       |
| 3            | 36                              | 35        | 29        | 30        | 39       | 71                           | 68        | 62        | 61        | 70       |
| 4            | 35                              | 23        | 12        | 29        | 17       | 61                           | 49        | 76        | 50        | 42       |
| 5            | 29                              | 20        | 14        | 24        | 17       | 66                           | 47        | 52        | 53        | 45       |
| 6            | 31                              | 28        | 23        | 27        | 31       | 64                           | 59        | 57        | 56        | 62       |
| 7            | 37                              | 35        | 30        | 43        | 28       | 60                           | 65        | 60        | 68        | 49       |
| 8            | 27                              | 23        | 16        | 24        | 17       | 52                           | 43        | 35        | 46        | 35       |
| 9            | 28                              | 20        | 21        | 32        | 26       | 58                           | 39        | 46        | 53        | 47       |
| 10           | 24                              | 22        | 16        | 16        | 14       | 50                           | 48        | 41        | 41        | 32       |
| 11           | 13                              | 9         | 5         | 12        | 7        | 42                           | 30        | 28        | 30        | 26       |
| 12           | 32                              | 28        | 23        | 23        | 21       | 58                           | 52        | 50        | 47        | 40       |
| 13           | 26                              | 20        | 25        | 26        | 20       | 61                           | 45        | 50        | 59        | 45       |
| 14           | 32                              | 31        | 24        | 31        | 25       | 58                           | 64        | 63        | 63        | 51       |
| 15           | 28                              | 20        | 20        | 17        | 13       | 51                           | 48        | 46        | 43        | 37       |
| 16           | 26                              | 20        | 19        | 6         | 9        | 57                           | 43        | 49        | 22        | 26       |
| 17           | 16                              | 12        | 15        | 12        | 11       | 42                           | 37        | 37        | 43        | 28       |
| 18           | 20                              | 5         | 5         | 11        | 15       | 53                           | 34        | 25        | 33        | 34       |
| 19           | 26                              | 20        | 19        | 19        | 23       | 71                           | 45        | 44        | 51        | 52       |
| 20           | 22                              | 18        | 14        | 19        | 15       | 55                           | 45        | 40        | 41        | 44       |
| 21           | 13                              | 13        | 9         | 13        | 19       | 30                           | 45        | 39        | 44        | 42       |
| 22           | 18                              | 24        | 13        | 15        | 18       | 59                           | 51        | 43        | 43        | 45       |
| 23           | 21                              | 25        | 25        | 26        | 26       | 56                           | 50        | 43        | 49        | 57       |
| 24           | 31                              | 26        | 21        | 18        | 12       | 68                           | 55        | 54        | 49        | 41       |
| 25           | 23                              | 15        | 13        | 12        | 13       | 60                           | 50        | 46        | 41        | 36       |
| 26           | 19                              | 10        | 8         | 11        | 7        | 55                           | 40        | 37        | 30        | 47       |
| 27           | 18                              | 24        | 7         | 10        | 14       | 55                           | 40        | 31        | 37        | 41       |
| 28           | 11                              | 17        | 15        | 13        | 10       | 79                           | 42        | 41        | 39        | 29       |
| 29           | 18                              | 16        | 13        | 11        | 10       | 53                           | 51        | 43        | 37        | 38       |
| 30           | 24                              | 21        | 18        | 18        | 13       | 57                           | 49        | 47        | 44        | 36       |
| 31           | 17                              | 15        | 18        | 9         | 9        | 40                           | 38        | 44        | 31        | 28       |
| 32           | -                               | -         | -         | 27        | 21       | -                            | -         | -         | 54        | 42       |
| High Schools | 19                              | 18        | 13        | 15        | 15       | 50                           | 44        | 37        | 44        | 39       |



Table 4 - Number of Puerto Rican Pupils in each district, 1970-1974, and per cent Puerto Rican 1973-1974

| District     | Number of Puerto Rican pupils |              |              |              |          | Per cent Puerto Rican |          |
|--------------|-------------------------------|--------------|--------------|--------------|----------|-----------------------|----------|
|              | October 1970                  | October 1971 | October 1972 | October 1973 | May 1974 | October 1973          | May 1974 |
| City Total   | 245,082                       | 262,265      | 257,752      | 256,492      | 225,544  | 23                    | 22       |
| 1            | 12,544                        | 12,320       | 11,836       | 11,427       | 10,190   | 70                    | 68       |
| 2            | 5,383                         | 5,953        | 5,839        | 5,576        | 5,017    | 26                    | 24       |
| 3            | 5,654                         | 4,707        | 4,537        | 4,166        | 3,962    | 22                    | 21       |
| 4            | 13,467                        | 12,335       | 10,895       | 10,220       | 9,762    | 62                    | 62       |
| 5            | 2,735                         | 2,856        | 2,388        | 2,265        | 1,823    | 11                    | 10       |
| 6            | 3,382                         | 3,668        | 3,363        | 3,579        | 3,314    | 20                    | 19       |
| 7            | 18,942                        | 19,206       | 16,928       | 16,482       | 16,082   | 63                    | 62       |
| 8            | 13,729                        | 14,736       | 13,846       | 13,651       | 12,913   | 44                    | 42       |
| 9            | 14,203                        | 16,019       | 16,597       | 16,339       | 14,777   | 44                    | 42       |
| 10           | 6,274                         | 11,693       | 8,429        | 9,881        | 9,629    | 34                    | 33       |
| 11           | 2,785                         | 3,529        | 3,872        | 4,079        | 4,046    | 15                    | 15       |
| 12           | 19,317                        | 19,435       | 17,439       | 16,240       | 14,737   | 55                    | 53       |
| 13           | 5,017                         | 4,966        | 4,484        | 4,045        | 3,834    | 18                    | 17       |
| 14           | 18,110                        | 17,607       | 16,940       | 16,387       | 15,427   | 61                    | 60       |
| 15           | 12,188                        | 12,648       | 12,653       | 12,572       | 11,903   | 50                    | 49       |
| 16           | 11,348                        | 11,993       | 11,784       | 2,390        | 2,135    | 13                    | 12       |
| 17           | 2,862                         | 2,949        | 2,803        | 2,847        | 2,504    | 11                    | 10       |
| 18           | 1,221                         | 1,258        | 1,350        | 1,516        | 1,224    | 8                     | 6        |
| 19           | 11,799                        | 12,935       | 12,045       | 9,968        | 9,595    | 34                    | 33       |
| 20           | 2,689                         | 3,092        | 3,273        | 3,634        | 3,612    | 14                    | 14       |
| 21           | 2,486                         | 2,700        | 2,766        | 3,040        | 2,461    | 12                    | 10       |
| 22           | 377                           | 623          | 688          | 977          | 882      | 4                     | 3        |
| 23           | 5,563                         | 5,284        | 4,521        | 3,910        | 3,590    | 19                    | 19       |
| 24           | 816                           | 820          | 1,661        | 1,299        | 1,222    | 5                     | 5        |
| 25           | 376                           | 570          | 605          | 620          | 402      | 2                     | 2        |
| 26           | 107                           | 183          | 225          | 261          | 153      | 1                     | 1        |
| 27           | 1,012                         | 1,469        | 1,766        | 2,060        | 1,884    | 7                     | 7        |
| 28           | 728                           | 981          | 1,144        | 1,383        | 1,299    | 5                     | 5        |
| 29           | 589                           | 854          | 916          | 1,125        | 811      | 4                     | 3        |
| 30           | 1,390                         | 1,503        | 1,668        | 1,816        | 1,762    | 8                     | 8        |
| 31           | 830                           | 1,068        | 1,222        | 1,280        | 1,362    | 3                     | 3        |
| 32           | -                             | -            | -            | 11,333       | 10,920   | 53                    | 54       |
| High Schools | 45,648                        | 53,691       | 56,614       | 57,277       | 39,613   | 19                    | 17       |

<sup>a</sup> District 32 was created in 1973 by partitioning District 16. Thus, to make comparisons with earlier years, District 16 and 32 should be combined.

Table 5 - Number of other Hispanic pupils in each district, 1970-1974, and per cent other Hispanic 1973-1974

| District     | Number of other Hispanic pupils |              |              |              |          | Per cent other Hispanic |          |
|--------------|---------------------------------|--------------|--------------|--------------|----------|-------------------------|----------|
|              | October 1970                    | October 1971 | October 1972 | October 1973 | May 1974 | October 1973            | May 1974 |
| City total   | 37,878                          | 39,318       | 40,445       | 40,516       | 36,379   | 4                       | 4        |
| 1            | 426                             | 470          | 548          | 542          | 578      | 3                       | 4        |
| 2            | 827                             | 979          | 999          | 897          | 970      | 4                       | 5        |
| 3            | 2,228                           | 2,249        | 2,160        | 2,239        | 1,968    | 12                      | 11       |
| 4            | 216                             | 221          | 291          | 206          | 179      | 1                       | 1        |
| 5            | 756                             | 542          | 463          | 456          | 487      | 2                       | 3        |
| 6            | 5,703                           | 5,866        | 6,192        | 6,126        | 4,150    | 34                      | 24       |
| 7            | 765                             | 650          | 705          | 821          | 825      | 3                       | 3        |
| 8            | 734                             | 1,089        | 1,179        | 787          | 936      | 3                       | 3        |
| 9            | 996                             | 1,563        | 1,118        | 1,334        | 1,460    | 4                       | 4        |
| 10           | 590                             | 644          | 732          | 849          | 798      | 3                       | 3        |
| 11           | 204                             | 283          | 295          | 288          | 269      | 1                       | 1        |
| 12           | 949                             | 975          | 927          | 813          | 867      | 3                       | 3        |
| 13           | 285                             | 381          | 278          | 321          | 363      | 1                       | 2        |
| 14           | 796                             | 859          | 888          | 800          | 1,013    | 3                       | 4        |
| 15           | 832                             | 920          | 808          | 937          | 822      | 4                       | 3        |
| 16           | 527                             | 641          | 539          | 67           | 108      | 0                       | 1        |
| 17           | 667                             | 731          | 736          | 697          | 615      | 3                       | 2        |
| 18           | 242                             | 250          | 141          | 166          | 161      | 1                       | 1        |
| 19           | 1,332                           | 718          | 783          | 565          | 797      | 2                       | 3        |
| 20           | 429                             | 434          | 448          | 453          | 356      | 2                       | 1        |
| 21           | 413                             | 275          | 264          | 301          | 183      | 1                       | 1        |
| 22           | 235                             | 252          | 247          | 236          | 185      | 1                       | 1        |
| 23           | 236                             | 241          | 126          | 156          | 182      | 1                       | 1        |
| 24           | 3,474                           | 3,930        | 4,081        | 4,249        | 4,145    | 17                      | 17       |
| 25           | 755                             | 822          | 817          | 960          | 757      | 4                       | 3        |
| 26           | 112                             | 105          | 142          | 118          | 83       | 1                       | 0        |
| 27           | 295                             | 303          | 411          | 389          | 442      | 1                       | 2        |
| 28           | 2,236                           | 1,309        | 1,318        | 1,471        | 1,782    | 6                       | 7        |
| 29           | 374                             | 472          | 534          | 529          | 401      | 2                       | 2        |
| 30           | 2,445                           | 2,717        | 2,867        | 2,734        | 2,796    | 12                      | 12       |
| 31           | 216                             | 224          | 216          | 249          | 210      | 1                       | 1        |
| 32           | -                               | -            | -            | 554          | 632      | 3                       | 3        |
| High Schools | 7,497                           | 8,444        | 8,942        | 9,061        | 6,718    | 3                       | 3        |

Tables 4 and 5 also show the percentage of all pupils in each district who are Puerto Rican or of other Hispanic origin, for the past school year. The districts range from two per cent to 70 per cent Hispanic. Now, it might be supposed that those districts which are heavily Hispanic would tend to have the highest percentages of Hispanic pupils deficient in English, both because these are likely to be areas of first settlement of recent immigrants and because the concentration of Spanish speaking pupils would result in greater reliance on Spanish and less on English as a medium of communication with other pupils, thus retarding rapid mastery of English.

We can test this hypothesis by grouping districts on the basis of the percentage of pupils who are Hispanic and comparing the percentages of Hispanic pupils in each category who have difficulty with English. Table 6 presents these data. Interestingly, they do not provide much support for the hypothesis. There is a slight tendency for pupils in districts with very small proportions Hispanic to have less difficulty with English than pupils in other districts, but beyond this the extent of English language difficulty does not systematically increase as the percentage Hispanic increases. Whether this is because districts are not fine enough units to reveal this sort of contextual effect, which might operate at the level of the individual school, or whether there really is no effect of the linguistic context in which pupils are enmeshed is unclear.

Variations in extent of English language difficulty by grade.

Puerto Rican children learn English in school, and they learn it very quickly after starting school. This is strikingly evident in the figures presented in Table 7. Nearly half of all pupils enrolled

Table 6 - Per cent of Hispanic pupils with English language difficulty by per cent Hispanic in district, October, 1973

| Per cent Hispanic in District | Per cent with severe difficulty (Category II) | Per cent with any difficulty (Category I & II) | Number of Hispanic pupils | Number of districts |
|-------------------------------|---|--|---------------------------|---------------------|
| Less than 10                  | 6   | 26   | 10,486                    | 7                   |
| 10-19                         | 9   | 31   | 27,737                    | 8                   |
| 20-29                         | 15  | 41   | 14,164                    | 3                   |
| 30-39                         | 12  | 34   | 34,141                    | 4                   |
| 40-49                         | 12  | 31   | 42,537                    | 3                   |
| 50-59                         | 14  | 37   | 52,154                    | 4                   |
| 60 or more                    | 14  | 40   | 46,459                    | 3                   |

Table 7 - Per cent of Puerto Rican pupils with English language difficulty by grade, October, 1973 and May, 1974

| Grade            | Per cent with severe difficulty (Cat. II only) |     | Per cent with any difficulty (Cats. I & II) |     | Number of Pupils |                     |
|------------------|--|-----|---|-----|------------------|---------------------|
|                  | October  | May | October                                     | May | October          | May                 |
| Pre-kindergarten | 44   | 31  | 72  | 60  | 1,527            | 1,361               |
| Kindergarten     | 32   | 21  | 62  | 48  | 16,452           | 13,227              |
| 1                | 21   | 14  | 52  | 41  | 21,925           | 20,113              |
| 2                | 12   | 8   | 40  | 30  | 22,170           | 20,358              |
| 3                | 7  | 6   | 33  | 25  | 21,972           | 19,923              |
| 4                | 6  | 4   | 28  | 20  | 21,888           | 20,303              |
| 5                | 5  | 4   | 23  | 18  | 21,100           | 19,484              |
| 6                | 5  | 3   | 21  | 14  | 19,261           | 18,336 <sup>a</sup> |
| 7                | 5  | 4   | 18  | 12  | 19,522           | 17,847 <sup>b</sup> |
| 8                | 5  | 3   | 19  | 12  | 17,958           | 16,814              |
| 9                | 6  | 3   | 23  | 11  | 22,716           | 17,332              |
| 10               | 7  | 3   | 27  | 11  | 20,836           | 12,488              |
| 11               | 5  | 2   | 22  | 7   | 13,085           | 8,667               |
| 12               | 2  | 1   | 18  | 4   | 8,514            | 7,718               |

a Includes 6-7 classes, N = 704

b Includes 7-8 classes, N = 544

in pre-kindergarten classes have severe difficulty with English and another quarter have moderate difficulty, as indicated by the October figures. These proportions drop about 10 per cent per year until the third grade, when they begin to level off. Since we have seen above that the pattern of enrollment of Puerto Rican children in the city schools is stable over time, it is reasonable to treat these data as if they represented the experience of a single cohort of children moving through the school grades, at least up to the ninth grade. Viewed this way, it is clear that most learning of English takes place before the third grade. After that, the extent of severe difficulty remains essentially constant at about five per cent, while the percentage with no English difficulty continues to improve slightly. It may be that the five per cent with continued severe difficulty represent a small but steady influx of new arrivals from Puerto Rico, but we have no data on migration patterns with which to test this possibility. Considering that the Puerto Rican enrollment in the schools increases noticeably between the eighth and ninth grades, the slight increase in the per cent with difficulty does appear to represent the consequences of immigration; perhaps a certain number of parents in Puerto Rico send their children to New York to attend high school. Again, however, the lack of data makes it impossible to investigate this question.

It is of interest that the extent of severe English language disability in May is very similar to the extent of disability in the next higher grade in October for all those grades where substantial learning takes place, as implied by the differences between

successive grades. It is not unreasonable to expect most English language learning to occur during the school year, with little or no learning (or even some backsliding) during the summer. Further, kindergarten and first grade classes include substantial numbers of pupils entering school for the first time, as is clear from the sharp increase in enrollments in each of these grades. Thus, the percentage of pupils with severe English language difficulty in these classes in October might well be expected to be even greater than the percentage in the immediately lower grade in the previous May. Thus, we regard these data as illustrating the course of English language learning as Puerto Rican children move through school.

The data showing the percentage of pupils with any difficulty (the third and fourth columns of Table 7) are another matter. Although essentially the same grade by grade learning pattern appears to operate for both severe and moderate English language difficulty, in the latter case the most reasonable inference is that the May data reflect a certain amount of under-reporting, in addition to learning during the school year. That is, the special circumstances under which the May survey was conducted resulted in the classification of a certain percentage of pupils as having no English language difficulty who ordinarily would have been classified as having moderate difficulty (our best guess is about three per cent of the total were mis-classified). A detailed analysis of under-representation of the extent of English language difficulty is provided in Appendix II. Hence, this issue will not be considered further here.

For pupils of other Hispanic origin, the grade by grade pattern of improvement in English language competence, although similar in broad outline to that for Puerto Ricans, is much less clear cut (see Table 8). In particular, substantial numbers of other Hispanic pupils continue to have severe difficulty with English throughout all grades. Whether this is due to immigration patterns which bring non-English speaking pupils into the schools at all grade levels, the absence of English language reinforcement at home due to the lack of English competence of parents, or some other factor, cannot be determined with the data at hand.

#### Summary

From the data thus far presented, we can conclude that English language disability among pupils of Hispanic origin is substantial, encompassing about a third of Puerto Rican pupils and about half of those from other Hispanic groups; that the level of severe difficulty is somewhat lower, encompassing about 10 per cent of Puerto Rican and 20 per cent of other Hispanic pupils; that the pattern of disability is extremely stable over time, both throughout the City and within each Community School District; and that the greatest disability is concentrated in the earliest years of school, in pre-kindergarten, kindergarten, and grades one through three. We have also shown that although there is substantial variability from one district to another in the extent of English language disability, there is no particular tendency for disability to be greatest in heavily Hispanic districts. This suggests that factors other than the demographic and social characteristics of the school population



Table 8 - Per cent of other Hispanic pupils with English language difficulty by grade, October, 1973 and May, 1974

| Grade            | Per cent with severe difficulty (Cat. II only) |     | Per cent with any difficulty (Cats. I & II) |     | Number of Pupils |                    |
|------------------|--|-----|---|-----|------------------|--------------------|
|                  | October  | May | October                                     | May | October          | May                |
| Pre-kindergarten | 57   | 47  | 84  | 78  | 286              | 237                |
| Kindergarten     | 36   | 24  | 69  | 55  | 3,453            | 2,963              |
| 1                | 30   | 22  | 61  | 52  | 3,508            | 3,348              |
| 2                | 17   | 15  | 48  | 44  | 3,393            | 3,118              |
| 3                | 19   | 19  | 48  | 45  | 3,383            | 2,822              |
| 4                | 18   | 17  | 44  | 40  | 3,411            | 3,145              |
| 5                | 16   | 15  | 43  | 36  | 3,371            | 2,982              |
| 6                | 21   | 21  | 48  | 42  | 3,159            | 2,871 <sup>a</sup> |
| 7                | 23   | 28  | 45  | 46  | 2,755            | 2,741 <sup>b</sup> |
| 8                | 18   | 20  | 45  | 46  | 2,647            | 2,654              |
| 9                | 21   | 24  | 47  | 46  | 3,543            | 3,022              |
| 10               | 17   | 17  | 48  | 45  | 3,302            | 2,215              |
| 11               | 11   | 9   | 40  | 39  | 2,235            | 1,363              |
| 12               | 5  | 4   | 33  | 19  | 1,359            | 1,301              |

<sup>a</sup> Includes 6-7 classes, N = 88

<sup>b</sup> Includes 7-8 classes, N = 135

will be needed to account for variability in the extent of English language competence of Hispanic pupils.

This concludes our discussion of the "number and location of affected children." We now turn to consideration of the special services available to pupils with English language difficulty.

#### SERVICES FOR PUPILS WITH ENGLISH LANGUAGE DIFFICULTY

The importance of the May survey is not so much in what it tells us about the number of Hispanic pupils who have difficulty speaking English--the October language censuses are at least as adequate for this purpose--but in what it tells us about the extent to which pupils in need are in fact receiving special services. For a number of years the schools have made some organized effort to provide for the special needs of children whose native language is Spanish and who do not speak English well. However, until the May survey there has been no way of determining to what extent special services have actually been available to pupils with English language difficulty. The May survey included a list of 14 special services and requested teachers to indicate, for each pupil in their classes with English language difficulty, the number of hours per week the pupil participated in each program. Thus, from the survey it is possible to determine what percentage of pupils with severe and/or with moderate English language difficulty receive each kind of service and, for those receiving services, how many hours per week they receive them.

These services are of two basic kinds--instruction in Spanish and instruction in English as a second language; in addition, there

are Hispanic cultural studies programs and bilingual supportive services. In some schools, these services are organized into a single program, designated here as "bilingual instruction program." Pupils who participate in a bilingual instruction program are not counted as participating in any of the other programs because all of the separately listed programs are elements of a full bilingual instruction program. But pupils who do not have full bilingual instruction may be listed in any number of the other individual programs. Pupils who receive no specialized service are indicated as participating in the basic educational program only.

Table 9 shows the number and per cent of all Hispanic pupils in the city with English language difficulty who participate in the basic educational program only and the number and per cent who receive each service.<sup>3</sup> In each row, the estimated number of pupils in the category is shown on the top line and the percentage that number is of the total for the row is shown on the second line. For example, 7,618 pupils receive the basic program only, and this is 11.9 per cent of all Hispanic pupils with English language difficulty. Data are shown separately for each grade as well as for all

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<sup>3</sup>The discerning reader will note that the tables show a total of 64,202 Hispanic pupils with English language difficulty in May, 1974, while the October, 1973 language census showed a total of 98,913. This discrepancy can be accounted for as follows: the October data showed a total of 297,008 Hispanic pupils, of which 33 per cent, or 64,202, had difficulty with English. The May data, by contrast, showed a total of 261,099 Hispanic pupils, 12 per cent less than in October. In part, this is due to the fact that the data tape upon which this analysis is based excluded about 10 high schools and a number of special schools for which data had not been received in time; this probably accounts for about three per cent of the data. Some unknown additional shrinkage is due to incomplete data: any Hispanic pupil for whom the teacher neglected to enter a code for language group is omitted from the count of Hispanics. It is hard to estimate the amount of data omitted in this way, but a good guess would be on the order of two per cent. The remaining difference between the October

TABLE 9  
NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH  
ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL  
PROGRAM SERVICES FOR EACH GRADE.

| TOTAL POPULATION GROUP - HISPANIC 1 + 2 | PER CENT AND NUMBER RECEIVING PROGRAMS |                    |                    |             |                   |              |                 |                        |                   |                         |                         |                      |                         |                        |      |       | OR CL A NAT LAN PROGRAM | SUPPRT SERVICE |
|---|--|--------------------|--------------------|-------------|-------------------|--------------|-----------------|------------------------|-------------------|-------------------------|-------------------------|----------------------|-------------------------|------------------------|------|-------|-------------------------|----------------|
|   | TOTAL                                  | BASIC PROGRAM ONLY | BILING-UAL PROGRAM | ESL PROGRAM | LANG ARTS PROGRAM | MATH PROGRAM | SCIENCE PROGRAM | SOCIAL STUDIES PROGRAM | FINE ARTS PROGRAM | CULTURE STUDIES PROGRAM | SUBJECT REINFOR PROGRAM | COMP READING PROGRAM | READING REINFOR PROGRAM | ORIENT CLASSES PROGRAM |      |       |                         |                |
| ALL GRADES                              | 64202                                  | 7618               | 19812              | 16557       | 5448              | 4851         | 4076            | 4224                   | 2673              | 9181                    | 5580                    | 20160                | 6163                    | 1143                   | 1226 | 42696 |                         |                |
|   | 100.0                                  | 11.9               | 30.9               | 25.8        | 8.5               | 7.6          | 6.3             | 6.6                    | 4.2               | 14.3                    | 9.3                     | 31.4                 | 9.6                     | 1.8                    | 1.9  | 65.6  |                         |                |
| GRADE 12                                | 542                                    | 178                | 54                 | 191         | 54                | 60           | 54              | 69                     | 5                 | 23                      | 8                       | 124                  | 9                       | 2                      | 42   | 224   |                         |                |
|   | 100.0                                  | 30.1               | 9.1                | 32.3        | 9.1               | 10.1         | 9.1             | 11.7                   | 0.8               | 3.9                     | 1.4                     | 20.9                 | 1.5                     | 0.3                    | 7.1  | 31.8  |                         |                |
| GRADE 11                                | 1160                                   | 302                | 196                | 465         | 126               | 63           | 65              | 75                     | 39                | 42                      | 72                      | 140                  | 16                      | 2                      | 12   | 456   |                         |                |
|   | 100.0                                  | 26.0               | 16.9               | 40.1        | 10.9              | 5.4          | 5.6             | 6.5                    | 3.4               | 3.6                     | 6.2                     | 14.0                 | 1.4                     | 0.2                    | 1.0  | 42.8  |                         |                |
| GRADE 10                                | 2382                                   | 331                | 718                | 1253        | 338               | 280          | 397             | 346                    | 206               | 79                      | 113                     | 316                  | 35                      | 27                     | 163  | 1233  |                         |                |
|   | 100.0                                  | 13.9               | 30.1               | 54.3        | 14.2              | 11.8         | 16.7            | 14.5                   | 8.6               | 3.3                     | 4.7                     | 13.3                 | 1.5                     | 1.1                    | 6.8  | 56.0  |                         |                |
| GRADE 9                                 | 3377                                   | 604                | 918                | 1316        | 552               | 509          | 472             | 449                    | 215               | 166                     | 350                     | 617                  | 181                     | 79                     | 183  | 1686  |                         |                |
|   | 100.0                                  | 18.0               | 27.2               | 35.0        | 16.3              | 15.1         | 14.0            | 13.3                   | 6.4               | 4.9                     | 10.4                    | 18.3                 | 5.4                     | 2.3                    | 5.4  | 45.5  |                         |                |
| GRADE 8                                 | 3257                                   | 623                | 1252               | 723         | 357               | 426          | 404             | 413                    | 139               | 161                     | 226                     | 520                  | 176                     | 68                     | 110  | 1893  |                         |                |
|   | 100.0                                  | 19.1               | 38.4               | 22.2        | 11.0              | 13.1         | 12.4            | 12.7                   | 4.3               | 4.9                     | 6.9                     | 16.0                 | 5.4                     | 2.1                    | 3.4  | 58.1  |                         |                |
| GRADE 7                                 | 3495                                   | 570                | 1460               | 730         | 380               | 400          | 394             | 339                    | 259               | 182                     | 268                     | 588                  | 267                     | 96                     | 107  | 2153  |                         |                |
|   | 100.0                                  | 16.3               | 41.8               | 20.9        | 10.9              | 11.4         | 11.3            | 9.7                    | 7.4               | 5.2                     | 7.7                     | 16.8                 | 7.6                     | 2.7                    | 3.1  | 61.6  |                         |                |
| GRADE 6                                 | 3778                                   | 352                | 1251               | 890         | 406               | 395          | 270             | 319                    | 157               | 660                     | 472                     | 1430                 | 552                     | 181                    | 80   | 2466  |                         |                |
|   | 100.0                                  | 9.3                | 33.1               | 23.6        | 10.7              | 10.5         | 7.1             | 8.4                    | 4.2               | 17.5                    | 12.5                    | 37.9                 | 14.6                    | 4.8                    | 2.1  | 76.6  |                         |                |
| GRADE 5                                 | 4579                                   | 390                | 1184               | 1250        | 393               | 380          | 227             | 256                    | 205               | 1177                    | 490                     | 2094                 | 580                     | 71                     | 74   | 2562  |                         |                |
|   | 100.0                                  | 8.5                | 25.9               | 27.3        | 8.6               | 8.3          | 5.0             | 5.6                    | 4.5               | 25.7                    | 10.7                    | 45.7                 | 12.7                    | 1.6                    | 1.6  | 64.7  |                         |                |
| GRADE 4                                 | 5232                                   | 372                | 1520               | 1252        | 318               | 327          | 225             | 265                    | 127               | 1141                    | 492                     | 2322                 | 634                     | 61                     | 117  | 3316  |                         |                |
|   | 100.0                                  | 7.1                | 29.1               | 23.9        | 6.1               | 6.2          | 4.3             | 5.1                    | 2.4               | 21.8                    | 9.4                     | 44.4                 | 12.1                    | 1.2                    | 2.2  | 67.2  |                         |                |
| GRADE 3                                 | 6214                                   | 442                | 2004               | 1364        | 384               | 338          | 227             | 221                    | 229               | 1219                    | 574                     | 2521                 | 678                     | 56                     | 55   | 4346  |                         |                |
|   | 100.0                                  | 7.1                | 32.2               | 22.0        | 6.2               | 5.4          | 3.7             | 3.6                    | 3.7               | 19.6                    | 9.2                     | 40.6                 | 10.9                    | 0.9                    | 0.9  | 65.5  |                         |                |
| GRADE 2                                 | 7460                                   | 581                | 2777               | 1870        | 433               | 327          | 259             | 313                    | 209               | 1235                    | 668                     | 2677                 | 804                     | 102                    | 22   | 5458  |                         |                |
|   | 100.0                                  | 7.8                | 37.2               | 25.1        | 5.8               | 4.4          | 3.5             | 4.2                    | 2.8               | 16.6                    | 9.0                     | 35.9                 | 10.8                    | 1.4                    | 0.3  | 73.2  |                         |                |
| GRADE 1                                 | 9940                                   | 704                | 3798               | 2880        | 580               | 491          | 386             | 387                    | 317               | 1474                    | 820                     | 3438                 | 1123                    | 102                    | 122  | 7225  |                         |                |
|   | 100.0                                  | 7.1                | 38.2               | 27.0        | 5.8               | 4.9          | 3.9             | 3.9                    | 3.2               | 14.8                    | 8.2                     | 34.6                 | 11.3                    | 1.0                    | 1.2  | 72.7  |                         |                |
| KINDER-GARTEN                           | 7955                                   | 132                | 1560               | 1724        | 482               | 329          | 322             | 312                    | 228               | 1155                    | 947                     | 2268                 | 742                     | 207                    | 87   | 5061  |                         |                |
|   | 100.0                                  | 17.0               | 19.6               | 21.6        | 6.1               | 4.1          | 4.0             | 3.9                    | 2.9               | 14.5                    | 11.9                    | 28.5                 | 9.3                     | 2.6                    | 1.1  | 63.5  |                         |                |
| PREF-K                                  | 914                                    | 108                | 180                | 105         | 42                | 63           | 36              | 47                     | 31                | 50                      | 156                     | 21                   | 20                      | 30                     | 13   | 653   |                         |                |
|   | 100.0                                  | 10.8               | 18.0               | 10.5        | 9.2               | 6.3          | 3.6             | 4.7                    | 3.1               | 5.0                     | 15.6                    | 2.1                  | 2.0                     | 3.0                    | 1.3  | 65.5  |                         |                |
| OTHER                                   | 2274                                   | 598                | 315                | 279         | 345               | 332          | 273             | 308                    | 252               | 303                     | 213                     | 699                  | 227                     | 46                     | 9    | 1171  |                         |                |
|   | 100.0                                  | 26.3               | 13.9               | 12.3        | 17.4              | 14.6         | 12.0            | 13.5                   | 11.1              | 13.3                    | 9.4                     | 30.7                 | 10.0                    | 2.0                    | 0.4  | 51.5  |                         |                |

TABLE  
NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH  
ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL  
PROGRAM SERVICES FOR EACH GRADE.

TOTAL  
POPULATION GROUP = HISPANIC  
CAT 1

| ROWS = GRADE     | PER CENT AND NUMBER             |                |                           |                |                         |                 |                         |                              |                         |                               |                               |                            |                               |                              | OR CLA<br>NAT LAN<br>PROGRAM | SUPP CRT<br>SERVICE |                         |  |                               |  |                               |  |                            |  |                               |
|------------------|---------------------------------|----------------|---------------------------|----------------|-------------------------|-----------------|-------------------------|------------------------------|-------------------------|-------------------------------|-------------------------------|----------------------------|-------------------------------|------------------------------|------------------------------|---------------------|-------------------------|--|-------------------------------|--|-------------------------------|--|----------------------------|--|-------------------------------|
|                  | COLUMNS = RECEIVING<br>PROGRAMS |                | BILING-<br>UAL<br>PROGRAM |                | ESL<br>PROGRAM          |                 | LANG<br>ARTS<br>PROGRAM |                              | MATH<br>PROGRAM         |                               | SCIENCE<br>PROGRAM            |                            | SOCIAL<br>STUDIES<br>PROGRAM  |                              |                              |                     | FINE<br>ARTS<br>PROGRAM |  | CULTURE<br>STUDIES<br>PROGRAM |  | SUBJECT<br>REINFOR<br>PROGRAM |  | COMP<br>READING<br>PROGRAM |  | READING<br>REINFOR<br>PROGRAM |
| TOTAL            | BASIC<br>PROGRAM<br>ONLY        | ESL<br>PROGRAM | BILING-<br>UAL<br>PROGRAM | ESL<br>PROGRAM | LANG<br>ARTS<br>PROGRAM | MATH<br>PROGRAM | SCIENCE<br>PROGRAM      | SOCIAL<br>STUDIES<br>PROGRAM | FINE<br>ARTS<br>PROGRAM | CULTURE<br>STUDIES<br>PROGRAM | SUBJECT<br>REINFOR<br>PROGRAM | COMP<br>READING<br>PROGRAM | READING<br>REINFOR<br>PROGRAM | ORIENT<br>CLASSES<br>PROGRAM | OR CLA<br>NAT LAN<br>PROGRAM | SUPP CRT<br>SERVICE |                         |  |                               |  |                               |  |                            |  |                               |
| ALL GRADES       | 35563<br>100.0                  | 5782<br>14.6   | 9056<br>22.9              | 9211<br>23.3   | 2504<br>7.3             | 2640<br>7.7     | 2021<br>5.1             | 2230<br>5.6                  | 1447<br>3.7             | 6400<br>16.2                  | 3536<br>8.9                   | 14822<br>37.5              | 3977<br>10.1                  | 565<br>1.4                   | 553<br>1.4                   | 24108<br>68.9       |                         |  |                               |  |                               |  |                            |  |                               |
| GRADE 12         | 408<br>100.0                    | 127<br>31.1    | 36<br>8.8                 | 120<br>25.4    | 39<br>9.6               | 25<br>6.1       | 20<br>4.9               | 29<br>7.1                    | 3<br>0.7                | 21<br>5.1                     | 4<br>1.0                      | 102<br>25.0                | 9<br>2.2                      | 2<br>0.5                     | 18<br>4.4                    | 143<br>35.0         |                         |  |                               |  |                               |  |                            |  |                               |
| GRADE 11         | 767<br>100.0                    | 220<br>28.7    | 90<br>11.7                | 276<br>36.0    | 71<br>9.3               | 31<br>4.0       | 33<br>4.3               | 32<br>4.2                    | 5<br>0.7                | 26<br>3.4                     | 52<br>6.8                     | 128<br>16.7                | 10<br>1.3                     | 2<br>0.3                     | 4<br>0.5                     | 327<br>42.6         |                         |  |                               |  |                               |  |                            |  |                               |
| GRADE 10         | 1210<br>100.0                   | 216<br>17.9    | 200<br>16.5               | 542<br>44.8    | 115<br>9.5              | 218<br>18.0     | 183<br>15.1             | 101<br>15.0                  | 154<br>12.7             | 57<br>4.7                     | 68<br>5.6                     | 237<br>19.6                | 31<br>2.6                     | 9<br>0.7                     | 144<br>11.9                  | 520<br>43.0         |                         |  |                               |  |                               |  |                            |  |                               |
| GRADE 9          | 1403<br>100.0                   | 498<br>26.2    | 240<br>12.6               | 510<br>26.8    | 274<br>14.4             | 270<br>14.2     | 244<br>12.8             | 243<br>12.0                  | 100<br>5.3              | 129<br>6.8                    | 204<br>10.7                   | 484<br>25.4                | 108<br>5.7                    | 49<br>2.6                    | 60<br>3.2                    | 750<br>35.7         |                         |  |                               |  |                               |  |                            |  |                               |
| GRADE 8          | 1695<br>100.0                   | 530<br>28.0    | 505<br>29.6               | 358<br>18.9    | 182<br>5.6              | 203<br>10.7     | 179<br>9.4              | 216<br>11.4                  | 83<br>4.4               | 103<br>5.4                    | 81<br>4.3                     | 394<br>20.8                | 69<br>3.6                     | 9<br>0.5                     | 33<br>1.7                    | 917<br>48.4         |                         |  |                               |  |                               |  |                            |  |                               |
| GRADE 7          | 1870<br>100.0                   | 466<br>24.9    | 537<br>28.7               | 308<br>16.5    | 172<br>9.2              | 145<br>7.8      | 128<br>6.8              | 128<br>6.8                   | 85<br>4.5               | 135<br>7.2                    | 50<br>4.8                     | 458<br>24.5                | 154<br>8.2                    | 25<br>1.3                    | 26<br>1.4                    | 570<br>51.9         |                         |  |                               |  |                               |  |                            |  |                               |
| GRADE 6          | 2379<br>100.0                   | 315<br>13.2    | 560<br>23.5               | 428<br>18.0    | 223<br>9.4              | 218<br>9.2      | 145<br>6.1              | 177<br>7.4                   | 58<br>4.1               | 480<br>20.2                   | 251<br>10.6                   | 1037<br>43.6               | 331<br>13.9                   | 74<br>3.1                    | 14<br>0.6                    | 1560<br>66.4        |                         |  |                               |  |                               |  |                            |  |                               |
| GRADE 5          | 3182<br>100.0                   | 319<br>10.0    | 677<br>21.3               | 725<br>22.8    | 234<br>7.4              | 235<br>7.4      | 143<br>4.5              | 172<br>5.4                   | 139<br>4.4              | 863<br>27.1                   | 342<br>10.7                   | 1622<br>51.0               | 397<br>12.5                   | 46<br>1.4                    | 42<br>1.3                    | 1997<br>62.8        |                         |  |                               |  |                               |  |                            |  |                               |
| GRADE 4          | 3664<br>100.0                   | 300<br>8.2     | 860<br>23.5               | 788<br>21.5    | 207<br>5.6              | 220<br>6.0      | 141<br>3.8              | 175<br>4.8                   | 75<br>2.0               | 894<br>24.4                   | 363<br>9.9                    | 1817<br>49.6               | 471<br>12.9                   | 40<br>1.1                    | 44<br>1.2                    | 2352<br>64.2        |                         |  |                               |  |                               |  |                            |  |                               |
| GRADE 3          | 4266<br>100.0                   | 378<br>8.9     | 992<br>23.3               | 516<br>21.5    | 259<br>6.1              | 198<br>4.6      | 121<br>2.8              | 114<br>2.7                   | 120<br>2.8              | 979<br>22.9                   | 437<br>10.2                   | 2016<br>47.3               | 530<br>12.4                   | 38<br>0.9                    | 36<br>0.8                    | 2795<br>65.5        |                         |  |                               |  |                               |  |                            |  |                               |
| GRADE 2          | 5083<br>100.0                   | 466<br>9.2     | 1505<br>29.6              | 1248<br>24.6   | 276<br>5.4              | 192<br>3.8      | 150<br>3.0              | 195<br>3.8                   | 130<br>2.6              | 883<br>17.4                   | 467<br>9.2                    | 2054<br>40.4               | 574<br>11.3                   | 82<br>1.6                    | 13<br>0.3                    | 3572<br>70.3        |                         |  |                               |  |                               |  |                            |  |                               |
| GRADE 1          | 5998<br>100.0                   | 558<br>9.4     | 1629<br>27.3              | 1608<br>27.0   | 353<br>5.9              | 289<br>4.9      | 241<br>4.0              | 219<br>3.7                   | 206<br>3.5              | 906<br>15.2                   | 500<br>8.4                    | 2400<br>40.3               | 698<br>11.7                   | 44<br>0.7                    | 62<br>1.0                    | 4036<br>67.7        |                         |  |                               |  |                               |  |                            |  |                               |
| KINDER-<br>GARTN | 4214<br>100.0                   | 836<br>19.8    | 710<br>16.8               | 880<br>20.9    | 205<br>4.9              | 129<br>3.1      | 120<br>2.8              | 128<br>3.0                   | 96<br>2.3               | 626<br>14.9                   | 439<br>10.4                   | 1302<br>30.9               | 382<br>9.1                    | 99<br>2.3                    | 42<br>1.0                    | 2506<br>59.5        |                         |  |                               |  |                               |  |                            |  |                               |
| PRF-K            | 417<br>100.0                    | 52<br>12.5     | 72<br>17.3                | 47<br>11.3     | 30<br>7.2               | 29<br>7.0       | 17<br>4.1               | 17<br>4.1                    | 12<br>2.9               | 32<br>7.7                     | 49<br>11.8                    | 7<br>1.7                   | 11<br>2.6                     | 9<br>2.2                     | 6<br>1.4                     | 300<br>86.3         |                         |  |                               |  |                               |  |                            |  |                               |
| OTHER            | 1515<br>100.0                   | 414<br>27.3    | 179<br>11.8               | 194<br>12.8    | 194<br>12.8             | 175<br>11.6     | 124<br>8.2              | 156<br>10.3                  | 121<br>8.0              | 198<br>13.1                   | 130<br>9.1                    | 493<br>32.5                | 138<br>9.1                    | 30<br>2.0                    | 7<br>0.5                     | 729<br>40.1         |                         |  |                               |  |                               |  |                            |  |                               |

TABLE 11  
NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH  
ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL  
PROGRAM SERVICES FOR EACH GRADE.

| TOTAL<br>POPULATION GROUP = HISPANIC<br>CAT 2 | PER CENT AND NUMBER<br>COLUMNS = RECEIVING PROGRAMS |                           |                |                         |                 |                    |                              |                         |                               |                               |                            |                               |                              | CR. CLA<br>NAT LAN<br>PROGRAM | SUPPORT<br>SERVICE |               |
|---|---|---------------------------|----------------|-------------------------|-----------------|--------------------|------------------------------|-------------------------|-------------------------------|-------------------------------|----------------------------|-------------------------------|------------------------------|-------------------------------|--------------------|---------------|
|   | BASIC<br>PROGRAM<br>ONLY                            | BILING-<br>UAL<br>PROGRAM | ESL<br>PROGRAM | LANG<br>ARTS<br>PRCGRAM | MATH<br>PROGRAM | SCIENCE<br>PROGRAM | SOCIAL<br>STUDIES<br>PROGRAM | FINE<br>ARTS<br>PROGRAM | CULTURE<br>STUDIES<br>PROGRAM | SUBJECT<br>REINFOR<br>PROGRAM | COMP<br>READING<br>PROGRAM | READING<br>REINFOR<br>PROGRAM | ORIENT<br>CLASSES<br>PROGRAM |                               |                    |               |
| ALL<br>GRADES<br>100.0                        | 20954<br>100.0                                      | 1384<br>6.6               | 9524<br>45.5   | 6278<br>30.0            | 1656<br>7.9     | 1515<br>7.2        | 1273<br>6.1                  | 1234<br>5.9             | 722<br>3.4                    | 2360<br>11.2                  | 2170<br>10.4               | 4589<br>21.9                  | 1869<br>8.9                  | 518<br>2.5                    | 601<br>2.9         | 15571<br>74.3 |
| GRADE<br>12<br>100.0                          | 126<br>100.0  | 15<br>11.9                | 13<br>10.3     | 66<br>52.4              | 9<br>7.1        | 34<br>27.0         | 33<br>26.2                   | 39<br>31.0              | 2<br>1.6                      | 1<br>0.8                      | 1<br>0.8                   | 12.7                          | 16<br>8.9                    | 24<br>19.0                    | 24<br>19.0         | 72<br>57.1    |
| GRADE<br>11<br>100.0                          | 267<br>100.0  | 56<br>21.0                | 71<br>26.6     | 156<br>58.4             | 19<br>7.1       | 3<br>1.1           | 7<br>2.6                     | 13<br>4.9               | 10<br>3.7                     | 6<br>2.2                      | 14<br>5.2                  | 22<br>8.2                     | 3<br>0.4                     | 1<br>0.4                      | 1<br>0.4           | 128<br>47.9   |
| GRADE<br>10<br>100.0                          | 697<br>100.0  | 63<br>9.0                 | 318<br>45.6    | 380<br>54.5             | 43<br>6.2       | 25<br>3.6          | 29<br>4.2                    | 47<br>6.7               | 51<br>7.3                     | 14<br>2.0                     | 27<br>3.9                  | 73<br>10.5                    | 3<br>0.4                     | 18<br>2.6                     | 19<br>2.7          | 450<br>64.6   |
| GRADE<br>9<br>100.0                           | 1259<br>100.0                                       | 80<br>6.2                 | 631<br>48.6    | 731<br>56.3             | 243<br>18.7     | 218<br>16.8        | 209<br>16.1                  | 186<br>14.3             | 108<br>8.3                    | 32<br>2.5                     | 140<br>10.8                | 89<br>6.9                     | 59<br>4.5                    | 30<br>2.3                     | 123<br>9.5         | 688<br>66.8   |
| GRADE<br>8<br>100.0                           | 1039<br>100.0                                       | 54<br>5.2                 | 635<br>61.1    | 298<br>28.7             | 122<br>11.7     | 171<br>16.5        | 182<br>17.5                  | 152<br>14.0             | 30<br>2.9                     | 50<br>4.8                     | 135<br>13.0                | 68<br>6.5                     | 105<br>10.1                  | 59<br>5.7                     | 76<br>7.3          | 786<br>75.6   |
| GRADE<br>7<br>100.0                           | 1444<br>100.0                                       | 64<br>4.4                 | 894<br>61.9    | 390<br>27.0             | 143<br>9.9      | 168<br>11.6        | 179<br>12.4                  | 127<br>8.8              | 94<br>6.5                     | 36<br>2.5                     | 149<br>10.3                | 90<br>6.2                     | 105<br>7.3                   | 70<br>4.8                     | 79<br>5.5          | 1084<br>75.1  |
| GRADE<br>6<br>100.0                           | 1172<br>100.0                                       | 30<br>2.6                 | 581<br>49.6    | 440<br>37.5             | 125<br>11.0     | 129<br>11.0        | 77<br>6.6                    | 93<br>7.9               | 13<br>1.1                     | 166<br>14.2                   | 201<br>17.2                | 322<br>27.5                   | 182<br>15.5                  | 99<br>8.4                     | 66<br>5.6          | 919<br>78.4   |
| GRADE<br>5<br>100.0                           | 1135<br>100.0                                       | 37<br>3.3                 | 447<br>39.4    | 444<br>35.1             | 106<br>9.3      | 94<br>8.3          | 36<br>3.2                    | 36<br>3.2               | 42<br>3.7                     | 229<br>20.2                   | 130<br>11.5                | 351<br>30.9                   | 148<br>13.0                  | 22<br>1.9                     | 27<br>2.4          | 822<br>72.4   |
| GRADE<br>4<br>100.0                           | 1313<br>100.0                                       | 50<br>3.8                 | 546<br>41.6    | 435<br>33.1             | 70<br>5.3       | 63<br>4.8          | 40<br>3.0                    | 45<br>3.4               | 11<br>0.8                     | 212<br>16.1                   | 110<br>8.4                 | 438<br>33.4                   | 152<br>11.6                  | 18<br>1.4                     | 52<br>4.0          | 583<br>74.5   |
| GRADE<br>3<br>100.0                           | 1671<br>100.0                                       | 49<br>2.9                 | 936<br>56.0    | 407<br>24.4             | 50<br>3.0       | 60<br>3.6          | 32<br>1.9                    | 33<br>2.0               | 35<br>2.1                     | 220<br>13.2                   | 134<br>8.0                 | 438<br>26.2                   | 134<br>8.0                   | 17<br>1.0                     | 19<br>1.1          | 1349<br>80.7  |
| GRADE<br>2<br>100.0                           | 2087<br>100.0                                       | 83<br>4.0                 | 1143<br>54.8   | 566<br>27.1             | 97<br>4.6       | 85<br>4.1          | 50<br>2.8                    | 66<br>3.2               | 49<br>2.3                     | 306<br>14.7                   | 197<br>9.4                 | 539<br>25.8                   | 203<br>9.7                   | 18<br>0.9                     | 7<br>0.3           | 1606<br>75.8  |
| GRADE<br>1<br>100.0                           | 3626<br>100.0                                       | 124<br>3.4                | 1992<br>54.9   | 977<br>26.9             | 200<br>5.5      | 162<br>4.5         | 136<br>3.8                   | 133<br>3.7              | 104<br>2.9                    | 483<br>13.3                   | 286<br>7.9                 | 970<br>26.8                   | 369<br>10.2                  | 27<br>0.7                     | 34<br>0.9          | 2888<br>75.6  |
| KINDER-<br>GARTEN<br>100.0                    | 3450<br>100.0                                       | 480<br>13.9               | 769<br>22.3    | 739<br>21.4             | 239<br>6.9      | 163<br>4.7         | 164<br>4.8                   | 153<br>4.4              | 94<br>2.7                     | 471<br>13.7                   | 454<br>14.3                | 927<br>26.9                   | 300<br>8.7                   | 100<br>2.9                    | 37<br>1.1          | 2354<br>68.2  |
| FRE-K<br>100.0                                | 533<br>100.0  | 53<br>9.9                 | 99<br>18.6     | 50<br>9.4               | 43<br>8.1       | 22<br>4.1          | 7<br>1.3                     | 7<br>1.3                | 7<br>1.3                      | 18<br>3.4                     | 84<br>15.8                 | 14<br>2.6                     | 9<br>1.7                     | 21<br>3.9                     | 7<br>1.3           | 461<br>86.5   |
| OTHER<br>100.0                                | 550<br>100.0  | 129<br>23.5               | 122<br>22.2    | 72<br>13.1              | 86<br>15.6      | 62<br>11.3         | 61<br>11.1                   | 59<br>10.7              | 47<br>8.5                     | 72<br>13.1                    | 39<br>7.1                  | 158<br>28.7                   | 53<br>9.6                    | 13<br>2.4                     | 2<br>0.4           | 207<br>55.8   |

grades combined. Tables 10 and 11 show the data separately for pupils with moderate and with severe English language difficulty. Corresponding tables for each district are shown in Appendix IV, except that the district tables distinguish four grade groups rather than individual grades.<sup>4</sup>

<sup>3</sup>(continued) and May counts of Hispanic pupils presumably represents normal shrinkage in enrollment which is known to occur throughout the school year. Although no figures are available separately for Hispanic pupils, the total register in the school system (excluding special schools and classes) as of April 30, 1974, was 96 per cent as large as the register as of October 31, 1973. It is not unreasonable to suppose that the shrinkage in the number of Hispanic pupils attending New York City schools is somewhat larger than that for other groups, given what we know about the class composition and migration patterns of the Hispanic population. Thus, taken together, these various factors quite reasonably account for a 12 per cent shrinkage. In any event, of the 261,099 Hispanic pupils counted in the May survey (in the data available to us), 25 per cent, or 64,202, have difficulty with English.

<sup>4</sup>The remaining tables in the body of the report and all the tables in Appendix IV, like the previous tables showing data for May, 1974, are based on the preliminary, unedited data tape for the entire population surveyed. Because the editing procedure to which we subjected the data as it was returned from the schools indicated a large number of incorrectly completed questionnaires, we had initially planned to base this report upon data from a representative sample for which all the data had been edited and corrected. However, we did not receive a usable computer tape containing the edited data until 1:45 p.m., Saturday, June 29. We were able to make one pass of the data through the computer and produce an initial set of tabulations corresponding to those contained in Tables 9 through 56 and the Appendix IV tables. While the edited sample data showed a pattern of results fundamentally similar to those obtained from the unedited population data, certain anomalies appeared in the sample tabulations which require further study. Therefore we chose to present tabulations based on the unedited population data which, we are confident, reasonably reflect the general pattern of specialized services and personnel available to Hispanic pupils with English language difficulty.

We had a reservation about using the unedited data to determine the extent to which pupils receive various program services. The teachers were instructed not to list any hours of participation in any of the other specific program services for pupils participating in full bilingual programs. However, the first pass through the editing procedure produced enough cases to cause us concern about whether the teacher listed the hours for pupils in both full bilingual and other programs. Fortunately, however, this possibility does not appear to have important consequences for the estimates of the per cent of pupils receiving



Percentage receiving special services. The great majority of Hispanic pupils with any English language difficulty receive some kind of specialized program services. Only 11.9 per cent receive the "basic program only," which is the residual category indicating that teachers recorded no hours of participation for any one of the 14 special program services. Among pupils with severe difficulty, the record is even better--some 93 per cent receive some sort of service. And among pupils with moderate difficulty, 85 per cent receive service.<sup>5</sup>

<sup>4</sup>(continued) each service. Even though we have not been able to use the edited sample for the basic tabulations, we have been able to make a comparison between the sample and the unedited population data with respect to the percentage of all Hispanic pupils with English language difficulty who receive various services. These figures are shown below:

|                               | Population | Sample |
|-------------------------------|------------|--------|
| Basic education only          | 11.9%      | 15.8%  |
| Full bilingual instruction    | 30.9       | 26.5   |
| English as a second language  | 25.2       | 21.7   |
| Comprehensive reading program | 31.4       | 29.2   |

As expected, the sample shows slightly more pupils receiving no special service and slightly fewer receiving each of the listed services, but the differences are hardly great enough to cast serious doubt upon the validity of estimates derived from the population data.

<sup>5</sup>Because concern has been expressed about an under-count of pupils with English language difficulty in the May survey, and because we have not been able to rule out this possibility (see the discussion in Appendix II), it is of interest to know how these figures would be affected by an under-count. Assuming the worst possible case--that the entire difference between the percentages with English language difficulty in the October and May surveys is due to under-reporting in the May survey (a very unlikely possibility) and that no pupils who were improperly omitted from the May survey receive any special program services (also a rather unlikely possibility)--we would estimate that 66 per cent of all pupils with difficulty receive some service. Assuming that half of the percentage difference between the May and October surveys represents under-reporting (a somewhat more plausible assumption), but continuing to assume that the improperly omitted pupils receive no services, we would estimate that 76 per cent of all pupils with difficulty receive some service. Assuming that half of the percentage difference represents an under-count and that half of the improperly omitted pupils receive some service, we would estimate that 83 per cent of all pupils with difficulty receive some service.



The availability of services varies somewhat by grade. In general, a higher percentage of elementary school and pre-kindergarten pupils with English language difficulty receive services than kindergarten, junior high or senior high students, although even in the 12th grade 70 per cent of pupils with difficulty receive specialized services; in all other grades the percentages are higher.

Among pupils with severe difficulty, more than 95 per cent of those in grades 1 through 7, more than 90 per cent of pre-kindergarteners and junior high school students, and more than 80 per cent of students in other grades receive services.

By and large, the availability of specialized program services in the various grades corresponds to the concentration of pupils in need. The one exception is kindergarten classes. Recall from Tables 7 and 8 that 32 per cent of Puerto Rican pupils and 36 per cent of other Hispanic pupils begin kindergarten with severe English language difficulty (as indicated by the October, 1973 data). For whatever reasons, a relatively larger fraction of this group is not provided with any services than is true of pupils in primary grades 1 through 6. About 14 per cent of those with severe difficulty receive the basic program only--that is, are without any services--compared to less than five per cent of those in grades 1 through 7.

Percentage with full bilingual instruction. Thirty-one per cent of all Hispanic pupils with English language difficulty participate in programs of full bilingual instruction, which include subject instruction in Spanish, instruction in English as a second language

(ESL), instruction in Spanish language arts, and Hispanic cultural studies. These programs are much more extensively utilized to service pupils with severe English disability than pupils with moderate disability--46 per cent of those with severe difficulty but only 15 per cent of those with moderate difficulty receive full bilingual instruction.

Among pupils with severe English language difficulty, the greatest participation in full bilingual programs is in grades 1 through 3 and 6 through 8. In these grades, more than 50 per cent of all pupils with English language difficulty are enrolled in full bilingual programs. In grades three, four, nine, and 10, more than 40 per cent of pupils have full bilingual instruction. The percentages are smaller for the remaining grades. It is not obvious why the extent of participation in full bilingual programs drops after the third grade but then picks up again in the sixth grade. Perhaps this indicates a greater availability of such programs in middle schools, but we cannot be sure of this without further analysis.

Among pupils with moderate difficulty, there is much less variation between grades in the level of participation in full bilingual programs, although here as well as among those with severe difficulty participation increases sharply between kindergarten and first grade.

Per cent receiving instruction in English as a second language.

About 25 per cent of all Hispanic pupils with English language difficulty receive instruction in a formal "English as a Second Language" (ESL) program. This service is used most extensively in the high

schools: over 50 per cent of high school students with severe difficulty participate in ESL programs. In the remaining grades the level of participation is more modest.

Per cent participating in a comprehensive reading program. In contrast to ESL, comprehensive reading programs are utilized most extensively in the elementary grades, and enroll proportionately more pupils with moderate English difficulty than pupils with severe difficulty. This, of course, is not surprising considering that English is the medium of instruction in this program. Thirty-eight per cent of those with moderate difficulty and 22 per cent of those with severe difficulty participate in comprehensive reading programs.

Extent of participation in other instructional programs. The remaining programs enroll relatively small percentages of pupils. Only Hispanic cultural studies are available to more than 10 per cent of all pupils with English language difficulty, and these programs are most common in the elementary grades. Spanish language subject classes are quite uncommon when they are not part of a full bilingual program, although they are utilized more in junior and senior high schools than in elementary schools. Comprehensive reading programs with reinforcement in Spanish tend to be somewhat more common in elementary schools, just as are comprehensive reading programs without reinforcement. Perhaps because these services are rather uncommon, pupils with severe difficulty are no more likely to receive them than are pupils with moderate difficulty.

Supportive pupil personnel service programs. These programs, which entail services of bilingual guidance counselors, bilingual school and community relations teachers, or bilingual paraprofessionals, are widely available to pupils with English language difficulty. About three-fifths of pupils with moderate difficulty and three-quarters of those with severe difficulty enjoy these services. Although there is a slight tendency for higher proportions of pupils in the lower grades to receive these services, the percentages do not vary much from grade to grade until high school when they taper off somewhat more sharply.

Hours of participation in special programs. In order to provide information on how intensive the various special program services are, Table 12 gives, separately for each program, the average hours per week of service provided to participating pupils. (The school week for most pupils is 30 hours.) As before, the data are provided separately for each grade, and also separately for those with moderate English language difficulty (Table 13) and severe difficulty (Table 14). An additional set of tables is provided which gives a percentage distribution of hours of participation separately for each program service (Tables 15 through 53, shown as Appendix III), but these tables are not discussed here.

As would be expected, full bilingual programs are by far the most intensive of any of the 13 special services. Pupils who participate in full bilingual programs average more than 18 hours per week of bilingual instruction. This average hardly varies for pupils with moderate and severe difficulty and does not vary in any systematic way by grade except that kindergarten and pre-kindergarten programs occupy fewer hours per week, which presumably

TABLE 12  
MEAN HOURS FOR PROGRAMS FOR PARTICIPATING STUDENTS

TOTAL  
POPULATION GROUP = HISPANIC  
1 + 2

ROWS = GRADE

| GRADE         | BILINGUAL PROGRAM | ESL PROGRAM    | LANG ARTS PROGRAM | MATH PROGRAM  | SCIENCE PROGRAM | SOCIAL STUDIES PROGRAM | FINE ARTS PROGRAM | CULTURE STUDIES PROGRAM | SUBJECT REINFOR PROGRAM | COMP READING PROGRAM | READING REINFOR PROGRAM | ORIENT CLASSES PROGRAM | OR CLA NAT LAN PROGRAM |
|---------------|-------------------|----------------|-------------------|---------------|-----------------|------------------------|-------------------|-------------------------|-------------------------|----------------------|-------------------------|------------------------|------------------------|
| ALL GRADES    | 19812<br>18.341   | 16557<br>5.372 | 5488<br>4.769     | 4851<br>4.112 | 4076<br>3.155   | 4224<br>3.354          | 2673<br>2.796     | 9181<br>1.850           | 5980<br>7.084           | 20168<br>6.074       | 6163<br>4.504           | 1143<br>7.360          | 1226<br>5.243          |
| GRADE 12      | 54<br>14.167      | 191<br>6.131   | 54<br>3.963       | 60<br>5.017   | 54<br>4.722     | 69<br>5.304            | 5<br>4.600        | 23<br>3.696             | 8<br>4.250              | 124<br>4.710         | 9<br>5.000              | 2<br>2.000             | 42<br>4.905            |
| GRADE 11      | 196<br>10.469     | 465<br>7.153   | 126<br>4.270      | 63<br>4.635   | 65<br>4.385     | 75<br>4.587            | 39<br>5.179       | 42<br>4.238             | 72<br>6.917             | 162<br>4.586         | 16<br>4.250             | 2<br>1.000             | 12<br>3.813            |
| GRADE 10      | 718<br>11.017     | 1293<br>7.302  | 338<br>4.314      | 200<br>4.621  | 357<br>3.595    | 346<br>4.084           | 206<br>4.956      | 79<br>4.418             | 113<br>10.655           | 316<br>4.924         | 35<br>4.800             | 27<br>2.926            | 163<br>4.963           |
| GRADE 9       | 918<br>17.855     | 1316<br>9.563  | 552<br>4.471      | 505<br>4.534  | 472<br>4.435    | 445<br>4.379           | 215<br>2.642      | 166<br>3.627            | 350<br>10.854           | 617<br>3.799         | 181<br>3.768            | 79<br>2.101            | 183<br>5.875           |
| GRADE 8       | 1252<br>22.739    | 723<br>6.956   | 357<br>4.613      | 426<br>6.657  | 404<br>4.363    | 413<br>5.046           | 135<br>2.079      | 161<br>2.112            | 226<br>9.774            | 520<br>4.013         | 176<br>3.614            | 68<br>16.044           | 110<br>3.036           |
| GRADE 7       | 1460<br>22.415    | 730<br>5.797   | 300<br>4.534      | 400<br>4.520  | 394<br>3.817    | 339<br>3.994           | 259<br>2.676      | 182<br>2.297            | 268<br>10.231           | 588<br>4.316         | 267<br>4.985            | 96<br>19.404           | 107<br>1.103           |
| GRADE 6       | 1251<br>17.445    | 890<br>5.779   | 406<br>6.320      | 355<br>4.315  | 270<br>3.155    | 319<br>3.288           | 157<br>3.873      | 660<br>1.809            | 472<br>7.055            | 1430<br>6.314        | 552<br>4.726            | 181<br>6.934           | 80<br>2.387            |
| GRADE 5       | 1184<br>16.064    | 1250<br>4.605  | 393<br>5.771      | 300<br>3.592  | 227<br>2.555    | 256<br>2.668           | 205<br>1.971      | 1177<br>2.095           | 490<br>6.020            | 2074<br>6.105        | 500<br>4.317            | 71<br>7.709            | 74<br>8.932            |
| GRADE 4       | 1520<br>16.925    | 1252<br>4.263  | 318<br>4.780      | 327<br>3.508  | 225<br>2.165    | 265<br>3.355           | 127<br>2.740      | 1141<br>1.650           | 492<br>4.650            | 2372<br>6.711        | 634<br>4.509            | 61<br>3.426            | 117<br>10.872          |
| GRADE 3       | 2004<br>18.265    | 1364<br>3.663  | 384<br>5.026      | 338<br>3.553  | 227<br>2.313    | 221<br>2.570           | 229<br>2.991      | 1219<br>1.501           | 574<br>4.441            | 2521<br>6.628        | 678<br>4.851            | 56<br>3.036            | 55<br>2.127            |
| GRADE 2       | 2777<br>20.482    | 1870<br>4.421  | 433<br>4.697      | 227<br>3.211  | 255<br>2.363    | 313<br>2.335           | 209<br>1.805      | 1235<br>1.598           | 668<br>5.795            | 2677<br>7.161        | 804<br>4.700            | 102<br>6.604           | 22<br>2.364            |
| GRADE 1       | 3798<br>20.339    | 2680<br>4.229  | 580<br>5.107      | 491<br>3.658  | 366<br>1.940    | 387<br>2.181           | 317<br>1.814      | 1474<br>1.453           | 820<br>9.287            | 3638<br>6.925        | 1123<br>5.254           | 102<br>8.108           | 122<br>4.377           |
| KINDER-GARTEN | 1560<br>11.502    | 1724<br>4.166  | 482<br>2.998      | 329<br>1.793  | 322<br>1.165    | 312<br>1.250           | 228<br>1.855      | 1155<br>1.394           | 947<br>6.245            | 2268<br>4.183        | 742<br>3.301            | 207<br>4.502           | 87<br>2.736            |
| PRE-K         | 140<br>7.833      | 105<br>8.219   | 92<br>5.109       | 63<br>2.345   | 36<br>1.889     | 47<br>2.234            | 31<br>3.774       | 50<br>1.160             | 154<br>10.654           | 21<br>2.429          | 20<br>5.000             | 30<br>8.167            | 13<br>7.308            |
| OTHER         | 315<br>16.222     | 279<br>6.161   | 395<br>4.818      | 332<br>3.819  | 273<br>2.432    | 308<br>3.208           | 257<br>3.690      | 303<br>2.109            | 213<br>5.047            | 699<br>5.854         | 227<br>3.458            | 46<br>3.022            | 9<br>1.444             |

TABLE 13  
MEAN HOURS FOR PROGRAMS FOR PARTICIPATING STUDENTS

TOTAL  
POPULATION GROUP = HISPANIC  
CAT 1

ROWS = GRADE

|              | BILINGUAL PROGRAM | ESL PROGRAM   | LANG ARTS PROGRAM | MATH PROGRAM  | SCIENCE PROGRAM | SOCIAL STUDIES PROGRAM | FINE ARTS PROGRAM | CULTURE STUDIES PROGRAM | SUBJECT REINFOR PROGRAM | COMP READING PROGRAM | READING REINFOR PROGRAM | ORIENT CLASSES PROGRAM | GR CLAS NAT LAW PROGRAM |
|--------------|-------------------|---------------|-------------------|---------------|-----------------|------------------------|-------------------|-------------------------|-------------------------|----------------------|-------------------------|------------------------|-------------------------|
| ALL GRADES   | 9056<br>17.441    | 9211<br>4.782 | 2904<br>4.608     | 2640<br>4.080 | 2021<br>3.107   | 2230<br>3.321          | 1447<br>2.377     | 6400<br>1.793           | 3536<br>6.608           | 14822<br>6.232       | 3977<br>4.495           | 565<br>4.681           | 553<br>4.025            |
| GRADE 12     | 36<br>16.333      | 120<br>5.608  | 39<br>3.718       | 25<br>4.960   | 20<br>4.850     | 25<br>5.414            | 3<br>4.333        | 21<br>3.667             | 4<br>3.500              | 102<br>4.882         | 9<br>5.000              | 2<br>2.000             | 18<br>4.778             |
| GRADE 11     | 90<br>14.389      | 276<br>6.355  | 71<br>3.915       | 31<br>4.355   | 22<br>3.879     | 32<br>4.313            | 5<br>6.800        | 26<br>4.231             | 52<br>7.308             | 128<br>4.484         | 10<br>3.800             | 2<br>1.000             | 4<br>3.000              |
| GRADE 10     | 200<br>14.490     | 542<br>6.245  | 115<br>4.643      | 218<br>4.743  | 182<br>4.863    | 101<br>4.674           | 154<br>4.468      | 57<br>4.386             | 68<br>13.147            | 237<br>5.253         | 31<br>4.774             | 9<br>2.778             | 144<br>4.958            |
| GRADE 9      | 240<br>16.496     | 510<br>8.655  | 274<br>4.350      | 270<br>4.367  | 244<br>4.254    | 243<br>4.259           | 100<br>2.510      | 129<br>3.527            | 204<br>13.103           | 484<br>3.820         | 108<br>3.898            | 49<br>1.898            | 60<br>4.550             |
| GRADE 8      | 505<br>21.566     | 358<br>6.944  | 182<br>4.451      | 203<br>5.350  | 179<br>5.117    | 216<br>5.000           | 83<br>1.940       | 103<br>1.767            | 81<br>7.864             | 394<br>3.919         | 69<br>3.435             | 9<br>11.111            | 33<br>1.485             |
| GRADE 7      | 537<br>22.410     | 308<br>5.218  | 172<br>4.285      | 145<br>4.593  | 128<br>4.281    | 128<br>4.477           | 85<br>3.224       | 135<br>2.519            | 90<br>14.333            | 458<br>4.574         | 154<br>5.682            | 25<br>4.000            | 26<br>1.000             |
| GRADE 6      | 560<br>16.859     | 428<br>5.175  | 223<br>4.888      | 218<br>4.115  | 145<br>2.717    | 177<br>2.791           | 98<br>1.418       | 480<br>1.727            | 251<br>5.920            | 1037<br>6.574        | 331<br>3.816            | 74<br>4.554            | 14<br>1.286             |
| GRADE 5      | 677<br>14.815     | 725<br>4.116  | 236<br>6.225      | 235<br>4.230  | 143<br>2.457    | 172<br>2.657           | 139<br>1.669      | 863<br>2.486            | 342<br>5.912            | 1622<br>6.279        | 397<br>4.154            | 46<br>7.696            | 42<br>9.738             |
| GRADE 4      | 860<br>16.375     | 788<br>3.911  | 207<br>4.420      | 220<br>4.068  | 141<br>1.993    | 175<br>2.651           | 75<br>1.667       | 894<br>1.569            | 363<br>4.088            | 1817<br>6.777        | 471<br>4.378            | 40<br>3.475            | 44<br>4.773             |
| GRADE 3      | 592<br>15.845     | 516<br>3.619  | 259<br>4.042      | 198<br>3.737  | 121<br>2.008    | 114<br>2.237           | 120<br>1.725      | 979<br>1.606            | 437<br>4.332            | 2016<br>6.703        | 530<br>4.938            | 38<br>2.895            | 36<br>1.639             |
| GRADE 2      | 1505<br>19.432    | 1248<br>4.059 | 276<br>4.757      | 192<br>3.286  | 150<br>2.380    | 195<br>2.374           | 130<br>1.315      | 883<br>1.490            | 467<br>5.850            | 2054<br>7.356        | 574<br>4.641            | 82<br>7.232            | 13<br>1.692             |
| GRADE 1      | 1629<br>19.661    | 1608<br>3.853 | 353<br>5.317      | 285<br>3.541  | 241<br>2.029    | 219<br>2.566           | 206<br>1.811      | 906<br>1.493            | 500<br>8.100            | 2400<br>6.998        | 658<br>5.229            | 44<br>1.909            | 62<br>2.452             |
| KINDERGARTEN | 710<br>10.145     | 880<br>4.478  | 205<br>3.205      | 125<br>1.866  | 120<br>1.108    | 128<br>1.219           | 56<br>1.958       | 626<br>1.340            | 439<br>4.943            | 1302<br>4.227        | 382<br>3.288            | 99<br>4.384            | 42<br>3.071             |
| PRE-K        | 72<br>7.833       | 47<br>8.021   | 50<br>3.233       | 25<br>1.631   | 17<br>1.235     | 17<br>1.235            | 12<br>2.250       | 32<br>1.000             | 49<br>11.653            | 7<br>2.571           | 11<br>5.000             | 9<br>10.556            | 6<br>6.667              |
| OTHER        | 179<br>14.682     | 194<br>7.356  | 194<br>4.077      | 175<br>3.920  | 124<br>2.347    | 156<br>3.423           | 121<br>3.455      | 198<br>2.328            | 138<br>5.572            | 493<br>6.140         | 138<br>4.072            | 30<br>2.933            | 7<br>1.571              |



TABLE 14  
MEAN HOURS FOR PROGRAMS FOR PARTICIPATING STUDENTS

| POPULATION GROUP - HISPANIC CAT 2 |                   | TOTAL         |                   |               |                 |                        |                   |                         |                         |                      |                         |                        |                         |             |         |
|-----------------------------------|-------------------|---------------|-------------------|---------------|-----------------|------------------------|-------------------|-------------------------|-------------------------|----------------------|-------------------------|------------------------|-------------------------|-------------|---------|
| GRADE                             | BILINGUAL PROGRAM | ESL PROGRAM   | LANG ARTS PROGRAM | MATH PROGRAM  | SCIENCE PROGRAM | SOCIAL STUDIES PROGRAM | FINE ARTS PROGRAM | CULTURE STUDIES PROGRAM | SUBJECT REINFOR PROGRAM | CCMP READING PROGRAM | READING REINFOR PROGRAM | ORIENT CLASSES PROGRAM | OR CLAY NAT LAY PROGRAM | TOTAL       |         |
|                                   |                   |               |                   |               |                 |                        |                   |                         |                         |                      |                         |                        |                         | PROGRAM     | PROGRAM |
| ALL GRADES                        | 5524<br>19.805    | 6278<br>5.843 | 1656<br>4.150     | 1515<br>4.249 | 1273<br>3.266   | 1234<br>3.284          | 722<br>2.342      | 2340<br>2.047           | 2170<br>7.876           | 4589<br>5.640        | 1869<br>4.530           | 518<br>9.622           | 601<br>6.065            |             |         |
| GRADE 12                          | 13<br>11.692      | 66<br>7.167   | 9<br>4.222        | 34<br>4.912   | 33<br>4.636     | 39<br>5.103            | 2<br>5.000        | 1<br>4.000              | 1<br>5.000              | 16<br>3.625          |                         |                        |                         | 24<br>5.000 |         |
| GRADE 11                          | 71<br>8.169       | 156<br>8.122  | 19<br>4.053       | 3<br>4.667    | 7<br>4.857      | 13<br>4.462            | 10<br>4.800       | 6<br>3.667              | 14<br>5.571             | 22<br>5.227          |                         |                        |                         | 1<br>3.000  |         |
| GRADE 10                          | 318<br>13.713     | 380<br>9.050  | 43<br>5.465       | 25<br>5.320   | 29<br>4.724     | 47<br>4.234            | 51<br>4.980       | 14<br>4.357             | 27<br>6.926             | 73<br>3.986          | 3<br>5.000              | 18<br>3.000            | 19<br>5.000             |             |         |
| GRADE 9                           | 631<br>18.616     | 731<br>9.153  | 243<br>4.403      | 218<br>4.757  | 205<br>4.641    | 186<br>4.543           | 108<br>2.787      | 32<br>4.438             | 140<br>7.943            | 89<br>3.775          | 59<br>3.966             | 30<br>2.433            | 123<br>6.358            |             |         |
| GRADE 8                           | 635<br>22.981     | 298<br>6.356  | 122<br>4.090      | 171<br>8.825  | 182<br>4.967    | 152<br>5.204           | 30<br>2.167       | 50<br>3.000             | 135<br>11.207           | 68<br>4.029          | 105<br>3.762            | 59<br>16.797           | 76<br>3.737             |             |         |
| GRADE 7                           | 834<br>22.434     | 390<br>6.356  | 143<br>3.790      | 168<br>4.524  | 179<br>3.536    | 127<br>3.441           | 94<br>2.468       | 36<br>1.667             | 145<br>9.295            | 90<br>3.778          | 105<br>4.105            | 70<br>24.757           | 79<br>1.127             |             |         |
| GRADE 6                           | 591<br>18.866     | 440<br>6.436  | 129<br>4.977      | 125<br>3.837  | 77<br>2.779     | 93<br>2.892            | 13<br>1.462       | 166<br>1.819            | 201<br>8.811            | 322<br>5.398         | 182<br>5.780            | 99<br>8.444            | 66<br>2.621             |             |         |
| GRADE 5                           | 447<br>19.067     | 444<br>5.032  | 106<br>5.005      | 94<br>3.213   | 36<br>3.028     | 36<br>2.278            | 42<br>1.262       | 229<br>5.140            | 130<br>6.308            | 351<br>6.011         | 148<br>5.135            | 22<br>8.727            | 77<br>9.000             |             |         |
| GRADE 4                           | 546<br>18.670     | 435<br>4.697  | 70<br>3.800       | 63<br>3.568   | 40<br>2.075     | 45<br>2.667            | 11<br>1.636       | 212<br>2.071            | 110<br>6.936            | 438<br>6.258         | 152<br>5.289            | 18<br>3.500            | 52<br>16.019            |             |         |
| GRADE 3                           | 936<br>21.079     | 407<br>3.767  | 50<br>4.340       | 60<br>3.717   | 32<br>2.215     | 33<br>2.727            | 35<br>1.829       | 220<br>1.382            | 134<br>4.873            | 438<br>6.324         | 134<br>4.493            | 17<br>3.471            | 19<br>3.053             |             |         |
| GRADE 2                           | 1143<br>22.470    | 566<br>5.272  | 97<br>4.237       | 85<br>2.506   | 58<br>2.897     | 66<br>2.636            | 49<br>2.306       | 306<br>1.928            | 197<br>5.741            | 539<br>6.703         | 203<br>4.956            | 18<br>5.389            | 7<br>3.714              |             |         |
| GRADE 1                           | 1942<br>21.080    | 977<br>4.327  | 200<br>4.680      | 162<br>3.335  | 136<br>1.728    | 133<br>1.737           | 104<br>1.538      | 483<br>1.375            | 286<br>9.976            | 970<br>6.676         | 369<br>5.087            | 27<br>2.815            | 34<br>3.588             |             |         |
| KINDER-GARTEN                     | 769<br>12.771     | 739<br>3.779  | 239<br>2.406      | 163<br>1.411  | 164<br>1.079    | 153<br>1.150           | 94<br>1.191       | 471<br>1.406            | 494<br>7.425            | 927<br>4.093         | 300<br>3.100            | 100<br>4.860           | 37<br>2.405             |             |         |
| PRE-K                             | 99<br>7.364       | 50<br>8.640   | 43<br>3.721       | 22<br>2.545   | 7<br>1.571      | 7<br>2.143             | 7<br>2.571        | 18<br>1.444             | 84<br>10.250            | 14<br>2.357          | 9<br>5.000              | 21<br>7.143            | 7<br>7.857              |             |         |
| OTHER                             | 122<br>19.590     | 72<br>3.389   | 86<br>3.907       | 62<br>3.984   | 61<br>2.452     | 59<br>3.000            | 47<br>2.617       | 72<br>1.861             | 39<br>5.308             | 158<br>5.646         | 53<br>2.868             | 13<br>3.692            | 2<br>1.000              |             |         |

ROWS = GRADE





reflects the short school week of these pupils.

None of the other programs is very intensive. For the most part they appear to entail one or two class periods per day, although Hispanic cultural studies is even more limited than that. Of course, it must be remembered that these programs are often offered in combination, so that the average number of hours of program services received by pupils is bound to be considerably larger than the average number of hours of participation in any given program. There is not much variation from grade to grade in the intensity of these programs, although the average number of hours of Spanish language instruction in subject areas does appear to be somewhat greater in the higher grades. There is also not much variation in the intensity of services for pupils with moderate and severe English language difficulty, with one exception. Orientation classes for pupils with severe difficulty average nearly 10 hours per week while orientation classes for those with moderate difficulty average less than five hours per week.

#### Summary

Most Hispanic pupils with English language difficulty receive some special services. This includes about 85 per cent of those with moderate difficulty and about 94 per cent of those with severe difficulty. Full bilingual programs are available to nearly half of those with severe English language difficulty, but only to about 15 per cent of those with moderate difficulty. These programs tend to be most common in the elementary and junior high school grades. By contrast, English as a second language is the most common instructional program available to high school students with English language



difficulty. Comprehensive reading programs are used, most extensively in the elementary grades, for those pupils with moderate rather than severe English language difficulty. All the other instructional services are relatively uncommon. On the other hand, supportive pupil services are quite common, and are received by about 60 per cent of those with moderate difficulty and three-quarters of those with severe difficulty.

Full bilingual programs are, of course, most intensive, averaging 18 hours per week for those pupils receiving them. Most other programs average three to six hours per week or one to two class periods per day. The number of hours per week of participation in these programs does not differ much for those with moderate and severe difficulty, except that orientation classes are about twice as intensive for those with severe difficulty, averaging close to 10 hours per week.

#### PERSONNEL FLUENT IN SPANISH

Our final task is to assess the extent to which Hispanic pupils with English language difficulty have contact with school personnel fluent in Spanish. The home room teacher was asked to indicate for each pupil with English language difficulty whether the pupil's home room teacher, the cluster teacher (if any), at least one subject teacher (if any other than the home room teacher), at least one paraprofessional (if any), or any pupil services personnel (guidance counselors, etc.), are fluent in Spanish. Estimates of the extent to which pupils have access to these personnel are presented in Tables 54 through 56.

TABLE 54  
 NUMBER AND PERCENTAGE OF HISPANIC PUPILS  
 WITH BILINGUAL PERSONNEL  
 FOR EACH GRADE CITYWIDE

TOTAL  
 POPULATION GROUP = HISPAN  
 1 + 2

ROWS = GRADE  
 COLUMNS = PER CENT AND NUMBER  
 WITH BILINGUAL  
 PERSONNEL

|                   | TOTAL          | ENGLISH<br>PERSONL<br>ONLY | HOME<br>ROOM<br>TEACHER | CLUSTER<br>TEACHER | SUBJECT<br>TEACHER | PARA<br>PROFES-<br>SIONAL | PUPIL<br>PERSONL<br>SERVICE |
|-------------------|----------------|----------------------------|-------------------------|--------------------|--------------------|---------------------------|-----------------------------|
| ALL GRADES        | 64202<br>100.0 | 16335<br>25.4              | 19543<br>30.4           | 5807<br>9.0        | 16670<br>26.0      | 31666<br>49.3             | 34587<br>54.5               |
| GRADE 12          | 592<br>100.0   | 246<br>41.6                | 107<br>18.1             | 5<br>0.8           | 208<br>35.1        | 113<br>19.1               | 287<br>48.5                 |
| GRADE 11          | 1160<br>100.0  | 383<br>33.0                | 240<br>20.7             | 15<br>1.3          | 518<br>44.7        | 306<br>26.4               | 635<br>54.7                 |
| GRADE 10          | 2332<br>100.0  | 562<br>23.6                | 820<br>34.4             | 35<br>1.5          | 1387<br>58.2       | 642<br>27.0               | 1574<br>66.1                |
| GRADE 9           | 3377<br>100.0  | 1014<br>30.0               | 1328<br>39.3            | 217<br>6.4         | 1775<br>52.6       | 1476<br>43.7              | 1760<br>52.1                |
| GRADE 8           | 3257<br>100.0  | 703<br>21.6                | 1632<br>50.1            | 572<br>17.6        | 1797<br>55.2       | 1694<br>52.0              | 1750<br>53.7                |
| GRADE 7           | 3495<br>100.0  | 717<br>20.5                | 1693<br>48.4            | 706<br>20.2        | 2083<br>59.6       | 1991<br>57.0              | 2007<br>57.4                |
| GRADE 6           | 3778<br>100.0  | 918<br>24.3                | 1105<br>29.2            | 715<br>19.0        | 1181<br>31.3       | 1872<br>49.6              | 2064<br>54.6                |
| GRADE 5           | 4579<br>100.0  | 1222<br>26.7               | 1089<br>23.8            | 742<br>16.2        | 738<br>16.1        | 2176<br>47.5              | 2459<br>53.7                |
| GRADE 4           | 5232<br>100.0  | 1348<br>25.8               | 1417<br>27.1            | 866<br>16.6        | 945<br>18.1        | 2475<br>47.3              | 2713<br>51.9                |
| GRADE 3           | 6214<br>100.0  | 1606<br>25.8               | 1674<br>26.9            | 1156<br>18.6       | 989<br>15.9        | 3294<br>53.0              | 3428<br>55.2                |
| GRADE 2           | 7460<br>100.0  | 1651<br>22.1               | 2506<br>33.6            | 1270<br>17.0       | 1344<br>18.0       | 4277<br>57.3              | 4285<br>57.4                |
| GRADE 1           | 9940<br>100.0  | 2193<br>22.1               | 3289<br>33.1            | 1836<br>18.5       | 1905<br>19.2       | 5666<br>57.0              | 5497<br>55.3                |
| KINDER-<br>GARTEN | 7965<br>100.0  | 2542<br>31.9               | 1346<br>16.9            | 1115<br>14.0       | 791<br>9.9         | 3470<br>43.6              | 4038<br>50.7                |
| PRE-K             | 998<br>100.0   | 80<br>8.0                  | 174<br>17.4             | 33<br>3.3          | 46<br>4.9          | 824<br>82.6               | 656<br>65.7                 |
| OTHER             | 2274<br>100.0  | 934<br>41.1                | 358<br>15.7             | 168<br>7.4         | 392<br>17.2        | 507<br>22.3               | 1035<br>45.5                |

TABLE 55  
NUMBER AND PERCENTAGE OF HISPANIC PUPILS  
WITH BILINGUAL PERSONNEL  
FOR EACH GRADE CITYWIDE

TOTAL  
POPULATION GROUP = HISPANIC  
CAT 1

ROWS = GRADE  
COLUMNS = PER CENT AND NUMBER  
WITH BILINGUAL  
PERSONNEL

|                   | TOTAL          | ENGLISH<br>PERSONNEL<br>ONLY | HOME<br>ROOM<br>TEACHER | CLUSTER<br>TEACHER | SELECT<br>TEACHER | PARA<br>PROFES-<br>SIONAL | PUPIL<br>PERSONEL<br>SERVICE |
|-------------------|----------------|------------------------------|-------------------------|--------------------|-------------------|---------------------------|------------------------------|
| ALL GRADES        | 35563<br>100.0 | 11817<br>29.9                | 8784<br>22.2            | 5151<br>13.0       | 6102<br>20.5      | 17630<br>44.6             | 19953<br>50.4                |
| GRADE 12          | 408<br>100.0   | 170<br>41.7                  | 57<br>14.0              | 2<br>0.5           | 127<br>31.1       | 102<br>25.0               | 201<br>49.3                  |
| GRADE 11          | 767<br>100.0   | 271<br>35.3                  | 134<br>17.5             | 13<br>1.7          | 304<br>39.6       | 189<br>24.6               | 416<br>54.2                  |
| GRADE 10          | 1210<br>100.0  | 391<br>32.3                  | 351<br>29.0             | 5<br>0.4           | 529<br>43.7       | 358<br>29.6               | 650<br>53.7                  |
| GRADE 9           | 1903<br>100.0  | 756<br>39.7                  | 471<br>24.8             | 140<br>7.4         | 757<br>39.8       | 628<br>33.0               | 742<br>39.0                  |
| GRADE 8           | 1895<br>100.0  | 521<br>27.5                  | 681<br>35.9             | 257<br>13.6        | 836<br>44.1       | 802<br>42.3               | 909<br>48.0                  |
| GRADE 7           | 1870<br>100.0  | 545<br>29.1                  | 555<br>29.7             | 294<br>15.7        | 890<br>47.6       | 939<br>50.2               | 919<br>49.1                  |
| GRADE 6           | 2378<br>100.0  | 707<br>29.7                  | 459<br>19.3             | 289<br>12.2        | 591<br>24.9       | 1069<br>45.0              | 1225<br>51.5                 |
| GRADE 5           | 3182<br>100.0  | 952<br>29.9                  | 628<br>19.7             | 437<br>13.7        | 426<br>13.4       | 1426<br>44.8              | 1617<br>50.8                 |
| GRADE 4           | 3664<br>100.0  | 1026<br>28.0                 | 763<br>20.8             | 512<br>14.0        | 595<br>16.2       | 1569<br>42.8              | 1848<br>50.4                 |
| GRADE 3           | 4266<br>100.0  | 1256<br>29.4                 | 792<br>18.6             | 638<br>15.0        | 517<br>12.1       | 2044<br>47.9              | 2177<br>51.0                 |
| GRADE 2           | 5083<br>100.0  | 1243<br>24.5                 | 1358<br>26.7            | 837<br>16.5        | 750<br>14.8       | 2702<br>53.2              | 2858<br>56.2                 |
| GRADE 1           | 5958<br>100.0  | 1648<br>27.7                 | 1373<br>23.0            | 914<br>15.3        | 908<br>15.2       | 3015<br>50.6              | 3048<br>51.2                 |
| KINDER-<br>GARTEN | 4214<br>100.0  | 1479<br>35.1                 | 574<br>13.6             | 524<br>12.4        | 352<br>8.4        | 1701<br>40.4              | 2006<br>47.6                 |
| PRE-K             | 417<br>100.0   | 40<br>9.6                    | 63<br>15.1              | 13<br>3.1          | 11<br>2.6         | 337<br>80.8               | 270<br>64.7                  |
| OTHER             | 1515<br>100.0  | 646<br>42.6                  | 216<br>14.3             | 105<br>6.9         | 264<br>17.4       | 306<br>20.2               | 656<br>43.3                  |

TABLE 56  
NUMBER AND PERCENTAGE OF HISPANIC PUPILS  
WITH BILINGUAL PERSONNEL  
FOR EACH GRADE CITYWIDE

| POPULATION GROUP = HISPANIC CAT 2 |                | PER CENT AND NUMBER WITH BILINGUAL PERSONNEL |                   |                 |                 |                   |                         |
|-----------------------------------|----------------|--|-------------------|-----------------|-----------------|-------------------|-------------------------|
| ROWS = GRADE                      | TOTAL          | ENGLISH PERSONNEL ONLY                       | HOME ROOM TEACHER | CLUSTER TEACHER | SUBJECT TEACHER | PARA PROFESSIONAL | PUPIL PERSONNEL SERVICE |
| ALL GRADES                        | 20954<br>100.0 | 3509<br>16.7                                 | 9498<br>45.3      | 4017<br>19.2    | 7306<br>34.9    | 12491<br>59.6     | 13116<br>62.6           |
| GRADE 12                          | 126<br>100.0   | 43<br>34.1                                   | 44<br>34.9        | 2<br>1.6        | 70<br>55.6      | 10<br>7.9         | 68<br>54.0              |
| GRADE 11                          | 267<br>100.0   | 87<br>32.6                                   | 77<br>28.8        |                 | 153<br>57.3     | 69<br>25.8        | 155<br>58.1             |
| GRADE 10                          | 697<br>100.0   | 110<br>15.8                                  | 344<br>49.4       | 30<br>4.3       | 473<br>67.9     | 209<br>30.0       | 518<br>74.3             |
| GRADE 9                           | 1299<br>100.0  | 177<br>13.6                                  | 811<br>62.4       | 59<br>4.5       | 967<br>74.4     | 795<br>61.2       | 939<br>72.3             |
| GRADE 8                           | 1039<br>100.0  | 122<br>11.7                                  | 780<br>75.1       | 222<br>21.4     | 764<br>73.5     | 707<br>68.0       | 678<br>65.3             |
| GRADE 7                           | 1444<br>100.0  | 103<br>7.1                                   | 1074<br>74.4      | 356<br>27.4     | 1117<br>77.4    | 1002<br>69.4      | 1000<br>69.3            |
| GRADE 6                           | 1172<br>100.0  | 145<br>12.4                                  | 558<br>47.6       | 340<br>29.0     | 544<br>46.4     | 722<br>61.6       | 745<br>63.6             |
| GRADE 5                           | 1135<br>100.0  | 184<br>16.2                                  | 416<br>36.7       | 271<br>23.9     | 267<br>23.5     | 649<br>57.2       | 721<br>63.5             |
| GRADE 4                           | 1313<br>100.0  | 229<br>17.4                                  | 554<br>42.2       | 265<br>20.2     | 324<br>24.7     | 779<br>59.3       | 777<br>59.2             |
| GRADE 3                           | 1671<br>100.0  | 242<br>14.5                                  | 785<br>47.0       | 465<br>27.8     | 425<br>25.7     | 1141<br>68.3      | 1147<br>68.6            |
| GRADE 2                           | 2087<br>100.0  | 335<br>16.1                                  | 1028<br>49.3      | 373<br>17.9     | 541<br>25.9     | 1383<br>66.3      | 1293<br>62.0            |
| GRADE 1                           | 3626<br>100.0  | 486<br>13.4                                  | 1742<br>48.0      | 830<br>22.9     | 851<br>23.5     | 2398<br>66.1      | 2245<br>61.9            |
| KINDER-GARTEN                     | 3450<br>100.0  | 974<br>28.2                                  | 709<br>20.6       | 542<br>15.7     | 351<br>11.3     | 1631<br>47.3      | 1879<br>54.5            |
| PRE-K                             | 533<br>100.0   | 38<br>7.1                                    | 87<br>16.3        | 20<br>3.8       | 38<br>7.1       | 454<br>85.2       | 340<br>63.8             |
| OTHER                             | 550<br>100.0   | 196<br>35.6                                  | 123<br>22.4       | 57<br>10.4      | 120<br>21.8     | 141<br>25.6       | 305<br>55.5             |

Extent of contact with Spanish speaking personnel. About three-quarters of all Hispanic pupils with English language difficulty have contact with at least one Spanish speaking teacher or para-professional--that is, only one-quarter have no contact with any Spanish speaking personnel in the five surveyed categories. Among those with severe English language difficulty, about 83 per cent have contact with Spanish speaking school personnel, while among those with moderate difficulty about 70 per cent have such contact.

These percentages vary relatively little from grade to grade except that Spanish speaking personnel are somewhat less available in the 11th and 12th grades. Also, in keeping with the pattern we have noted repeatedly, kindergarteners do not fare very well, compared both to pre-kindergarteners and first graders. Pre-kindergarten classes exist only in a limited number of schools and apparently are organized to provide considerable service to pupils who do not speak English at home. Kindergarten classes are attended by most (although not all) Hispanic children who enter first grade the following year, and most of these children have not been previously enrolled in pre-kindergarten classes. However, relatively less in the way of specialized services (as we have seen above) or personnel (as we see here) are available in kindergarten than in the successive elementary grades.

Patterns of contact with Spanish speaking personnel. About 30 per cent of pupils with English language difficulty have home room teachers who are fluent in Spanish. This includes somewhat more than 20 per cent of those with moderate difficulty and nearly half

of those with severe difficulty. Among pupils with severe difficulty, those in junior high school are most likely to have Spanish speaking home room teachers--fully three-quarters of 7th and 8th grade pupils have such teachers, which probably reflects a tendency in the junior high schools to group pupils with severe English language difficulty into a few classes and to provide specialized services to all pupils in these classes.

Very much the same pattern characterizes contact with subject teachers, although the proportion of pupils who have Spanish speaking subject teachers is somewhat smaller than the proportion with Spanish speaking home room teachers. Pupils with severe English disability are more likely to have subject teachers fluent in Spanish than pupils with moderate difficulty, and junior high school pupils are most likely to have Spanish speaking subject teachers.

Spanish speaking cluster teachers, para-professionals, and pupil service personnel tend to be about equally available to pupils at all grade levels, except that cluster teachers are generally not found in the high schools. Only about 15 per cent of pupils with English language difficulty have contact with Spanish speaking cluster teachers, but this reflects the fact that not all pupils have any contact with cluster teachers at all. About half of these pupils have contact with Spanish speaking para-professionals and Spanish speaking pupil service personnel, although the percentage is somewhat higher for pupils with severe difficulty than for pupils with moderate difficulty.

Summary

Most Hispanic pupils with English language difficulty have contact with Spanish speaking school personnel. This includes about 70 per cent of those with moderate difficulty and 85 per cent of those with severe difficulty. Among those with severe difficulty, nearly half have home room teachers fluent in Spanish, about a third have at least one subject teacher fluent in Spanish, and around 60 per cent have para-professionals and pupil service personnel fluent in Spanish. The availability of Spanish speaking home room and subject teachers is greatest in the junior high grades, where nearly three-quarters of all pupils with severe difficulty have both home room and subject teachers fluent in Spanish.

CONCLUSIONS

The data presented in this report have shown both a substantial need for special services for Hispanic pupils with English language difficulty and a substantial effort on the part of the schools to meet that need. Whether these efforts are sufficient is not for us to say, for this is the central issue in the pending suit which gave rise to this analysis.



APPENDIX I

TECHNICAL CONSIDERATIONS IN THE DESIGN AND  
EXECUTION OF THE SURVEY

## APPENDIX I

### TECHNICAL CONSIDERATIONS IN THE DESIGN AND EXECUTION OF THE SURVEY

Introduction. The following Appendix describes in some detail the types of decisions made, the reasons for these decisions, and the procedures followed to collect and analyze the data on which this report is based. The reasons for decisions basically can be divided into three parts. There are the standard technical considerations which normally are the principal motivations for generating the substantively desired information in its final form. But, in addition, because of the special context in which this survey was conducted, other factors intervened which caused us at times to make decisions which, on purely technical grounds, would have been objectionable. They can be summarized into two categories:

- (1) the legal demands imposed by the judge, the attorneys for the plaintiff and the attorneys for the defense.
- (2) the almost overwhelming time constraints which made it necessary to make compromises which under more normal circumstances would not have been considered.

This Appendix will be divided into sections describing:

- (1) The instrument used in the May survey.
- (2) The collection procedures used to gather the data for the May survey.
- (3) The editing procedure developed to locate and correct logical inconsistencies which were introduced into the data either by the teachers or the keypunchers.

(4) The sample design and correction procedure which was initiated to cope with the fact that the Board of Education had insufficient time and resources to correct the errors for the entire census.

(5) The weighting procedure used to make the sample representative of the population of the city.

(6) The validity check data collection procedure designed to assess the accuracy of the information on program services collected in the May language survey.

The May language survey instrument. The instrument used in the May Survey of Educational Services for Pupils with English Language Difficulty was designed to collect the information requested by the court in Judge Frankel's memorandum of April 30, 1974. It can be divided into six parts:

1. A section for header information designed to identify the location (class room, grade, school, district, and borough) of pupils with English language difficulty.
2. A language census for each classroom so that the percentage of Hispanic children with English language difficulty can be determined. The categories which were used for the census were not the best possible, because they tend to confuse the difference between ethnicity and language group, but the same categories were used in the October language survey, and at a meeting of the consultants, the attorneys for the plaintiffs, and the attorneys for the defense the decision was made that these categories were to be retained for the May survey in order to ensure comparability with

the earlier survey, and also because it seemed likely that the teachers would be better able to use a classification system with which they were familiar.

3. Pupil identification information. The pupil's name was included only to match information collected for a pupil by a teacher with that collected by monitors checking the accuracy of the information. The sequence number was used to label records for the purpose of analysis without violating the confidentiality of information about particular pupils.

4. A section for information about the language group and language category for each child with English language difficulty. A three category language competence code used in the October language census was repeated. The rationale was the same as for (2) above.

5. A section for information on the number of hours of various bilingual programs to which the pupil may have been exposed.

6. A section for information about bilingual personnel to which the pupil may have been exposed.

A copy of the survey instrument, the accompanying instruction sheet, and the letter to staff from the chancellor concerning the May survey are included in Appendix V.

The collection procedures used to gather the data for the May survey.

The information requested in the survey was reported by the home room teachers in all day schools in New York. In the elementary schools, the home room teacher is generally the teacher with whom the pupils have the most contact. This is not true of the junior and senior high schools, but it was decided that there was no efficient means of gathering information about these pupils aside

from assigning primary responsibility for gathering the requested information to the home room teachers, either through using his or her own knowledge of the pupil or through consulting with other appropriate personnel in the schools. The forms were distributed to the principals of each school, who then distributed them to the home room teacher. Upon completion they were returned to the principals and subsequently to the Bureau of Educational Program Research and Statistics (BEPRAS). The forms were then sent to various companies for keypunching and finally were read onto a computer tape at the Board of Education. The keypunching instructions are included in Appendix V.

Edit check. The editing procedure was designed to correct logical inconsistencies and omissions in the data collected in the May survey. It did not have the purpose of determining the accuracy of reported information which was both complete and consistent. This was done by a separate validity check. The following illustration hopefully makes the distinction. If a teacher reported that a pupil was exposed to more than 30 hours of instruction in specialized programs in a week, this would be considered an inconsistency, because pupils only attend school 30 hours per week. If a teacher reported that a pupil was exposed to 15 hours of bilingual programs per week, this case was not checked in the same way because it is possible that this information is correct even though it might not be.

The edit check was accomplished as follows. We constructed a list of requirements which the data would have to fulfill if it were to be logically consistent with the instructions for completing

the survey and with other known facts about the school system. The list of requirements is included in Appendix V. These requirements were then used to produce a list containing all the data for each pupil where at least one item was either inconsistent or omitted. This listing was furnished to BEPRAS which was then supposed to correct the data by phoning the teachers responsible for reporting the information in the May survey.

The edit check procedure produced a much larger number of cases to be corrected than had been anticipated (between 50 and 60 per cent of the cases contained at least one omission or inconsistency). In light of this it became evident that it was beyond the capacity of the clerical staff of BEPRAS--or even of a substantially expanded staff--to correct all the data before teachers left for the summer. It was decided that the procedure outlined below was the only alternative which would both be possible to accomplish and would produce information which might fulfill the directive of the court contained in the memorandum.

(1) The edit check was to be relaxed as follows: (a) in the survey, teachers were required in several instances to indicate positively that pupils received no special program services or were exposed to no personnel fluent in their native language, by making an "X" in special columns on the instrument. The original edit logic included in its list of cases to be corrected all those in which no program or service was recorded and in which these columns were not marked. Upon inspection of the cases listed by the edit procedure, it became evident that a large number of teachers did not follow instructions and indicated neither the presence or absence

of specialized services or personnel. It was decided to assume that if no services or personnel were recorded on the instrument, this was in fact what the teacher meant to report even though he or she had failed to positively indicate this in the special columns. While this assumption could have resulted in an under-report of the true extent of program services or personnel available to pupils with English language difficulty, it was felt that the magnitude of such a bias would not be very great and that in any event its magnitude could be accurately assessed by means of the separate validity check of program services. (b) It was decided to assume that if the personnel section of the instrument was left unmarked, this should be interpreted as meaning that the teacher was indicating that the pupil received no such services.

(2) Errors in the first 39 columns were corrected in all cases (see the instrument in Appendix V). These data will be used in a future report to provide a count for each school of the number of Hispanic pupils in categories 1, 2, and 3.

(3) Errors in columns 40-73 were only corrected for a sample of the population of pupils with English language difficulty.

Sample chosen for editing. The cases corrected were selected as follows. A probability sample of classrooms was drawn from each district in such a way as to produce data for approximately 225 pupils in pre-kindergarten and kindergarten, 350 pupils in grades one through six, and 225 pupils in grades seven through nine, a total of approximately 800 pupils per district. In addition, a probability sample of high school home rooms was drawn in such a way as to produce data for approximately 500 pupils.



With samples of this size we expect to be able to make inferences about the percentage of students receiving programs with a standard error of approximately .03. This figure is determined as follows. Given a sample of 225 and the fact that the probability of each student having a program is governed by a binomial distribution, the standard deviation of a sample proportion based upon 225 observations is  $\sqrt{pq}/15$ . The largest value of this expression occurs when  $p = .5$  and  $\sqrt{pq}/15 = .03$ . Because the sample was gathered by a cluster procedure, the efficiency is somewhat reduced, and the standard deviation may be 25% larger than would be the case from a simple random sample. On the other hand, since we are sampling without replacement, the standard deviation is reduced by a factor approximately equal to the proportion of pupils with English language difficulty not selected in each group. Since in a number of districts less than half the students were not selected, this reduction can be significant.

Classrooms were sampled with probability proportionate to the number of pupils with English language difficulty, and this was done for two reasons: since much of the time involved in correcting errors is used in attempting to contact teachers, it was decided that a reasonably large sample could most efficiently be corrected if more time was spent contacting teachers who had several pupils with English language difficulty. In addition, it was felt that a weighted sample might more accurately reflect the greater variability to be expected in classrooms containing many pupils with English language difficulty. Since there are comparatively few of these classrooms, it was necessary to design a stratified sampling procedure to insure their selection.

Weighting the sample. The sample analysis will be done on a weighted version of the sample. The method used in drawing the sample naturally resulted in pupils from large classrooms being more likely to be in the sample than pupils from small classrooms. If there were systematic variation in the amount of programs received between large and small classrooms, an unweighted sample would produce distorted results. To correct this, the decision was made to use weights. Their relative magnitude was determined according to the following procedure. The classrooms of each district were categorized into seven groups according to the number of pupils with English language difficulty in each. The pupils were then assigned weights equal to the reciprocal of the proportion of selected pupils from classrooms of this size in each level (preschool, elementary, junior high) in each district. As a result, students from classrooms of all sizes were equally represented in the weighted sample. The absolute magnitude of the weights was set so that the weighted frequency of the sample would equal the number of cases reported in the May survey.

Validity check of reporting of program services. Because the data on the percentage of pupils receiving various special services, and the number of hours of service available to pupils, are the crux of the survey, it is imperative that these data be accurate. To determine the accuracy of teachers' reports on services received by students, we independently collected data on hours of participation in programs for a representative sample of the pupils listed by teachers in Category I or II.

The basic procedure was as follows. Personnel from the Chancellor's Monitoring Task Force were given a list of pupils



reported by their teachers to have difficulty with English. The Monitors then visited the schools, obtained from the principal a list of personnel offering the 14 special program services listed on the questionnaire, and interviewed these personnel, obtaining from them an indication of which services each pupil received and how many hours per week he received the service. If necessary, the Monitor then visited the teacher to obtain additional information (the details are described in the "Instructions for Conducting Validity Check," included in Appendix V).

The list of pupils to be checked was chosen in such a way as to constitute a representative sample of pupils with English language difficulty. The sample consisted of several stages. As a first step, schools were sampled with probability proportionate to the number of Category I or II pupils enrolled in October, 1973. In the second stage, six class rooms containing at least one pupil with English language difficulty were picked in each school, by dividing the May survey questionnaires returned by the school into six piles and choosing the first one in each pile which listed at least one Category I or Category II pupil. In the third stage, the first, middle, and last pupil listed on the form was chosen.

Schools were assigned to the Monitoring Task Force in such a way as to allow them to monitor as large a sample of schools as time permitted. At this point, we do not know precisely how many schools were covered, because processing of these data is in progress.

Our intention is to directly compare the data obtained by the monitors with the data for the same pupils reported by their teachers.

In this way we will be able to determine whether the percentages reported by the teachers accord well with the true percentages of pupils receiving various program services.

APPENDIX II

ASSESSING THE ACCURACY OF THE CLASSIFICATION OF PUPILS  
WITH RESPECT TO ENGLISH LANGUAGE DIFFICULTY

## APPENDIX II

### ASSESSING THE ACCURACY OF THE CLASSIFICATION OF PUPILS WITH RESPECT TO ENGLISH LANGUAGE DIFFICULTY

The design of the survey required that each class room or home room teacher classify each of his or her pupils according to his English language competence. To insure comparability with existing data, the "Language Category Code" which has been used in the Board of Education's annual October 31 language census for the past several years was utilized. This code contains three categories:

Category 1 - Pupils who speak English hesitantly at times, or whose regional or foreign accents indicates the need for remedial work in English and/or speech.

Category 2 - Pupils who speak little or no English, whose regional or foreign accents make it impossible for them readily to be understood.

Category 3 - All remaining pupils.

Teachers were asked to list individually all pupils in the class register as of April 30, 1974 whom they judged to be in either Category 1 (hereafter known as "moderate" English language difficulty) or Category 2 (hereafter known as "severe" English language difficulty).

Because the complexity of the survey and the political context in which it was conducted created the possibility that teachers would inaccurately report the number of pupils with English language difficulty, it is important to try to assess the validity of this count.

The main reason for suspecting an under-count of pupils with English language difficulty is that the survey design required

teachers to list all such pupils and then to provide an extensive body of information about the program services and personnel available to each of these pupils. Considering that the survey was conducted near the end of the school year and that teachers were for the most part given very little time in which to complete it, it is possible that a certain fraction of teachers made judgements of pupils' English language competence in such a way as to minimize the number of Category 1 and 2 pupils and therefore to minimize the amount of work required to complete the questionnaire form.

The political context of the survey-- that is, the fact that it was conducted in conjunction with a suit brought by Aspira--gives a second reason for suspecting misrepresentation of the number of pupils with English language difficulty. Although the plaintiff's identity was not mentioned in the cover letter or instructions, it is reasonable to assume that this was widely known by teachers throughout the city, and especially by those teaching in schools with heavy Hispanic concentrations. This could have resulted either in a deliberate over-count of pupils with English language difficulty by those teachers sympathetic to the plaintiff's position or a deliberate under-count of pupils with English language difficulty by those teachers who were hostile.

The basic strategy we have adopted to assess the accuracy of the count of pupils with English language difficulty reported in the current survey is to compare it with the language censuses conducted by the Board of Education each October. Table 2.1



Table 2.1 - Per cent of Hispanic pupils with English language difficulty (elementary and junior high schools), 1970-1974

| Year          | Per cent with moderate difficulty (Cat. I) | Per cent with severe difficulty (Cat. II) | Total per cent with difficulty (Cats. I & II) | Number of Hispanic pupils |
|---------------|--|---|---|---------------------------|
| October, 1970 | 28   | 16  | 44  | 227,628                   |
| October, 1971 | 24   | 13  | 37  | 236,855                   |
| October, 1972 | 25   | 12  | 37  | 229,746                   |
| October, 1973 | 23   | 12  | 35  | 227,685                   |
| May, 1974     | 18 <sup>a</sup>                            | 9   | 27  | 212,020                   |

<sup>a</sup> Includes those Hispanic pupils judged to have English language difficulty but where category (I or II) not indicated; this is about 1% of all Hispanic pupils.

## 2.3

presents the number of Hispanic pupils in elementary and secondary schools in New York City for each year since October, 1970, and the percentage of these pupils with moderate or severe English language difficulty.\* These data suggest that the number and percentage of Hispanic pupils in the New York City schools who have difficulty with English has remained fairly constant over the past several years. Slightly more than 10 per cent of all pupils have severe difficulty speaking English and an additional 25 per cent have moderate difficulty. Although it appears that there was a slight improvement in the level of English language competence between 1970 and 1971, the percentages from the October data have since then remained virtually constant.

In this context, the data from the May survey, which seem to imply a five per cent drop in the percentage with moderate difficulty and a three per cent drop in the percentage with severe difficulty, provide a fairly sharp contrast. At first glance, this would appear to constitute prima facie evidence of under-reporting of the extent of English language difficulty among Hispanic pupils. However, before this conclusion can be accepted, alternative explanations must be ruled out.

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\*High schools and special schools are excluded, because the survey was returned from a number of these schools too late to be included in the preliminary computer tape from which the present data were extracted. Since we have no way of knowing what sort of bias is introduced by the omission of these schools, it is best to limit the analysis of possible under-counting (or over-counting) to elementary and junior high grades.

There are, in fact, two reasons to expect the level of English language competence of Hispanic pupils to improve over the course of the school year. First, and most obvious, if the schools are doing their job at all, some pupils will learn to speak better English between October and May, and can therefore legitimately be reclassified from Category 2 to Category 1, or from Category 1 to Category 3, between October and May. Second, differential migration and differential dropping out during the school year may remove from the school those pupils with the greatest English language difficulty. School enrollments are generally lower in the spring than the fall (on October 31, 1973 there were 227,685 Hispanic pupils in elementary and junior high schools in the City while on April 30, 1974 there were only 212,020, a loss of about seven per cent). While no firm evidence is available on withdrawal and migration patterns, it is not unlikely that the reduction in Hispanic enrollment over the course of the school year comes about via a combination of pupils dropping out of school and return migration of pupils born abroad (including Puerto Rico). Of course, emigration might be offset by immigration, but it is probable that many immigrant children simply stay out of school until the start of the following school year. Both return migration and informal withdrawal would be expected to be greatest among those pupils who have difficulty with English.

While it is not possible to test the differential school leaving hypothesis, it is possible to examine the learning hypothesis. Table 2.2 presents data on the level of English language competence

Table 2.2 - Per cent of Hispanic pupils with English language difficulty by grade, October 1973 and May 1974

| Grade            | Per cent with difficulty (Cat. II only) |      | Per cent with any difficulty (Cats. I & II) |      | Number of Hispanic pupils |                     |
|------------------|---|------|---|------|---------------------------|---------------------|
|                  | October                                 | May  | October                                     | May  | October                   | May                 |
| Pre-kindergarten | 46                                      | → 33 | 74  | → 62 | 1,813                     | 1,598               |
| Kindergarten     | 33                                      | ← 21 | 63  | ← 49 | 19,905                    | 16,150              |
| 1                | 22                                      | 16   | 53  | 43   | 25,433                    | 23,371              |
| 2                | 12                                      | 9    | 41  | 32   | 25,563                    | 23,366              |
| 3                | 9                                       | 7    | 35  | 27   | 25,355                    | 22,642              |
| 4                | 8                                       | 6    | 30  | 22   | 25,299                    | 23,397              |
| 5                | 6                                       | 5    | 26  | 20   | 24,471                    | 22,466              |
| 6                | 7                                       | 6    | 25  | 18   | 22,420                    | 21,157 <sup>a</sup> |
| 7                | 7                                       | 7    | 22  | 17   | 22,277                    | 20,528 <sup>b</sup> |
| 8                | 7                                       | 5    | 23  | 17   | 20,605                    | 19,468              |

<sup>a</sup> Includes 6-7 classes, N = 704

<sup>b</sup> Includes 7-8 classes, N = 544

of Hispanic pupils for each grade from pre-kindergarten through grade eight (recall that complete data are not yet available for high schools), for both October and May. Since we know from Table 2.1 that the overall level of English language difficulty has not changed in the past few years, we can treat the data for October for successive grades as if they referred to the same class in successive years, and likewise for the May data. Then we would expect the true percentages for May to fall in between the October percentages for the same grade and the October percentages for the next higher grade. Because most learning probably takes place between October and May and not between May and October (which includes the summer, in which Hispanic pupils are likely to spend much of their time in Spanish speaking communities), and because of the possibility of differential school leaving discussed above, it is probable that the May percentages for each grade will be close to the October percentages for the next higher grade.

In view of these considerations, we are inclined to interpret the data in Table 2.2 as probably indicating an under-count of the percentage of pupils with any English language difficulty from the second grade on. However, in our judgment, the data do not permit an inference of under-counting of pupils with severe English language difficulty nor an inference of under-counting of pupils with any difficulty prior to the second grade.

Let us review the evidence regarding severe disability first. Consider the first two columns, which give the percentage of Hispanic

pupils with severe English language difficulty reported in October and in May. It is evident from inspection of the data that the greatest improvement in English language competence occurs in the first few years of school; by the end of the second grade less than 10 per cent of all Hispanic pupils have severe difficulty speaking English. The data for the first four years are fully consistent with the notion that a great deal of learning takes place during the school year; and the absence of any reduction in this percentage between May and the next October probably reflects an influx of new enrollment of pupils with more English language difficulty than those who have previously been attending school (note that the enrollment figures increase sharply from pre-kindergarten to kindergarten and from kindergarten to first grade). After the second grade there is virtually no reduction in the percentage with severe difficulty and very little learning between October and May, which may reflect a small but constant immigration stream which offsets any learning which takes place.

The situation with respect to reporting of all Hispanic pupils with any English language difficulty is more ambiguous, but on balance we regard the data as probably indicating an under-count from the second grade on. The third and fourth columns in the table show the percentage with any English language difficulty (obviously, the reader interested in the percentage with moderate difficulty is free to make the appropriate subtraction to obtain these figures; interpreting them is somewhat difficult, however, since the per cent with moderate difficulty will increase as a result of the improvements of those with severe difficulty). Here, with one exception

the data for May exhibit smaller percentages of pupils with difficulty than the October data for the next higher grade. To accept these data at face value would require the assumption that not only do pupils not improve their English between May and October but in fact they get worse. While this assumption is not completely unreasonable - because many pupils no doubt usually speak Spanish outside of school - the more plausible hypothesis is that teachers under-reported the number of pupils with moderate English difficulty. Because the language question was a judgmental one, it is completely understandable that teachers might reduce the number of pupils they report as having moderate difficulty with English and not the number they report as having severe difficulty simply because moderate difficulty is a much more ambiguous category, especially since it involves deciding whether a regional or foreign accent is pronounced enough to require remedial work in English and/or speech. It may also be the case that teachers cease to hear moderately deficient English speech as the year goes by because they get used to the way individual pupils talk. It is obviously much more difficult to fail to recognize that a pupil is more or less completely incapable of communicating in English.

We are not willing to interpret these data as indicating an under-count before grade 2 for the same reason as was given above with respect to severe English difficulty: since many pupils begin school for the first time in kindergarten and in the first grade, one should expect the percentage of pupils who have difficulty with English in October to be higher than the percentage for the previous grade in May. And the percentage with difficulty in the first grade



in May does fall in between the October percentages for the first and second grades.

While it is difficult to get any precise estimate of the magnitude of under-reporting, it is clearly not large. Assuming that all the improvement from one grade to the next occurs during the school year (that is, between October and May) and that there is neither back sliding nor additional learning during the summer, the over all percentage of elementary and junior high school pupils with English language difficulty given in Table 2.1 appears to be about three per cent too low. That is, about 30 per cent of pupils have some English difficulty instead of the 27 per cent shown in the Table.

To help illustrate the pattern of change in the level of English language competence which has led us to our conclusions regarding under-counting, we graph (in Figure 2.1) the percentage of Hispanic pupils in each grade with severe English language difficulty, the percentage with any difficulty, and the adjusted percentage with any difficulty used to arrive at an over all estimate of 30 per cent.

Since for planning purposes the data from the October language censuses can and should be used in preference to the May data, simply because they give a better estimate of the number of pupils with English language difficulty to be expected at the beginning of the school year, the real importance of the exercise just reported is to give some indication of the bias to be expected in the reporting of services for pupils with English language difficulty.

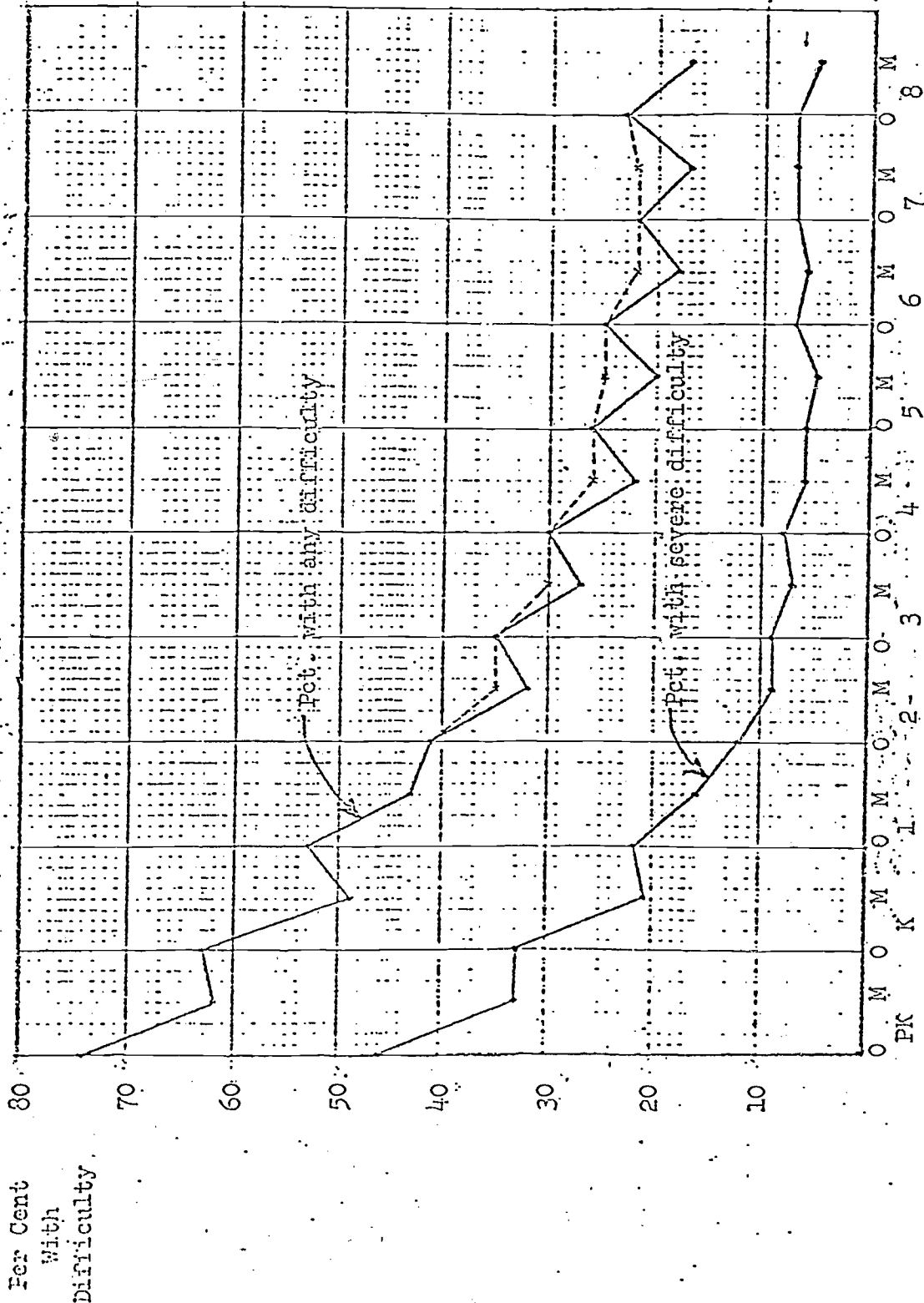


Fig. 2.1 - Per cent of Hispanic pupils with English language difficulty, by grade. Two points are shown for each grade, based on data from the October Language Census (O) and the May survey (M). The dotted line represents an adjustment to correct under-reporting. (see text for details).

Obviously, if a sizable number of pupils is improperly excluded from the list of pupils deficient in English, and if these tend to be pupils not receiving services, the estimates of the percentage receiving services will tend to be inflated. Fortunately, we are now able to conclude that the magnitude of any under-reporting is sufficiently small as to have little effect on the estimates of the percentage of pupils with English language difficulty receiving various program services.

While this is true for the City as a whole, it may be the case that the magnitude of under-reporting is greater in specific districts. While we have undertaken no explicit analysis of variations between districts in the extent of under-reporting, it is possible to get some sense of where the problems are greatest by inspecting Tables 2 and 3 in the main body of the report.

APPENDIX III

NUMBER OF HOURS OF SERVICES RECEIVED  
BY PARTICIPATING STUDENTS

APPENDIX III  
NUMBER OF HOURS OF SERVICES RECEIVED  
BY PARTICIPATING STUDENTS

These tables give a breakdown of the number of hours per week that students received various services. The first column gives the total number of Hispanic pupils participating in a program (for the indicated grade). The second and succeeding columns distribute these pupils according to the number of hours per week they received. Under each number is a corresponding per cent figure. Each table is percentaged horizontally, row by row. Thus, the percentages in any row should add to 100 (except for rounding error) just as the top number in each row should add to the total in the first column.

Actually, these numbers do not total correctly. The tabulating program was written for edited data. Due to difficulties described elsewhere the analysis was done on the uncorrected data. While these discrepancies are generally small (the percentage for row one in table 15 sum to 97.7 rather than 100.0), they might make a difference in some programs for some grades.

APPENDIX IV

DISTRICT TABLES: programs, hours, and personnel  
by district by level  
(bound separately)

APPENDIX IV  
TABLE OF CONTENTS

1. Table 146. Number and percentage of category 1 pupils who are Hispanic for each district for each level.
2. Table 147. Number and percentage of category 2 pupils who are Hispanic for each district for each level.
3. Table 1458. Number and percentage of Hispanic pupils with English language difficulty receiving bilingual program services by level for each district.
4. Table 14581. Percentage distribution of hours per week of bilingual instruction for Hispanic pupils with English language difficulty by district by level.
5. Table 14582. Percentage distribution of hours per week of instruction in English as a second language for Hispanic pupils with English language difficulty by district by level.
6. Table 14583. Percentage distribution of hours per week of bilingual language arts instruction for Hispanic pupils with English language difficulty by district by level.
7. Table 14584. Percentage distribution of hours per week of bilingual mathematics instruction for Hispanic pupils with English language difficulty by district by level.
8. Table 14855. Percentage distribution of hours per week of bilingual science instruction for Hispanic pupils with English language difficulty by district by level.
9. Table 14586. Percentage distribution of hours per week of bilingual social studies instruction for Hispanic pupils with English language difficulty by district by level.
10. Table 14587. Percentage distribution of hours per week of bilingual fine arts instruction for Hispanic pupils with English language difficulty by district by level.

11. Table 14588. Percentage distribution of hours per week of cultural studies for Hispanic pupils with English language difficulty by district by level.
12. Table 14589. Percentage distribution of hours per week of subject areas with reinforcement in the native language for Hispanic pupils with English language difficulty by district by level.
13. Table 14590. Percentage distribution of hours per week of comprehensive reading for Hispanic pupils with English language difficulty by district by level.
14. Table 14591. Percentage distribution of hours per week of comprehensive reading with reinforcement in the native language for Hispanic pupils with English language difficulty by district by level.
15. Table 14592. Percentage distribution of hours per week of orientation classes for Hispanic pupils with English language difficulty by district by level.
16. Table 14593. Percentage distribution of hours per week of orientation classes in the native language for Hispanic pupils with English language difficulty by district by level.
17. Table 1459. Number and percentage of Hispanic pupils with bilingual personnel for each district for each level.



APPENDIX V

DOCUMENTS

SURVEY OF EDUCATIONAL SERVICES FOR PUPILS WITH LANGUAGE DIFFICULTY

Keypunching Instructions

Input will be available from May 28 to June 7th. It is estimated that about 140,000 items will be submitted. The card will be 73 characters in length. Input is to be keypunched and verified. Source documents under Batch Control must be stamped by the Keypuncher and verifier. The form will be two sided. The first 35 characters will be constants header data per school and columns 36 to 72 will be unique data for each student in that school.

- Column 1 = always equals a numeric 1.
- Column 2 = Borough - can have a numeric 1,2,3,4 or 5.
- Column 3-4 = District codes all numeric. Right justify zero fill to left if it is blank.
- Column 5 = Level - this can be a numeric 1,2,4,5,6,7,8 or 9.
- Column 6 = Type - this can be a numeric 1 or 2.
- Column 7-9 = School code - all numeric, right justify, zero fill to left if it is blank.
- Column 10 = Grade Code - all alpha.
- Column 11-16 = Home Room Class Code - Can be Alpha-Numeric.
- Column 17to34 = Language Count - all numeric, right justify zero fill to left. Can also be blank.
- Column 35 = TMR class - must be a "Y" or "N" only. Column 35 is the end of the header information which is to be copied for each student's record for that school.

- 
- Column 36-37 = Sequence Number - all numeric.
  - Column 38 = Language Category - a numeric "1" or "2".
  - Column 39 = Language Code - all numeric, could be a 1,2,3,4,5,6,7 or 8.
  - Column 40to65 = Hours per week. If any of the thirteen two digit fields are filled in they must be numeric, right justify and zero filled to left. If any fields are not filled in then leave them as blanks.
  - Column 66 = Supportive Services - Punch a "Y" or a "N".
  - Column 67 = Basic Program - Punch a "X" or leave blank.
  - Column 68 = Homeroom Teacher - Punch a "Y" or a "N".
  - Column 69 = Cluster Teacher - Punch a "Y", "N" or "A".
  - Column 70 = Subject Teacher - Punch a "Y", "N" or "A".
  - Column 71 = Para Professional - Punch a "Y", "N" or "A".
  - Column 72 = Pupil Personnel Services - Punch a "Y", "N" or "A".
  - Column 73 = English Speaking - Punch a "X" or leave blank.

## Edit Program Logic -

The edit program should read in each 73 character record and make the logic tests indicated below. If the total record is valid, write it out to a valid record tape. If any field is not valid then print out the record on an error report. Put the survey name on the heading, list page number, date of printout. Print the entire record with some spaces between each field. Underline with "\*" the fields in error. Skip two lines between each record. BPPAS will correct each field in error by crossing out the incorrect data and writing in the correction above it. Show Keypunch columns at the top of the report and field titles so that it can be used as a return document.

### Logic Tests -

|               |   |
|---------------|---|
| Column 1      | = Must be a numeric "1".  |
| Column 2      | = Borough - must be 1,2,3,4 or 5.                                   |
| Column 3-4    | = District must be numeric. 01 to 32 plus 75,78,81, 83,91,92,93,94. |
| Column 5      | = Level - must be 1,2,4,5,6,7,8 or 9.                               |
| Column 6      | = Type - must be 1 or 2.  |
| Column 7-9    | = School Code - must be numeric.                                    |
| Column 10     | = Grade Code - must be alpha.                                       |
| Column 11-16  | = Homeroom Class Code - may be alpha, numeric or alpha/numeric.     |
| Column 17to34 | = Language Count - numeric or blank.                                |
| Column 35     | = TMR Class - must be "Y" or "N".                                   |
| Column 36-37  | = Sequence Count 01-99  |
| Column 38     | = Language Category - 1 or 2.                                       |
| Column 39     | = Language Code - 1-8   |
| Column 40to65 | = Hours per Week - blank or numeric if data is present              |
| Column 66     | = Supportive Services - a "Y" or "N".                               |
| Column 67     | = Basic Program - a "X" or blank.                                   |
| Column 68     | = Homeroom Teacher - a "Y" or "N".                                  |
| Column 69     | = Cluster Teacher - a "Y", "N" or a "A".                            |
| Column 70     | = Subject Teacher - a "Y", "N" or a "A".                            |
| Column 71     | = Para Professional - a "Y", "N" or a "A".                          |
| Column 72     | = Pupil Personnel Services - a "Y", "N" or a "A".                   |
| Column 73     | = English Speaking - a "X" or blank.                                |

Special Tests per record -

If a record is in error due to this level of test, then underline (--) all fields involved on the errorprintout.

1. Columns 40 to 65 contain hours of service (or blanks). If hours are listed, the grand total for all thirteen fields should not exceed 30 hours.
2. If an X is not recorded in column 67, then columns 40-65 should all be blank or zero, and an "N" should be recorded in column 66.
3. If an X is not recorded in column 73, then "Y's" should not be recorded in columns 68-72.
4. Sum the number of pupils listed in columns 17 to 32. This should equal the homeroom register in columns 33-34. Allow a -10% error factor.
5. If column 40-41 is not blank or zero, then columns 42-65 should be blank.
6. If one or more of the following fields is not blank or zero (40-41, 44-53, 64-65), then one or more of the following fields should be "Y" (column 68, 69, 70).
8. If one or more of the following fields is not blank or zero (56-57, 60-61), then one or more of the following fields should be "Y" (68, 69, 70, 71).

M E M O R A N D U M

June 18, 1974

To: Alexander Katz

From: Donald Treiman

Re: Clarification of the Types of Errors Involved in the "Special Tests per Record" Section of the Edit Check, the Possible Causes, and Possible Procedures to be Followed to Resolve the Error.

It should be clear how to correct the logic tests for column 1-73 listed on the first page of the edit program logic (a copy of which is provided). The following comments pertain to the "Special Tests per Record" listed on the second page of the document containing the edit program logic.

1. "Sum of 40 through 65 exceed 30 hours."

If the grand total of hours listed in columns 40 through 65 exceeds 30, the print-out will indicate an error, because the pupil is only in class for 30 hours per week. This type of error might have two causes: (1) the teacher listed the same program under two or more categories and therefore double-counted the program hours, or (2) the teacher listed hours for after-school programs. For example, the teacher may have indicated that a pupil received 60 hours of instruction, because he counted programs both in the bilingual instruction and in the more specific categories. Alternatively, the teacher might have indicated that the pupil received 35 hours of instruction per week because he was counting after-school as well as regular programs. Contact the teacher and ask him to again indicate which programs the pupil in question is receiving. Make sure that the teacher is not double-counting programs, or listing after-school programs.

2. "Sum of 17 through 32 not within 10 pct of 33-34."

If the number of pupils listed in columns 17 through 32 deviates by more than 10 percent from the total home room register, the print-out will indicate an error, because while small errors might be due to mistakes in addition, errors in excess of

10 percent might indicate the teacher did not properly follow the instructions. For example, the teacher might have marked 35 students in the columns for home room register (column 33-34), but listed only 18 students in columns (17-32) because he thought that only category 1 and 2 students were to be listed in columns 17 through 32, when, in fact, all students were supposed to have been categorized. Contact the teacher and ask him to again supply the information for columns 17 through 34 which was true for his class as of April 30, 1974. Clarify the instructions for him if necessary.

3. "40-41 not blank or zero. 42 thru 65 should be blank or zero."

If the teacher has indicated that a pupil participates in a Bilingual Instruction program, as defined in the instruction sheet, he should not have indicated that the pupil participates in any other program, because all others are covered by the Bilingual Instruction program. If he indicated that the pupil receives both Bilingual Instruction and other programs, the print-out will indicate an error. Contact the teacher and determine whether hours listed under other programs are in addition to those hours listed under Bilingual Instruction programs or whether the same hours have been listed in two different columns. For example, if the teacher has indicated that a pupil has received 15 hours of Bilingual Instruction and 5 hours of Comprehensive Reading, it is possible that the pupil is receiving 20 hours of programs per week, 15 of which were listed under Bilingual Instruction and 5 of which were counted as Comprehensive Reading; or it might be that the pupil only participated in 15 hours of programs, but, since 5 of these were Comprehensive Reading, the teacher listed these 5 hours both under Bilingual Instruction and under Comprehensive Reading. You should determine the total number of hours of programs the pupil participates in each week and list them all as Bilingual Instruction in column 40.

4. "72 not Y. 66 should equal N."

If the teacher did not mark a "Y" in column 72, this indicates that no bilingual personnel are available to give Supportive Services. Thus column 66 should be marked "N." If the teacher did not mark a "Y" in column 72 and did mark a "Y" in column 66, the print-out will indicate an error. Contact the teacher and determine whether or not the pupil is receiving Supportive Services. It may be for example that the pupil was receiving Supportive Services, but the teacher did not bother to finish the questionnaire for that pupil or for some reason the teacher felt that the personnel providing the services did not belong in any of the categories in the personnel services section of the questionnaire. If the pupil is receiving Supportive Services as defined in the instruction sheet for the survey, you should mark a "Y" in column 72.



5. "40-41 or 44-45, or 64-65, not blank or zero. 68 and/or 69 and/or 70 should be Y."

If the teacher has indicated that a pupil is receiving programs which by definition can only be given by a bilingual teacher, namely, Bilingual Instruction (40-41), Language Arts (44-45), and Orientation Class in Native Language (64-65), when he should have marked a "Y" in at least one of the columns in the personnel services section of the survey indicating that the pupil was exposed to a bilingual teacher, namely, columns 68, 69, 70. If non-zero numbers have been entered in either columns 40-41, 44-45, or 64-65, and if 68, 69 and 70 are blank or zero, the print-out will indicate an error. Contact the teacher and determine whether the pupil is exposed to any of these programs along with the bilingual teachers needed to conduct them. This error might possibly have been caused by a teacher's failure to understand that the programs in question required bilingual teachers, or for some reason he might have felt that the bilingual teachers giving the program did not fall into any of the categories in the personnel services section of the questionnaire, or, finally, he might simply not have bothered to complete the questionnaire for that pupil. Resolve the inconsistency so that the teacher has indicated either that the pupil is receiving the programs and is exposed to bilingual teachers or that the pupil is not receiving the programs under question. Read to the teacher the definitions of the programs under question from the instruction sheet for the survey if you think that this will be helpful.

- ~~6. "56-57 or 60-61 not blank or zero. 68 and/or 69 and/or 70 and/or 71 should be Y."~~

If the teacher has indicated that a pupil is receiving Subject Areas with Reinforcement (56-57) or Comprehensive Reading with Reinforcement (60-61) and also indicated that the pupil is not exposed to any of the personnel required in the definitions on the survey instructions to conduct them, namely, bilingual teachers or paraprofessionals, columns 68, 69, 70, 71, then the print-out will indicate an error. Contact the teacher and ask him whether or not the pupil receives these programs conducted by the necessary personnel. Read to him the definitions of the programs in question from the instruction sheet if you think this will be helpful. Resolve the discrepancy so that the teacher has indicated either that the pupil is receiving these programs taught by the appropriate personnel, or that the appropriate personnel are not available and that he does not receive any of the programs under question.

May 17, 1974

TO: COMMUNITY SCHOOL BOARD MEMBERS, EXECUTIVE DIRECTORS,  
COMMUNITY SUPERINTENDENTS, STAFF SUPERINTENDENTS,  
HEADS OF BUREAUS AND PRINCIPALS, COORDINATORS, AND  
ALL HOMEROOM TEACHERS OF DAY SCHOOLS

Ladies and Gentlemen:

As part of a pending lawsuit, the Federal Court in the Southern District of New York has directed that a survey be conducted concerning the educational services to pupils with difficulty in the English language. According to the court's directive, the survey is to include information concerning "the number and location of pupils involved, the variety and scope of programs provided, and the availability of instructional personnel."

The attached survey material was prepared with the cooperation of all the parties to this lawsuit. It is important to all the parties that the forms be completed carefully and accurately. Spot checks of randomly selected questionnaires will be conducted.

The names of the students will be used only in the context of pending federal litigation and will not be disclosed to the public or used for any other purpose.

In order to comply with the very strict deadlines which the court has imposed, it is critical that the attached survey forms be received by the Data Processing Unit no later than May 28, 1974.

We are very much aware that this puts you and your staff under severe time constraints but I cannot stress too much the importance of adhering to these deadlines. Your cooperation in collecting this information is needed and greatly appreciated.

#### PROCEDURES TO FOLLOW

The envelope for each school contains the following:

1. A survey form for each homeroom class teacher
2. An instruction sheet for each homeroom teacher

Each principal or school head is responsible for the completion and return of a survey form for each homeroom teacher. For those homeroom classes with no children in Language Categories 1 or 2, the teacher will complete the heading on the form (items 2 through 35), indicate "NONE" under Pupil Data, and return the form to the principal.

When the forms have been completed according to the instructions provided, the principal is requested to verify the following:

1. A form has been completed by every homeroom teacher.
2. Items 2 through 35 have been entered on every form.
3. Information has been provided on the survey forms for all pupils in Categories 1 and 2.

After verification, the principal is requested to arrange for delivery of the forms no later than noon on May 24, 1974 to the following locations:

| <u>SCHOOL LOCATION</u>                           | <u>DELIVER TO</u>                  |
|--|------------------------------------|
| Elementary, Junior High and Intermediate Schools | District Office                    |
| High Schools                                     | Assistant Superintendent in Charge |
| Special Education Schools                        | Executive Director                 |

The High School Superintendent, and the Executive Director of Special Education Schools will deliver the forms to the Bureau of Educational Program, Research and Statistics, Room 728.

Forms will be picked up from District Offices by car on the afternoon of May 24, 1974 for delivery to the Bureau of Educational Program, Research and Statistics, Room 728.

Community Superintendents, the Executive Director for Special Education, and the High School Staff Superintendents will be provided with additional forms, in case they are needed by the schools.

If additional information is required, Community District Schools should call their REPRAS District contact person. High Schools and Special Education Schools should call Mr. Charles Elterman, at 596 - 3981.

Your cooperation in the accurate collection and accounting of these data is appreciated.

Sincerely,

IRVING ANKER  
Chancellor



GENERAL PROCEDURES:

One form is provided for all school levels; however, in view of the differences in existing pupil programming, the procedure for completing the data required may vary according to school level. The procedure is as follows:

Elementary Schools - Each classroom teacher will complete the form for his/her class.

Junior High and Intermediate Schools - Each homeroom teacher will complete the form for the class. Where additional information is required, the teacher will consult with the appropriate staff member.

High Schools - The homeroom teacher or equivalent will complete the survey form up to and including item 39. The grade advisor will complete the remainder of the form for those pupils whose programs are within his or her responsibility. The grade advisor will consult with other appropriate staff personnel. Coordination of all data forms is the responsibility of the program coordinator.

GENERAL INSTRUCTIONS: ALL ITEMS IN THIS SURVEY PERTAIN TO THE CURRENT TERM.

SPECIFIC INSTRUCTIONS:

Item 1 - This has been inserted for you.

Item 2 - Place the appropriate number in the box for Borough listed below:

Manhattan 1 Bronx 2 Brooklyn 3 Queens 4 Richmond 5

Items 3 - 4 Place the appropriate number in the box for District. Right justify your entry. The last digit must be in the far right hand square. Any empty square remaining on the left should be filled in with a zero. See example below:

District 3 = 

|   |   |
|---|---|
| 0 | 3 |
|---|---|

Item 5 - Place the appropriate number in the box for level code.

|                        |    |                   |   |
|------------------------|----|-------------------|---|
| Elementary             | 1. | 400, 700          | 6 |
| Junior High            | 2* | Elementary Deaf   | 7 |
| Intermediate School    | 2* | Junior High Deaf  | 8 |
| Academic High School   | 4  | Special Education | 9 |
| Vocational High School | 5  |                   |   |

\*NOTE: Junior High and Intermediate Schools both use Code 2. Code 3 is not used.

Item 6 - Place the appropriate number in the box for Type School

Title I School 1  
Non-Title I School 2

Items 7-9 Place the appropriate number in the box for your school. The attached sheet indicates the codes for high school. Right justify your entry. The last digit must be in the far right hand square. Any empty squares remaining on the left should be filled in with zeroes. See example below:

P.S. 1 = 

|   |   |   |
|---|---|---|
| 0 | 0 | 1 |
|---|---|---|

Item 10 Place the appropriate letter code in the box for grade. See code below:

| <u>GRADE</u>  | <u>CODE</u> | <u>GRADE</u> | <u>CODE</u> | <u>GRADE</u> | <u>CODE</u> |
|---------------|-------------|--------------|-------------|--------------|-------------|
| Post-Graduate | A           | 7, 7 SPE     | I           | Jr. Guidance | R           |
| 12            | B           | 7-8 SP(2yr)  | J           | KG           | S           |
| 11            | C           | 6, 6 SPE     | K           | PRE-KG       | T           |
| 10            | D           | 6-7 SP(2yr)  | L           | INST. 7+     | U           |
| 9, 9 SPE      | E           | 5            | M           | INST. 1-6    | V           |
| 9 SP (2yr)    | F           | 4            | N           | Phys. Hdep.  | W           |
| 8, 8 SPE      | G           | 3            | O           | Ment. Hdep.  | X           |
| 8, SP (2yr)   | H           | 2            | P           | Emot. Hdep.  | Y           |
|               |             | 1            | Q           | Dble Hdep.   | Z           |



- Items 11-16 Place the homeroom class code in the squares. Use the designation on the school organization sheet. Right justify your entry.
- Items 17-34 In each box place the number of pupils in your class who fall within the corresponding Language Group Code (See definition in the top right-hand corner). The total number in boxes 33 and 34 should agree with your class register.
- Item 35 Indicate whether homeroom class is for Trainable Mentally Retarded. See code below:

|     |   |
|-----|---|
| Yes | Y |
| No  | N |

- Items 36-37 These numbers are listed in sequential order. In the column headed Pupil Name, place the names of all pupils who fall within the categories #1 and #2. Placement is to be based on the individual pupil's ability to speak English, as indicated in the top left-hand box, Language Category Code.
- Item 38 Circle the appropriate language code, 1 or 2.
- Item 39 Enter appropriate Language Group Code - (see code definition in top right-hand corner)
- Items 40-65 Enter the number of hours per week (round to the nearest hour). Please read the program definitions carefully. If a program fits one of the definitions, include it regardless of the particular name by which it is known in your school or district. If a program could fit under more than one category, report it only under the one category which fits best. If the student does not participate in the program at all, leave the items blank.

Do not duplicate the hours of service received. For example, if a student participates in a bilingual program, do not record that he receives instruction in subject areas in his native language. (Note asterisk under Bilingual Instruction Program).

If you are not sure how many hours a pupil participates in a given program, enter your best estimate.

The definitions of these programs are listed below:

#### GENERAL DEFINITION

Fluency is the ability to use the native language of the pupil accurately and without hesitation on all levels normally pertinent to the effective instruction of and communication with the pupil.

#### Items 40-41 BILINGUAL INSTRUCTION PROGRAM

A bilingual instructional program includes all the following components: instruction in the native language; instruction in English as a second language; utilization of the native language as a medium of instruction in subject areas, instruction designed to develop the child's awareness of his own cultural heritage. Indicate the hours of instruction the pupil receives in this program.

\*If a student participates in a bilingual program, leave items 42-65 blank.

#### Items 42-43 ENGLISH AS A SECOND LANGUAGE (ESL)

A special instructional program specifically designed for students with English language difficulties intended for the development and mastery of English language skills with emphasis on aural-oral language development. Indicate the hours of instruction the pupil receives in this program.

Items 44-45 LANGUAGE ARTS TAUGHT IN NATIVE LANGUAGE

An instructional program designed for the maintenance and development of native language skills (listening, speaking, reading and writing) with the child's native language used as the medium of instruction by a teacher who is fluent in the child's native language. Indicate the hours of instruction the pupil receives in this program. Do not include instruction in a foreign language, such as Basic French, Basic Spanish, etc.

Items 46-47 MATHEMATICS

The utilization of the native language of the pupil as a medium of instruction in the teaching of Mathematics by a teacher who is fluent in the child's native language. Indicate the hours of instruction the pupil receives in this subject area.

Items 48-49 SCIENCE

The utilization of the native language of the pupil as a medium of instruction in the teaching of science by a teacher who is fluent in the child's native language. Indicate the hours of instruction the pupil receives in this subject area.

Items 50-51 SOCIAL STUDIES

The utilization of the native language of the pupil as a medium of instruction in the teaching of social studies by a teacher who is fluent in the child's native language. Indicate the hours of instruction the pupil receives in this subject area.

Items 52-53 FINE ARTS

The utilization of the native language of the pupil as a medium of instruction in the teaching of fine arts by a teacher who is fluent in the child's native language. Indicate the hours of instruction the pupil receives in this subject.

Items 54-55 CULTURAL STUDIES AND HERITAGE PROGRAM

An instructional program in which pupils are provided with the opportunity to learn about their own cultural heritage.

Items 56-57 SUBJECTS AREAS TAUGHT IN ENGLISH WITH REINFORCEMENT IN NATIVE LANGUAGE

An instructional program in which English is utilized as the primary medium of instruction with reinforcement provided in the native language of the pupil for clarification purposes.

Items 58-59 COMPREHENSIVE READING PROGRAM

Comprehensive reading instruction designed on a programmed, sequential basis to develop English reading skills, with English as the medium of instruction.

NOTE: DISTAR, SRA, Miami Linguistics, Merrill Linguistics, Words in Color, Dimensions, etc., are examples of Comprehensive Reading Programs.

Items 60-61 COMPREHENSIVE READING PROGRAM WITH REINFORCEMENT

Comprehensive reading instruction designed on a programmed, sequential basis to develop English reading skills, with English as the medium of instruction and with reinforcement in the child's native language.

NOTE: DISTAR, SRA, Miami Linguistics, Merrill Linguistics, Words in Color, Dimensions, etc., are examples of Comprehensive Reading Programs.



Items 62 - 63 ORIENTATION CLASSES

An introductory program for non-English speaking children, which gives them some facility in the use of English, utilizing English as the medium of instruction.

Items 64 - 65 ORIENTATION CLASSES IN NATIVE LANGUAGE

An introductory program for non-English speaking children, which gives them some facility in the use of English, utilizing the child's native language as the medium of instruction by a teacher who is fluent in the child's native language.

Item 66 SUPPORTIVE PUPIL PERSONNEL SERVICE PROGRAM

A program which provides service by any one or more of the following: bilingual guidance counselor; bilingual teacher in school and community relations; bilingual paraprofessionals. Please circle "Y" if the pupil receives any of the above services, Circle "N", if he does not.

Item 67 If the student participates in the basic educational program only, please circle the "X"; otherwise, leave this column blank. If you do not circle the "X", you should have indicated hours or a "YES" for at least one of the preceding fourteen programs listed in items 40 - 66.

INSTRUCTIONS FOR COMPLETING ITEMS UNDER PERSONNEL SERVICES

Item 68 Circle "Y", if you, the homeroom teacher, are fluent in the pupil's native language. Circle "N" if you are not fluent in the pupil's native language.

Item 69 Circle "Y" if the pupil has a cluster teacher who is fluent in the pupil's native language. If the pupil has cluster teachers, but none of them is fluent in the pupil's native language, circle "N". If the pupil has no cluster teachers, circle "A".

Item 70 Circle "Y" if the pupil has at least one subject teacher who is fluent in the pupil's native language. If the pupil has subject teachers, but none of them is fluent in the pupil's native language, circle "N". If you are the pupil's only subject teacher, circle "A".

Item 71 Circle "Y" if the pupil has at least one paraprofessional who is fluent in the pupil's native language. If the pupil has paraprofessionals, but none of them is fluent in the pupil's native language, circle "N". If the pupil has no paraprofessionals, circle "A".

Item 72 Circle "Y" if the pupil has received pupil personnel services in the pupil's native language. If the pupil is exposed to pupil personnel services but not in his native language, circle "N". If the pupil has not received pupil personnel services, circle "A".

Item 73 Circle "X" if the student is exposed to English speaking personnel only; otherwise, leave this column blank. If you do not circle the "X", you should have circled a "Y" for at least one of the personnel services.



CENTER FOR POLICY RESEARCH, INC.

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(212) 670.2180

Instructions for Conducting Validity Check

The purpose of this assignment is to gather information which will be used to assess the accuracy of teacher's reports in the Survey of Pupils with English Language Difficulty. In this survey, which has just been carried out, every class room teacher (in elementary schools) or home room teacher (in intermediate and high schools) has been asked to complete a form by listing all pupils with English language difficulty and indicating for each pupil what specialized services he receives. Because the survey is being conducted in the context of a Federal court case, it is particularly important to assess the accuracy of the information garnered in the survey. You will be asked to go to a number of schools and in each school to obtain information for a sample of (usually) 18 selected pupils by checking with appropriate school personnel. Specific instructions are provided below. It is important that you follow these instructions exactly.

Specific instructions:

1) You will be assigned approximately six schools to visit during Monday through Wednesday, June 3-5. For each school, you will be given a packet of xerox copies of six completed questionnaires, one for each of six class rooms, and also a blank form. Check to see that each packet contains these materials. You should also have a copy of the instructions given to the teachers



who completed the questionnaires.

2) For each questionnaire, cross out with a permanent marker all but the first, the middle, and the last name listed under the heading PUPIL NAME. For example, if 13 names are listed on the questionnaire, cross out all but the 1st, the 7th, and the 13th. (Find the middle name by dividing by two and taking the number you get or the next higher whole number if you come out with a fraction). If there are three or fewer names on the form, do not cross out any of them.

3) Now for each school, complete the blank form through the SEQUENCE NUMBER:

- a) Fill out the first nine boxes by copying the information from one of the completed questionnaires. All the questionnaires in a given school should agree with respect to these items. If they do not, inform your supervisor.
  - b) For each class room, copy the grade code (box 10) and the Home room code (boxes 11-16) from the original questionnaire.
  - c) List the names of the first, middle, and last pupil from the completed questionnaires (the names you have not crossed out). After each name, copy the sequence number from the sequence number listed in columns 36 and 37 of the completed questionnaire.
- IT IS EXTREMELY IMPORTANT THAT THIS INFORMATION BE COMPLETED WITH PERFECT ACCURACY, SINCE THIS IS THE ONLY WAY WE HAVE OF MATCHING INFORMATION FOR

c) (continued) PARTICULAR PUPILS WITH THE INFORMATION OBTAINED IN THE ORIGINAL SURVEY.

4) Read the instruction sheet for teachers on how to complete the questionnaire. Pay particular attention to the instructions regarding PROGRAM SERVICES (Items 40-67) since this is the part of the questionnaire which will concern you.

5) You are now ready to go to the school. We have scheduled your work load on the assumption that you can visit two schools per day. If this proves impossible, check with your supervisor. Please visit schools in the order they have been assigned to you, since our sampling procedure requires that if any schools are omitted they be the ones at the bottom of the list. That is, please visit all the schools on the first group before visiting any in the second group.

6) When you arrive at a school, ask the Principal to provide you with a list of names and room numbers of all the personnel in the school who are involved in providing to pupils with English language difficulty the PROGRAM SERVICES described in the Instructions to the original questionnaire.

7) Interview each of the staff members listed by the Principal. Show to each person you interview the form on which you have copied the names of 18 pupils. Ask him/her to indicate for each pupil on the form the number of hours of involvement in any program he/she provides for the pupil. Copy this number on the form. If more than one staff member indicates involvement with the pupil, add the total number of hours unless the two



staff members are referring to the same program which is jointly taught. Each time you fill in the number of hours, circle the "I" in the box below the hours box to indicate that participation has been independently verified.

8) After completing interviews with all the personnel listed by the principal, AND ONLY AFTER DOING THIS, compare the new information you have obtained with the information contained on the original six questionnaires. If any PROGRAM SERVICE is listed for a pupil on an original questionnaire but not on the new form, interview the class room teacher who completed the original form. Note: it does not matter whether the number of hours agrees on the two forms--your only concern should be cases where a service is indicated on the original questionnaire but not indicated at all on the new form.

When you interview the class room teacher, do not show him/her the original questionnaire or indicate that you have this information. Simply ask, for each program mentioned on the original questionnaire but not on the new form, the name of the staff member providing the indicated service, e.g., "Who teaches English as a Second Language to Diego Rivera?" The next step depends upon the teacher's response:

If the teacher indicates that he/she provides the service, ask for the number of hours the service is provided, and record this on the new form. Also circle the "U" on the form, which indicates an unconfirmed report by the class room teacher.

If the teacher indicates that no service is offered, enter "0" for the number of hours and circle the "U" on the form.

If the teacher names another staff member, go to that person and ask for the number of hours of participation. Do this even if it means going back to a staff member you have already talked to. Record the number of hours and also circle the "I" on the form, which indicates independently confirmed report. If the staff member indicates that the pupil does not receive that service from him, record zero for the number of hours and circle "I",

If either the class room teacher or another teacher named by the class room teacher cannot be located, circle the "N" on the form, which indicates that personnel needed for verification are not available.

9) Check over the form you have completed:

a) All the preliminary information must be completely filled in, up to item 18.

b) Where hours are listed, either "I", "U", or "N" must be circled.

c) Wherever hours are listed on an original questionnaire "I", "U", or "N" must be indicated on the new form; and if "I" or "U" is indicated, hours must be indicated (zero hours is acceptable)

IF THE HOMEROOM Teacher does not know who teaches "X" and no one else knows code 99 in the hours box.

Borough: [ 1 ] District: [ ] Level: [ ] Type: [ ] School: [ 7 8 9 ]

**VALIDITY CHECK**  
**MAY LANGUAGE SURVEY**

**PUPIL DATA**

|  |                               |                                     |                                     |                         |                  |                       |                |                           |                      |                                      |                      |
|--|-------------------------------|-------------------------------------|-------------------------------------|-------------------------|------------------|-----------------------|----------------|---------------------------|----------------------|--------------------------------------|----------------------|
| Quantitative Quizzes<br>in Home Lang. (Unit) | Qualitative Quizzes<br>(Unit) | Comparative Reading: English (Unit) | Comparative Reading: Spanish (Unit) | Cultural Studies (Unit) | Fine Arts (Unit) | Social Studies (Unit) | Science (Unit) | Historical Studies (Unit) | Language Arts (Unit) | Reading: Advanced Second Year (Unit) | Language Arts (Unit) |
|--|-------------------------------|-------------------------------------|-------------------------------------|-------------------------|------------------|-----------------------|----------------|---------------------------|----------------------|--------------------------------------|----------------------|

| Grade | Home Room | Class Code | SEQ. NO. | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |  |
|-------|-----------|------------|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
|       |           |            | NO.      | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 |    |    |    |    |    |    |    |    |    |    |    |    |    |  |

| PRINT LAST NAME | FIRST NAME | MI | 17 | 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Grade | Home Room | Class Code | SEQ. NO. | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |  |
|-------|-----------|------------|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
|       |           |            | NO.      | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 |    |    |    |    |    |    |    |    |    |    |    |    |    |  |

| PRINT LAST NAME | FIRST NAME | MI | 17 | 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Grade | Home Room | Class Code | SEQ. NO. | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |  |
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| Grade | Home Room | Class Code | SEQ. NO. | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |  |
|-------|-----------|------------|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
|       |           |            | NO.      | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 |    |    |    |    |    |    |    |    |    |    |    |    |    |  |

| PRINT LAST NAME | FIRST NAME | MI | 17 | 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Grade | Home Room | Class Code | SEQ. NO. | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |  |
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|       |           |            | NO.      | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 |    |    |    |    |    |    |    |    |    |    |    |    |    |  |

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|-----------------|------------|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                 |            |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                 |            |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                 |            |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                 |            |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

| Grade | Home Room | Class Code | SEQ. NO. | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |  |
|-------|-----------|------------|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
|       |           |            | NO.      | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 |    |    |    |    |    |    |    |    |    |    |    |    |    |  |

| PRINT LAST NAME | FIRST NAME | MI | 17 | 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------|------------|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                 |            |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                 |            |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                 |            |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                 |            |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Instructions for drawing sample of classrooms

The 20 monitors should each be assigned 4 schools from the list of 80 (group 1). In addition they should be assigned 2 more schools from the list of 40 (group 2). Since the first 4 are to be completed by each monitor before attempting the last 2, the sample of 80 should be drawn immediately. The sample of 40 could be delayed a day or two, if necessary.

The procedure for choosing the schools is the same for both the sample of 80 and the sample of 40. Since order within each sample is unimportant, convenience can dictate the order in which each sample is drawn.

The specific instructions for choosing classrooms from each school are as follows:

- 1.) Locate the set of questionnaires returned by the classroom teachers. If data from a school are not yet available, two steps should be taken: (1.) make a note of the school number (including district) and the reason for exclusion; (2.) draw a school from the replacement list to take its place. Take schools from the replacement list in the order listed. Cross off the list any school(s) which are sampled to avoid duplication. If data from the replacement school are not available, then take the next school on the list.

- 2.) Count the number of questionnaires. Your count should agree with any listing you have of the total number of classrooms or homerooms in a school. Keep a record of any discrepancies larger than four rooms.

3.) Divide the questionnaires for each school into six approximately equal piles. For example, if there are 47 forms for a school, you would divide them into six piles with approximately seven or eight forms in each. Look through each pile of forms and take the first one which has at least one pupil name listed. If none of a group of forms have any names listed then choose an extra form from the next group. If two groups in a pile have no names listed, then choose three if possible from the following group and so on. You should pick six forms, all with at least one listing from every school if possible. If there are only six (or fewer) forms with names listed then you should make copies of all of them. If there are no names listed on any of the forms for a particular school, then a new school should be drawn from the replacement list as described in 1.).

4.) Make a xerox copy of the first page of each of these questionnaires (the page containing the header information, and containing pupil data if only one side is completed). Then return the originals to the stack.

5.) Add a copy of the blank form for the validity check to each set of six questionnaires and clip them all together.

SECOND REPORT  
ON A  
SURVEY OF EDUCATIONAL SERVICES FOR HISPANIC PUPILS  
WITH ENGLISH LANGUAGE DIFFICULTY, CONDUCTED IN THE  
NEW YORK CITY SCHOOLS, MAY 1974

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July 15, 1974

## PREFACE

This second report completes our analysis of a "Survey of Educational Services for Hispanic Pupils with English Language Difficulty" conducted in the New York City schools in May, 1974. It should be read in conjunction with our first report, presented July 1, 1974.

The second report accomplishes three tasks. First, additional analytic tables on the services available to pupils with English language difficulty are presented and discussed, in the body of the report. Second, two Appendices consider problems of data quality. Our general conclusion is that the data presented in the first report are fundamentally accurate, and hence that the statements made in that report need not be modified in any important way. This conclusion also legitimates use of the survey data to describe individual schools, provided appropriate caution is exercised. This is the third task of the present report. Appendices III and IV present extensive additional tabulations, first on a District by grade basis (in Appendix III) and then on a school by school basis within each District (in Appendix IV).

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ADDITIONAL SUBSTANTIVE ANALYSIS AND COMPARISONS WITH DATA  
PRESENTED IN PRELIMINARY REPORT

Introduction. In our first report on the results of the "Survey of Educational Services for Pupils with English Language Difficulty" we estimated the number and percentage of Hispanic pupils in the New York schools who have difficulty speaking English and then, restricting ourselves to pupils with difficulty, estimated the number and percentage receiving various specialized services designed to provide instruction in Spanish or to improve English language competence. Due to the limited time we had in which to conduct our analysis, and the complexity of the data processing procedures, we considered our conclusions tentative, reserving the prerogative of modifying them after further examination of the data.

We have now conducted further analysis, and on this basis are prepared to confirm the conclusions of our first report with only minor modifications.

First, we have shown (in Appendix I of the present report) that inconsistencies and omissions remaining in the data have little effect on results. In the Appendix we examine a sample of data which was subjected to the editing process. Comparing tabulations based on the data before editing with corresponding tabulations based on the edited data, we find very few differences. There is a very slight tendency for the unedited data to exhibit a higher percentage receiving full bilingual instruction and a lower percentage receiving

no specialized services, but the percentages in both cases change less than five points.

Second, we have shown (in Appendix II of the present report) that teachers' reports on the services received by pupils with English language difficulty are, on the average, highly accurate. For a representative sample of pupils in the City we made an independent assessment of the number of services received by pupils and the amount of participation in each program. There were essentially no differences between the teachers' reports and those made by the independent monitors (which we take as the standard) with respect to the percentage of pupils participating in each program and only minor differences with respect to the average number of hours per week of services received.

Taken together, the analyses reported in Appendices I and II give us considerable confidence in the essential validity of the results reported on July 1 and also those reported here. There is only one exception, which is not of large consequence but is none the less corrected here. Some concern has been expressed about the possibility that teachers reported pupil participation both in full bilingual programs and in specific individual programs, contrary to instructions (they were asked to ignore the individual programs for any pupil who received full bilingual instruction). Examination of data not reported here confirms that that was apparently the case in some instances, although the magnitude of the double reporting was not large. Therefore, to correct any over-statement of the extent of pupil participation in remedial services that,

is created by a double count, we simply assumed that any pupil counted by his teacher as participating in a full bilingual program did in fact do so. Then, in computing the percentage participating in each of the other individual services, we did not count any pupil who was counted as receiving full bilingual instruction, no matter how many hours of participation in individual programs his teacher indicated. While this has the danger of allocating to full bilingual programs pupils who actually had only some components, the evidence of Appendix I suggests that the danger is hardly large: the unedited data where this assumption was made show less than five percent more pupils receiving full bilingual programs than the fully edited data. And the clear advantage is that double-counting going the other way--in which individual programs as well as full bilingual instruction are counted--is removed.

In the following tables we present material similar to that presented in Tables 9 through 14 of the first report. There are two differences. First, all the tables presented here make the above distinction between pupils with full bilingual instruction and other pupils, to avoid double counting. Second, various summary categories not appearing in the July 1 tables are added.

Percentage with various services. Tables 1 through 3 are similar to Tables 9 through 11 in the July 1 report. And the conclusions to be drawn from the two sets of tables are virtually identical, with one exception. The extent of

TABLE 1  
NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH  
ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL  
PROGRAM SERVICES FOR EACH GRADE.

TOTAL  
POPULATION GROUP = HISPANIC  
1 + 2

ROWS = GRADE.  
COLUMNS = PER CENT AND NUMBER  
RECEIVING PROGRAMS

|              | TOTAL          | BASIC PROGRAM ONLY | BILINGUAL PROGRAM | SUBJECT INSTR | SPECIAL ENGLISH INSTR | ESL PROGRAM   | LANG ARTS PROGRAM | MATH PROGRAM | SCIENCE PROGRAM | SOCIAL STUDIES PROGRAM |
|--------------|----------------|--------------------|-------------------|---------------|-----------------------|---------------|-------------------|--------------|-----------------|------------------------|
| ALL GRADES   | 67295<br>100.0 | 8735<br>13.0       | 20051<br>29.8     | 6165<br>9.2   | 20050<br>29.8         | 14099<br>21.0 | 4304<br>6.5       | 3809<br>5.7  | 2153<br>3.2     | 3313<br>4.9            |
| GRADE 12     | 207<br>100.0   | 213<br>30.1        | 55<br>7.8         | 172<br>24.3   | 218<br>31.8           | 32.8<br>15.8  | 73<br>10.3        | 90<br>12.7   | 85<br>12.0      | 111<br>15.7            |
| GRADE 11     | 1291<br>100.0  | 356<br>27.6        | 200<br>15.5       | 213<br>16.5   | 551<br>42.7           | 419<br>32.5   | 160<br>12.4       | 82<br>6.4    | 60<br>4.7       | 62<br>4.8              |
| GRADE 10     | 2634<br>100.0  | 305<br>14.6        | 753<br>28.6       | 610<br>23.2   | 1306<br>49.6          | 1064<br>40.4  | 292<br>11.1       | 283<br>10.7  | 334<br>12.7     | 291<br>11.0            |
| GRADE 9      | 3556<br>100.0  | 688<br>19.1        | 947<br>26.3       | 836<br>23.2   | 1570<br>43.7          | 1049<br>29.2  | 522<br>14.5       | 473<br>13.2  | 420<br>11.8     | 417<br>11.6            |
| GRADE 8      | 3353<br>100.0  | 624<br>18.6        | 1257<br>37.5      | 417<br>12.4   | 1043<br>31.1          | 580<br>17.3   | 290<br>8.6        | 302<br>9.0   | 280<br>8.4      | 289<br>8.6             |
| GRADE 7      | 3776<br>100.0  | 601<br>16.1        | 1535<br>41.3      | 466<br>12.5   | 1167<br>31.3          | 637<br>17.1   | 347<br>9.3        | 395<br>10.5  | 372<br>10.0     | 344<br>9.2             |
| GRADE 6      | 3860<br>100.0  | 395<br>10.3        | 1147<br>29.7      | 469<br>12.2   | 1517<br>39.7          | 787<br>20.4   | 353<br>9.1        | 342<br>8.9   | 241<br>6.2      | 293<br>7.7             |
| GRADE 5      | 4748<br>100.0  | 466<br>9.8         | 1218<br>25.5      | 365<br>7.7    | 2688<br>56.4          | 1152<br>24.2  | 265<br>5.6        | 245<br>5.1   | 128<br>2.7      | 146<br>3.1             |
| GRADE 4      | 5425<br>100.0  | 468<br>8.6         | 1526<br>28.1      | 336<br>6.2    | 2984<br>55.0          | 1163<br>21.4  | 250<br>4.6        | 230<br>4.2   | 141<br>2.6      | 131<br>2.4             |
| GRADE 3      | 6725<br>100.0  | 573<br>8.5         | 2088<br>31.0      | 387<br>5.8    | 2246<br>48.3          | 1320<br>19.6  | 295<br>4.4        | 242<br>3.6   | 141<br>2.1      | 133<br>2.0             |
| GRADE 2      | 7793<br>100.0  | 628<br>8.1         | 2660<br>36.7      | 382<br>4.9    | 2622<br>46.5          | 1752<br>22.5  | 283<br>3.6        | 210<br>2.7   | 129<br>1.7      | 205<br>2.7             |
| GRADE 1      | 10371<br>100.0 | 813<br>7.8         | 3896<br>37.6      | 463<br>4.5    | 4738<br>45.7          | 2400<br>23.7  | 376<br>3.6        | 240<br>2.7   | 204<br>2.0      | 208<br>2.0             |
| KINDERGARTEN | 8596<br>100.0  | 1643<br>19.1       | 1622<br>18.9      | 532<br>6.2    | 3548<br>41.3          | 1595<br>18.6  | 382<br>4.4        | 315<br>3.7   | 313<br>3.6      | 294<br>3.4             |
| PRE-K        | 4998<br>100.0  | 128<br>12.8        | 133<br>13.3       | 55<br>5.5     | 169<br>16.6           | 97<br>9.7     | 55<br>5.5         | 52<br>5.2    | 19<br>1.9       | 19<br>1.9              |
| OTHER        | 2559<br>100.0  | 675<br>26.5        | 376<br>14.7       | 330<br>12.9   | 885<br>34.6           | 202<br>7.9    | 327<br>12.8       | 275<br>10.7  | 210<br>8.2      | 250<br>9.8             |

TABLE I  
(Continued)

|               | FINE ARTS PROGRAM | CULTURE STUDIES PROGRAM | SUBJECT REINFOR PROGRAM | COMP READING PROGRAM | READING REINFOR PROGRAM | ORIENT CLASSES PROGRAM | CR CLA NIT LAN PRLCFAM | SUPPORT SERVICE |
|---------------|-------------------|-------------------------|-------------------------|----------------------|-------------------------|------------------------|------------------------|-----------------|
| ALL GRADES    | 2082<br>3.1       | 8159<br>12.2            | 5723<br>8.5             | 14548<br>25.0        | 5436<br>8.1             | 887<br>1.3             | 805<br>1.2             | 42423<br>64.5   |
| GRADE 12      | 5<br>0.7          | 28<br>4.0               | 11<br>1.0               | 124<br>17.5          | 8<br>1.1                | 1<br>0.1               | 71<br>10.0             | 242<br>34.2     |
| GRADE 11      | 41<br>3.2         | 39<br>3.0               | 76<br>5.9               | 159<br>12.3          | 14<br>1.1               |                        | 11<br>0.9              | 531<br>41.1     |
| GRADE 10      | 203<br>7.7        | 85<br>3.2               | 123<br>4.7              | 335<br>12.7          | 39<br>1.5               | 20<br>0.8              | 162<br>6.2             | 1494<br>56.7    |
| GRADE 9       | 266<br>5.7        | 147<br>4.4              | 293<br>8.1              | 592<br>16.5          | 158<br>4.4              | 65<br>1.8              | 157<br>4.4             | 1801<br>50.1    |
| GRADE 8       | 110<br>3.5        | 112<br>3.3              | 173<br>5.7              | 484<br>14.4          | 161<br>4.8              | 41<br>1.2              | 34<br>1.0              | 1503<br>58.5    |
| GRADE 7       | 253<br>6.0        | 164<br>4.4              | 283<br>7.6              | 626<br>18.8          | 261<br>7.0              | 70<br>1.9              | 43<br>1.2              | 2310<br>62.0    |
| GRADE 6       | 159<br>4.1        | 603<br>15.6             | 479<br>11.1             | 1333<br>34.5         | 544<br>14.1             | 135<br>3.6             | 47<br>1.2              | 2899<br>65.9    |
| GRADE 5       | 153<br>3.2        | 945<br>21.0             | 441<br>9.2              | 2012<br>42.2         | 513<br>10.8             | 65<br>1.4              | 45<br>0.5              | 2014<br>33.2    |
| GRADE 4       | 80<br>1.5         | 1014<br>18.7            | 619<br>9.0              | 2777<br>92.0         | 317<br>9.5              | 28<br>0.5              | 55<br>1.1              | 3544<br>65.3    |
| GRADE 3       | 150<br>2.2        | 1156<br>17.2            | 591<br>8.8              | 2549<br>37.9         | 623<br>9.3              | 15<br>0.3              | 18<br>0.3              | 4574<br>68.1    |
| GRADE 2       | 117<br>1.5        | 1164<br>14.9            | 619<br>7.9              | 2628<br>33.7         | 745<br>9.6              | 108<br>1.4             | 23<br>0.3              | 5695<br>73.1    |
| GRADE 1       | 172<br>1.7        | 1319<br>12.7            | 805<br>7.8              | 3221<br>32.0         | 947<br>9.1              | 59<br>1.0              | 38<br>0.4              | 7482<br>72.1    |
| KINDER-GARTEN | 157<br>2.3        | 1003<br>12.2            | 906<br>11.6             | 2275<br>26.5         | 633<br>7.4              | 136<br>1.6             | 54<br>0.6              | 2252<br>61.6    |
| PRE-K         | 14<br>1.4         | 33<br>3.3               | 163<br>10.3             | 21<br>2.1            | 24<br>2.0               | 30<br>3.0              | 12<br>1.3              | 857<br>65.9     |
| OTHER         | 183<br>7.4        | 259<br>10.1             | 191<br>7.5              | 698<br>27.3          | 195<br>7.6              | 39<br>1.5              | 2<br>0.1               | 1318<br>51.5    |

TABLE  
NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH  
ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL  
PROGRAM SERVICES FOR EACH GRADE.

TOTAL  
POPULATION GROUP = HISPAN  
CAT 1

| ROWS = GRADE  | TOTAL              |                    | PERCENT AND NUMBER RECEIVING PROGRAMS |                       |              |                   |              |                 |                        |  |  |  |
|---------------|--------------------|--------------------|---------------------------------------|-----------------------|--------------|-------------------|--------------|-----------------|------------------------|--|--|--|
|               | BASIC PROGRAM ONLY | DILING-UAL PROGRAM | SUBJECT INSTR                         | SPECIAL ENGLISH INSTR | ESL PROGRAM  | LANG ARTS PROGRAM | MATH PROGRAM | SCIENCE PROGRAM | SOCIAL STUDIES PROGRAM |  |  |  |
| ALL GRADES    | 43327<br>100.0     | 9664<br>22.3       | 3713<br>8.6                           | 21132<br>48.8         | 6982<br>20.7 | 2663<br>6.1       | 2209<br>5.3  | 1721<br>4.0     | 1933<br>4.5            |  |  |  |
| GRADE 12      | 572<br>100.0       | 37<br>7.1          | 90<br>17.2                            | 216<br>41.4           | 135<br>25.9  | 60<br>11.5        | 25<br>4.8    | 21<br>4.0       | 41<br>7.9              |  |  |  |
| GRADE 11      | 979<br>100.0       | 277<br>29.8        | 150<br>16.1                           | 410<br>44.1           | 290<br>21.2  | 111<br>11.9       | 51<br>5.5    | 54<br>5.8       | 53<br>5.7              |  |  |  |
| GRADE 10      | 1509<br>100.0      | 291<br>19.6        | 380<br>25.2                           | 854<br>56.6           | 640<br>42.4  | 198<br>10.5       | 267<br>16.2  | 215<br>14.2     | 200<br>13.3            |  |  |  |
| GRADE 9       | 2154<br>100.0      | 575<br>26.7        | 441<br>20.5                           | 564<br>44.8           | 486<br>22.6  | 280<br>13.0       | 272<br>12.6  | 235<br>10.9     | 247<br>11.5            |  |  |  |
| GRADE 8       | 2188<br>100.0      | 566<br>25.9        | 253<br>11.6                           | 717<br>32.8           | 350<br>16.0  | 177<br>8.1        | 177<br>8.1   | 144<br>6.6      | 134<br>6.3             |  |  |  |
| GRADE 7       | 2112<br>100.0      | 531<br>25.1        | 245<br>11.6                           | 742<br>35.1           | 306<br>14.5  | 204<br>9.7        | 194<br>9.4   | 177<br>8.4      | 172<br>8.1             |  |  |  |
| GRADE 6       | 2567<br>100.0      | 356<br>13.9        | 276<br>12.7                           | 1153<br>54.3          | 413<br>16.1  | 246<br>9.5        | 229<br>8.9   | 165<br>6.4      | 194<br>7.8             |  |  |  |
| GRADE 5       | 3453<br>100.0      | 413<br>12.0        | 227<br>6.4                            | 2017<br>58.4          | 714<br>20.7  | 160<br>4.6        | 146<br>4.2   | 50<br>2.6       | 97<br>2.8              |  |  |  |
| GRADE 4       | 3911<br>100.0      | 392<br>10.0        | 235<br>5.8                            | 2262<br>57.8          | 742<br>19.0  | 159<br>4.1        | 145<br>3.7   | 74<br>1.9       | 105<br>2.8             |  |  |  |
| GRADE 3       | 4722<br>100.0      | 494<br>10.5        | 268<br>5.7                            | 2366<br>54.8          | 532<br>19.7  | 191<br>4.0        | 156<br>2.9   | 52<br>1.1       | 44<br>0.9              |  |  |  |
| GRADE 2       | 5505<br>100.0      | 531<br>9.6         | 286<br>29.7                           | 2802<br>56.5          | 1237<br>22.5 | 219<br>4.0        | 152<br>2.8   | 56<br>1.7       | 101<br>2.9             |  |  |  |
| GRADE 1       | 6401<br>100.0      | 645<br>10.1        | 271<br>4.5                            | 2920<br>52.0          | 1773<br>24.0 | 260<br>4.1        | 177<br>2.8   | 150<br>2.3      | 128<br>2.0             |  |  |  |
| KINDER-GARTEN | 4656<br>100.0      | 977<br>21.4        | 251<br>5.4                            | 1960<br>42.1          | 804<br>18.6  | 171<br>3.7        | 143<br>3.1   | 126<br>2.7      | 123<br>2.7             |  |  |  |
| PREF-K        | 449<br>100.0       | 70<br>15.6         | 63<br>14.0                            | 63<br>14.0            | 36<br>8.0    | 24<br>5.3         | 23<br>5.1    | 6<br>1.3        | 6<br>1.3               |  |  |  |
| OTHER         | 1783<br>100.0      | 510<br>28.6        | 229<br>12.8                           | 644<br>36.1           | 154<br>8.6   | 190<br>10.1       | 146<br>8.2   | 51<br>5.1       | 126<br>7.1             |  |  |  |

TABLE 2  
(Continued)

|                   | FINE<br>ARTS<br>PROGRAM | CULTURE<br>STUDIES<br>PROGRAM | SUBJECT<br>REINFOR<br>PROGRAM | COMP<br>READING<br>PROGRAM | READING<br>REINFOR<br>PROGRAM | GRANT<br>CLASSES<br>PROGRAM | CF CLA<br>NAT LAN<br>PRCCFAY | SLFCHRT<br>SERVICE |
|-------------------|-------------------------|-------------------------------|-------------------------------|----------------------------|-------------------------------|-----------------------------|------------------------------|--------------------|
| ALL<br>GRADES     | 1187<br>2.7             | 6014<br>13.6                  | 3604<br>8.3                   | 14937<br>34.5              | 3622<br>8.4                   | 445<br>1.0                  | 384<br>0.9                   | 25829<br>55.6      |
| GRADE<br>12       | 7<br>0.0                | 26<br>5.0                     | 7<br>1.3                      | 106<br>20.3                | 8<br>1.5                      | 1<br>0.2                    | 17<br>3.3                    | 161<br>0.8         |
| GRADE<br>11       | 20<br>2.2               | 33<br>3.0                     | 58<br>6.2                     | 136<br>14.0                | 13<br>1.4                     | 10<br>1.1                   | 10<br>1.1                    | 360<br>38.8        |
| GRADE<br>10       | 152<br>10.1             | 64<br>4.2                     | 77<br>5.1                     | 273<br>18.1                | 34<br>2.3                     | 8<br>0.5                    | 144<br>9.5                   | 705<br>46.7        |
| GRADE<br>9        | 116<br>2.4              | 114<br>5.5                    | 168<br>7.8                    | 511<br>23.7                | 101<br>4.7                    | 30<br>1.4                   | 61<br>2.8                    | 843<br>29.1        |
| GRADE<br>8        | 72<br>3.3               | 100<br>4.6                    | 79<br>3.6                     | 425<br>19.4                | 57<br>2.6                     | 7<br>0.3                    | 6<br>0.2                     | 1062<br>45.5       |
| GRADE<br>7        | 140<br>6.5              | 133<br>6.3                    | 135<br>6.4                    | 531<br>25.1                | 137<br>6.5                    | 25<br>1.2                   | 11<br>0.5                    | 1007<br>50.5       |
| GRADE<br>6        | 116<br>4.5              | 459<br>17.5                   | 236<br>11.1                   | 1008<br>41.6               | 361<br>14.1                   | 68<br>2.6                   | 14<br>0.5                    | 1689<br>65.8       |
| GRADE<br>5        | 52<br>2.7               | 783<br>22.7                   | 313<br>9.1                    | 1630<br>47.2               | 353<br>10.2                   | 47<br>1.4                   | 15<br>0.6                    | 2003<br>60.2       |
| GRADE<br>4        | 24<br>1.0               | 779<br>20.4                   | 368<br>9.4                    | 1811<br>66.3               | 392<br>10.0                   | 15<br>0.4                   | 18<br>0.5                    | 2433<br>62.2       |
| GRADE<br>3        | 60<br>1.3               | 550<br>20.1                   | 451<br>9.6                    | 2090<br>44.3               | 491<br>10.4                   | 10<br>0.2                   | 7<br>0.1                     | 2586<br>63.2       |
| GRADE<br>2        | 60<br>1.5               | 807<br>15.7                   | 449<br>8.7                    | 2076<br>37.7               | 508<br>10.3                   | 84<br>1.5                   | 16<br>0.3                    | 3855<br>70.0       |
| GRADE<br>1        | 117<br>1.8              | 808<br>13.0                   | 507<br>7.9                    | 2392<br>37.4               | 610<br>9.5                    | 46<br>0.7                   | 28<br>0.4                    | 4311<br>67.3       |
| KINDER-<br>GARTEN | 50<br>1.9               | 509<br>12.7                   | 462<br>9.9                    | 1313<br>23.2               | 327<br>7.0                    | 62<br>1.2                   | 25<br>0.6                    | 2728<br>58.6       |
| PRE-K             | 1<br>0.2                | 41<br>4.7                     | 65<br>14.5                    | 7<br>1.6                   | 11<br>2.4                     | 9<br>2.0                    | 6<br>1.2                     | 370<br>62.4        |
| OTHER             | 72<br>4.0               | 100<br>10.1                   | 140<br>7.9                    | 501<br>28.1                | 137<br>7.7                    | 23<br>1.3                   | 6<br>1.2                     | 878<br>49.2        |



NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL PROGRAM SERVICES FOR EACH GRADE.

TOTAL POPULATION GROUP = HISPANIC CAT 2

| TOTAL        | PER CENT AND NUMBER RECEIVING PROGRAMS |                   |               |                       |             |                   |              |                 |                        |      |
|--------------|--|-------------------|---------------|-----------------------|-------------|-------------------|--------------|-----------------|------------------------|------|
|              | BASIC PROGRAM ONLY                     | BILINGUAL PROGRAM | SUBJECT INSTR | SPECIAL ENGLISH INSTR | ESL PROGRAM | LANG ARTS PROGRAM | MATH PROGRAM | SCIENCE PROGRAM | SOCIAL STUDIES PROGRAM |      |
| ALL GRADES   | 21867                                  | 1841              | 10352         | 2631                  | 8860        | 5699              | 1707         | 1571            | 1415                   | 1305 |
|              | 100.0                                  | 7.7               | 43.4          | 10.2                  | 37.1        | 23.9              | 7.2          | 6.0             | 5.4                    | 5.7  |
| GRADE 12     | 183                                    | 26                | 18            | 82                    | 102         | 97                | 13           | 65              | 64                     | 70   |
|              | 100.0                                  | 14.2              | 9.8           | 44.8                  | 55.7        | 53.0              | 7.1          | 35.5            | 35.0                   | 38.3 |
| GRADE 11     | 361                                    | 78                | 97            | 63                    | 141         | 129               | 45           | 31              | 32                     | 25   |
|              | 100.0                                  | 21.6              | 26.9          | 17.5                  | 39.1        | 35.7              | 13.0         | 8.0             | 8.4                    | 6.0  |
| GRADE 10     | 1109                                   | 103               | 487           | 223                   | 444         | 417               | 128          | 411             | 115                    | 88   |
|              | 100.0                                  | 9.3               | 43.9          | 20.1                  | 40.0        | 37.6              | 11.5         | 37.1            | 10.7                   | 7.9  |
| GRADE 9      | 1440                                   | 112               | 668           | 355                   | 666         | 563               | 242          | 201             | 151                    | 170  |
|              | 100.0                                  | 7.8               | 46.4          | 27.4                  | 42.1        | 39.1              | 16.8         | 14.0            | 13.3                   | 11.8 |
| GRADE 8      | 1140                                   | 58                | 652           | 164                   | 325         | 290               | 113          | 125             | 136                    | 107  |
|              | 100.0                                  | 5.1               | 56.8          | 14.3                  | 28.2        | 26.0              | 5.8          | 10.9            | 11.8                   | 9.3  |
| GRADE 7      | 1613                                   | 70                | 957           | 221                   | 424         | 331               | 143          | 130             | 152                    | 122  |
|              | 100.0                                  | 4.3               | 59.3          | 13.7                  | 26.3        | 20.5              | 8.9          | 12.2            | 12.1                   | 7.4  |
| GRADE 6      | 1292                                   | 43                | 602           | 143                   | 522         | 373               | 109          | 114             | 76                     | 55   |
|              | 100.0                                  | 3.3               | 46.6          | 11.1                  | 40.5        | 28.9              | 8.4          | 8.3             | 5.5                    | 7.7  |
| GRADE 5      | 1291                                   | 52                | 489           | 138                   | 649         | 438               | 100          | 94              | 43                     | 46   |
|              | 100.0                                  | 4.1               | 37.9          | 10.7                  | 50.3        | 33.9              | 7.7          | 7.3             | 3.3                    | 3.6  |
| GRADE 4      | 1506                                   | 75                | 627           | 110                   | 716         | 419               | 50           | 84              | 66                     | 71   |
|              | 100.0                                  | 5.0               | 41.6          | 7.3                   | 47.5        | 27.8              | 6.0          | 5.0             | 4.4                    | 4.7  |
| GRADE 3      | 1556                                   | 78                | 1035          | 118                   | 650         | 387               | 103          | 105             | 88                     | 80   |
|              | 100.0                                  | 3.9               | 51.5          | 5.9                   | 32.7        | 19.4              | 5.2          | 5.3             | 4.4                    | 4.4  |
| GRADE 2      | 2284                                   | 95                | 1227          | 95                    | 818         | 513               | 63           | 57              | 32                     | 47   |
|              | 100.0                                  | 4.2               | 53.7          | 4.2                   | 35.8        | 22.5              | 2.8          | 2.5             | 1.4                    | 2.1  |
| GRADE 1      | 3962                                   | 164               | 2135          | 170                   | 1404        | 884               | 110          | 101             | 14                     | 76   |
|              | 100.0                                  | 4.1               | 53.9          | 4.3                   | 35.4        | 22.3              | 2.9          | 2.5             | 1.4                    | 2.0  |
| KINDERGARTEN | 3930                                   | 646               | 870           | 277                   | 1581        | 729               | 211          | 172             | 173                    | 162  |
|              | 100.0                                  | 16.4              | 22.3          | 7.0                   | 40.2        | 18.5              | 5.4          | 4.4             | 4.4                    | 4.1  |
| PRE-K        | 549                                    | 58                | 70            | 35                    | 105         | 61                | 35           | 29              | 13                     | 13   |
|              | 100.0                                  | 10.6              | 12.8          | 6.4                   | 19.1        | 11.1              | 6.4          | 5.3             | 2.4                    | 2.4  |
| OTHER        | 776                                    | 169               | 147           | 147                   | 241         | 48                | 147          | 149             | 115                    | 124  |
|              | 100.0                                  | 21.8              | 18.9          | 18.9                  | 31.1        | 6.2               | 18.9         | 19.0            | 15.3                   | 16.0 |



TABLE 3  
(Continued)

|                   | FINE<br>ARTS<br>PROGRAM | CULTURE<br>STUDIES<br>PROGRAM | SUBJECT<br>REFINER<br>PROGRAM | COMP<br>READING<br>PROGRAM | READING<br>REFINER<br>PROGRAM | ORIENT<br>CLASSES<br>PROGRAM | GP CLA<br>NAT LAN<br>PROCCAM | SUBCPT<br>SERVICE |
|-------------------|-------------------------|-------------------------------|-------------------------------|----------------------------|-------------------------------|------------------------------|------------------------------|-------------------|
| ALL GRADES        | 864<br>13.7             | 2151<br>9.0                   | 2112<br>8.9                   | 4572<br>19.2               | 1800<br>7.5                   | 440<br>1.8                   | 411<br>1.7                   | 17533<br>73.5     |
| GRADE 12          | 2<br>1.1                | 1<br>0.5                      | 4<br>2.2                      | 16<br>9.8                  |                               |                              | 64<br>29.5                   | 80<br>43.7        |
| GRADE 11          | 21<br>5.8               | 6<br>1.7                      | 18<br>5.0                     | 22<br>6.4                  | 1<br>0.3                      |                              | 1<br>0.3                     | 171<br>47.4       |
| GRADE 10          | 51<br>4.6               | 21<br>3.9                     | 46<br>4.1                     | 61<br>5.5                  | 5<br>0.5                      | 12<br>1.1                    | 15<br>1.7                    | 775<br>49.9       |
| GRADE 9           | 50<br>6.2               | 28<br>1.9                     | 125<br>8.7                    | 81<br>5.6                  | 57<br>4.0                     | 35<br>2.4                    | 56<br>6.7                    | 557<br>66.5       |
| GRADE 8           | 44<br>3.8               | 12<br>1.0                     | 94<br>8.2                     | 58<br>5.1                  | 104<br>9.1                    | 24<br>3.0                    | 28<br>2.4                    | 804<br>75.3       |
| GRADE 7           | 107<br>6.6              | 31<br>1.5                     | 148<br>9.2                    | 94<br>5.8                  | 124<br>7.7                    | 45<br>2.8                    | 32<br>2.0                    | 1243<br>77.1      |
| GRADE 6           | 43<br>3.3               | 144<br>11.1                   | 143<br>11.1                   | 265<br>20.5                | 183<br>14.2                   | 71<br>5.5                    | 33<br>2.6                    | 1009<br>78.1      |
| GRADE 5           | 50<br>4.3               | 195<br>15.1                   | 177<br>9.8                    | 300<br>27.9                | 195<br>12.0                   | 22<br>1.7                    | 30<br>2.0                    | 929<br>72.0       |
| GRADE 4           | 40<br>2.7               | 215<br>14.3                   | 171<br>8.0                    | 402<br>30.7                | 145<br>9.6                    | 13<br>0.5                    | 39<br>2.6                    | 1105<br>73.4      |
| GRADE 3           | 89<br>4.5               | 232<br>10.1                   | 140<br>7.0                    | 453<br>22.7                | 130<br>6.5                    | 5<br>0.5                     | 11<br>0.6                    | 1592<br>79.8      |
| GRADE 2           | 26<br>1.6               | 235<br>12.9                   | 170<br>7.4                    | 550<br>24.1                | 176<br>7.7                    | 24<br>1.1                    | 7<br>0.3                     | 1838<br>80.5      |
| GRADE 1           | 55<br>1.4               | 449<br>11.3                   | 296<br>7.5                    | 528<br>23.4                | 335<br>8.5                    | 51<br>1.3                    | 8<br>0.2                     | 3164<br>75.9      |
| KINDER-<br>GASTEN | 103<br>2.6              | 440<br>11.7                   | 530<br>13.5                   | 965<br>24.6                | 302<br>7.7                    | 74<br>1.9                    | 21<br>0.5                    | 2555<br>65.0      |
| PRE-K             | 13<br>2.4               | 12<br>2.2                     | 98<br>17.9                    | 14<br>2.6                  | 9<br>1.6                      | 21<br>3.8                    | 7<br>1.3                     | 487<br>88.7       |
| OTHER             | 111<br>14.3             | 79<br>10.2                    | 51<br>6.0                     | 197<br>25.4                | 58<br>7.5                     | 16<br>2.1                    | 2<br>0.3                     | 440<br>56.7       |

participation in English as a Second Language (ESL) programs appears to be slightly overstated in the July 1 report, especially among those with severe English language difficulty. Table 11 in the first report shows 30 per cent of Category II Hispanic pupils receiving ESL instruction while Table 3 in the present report shows 24 per cent, the difference clearly due to the elimination of any possibility of double counting. The discrepancies are especially large in the high school grades, which indicates that the claim of the July 1 report (p. 27) that "over 50 per cent of high school students with severe difficulty participate in ESL programs" must be discounted. The true level is around 40 per cent.

Tables 1 through 3 of the present report provide two columns of summary material that did not appear in the July 1 tables. These are (1) the number and percentage of pupils receiving any sort of subject matter instruction in Spanish (that is, all those receiving Spanish language instruction in any of language arts, math, science, social studies, or fine arts); and (2) the number and percentage of pupils receiving any sort of specialized instruction designed to improve English language skills (that is, all those participating in any of the following: ESL programs, Comprehensive Reading programs, Comprehensive Reading programs with reinforcement in Spanish, Orientation Classes, or Orientation Classes conducted in Spanish). These two summary columns are the 4th and 5th columns of the tables.

These data indicate that pupils not participating in full bilingual programs are much more likely to receive specialized instruction in English language skills than to receive subject area instruction in Spanish. Nearly half of all pupils with English language difficulty receive some sort of specialized English language instruction, while fewer than 10 per cent are taught substantive material in Spanish. Not surprisingly, subject area instruction taught in Spanish is most common in the high school grades and least common in the elementary grades. Specialized English language instruction, by contrast, is relatively equally available throughout all grades, except pre-kindergarten where less than 20 per cent of Hispanic pupils with English language difficulty receive such services.

One difficulty we have in interpreting these figures is that they only include pupils who do not receive full bilingual instruction. Thus, they do not provide a good overall summary of the services available to pupils with English language difficulty. To see this, we turn to Table 4. This table gives (1) the percentage of pupils for whom Spanish is ever used as the medium of instruction (that is, the percentage who receive either full bilingual instruction or subject instruction in at least one of the five areas included in the questionnaire); and (2) the percentage of pupils receiving some specialized instruction designed to improve English language skills (that is, the percentage who

TABLE 4

SUMMARY OF REMEDIAL SERVICES AVAILABLE  
TO HISPANIC PUPILS WITH ENGLISH LANGUAGE DIFFICULTY,  
BY GRADE (PERCENTAGE RECEIVING SERVICES)

| Grade      | All pupils with difficulty (Cats. 1 + 2) |                                     | Pupils with moderate difficulty (Cat. 1) |                        | Pupils with severe difficulty (Cat. 2) |                        |
|------------|--|-------------------------------------|--|------------------------|--|------------------------|
|            | Subject inst. in Spanish <sup>a</sup>    | English language inst. <sup>b</sup> | Subject inst. in Spanish                 | English language inst. | Subject inst. in Spanish               | English language inst. |
| All grades | 39                                       | 74                                  | 31                                       | 71                     | 53                                     | 80                     |
| 12         | 32                                       | 53                                  | 24                                       | 48                     | 55                                     | 66                     |
| 11         | 32                                       | 58                                  | 27                                       | 55                     | 44                                     | 66                     |
| 10         | 52                                       | 78                                  | 42                                       | 74                     | 64                                     | 84                     |
| 9          | 50                                       | 70                                  | 33                                       | 58                     | 74                                     | 88                     |
| 8          | 50                                       | 69                                  | 38                                       | 60                     | 71                                     | 85                     |
| 7          | 54                                       | 73                                  | 39                                       | 63                     | 73                                     | 86                     |
| 6          | 42                                       | 79                                  | 34                                       | 76                     | 58                                     | 87                     |
| 5          | 33                                       | 82                                  | 28                                       | 80                     | 49                                     | 88                     |
| 4          | 34                                       | 83                                  | 29                                       | 81                     | 49                                     | 89                     |
| 3          | 37                                       | 79                                  | 28                                       | 77                     | 58                                     | 85                     |
| 2          | 42                                       | 83                                  | 35                                       | 81                     | 58                                     | 90                     |
| 1          | 42                                       | 83                                  | 32                                       | 79                     | 58                                     | 89                     |
| Kinder.    | 25                                       | 60                                  | 21                                       | 58                     | 28                                     | 62                     |
| Pre-K.     | 19                                       | 30                                  | 19                                       | 28                     | 19                                     | 32                     |

Sources: Tables 1-3

Notes: <sup>a</sup> Percentage receiving either full bilingual program or instruction conducted in Spanish in any of the five areas assessed (see text for details).

<sup>b</sup> Percentage receiving either full bilingual program or instruction in any of the specialized programs designed to improve English language competence (see text for details).

receive either full bilingual instruction or one of the specialized programs included in the category "special English instruction").

Inspecting the figures in the table, we see that about 30 per cent of those with moderate difficulty and over half of those with severe difficulty receive some instruction in Spanish, either through a full bilingual program or through instruction in specific subject areas. There is not notable variation between grades in these percentages, except that subject area instruction is not nearly as common in kindergarten and pre-kindergarten classes, which may reflect the absence of subject area instruction in any language in these grades.

Turning to specialized instruction designed to improve English language skills, we see that it is available to about three quarters of all pupils (including 70 per cent of those with moderate difficulty and 80 per cent of those with severe difficulty), either through full bilingual programs or through specialized components such as ESL programs, Comprehensive Reading programs, etc. Once again, these services are widely available throughout almost all grades. However, they are available in a very limited way for pre-kindergarten pupils, and are less available in kindergarten and in the last years of high school (11th and 12th grades) than in other grades.

Mean hours of service. Tables 5 through 7 are similar to Tables 12 through 14 in the July 1 report, and the conclusions

TABIS 5  
MEAN SCORES PER PROGRAM  
FOR PARTICIPATING STUDENTS

TOTAL  
POPULATION GROUP = HISPANIC  
1 + 2

ROWS = GRADE COLUMNS = PROGRAMS

| GRADE        | HISpanic | NON-HISpanic | BILIN-GUAL INSTR | SUBJECT INSTR | SPECIAL ENGLISH INSTR | ESL PROGRAM | LANG ARTS PROGRAM | MATH PROGRAM | SCIENCE PROGRAM | SOCIAL STUDIES PROGRAM | FINE ARTS PROGRAM | CULTURE STUDIES PROGRAM | SUBJECT REINFOR PROGRAM | COMP READING PROGRAM | READING REINFOR PROGRAM | ORIENT CLASSES PROGRAM | OP CLA NAT LEX PRECISE |
|--------------|----------|--------------|------------------|---------------|-----------------------|-------------|-------------------|--------------|-----------------|------------------------|-------------------|-------------------------|-------------------------|----------------------|-------------------------|------------------------|------------------------|
| ALL GRADES   | 13,017   | 14,057       | 10,198           | 7,032         | 5,082                 | 4,791       | 3,324             | 2,949        | 1,806           | 6,006                  | 6,097             | 4,459                   | 6,879                   | 6,003                | 6,003                   | 6,879                  | 6,003                  |
|              | 53,660   | 20,051       | 6165             | 3000          | 14,695                | 4,384       | 3,131             | 2,983        | 8,199           | 5,723                  | 1,954             | 5,431                   | 8,81                    | 8,81                 | 8,81                    | 8,81                   | 8,81                   |
| GRADE 12     | 11,960   | 13,965       | 9,831            | 7,676         | 6,206                 | 4,014       | 4,649             | 4,000        | 4,669           | 4,669                  | 4,000             | 4,000                   | 4,000                   | 4,000                | 4,000                   | 4,000                  | 4,000                  |
|              | 23       | 55           | 172              | 318           | 232                   | 73          | 111               | 5            | 26              | 11                     | 124               | 124                     | 124                     | 124                  | 124                     | 124                    | 124                    |
| GRADE 11     | 9,832    | 10,410       | 8,981            | 6,577         | 4,671                 | 4,106       | 4,208             | 4,951        | 4,208           | 4,208                  | 4,951             | 4,208                   | 4,208                   | 4,208                | 4,208                   | 4,208                  | 4,208                  |
|              | 842      | 200          | 213              | 551           | 419                   | 100         | 80                | 41           | 82              | 82                     | 41                | 159                     | 159                     | 159                  | 159                     | 159                    | 159                    |
| GRADE 10     | 12,977   | 12,870       | 10,326           | 7,691         | 6,504                 | 4,473       | 4,224             | 4,941        | 4,224           | 4,224                  | 4,941             | 4,224                   | 4,224                   | 4,224                | 4,224                   | 4,224                  | 4,224                  |
|              | 2141     | 752          | 610              | 1306          | 1004                  | 292         | 334               | 203          | 291             | 291                    | 203               | 335                     | 335                     | 335                  | 335                     | 335                    | 335                    |
| GRADE 9      | 14,533   | 17,534       | 10,114           | 7,613         | 7,859                 | 4,276       | 4,279             | 2,549        | 4,305           | 4,305                  | 2,549             | 3,688                   | 3,688                   | 3,688                | 3,688                   | 3,688                  | 3,688                  |
|              | 2763     | 547          | 836              | 1570          | 1045                  | 522         | 420               | 206          | 417             | 417                    | 206               | 582                     | 582                     | 582                  | 582                     | 582                    | 582                    |
| GRADE 8      | 17,895   | 23,351       | 12,729           | 7,582         | 7,221                 | 4,590       | 4,039             | 2,104        | 4,100           | 4,100                  | 2,104             | 1,629                   | 1,629                   | 1,629                | 1,629                   | 1,629                  | 1,629                  |
|              | 1489     | 1257         | 417              | 1043          | 580                   | 290         | 280               | 116          | 289             | 289                    | 116               | 484                     | 484                     | 484                  | 484                     | 484                    | 484                    |
| GRADE 7      | 19,937   | 23,255       | 13,037           | 7,674         | 6,120                 | 4,637       | 3,332             | 2,982        | 3,619           | 3,619                  | 2,982             | 2,372                   | 2,372                   | 2,372                | 2,372                   | 2,372                  | 2,372                  |
|              | 2477     | 1339         | 446              | 1167          | 637                   | 347         | 372               | 253          | 344             | 344                    | 253               | 144                     | 144                     | 144                  | 144                     | 144                    | 144                    |
| GRADE 6      | 14,068   | 18,402       | 12,143           | 8,470         | 6,155                 | 5,615       | 2,929             | 3,547        | 3,547           | 3,547                  | 3,547             | 1,890                   | 1,890                   | 1,890                | 1,890                   | 1,890                  | 1,890                  |
|              | 3232     | 1147         | 409              | 1517          | 787                   | 353         | 241               | 199          | 298             | 298                    | 199               | 603                     | 603                     | 603                  | 603                     | 603                    | 603                    |
| GRADE 5      | 12,234   | 17,795       | 9,720            | 7,565         | 4,214                 | 5,090       | 2,911             | 2,834        | 2,911           | 2,911                  | 2,834             | 1,608                   | 1,608                   | 1,608                | 1,608                   | 1,608                  | 1,608                  |
|              | 4709     | 1526         | 336              | 2584          | 1103                  | 250         | 141               | 80           | 181             | 181                    | 80                | 1016                    | 1016                    | 1016                 | 1016                    | 1016                   | 1016                   |
| GRADE 4      | 12,659   | 18,724       | 9,532            | 7,555         | 3,839                 | 5,407       | 2,402             | 2,459        | 2,402           | 2,402                  | 2,459             | 1,467                   | 1,467                   | 1,467                | 1,467                   | 1,467                  | 1,467                  |
|              | 5880     | 2082         | 307              | 3206          | 1320                  | 245         | 141               | 133          | 133             | 133                    | 133               | 1150                    | 1150                    | 1150                 | 1150                    | 1150                   | 1150                   |
| GRADE 3      | 14,950   | 20,928       | 7,301            | 9,190         | 2,852                 | 4,650       | 2,093             | 2,093        | 1,923           | 1,923                  | 2,093             | 1,492                   | 1,492                   | 1,492                | 1,492                   | 1,492                  | 1,492                  |
|              | 6975     | 2800         | 302              | 3022          | 1752                  | 283         | 210               | 117          | 209             | 209                    | 117               | 1104                    | 1104                    | 1104                 | 1104                    | 1104                   | 1104                   |
| GRADE 2      | 14,950   | 20,928       | 7,301            | 9,190         | 2,852                 | 4,650       | 2,093             | 2,093        | 1,923           | 1,923                  | 2,093             | 1,492                   | 1,492                   | 1,492                | 1,492                   | 1,492                  | 1,492                  |
|              | 6975     | 2800         | 302              | 3022          | 1752                  | 283         | 210               | 117          | 209             | 209                    | 117               | 1104                    | 1104                    | 1104                 | 1104                    | 1104                   | 1104                   |
| GRADE 1      | 14,950   | 20,928       | 7,301            | 9,190         | 2,852                 | 4,650       | 2,093             | 2,093        | 1,923           | 1,923                  | 2,093             | 1,492                   | 1,492                   | 1,492                | 1,492                   | 1,492                  | 1,492                  |
|              | 6975     | 2800         | 302              | 3022          | 1752                  | 283         | 210               | 117          | 209             | 209                    | 117               | 1104                    | 1104                    | 1104                 | 1104                    | 1104                   | 1104                   |
| KINDERGARTEN | 9,039    | 13,256       | 5,397            | 5,127         | 2,882                 | 3,277       | 1,137             | 1,569        | 1,137           | 1,137                  | 1,569             | 1,241                   | 1,241                   | 1,241                | 1,241                   | 1,241                  | 1,241                  |
|              | 5748     | 2546         | 532              | 2546          | 1555                  | 382         | 313               | 197          | 254             | 254                    | 197               | 1053                    | 1053                    | 1053                 | 1053                    | 1053                   | 1053                   |
| PRE-K        | 9,028    | 7,238        | 8,703            | 7,488         | 7,907                 | 3,780       | 2,526             | 2,579        | 2,526           | 2,579                  | 2,579             | 1,001                   | 1,001                   | 1,001                | 1,001                   | 1,001                  | 1,001                  |
|              | 478      | 133          | 59               | 169           | 97                    | 59          | 19                | 14           | 15              | 15                     | 14                | 23                      | 23                      | 23                   | 23                      | 23                     | 23                     |
| OTHER        | 13,053   | 17,571       | 14,988           | 7,132         | 6,644                 | 5,333       | 2,676             | 3,444        | 2,676           | 3,444                  | 3,410             | 1,845                   | 1,845                   | 1,845                | 1,845                   | 1,845                  | 1,845                  |
|              | 1438     | 376          | 350              | 885           | 202                   | 327         | 210               | 133          | 250             | 250                    | 133               | 255                     | 255                     | 255                  | 255                     | 255                    | 255                    |

TABLE 6  
MEAS HOURS FOR PROGRAM  
FOR PARTICIPATING STUDENTS

TOTAL  
POPULATION GROUP = HISPAN  
CAT 1

ROWS = GRADE COLUMNS = PROGRAMS

| GRADE        | HOURS IN ALL PROGRAMS | BILINGUAL INSTR | SUBJECT INSTR | SPECIAL ENGLISH INSTR | ESL PROGRAM | LANG ARTS PROGRAM | MATH PROGRAM | SCIENCE PROGRAM | SOCIAL STUDIES PROGRAM | FINE ARTS PROGRAM | CULTURE STUDIES PROGRAM | SUBJECT REINFOR PROGRAM | COMP READING PROGRAM | READING REINFOR PROGRAM | CRIENT CLASSES PROGRAM | DR CLA PROGRAM |
|--------------|-----------------------|-----------------|---------------|-----------------------|-------------|-------------------|--------------|-----------------|------------------------|-------------------|-------------------------|-------------------------|----------------------|-------------------------|------------------------|----------------|
| ALL GRADES   | 12,104                | 16,120          | 9,546         | 7,345                 | 4,714       | 4,573             | 3,513        | 3,004           | 3,251                  | 2,353             | 1,768                   | 6,300                   | 6,134                | 4,493                   | 5,152                  | 4,645          |
| GRADE 12     | 9,110                 | 15,544          | 6,978         | 6,185                 | 5,156       | 3,900             | 4,560        | 4,782           | 3,829                  | 4,333             | 2,685                   | 4,425                   | 4,810                | 5,000                   | 3,000                  | 5,000          |
| GRADE 11     | 9,864                 | 13,252          | 8,493         | 6,188                 | 6,331       | 4,261             | 4,544        | 4,259           | 4,350                  | 5,300             | 4,322                   | 7,276                   | 4,470                | 4,385                   | 2,750                  | 4,555          |
| GRADE 10     | 13,397                | 14,811          | 11,855        | 7,350                 | 6,237       | 4,644             | 4,607        | 4,628           | 4,525                  | 4,914             | 4,281                   | 14,775                  | 5,038                | 4,706                   | 2,257                  | 4,555          |
| GRADE 9      | 11,540                | 15,673          | 10,454        | 6,447                 | 7,445       | 4,211             | 4,276        | 4,140           | 4,170                  | 2,284             | 1,555                   | 11,805                  | 3,973                | 3,652                   | 2,257                  | 4,607          |
| GRADE 8      | 15,315                | 22,766          | 12,344        | 6,515                 | 7,511       | 4,655             | 4,595        | 4,069           | 4,158                  | 1,972             | 1,700                   | 9,203                   | 4,031                | 3,715                   | 14,000                 | 3,807          |
| GRADE 7      | 15,578                | 23,460          | 13,131        | 6,673                 | 5,444       | 4,588             | 3,874        | 3,051           | 3,276                  | 2,404             | 2,350                   | 10,585                  | 4,358                | 6,190                   | 4,000                  | 2,001          |
| GRADE 6      | 12,705                | 17,304          | 9,752         | 7,100                 | 5,441       | 4,402             | 2,737        | 2,424           | 3,327                  | 1,647             | 1,841                   | 5,311                   | 6,344                | 4,017                   | 4,001                  | 1,555          |
| GRADE 5      | 11,122                | 15,042          | 9,667         | 7,624                 | 4,192       | 5,662             | 3,512        | 2,567           | 3,010                  | 1,576             | 2,471                   | 5,211                   | 6,272                | 4,152                   | 7,573                  | 16,634         |
| GRADE 4      | 11,103                | 16,912          | 8,182         | 7,540                 | 3,560       | 4,848             | 2,870        | 2,405           | 2,817                  | 1,399             | 1,513                   | 4,550                   | 6,716                | 4,392                   | 4,007                  | 9,000          |
| GRADE 3      | 10,755                | 16,308          | 5,836         | 7,541                 | 3,603       | 4,120             | 2,566        | 1,962           | 2,477                  | 1,350             | 1,535                   | 4,266                   | 6,637                | 4,502                   | 2,700                  | 1,524          |
| GRADE 2      | 12,425                | 19,950          | 7,143         | 8,682                 | 3,665       | 4,470             | 2,967        | 1,579           | 1,808                  | 1,407             | 1,458                   | 5,064                   | 7,158                | 4,616                   | 7,175                  | 1,662          |
| GRADE 1      | 13,351                | 20,310          | 10,337        | 7,594                 | 3,762       | 5,346             | 2,192        | 1,593           | 2,234                  | 2,111             | 1,454                   | 7,710                   | 7,287                | 5,436                   | 2,103                  | 1,621          |
| KINDERGARTEN | 7,773                 | 12,045          | 5,147         | 5,229                 | 4,000       | 3,520             | 1,667        | 1,029           | 1,266                  | 1,344             | 1,221                   | 4,915                   | 4,159                | 3,234                   | 3,726                  | 2,650          |
| PREF-K       | 9,120                 | 7,142           | 5,250         | 8,413                 | 6,544       | 2,375             | 1,912        | 1,667           | 1,667                  | 5,000             | 1,000                   | 11,555                  | 2,571                | 5,000                   | 10,500                 | 6,007          |
| OTHER        | 11,607                | 16,319          | 12,235        | 7,595                 | 7,714       | 4,306             | 4,473        | 2,286           | 3,548                  | 2,107             | 1,844                   | 4,550                   | 6,265                | 3,810                   | 3,261                  | 3,261          |



TABLE 7  
MEAN HOURS PER PROGRAM  
FOR PARTICIPATING STUDENTS

TOTAL  
POPULATION GROUP - HISPANIC  
CAT 2

| GRADE         | HOURS IN ALL PROGRAMS | BILLING GOAL INSTR | SUBJECT INSTR   | SPECIAL ENGLISH INSTP | ESL PROGRAM    | LANG ARTS PROGRAM | MATH PROGRAM   | SCIENCE PROGRAM | SOCIAL STUDIES PROGRAM | FINE ARTS PROGRAM | CULTURE STUDIES PROGRAM | SUBJECT REINFOR PROGRAM | COMP READING PROGRAM | READING REINFOR PROGRAM | CRIENT CLASSES PROGRAM | SP CLAS NAT LBN PROGRAM |
|---------------|-----------------------|--------------------|-----------------|-----------------------|----------------|-------------------|----------------|-----------------|------------------------|-------------------|-------------------------|-------------------------|----------------------|-------------------------|------------------------|-------------------------|
|               |                       |                    |                 |                       |                |                   |                |                 |                        |                   |                         |                         |                      |                         |                        |                         |
| ALL GRADES    | 16,039<br>2,574       | 19,930<br>10,352   | 11,197<br>2,431 | 8,265<br>8,660        | 5,648<br>5,655 | 5,121<br>1,707    | 3,719<br>1,571 | 3,298<br>1,415  | 3,364<br>1,363         | 3,775<br>894      | 1,522<br>2,151          | 7,547<br>2,112          | 5,774<br>4,572       | 4,522<br>1,800          | 6,534<br>440           | 7,234<br>411            |
| GRADE 12      | 18,538<br>128         | 5,833<br>18        | 12,963<br>02    | 10,633<br>102         | 7,907<br>57    | 4,538<br>13       | 4,031<br>65    | 4,813<br>04     | 5,125<br>70            | 5,000<br>2        | 4,000<br>1              | 5,000<br>4              | 3,778<br>18          | 3,778<br>18             | 5,000<br>4             | 9,000<br>54             |
| GRADE 11      | 9,873<br>760          | 7,592<br>47        | 10,143<br>63    | 7,705<br>341          | 7,434<br>125   | 3,755<br>49       | 3,645<br>31    | 4,000<br>32     | 4,034<br>25            | 4,615<br>21       | 3,500<br>6              | 3,000<br>18             | 5,217<br>73          | 5,000<br>1              | 3,000<br>1             | 3,000<br>1              |
| GRADE 10      | 12,474<br>541         | 11,979<br>487      | 7,803<br>223    | 8,365<br>444          | 7,528<br>417   | 4,305<br>128      | 4,512<br>41    | 3,546<br>119    | 3,705<br>88            | 5,000<br>51       | 4,571<br>21             | 7,452<br>48             | 4,000<br>61          | 6,200<br>5              | 3,000<br>12            | 5,000<br>15             |
| GRADE 9       | 17,374<br>1313        | 18,286<br>688      | 9,734<br>395    | 5,465<br>606          | 8,212<br>563   | 4,351<br>170      | 4,572<br>201   | 4,440<br>191    | 4,500<br>170           | 2,000<br>90       | 3,357<br>28             | 7,300<br>125            | 3,778<br>61          | 3,575<br>57             | 3,771<br>35            | 4,517<br>54             |
| GRADE 8       | 21,235<br>1,014       | 23,738<br>652      | 13,523<br>164   | 5,548<br>325          | 6,776<br>230   | 4,687<br>113      | 4,672<br>125   | 4,007<br>136    | 4,112<br>107           | 2,477<br>44       | 1,000<br>12             | 7,292<br>94             | 5,448<br>58          | 3,423<br>104            | 25,471<br>34           | 4,557<br>28             |
| GRADE 7       | 21,250<br>1,443       | 23,131<br>557      | 14,195<br>221   | 5,839<br>424          | 6,764<br>331   | 4,755<br>143      | 4,321<br>156   | 3,682<br>195    | 4,052<br>192           | 2,585<br>107      | 1,581<br>31             | 5,047<br>143            | 3,768<br>94          | 3,606<br>124            | 19,007<br>45           | 2,375<br>32             |
| GRADE 6       | 17,858<br>1,170       | 15,315<br>602      | 17,594<br>143   | 11,128<br>523         | 6,946<br>373   | 8,330<br>109      | 4,149<br>114   | 4,013<br>70     | 3,980<br>59            | 10,116<br>43      | 1,805<br>144            | 5,902<br>143            | 5,245<br>265         | 6,104<br>192            | 9,405<br>71            | 1,515<br>31             |
| GRADE 5       | 14,507<br>1,136       | 18,446<br>485      | 9,029<br>139    | 8,578<br>649          | 5,064<br>438   | 5,490<br>100      | 3,106<br>94    | 2,632<br>43     | 2,891<br>46            | 2,857<br>50       | 5,374<br>155            | 6,202<br>127            | 6,014<br>363         | 4,515<br>155            | 3,504<br>22            | 5,215<br>23             |
| GRADE 4       | 15,104<br>1,437       | 19,054<br>627      | 12,818<br>110   | 9,275<br>716          | 4,842<br>415   | 5,769<br>90       | 3,555<br>84    | 2,656<br>66     | 2,845<br>71            | 5,275<br>40       | 2,015<br>215            | 6,603<br>121            | 6,524<br>462         | 5,372<br>145            | 3,536<br>13            | 15,857<br>34            |
| GRADE 3       | 16,663<br>1,775       | 21,142<br>1,035    | 17,881<br>118   | 7,600<br>652          | 3,724<br>387   | 7,806<br>103      | 3,305<br>105   | 2,792<br>80     | 3,114<br>88            | 4,933<br>89       | 1,272<br>202            | 3,221<br>140            | 6,291<br>453         | 4,585<br>130            | 2,556<br>5             | 4,641<br>11             |
| GRADE 2       | 17,234<br>2,117       | 22,225<br>1,227    | 7,937<br>95     | 8,594<br>818          | 4,446<br>513   | 5,270<br>63       | 4,228<br>57    | 2,438<br>32     | 2,043<br>47            | 3,351<br>36       | 1,557<br>255            | 6,241<br>170            | 6,771<br>550         | 5,034<br>176            | 4,708<br>24            | 3,714<br>7              |
| GRADE 1       | 17,214<br>1,657       | 21,486<br>2,135    | 7,682<br>170    | 8,618<br>1,404        | 4,288<br>884   | 5,086<br>116      | 3,455<br>101   | 2,019<br>54     | 1,504<br>70            | 2,473<br>55       | 1,355<br>444            | 10,287<br>296           | 6,885<br>978         | 5,260<br>335            | 2,490<br>51            | 3,875<br>8              |
| KINDER-GARTEN | 9,590<br>2,708        | 14,272<br>2,718    | 5,657<br>277    | 5,008<br>1,501        | 3,745<br>725   | 3,081<br>211      | 1,703<br>172   | 1,225<br>173    | 1,407<br>164           | 1,786<br>103      | 1,270<br>460            | 7,443<br>530            | 4,017<br>565         | 3,089<br>332            | 4,311<br>74            | 1,857<br>21             |
| PRES-K        | 10,037<br>272         | 7,514<br>70        | 11,171<br>35    | 6,923<br>105          | 7,255<br>61    | 4,742<br>35       | 2,517<br>29    | 2,923<br>15     | 3,000<br>13            | 5,709<br>13       | 1,167<br>12             | 10,647<br>98            | 2,357<br>14          | 5,000<br>5              | 7,142<br>21            | 7,657<br>7              |
| OTHER         | 15,355<br>439         | 20,544<br>147      | 18,415<br>147   | 5,888<br>241          | 2,200<br>48    | 6,592<br>147      | 3,851<br>124   | 2,575<br>119    | 3,339<br>124           | 4,216<br>111      | 1,861<br>79             | 4,008<br>51             | 5,457<br>197         | 2,302<br>58             | 3,168<br>16            | 1,800<br>2              |

to be drawn from the two sets of tables are exactly the same. There are no important differences between the two sets of figures, not even for ESL programs which, we showed above, were affected by the double count problem in the data used for the July 1 report.

These tables do, however, include three columns of summary data which were not included in the July 1 tables. The first column indicates the average number of hours per week of instruction in all programs combined received by Hispanic pupils with English language difficulty who receive any remedial instruction at all. Table 5 indicates that the average pupil received nearly 14 hours of instruction per week in these programs. The intensity of instruction varies relatively little by grade, although 7th and 8th graders appear to receive about four hours of instruction per week more than the average while pre-kindergarteners and kindergarteners receive about five hours less than average, which may reflect their short school week. As might be expected, pupils with severe difficulty have more intensive remedial experiences than those with only moderate difficulty, about four hours per week more on the average. But the grade by grade pattern is very similar for the two groups.

The two additional summary columns correspond to those discussed in conjunction with Tables 1 through 3. The third column of Tables 5 through 7 gives the average number of hours per week of instruction conducted in Spanish, for those pupils

who receive any instruction in Spanish. We see that the average pupil who receives instruction in one or more specific subjects in Spanish receives such instruction for about 10 hours per week. Furthermore, there is relatively little difference in the intensity of such programs for pupils with severe and moderate English language difficulty--only about an hour and a half per week. While there is some tendency for instruction of this kind to be most intensive (that is, conducted for the largest number of hours per week) in the intermediate grades, by and large the grade by grade differences are not large.

Specialized English language instruction, while provided for a larger proportion of pupils with English language difficulty than subject area instruction conducted in Spanish, does not occupy as many hours per week on the average. Such instruction is available seven or eight hours per week in most grades, both for pupils with severe difficulty and for pupils with moderate difficulty.

APPENDIX I

COMPARISON OF EDITED AND UNEDITED DATA

## APPENDIX I

### COMPARISON OF EDITED AND UNEDITED DATA

As data from the survey were returned to the Board of Education, they were subjected to a routine computerized editing procedure (described in the July 1 report in Appendix I, pp. I.4-I.8) designed to locate logical inconsistencies and omissions, which would then be corrected by clerical staff at the Board of Education who would contact teachers to resolve any ambiguities. Because the edit check of the first set of data to be returned to the Board yielded a much larger number of cases to be corrected than had been anticipated, the decision was made to correct the data for the total population only up to column 39 of the questionnaire and to correct the remainder of the questionnaire only for a representative sample.

This decision was based on two considerations. First, it would make possible an estimate of the extent to which use of the unedited data on program services and personnel would yield biased or unreliable results. Second, if the unedited data proved to be too biased or unreliable, the edited sample could still be used to make estimates for each district of the number and percentage of pupils receiving various services and having contact with various Spanish speaking personnel.

Since the July 1 report was based on the unedited data for the total population (because the edited sample did not become available to us until June 29) it is important to ascertain how accurate those data are. Second, since only the population data can be used to prepare tabulations for individual

schools, we have a second reason for assessing the quality of these data. To determine what difference the editing process made, we compared the percentage of Hispanic pupils with English language difficulty who receive various program services, as estimated from the unedited and edited sample data.

Program services available to pupils with English language difficulty. Tables 1.1 and 1.2 show the percentage of Hispanic pupils in each grade with English language difficulty receiving various services. Table 1.1 is based on the edited sample data, and Table 1.2 is based on the unedited data.<sup>1</sup>

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<sup>1</sup>Two technical points regarding these data should be noted. First, because we lacked the time to do otherwise, the comparison is based on unweighted data, which means that the percentages could be biased to some degree. We would not expect the magnitude of any bias to be large, both because a relatively large fraction (22 per cent) of the entire population data were edited and because the nature of the sampling procedure happened to produce a sample which, even unweighted, is reasonably representative of the entire population, judging from a comparison of tabulations based on the sample and population data (c.f., the July 1 report, Appendix I, pp. I.6-I.8).

Second, the unedited data contain about 2,000 cases more than the edited data. This is due to the elimination of duplications and improperly included cases in the course of the editing process. Since cases of this kind remain in the unedited data for the population, we considered it preferable to leave them in the sample used for comparison purposes in order to assess the effect that the editing process would have had on the population data.

TABLE 1.1  
 NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH  
 ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL  
 PROGRAM SERVICES FOR EACH GRADE.  
 (EDITED DATA)

TOTAL  
 POPULATION GROUP = HISPAN  
 1 + 2

| ROWS = GRADE | PER CENT AND NUMBER          |                   |              |                   |              |                              |                        |            |  |  |
|--------------|------------------------------|-------------------|--------------|-------------------|--------------|------------------------------|------------------------|------------|--|--|
|              | COLUMNS = RECEIVING PROGRAMS |                   |              |                   |              | COLUMNS = RECEIVING PROGRAMS |                        |            |  |  |
|              | BASIC PROGRAM ONLY           | BILINGUAL PROGRAM | ESL PROGRAM  | LANG ARTS PROGRAM | MATH PROGRAM | SCIENCE PROGRAM              | SOCIAL STUDIES PROGRAM |            |  |  |
| TOTAL        |                              |                   |              |                   |              |                              |                        |            |  |  |
| ALL GRADES   | 14539<br>100.0               | 2508<br>17.3      | 4874<br>33.5 | 2709<br>19.3      | 593<br>4.1   | 553<br>3.8                   | 486<br>3.3             | 495<br>3.4 |  |  |
| GRADE 12     | 19<br>100.0                  |                   |              | 2                 |              |                              |                        |            |  |  |
| GRADE 11     | 7<br>100.0                   |                   |              | 4                 |              |                              |                        |            |  |  |
| GRADE 10     | 56<br>100.0                  | 3<br>5.4          |              | 52<br>92.9        | 7<br>12.5    |                              | 3<br>5.4               | 3<br>5.4   |  |  |
| GRADE 9      | 534<br>100.0                 | 118<br>22.1       | 184<br>34.5  | 111<br>20.8       | 27<br>5.1    | 36<br>6.7                    | 30<br>5.6              | 20<br>3.7  |  |  |
| GRADE 8      | 1731<br>100.0                | 272<br>15.7       | 716<br>41.4  | 329<br>19.0       | 130<br>7.5   | 131<br>7.6                   | 133<br>7.7             | 100<br>5.8 |  |  |
| GRADE 7      | 1729<br>100.0                | 306<br>17.7       | 697<br>40.3  | 341<br>19.7       | 117<br>6.8   | 102<br>5.9                   | 122<br>7.1             | 100<br>5.8 |  |  |
| GRADE 6      | 765<br>100.0                 | 145<br>19.0       | 217<br>28.4  | 190<br>24.8       | 93<br>12.2   | 66<br>8.6                    | 46<br>6.0              | 59<br>7.7  |  |  |
| GRADE 5      | 796<br>100.0                 | 142<br>17.8       | 199<br>25.0  | 180<br>22.6       | 33<br>4.1    | 9<br>1.1                     | 1<br>0.1               | 1<br>0.1   |  |  |
| GRADE 4      | 565<br>100.0                 | 185<br>32.9       | 295<br>52.2  | 139<br>24.4       | 6<br>0.6     | 24<br>4.2                    | 22<br>3.9              | 22<br>3.9  |  |  |
| GRADE 3      | 979<br>100.0                 | 144<br>14.7       | 296<br>30.2  | 177<br>18.1       | 12<br>1.2    | 28<br>2.9                    | 1<br>0.1               | 1<br>0.1   |  |  |
| GRADE 2      | 1397<br>100.0                | 115<br>8.2        | 633<br>45.3  | 798<br>57.2       | 28<br>2.0    | 17<br>1.2                    | 1<br>0.1               | 40<br>2.9  |  |  |
| GRADE 1      | 1778<br>100.0                | 163<br>9.2        | 899<br>50.6  | 299<br>16.8       | 28<br>1.6    | 12<br>0.7                    | 8<br>0.4               | 2<br>0.1   |  |  |
| KINDERGARTEN | 3444<br>100.0                | 854<br>24.8       | 661<br>19.2  | 613<br>17.8       | 100<br>2.9   | 116<br>3.4                   | 109<br>3.2             | 139<br>4.0 |  |  |
| PRE-K        | 338<br>100.0                 | 61<br>18.0        | 57<br>16.9   | 63<br>18.6        | 12<br>3.6    | 12<br>3.6                    | 5<br>1.5               | 5<br>1.5   |  |  |



TABLE 1.1  
(Continued)

| FINE ARTS PROGRAM | CULTURE STUDIES PROGRAM | SUBJECT REINFOR PROGRAM | COMP READING PROGRAM | READING REINFOR PROGRAM | ORIENT CLASSES PROGRAM | OR CLANAT PROGRAM | SUPPORT SERVICE |
|-------------------|-------------------------|-------------------------|----------------------|-------------------------|------------------------|-------------------|-----------------|
| 228<br>1.6        | 1280<br>8.8             | 1247<br>8.6             | 3285<br>22.8         | 871<br>6.0              | 201<br>1.4             | 71<br>0.5         | 8958<br>61.6    |
|                   |                         |                         | 14<br>73.7           |                         |                        |                   | 5<br>26.3       |
|                   |                         | 4<br>57.1               |                      |                         |                        |                   | 7<br>100.0      |
| 10<br>17.9        | 14<br>25.0              | 20<br>35.7              | 6<br>10.7            |                         |                        |                   | 47<br>83.9      |
| 13<br>2.4         | 19<br>3.6               | 36<br>6.7               | 79<br>14.8           | 5<br>0.9                | 26<br>4.9              | 2<br>0.4          | 281<br>52.6     |
| 52<br>3.0         | 45<br>2.6               | 109<br>6.3              | 232<br>13.4          | 92<br>5.3               | 13<br>0.8              | 4<br>0.1          | 1116<br>64.5    |
| 43<br>2.5         | 104<br>6.0              | 85<br>4.9               | 272<br>15.7          | 114<br>6.6              | 26<br>1.5              | 22<br>1.3         | 1009<br>61.8    |
| 21<br>2.7         | 74<br>9.7               | 117<br>15.3             | 189<br>24.7          | 131<br>17.1             | 17<br>2.2              | 29<br>3.7         | 443<br>57.9     |
| 29<br>3.6         | 96<br>12.1              | 36<br>4.5               | 219<br>27.5          | 18<br>2.3               | 6<br>0.8               |                   | 454<br>57.0     |
| 2<br>0.2          | 106<br>11.0             | 73<br>7.6               | 332<br>34.4          | 51<br>5.3               | 5<br>0.5               |                   | 499<br>51.7     |
| 4<br>0.4          | 133<br>13.6             | 103<br>10.5             | 340<br>34.7          | 71<br>7.3               | 6<br>0.6               | 2<br>0.2          | 649<br>66.3     |
| 1<br>0.1          | 188<br>13.5             | 129<br>9.2              | 409<br>29.3          | 115<br>8.2              | 2<br>0.1               |                   | 1019<br>72.9    |
| 2<br>0.1          | 141<br>7.9              | 171<br>9.6              | 342<br>19.7          | 24<br>1.3               | 2<br>0.1               | 4<br>0.2          | 1311<br>73.7    |
| 51<br>1.5         | 348<br>10.4             | 328<br>9.5              | 845<br>24.5          | 236<br>6.9              | 94<br>2.7              | 5<br>0.1          | 1784<br>51.6    |
|                   |                         | 12<br>3.6               | 6<br>1.8             | 14<br>4.1               | 4<br>1.2               | 4<br>1.2          | 274<br>81.1     |





TABLE 1.2  
 NUMBER AND PERCENTAGE OF HISPANIC PUPILS WITH  
 ENGLISH LANGUAGE DIFFICULTY RECEIVING BILINGUAL  
 PROGRAM SERVICES FOR EACH GRADE.  
 (UNEDITED DATA)

| POPULATION GROUP = HISPANIC | TOTAL                        |       | PER CENT AND NUMBER |                   |             |                   |              |                 |
|-----------------------------|------------------------------|-------|---------------------|-------------------|-------------|-------------------|--------------|-----------------|
|                             | 1                            | 2     | BASIC PROGRAM ONLY  | BILINGUAL PROGRAM | ESL PROGRAM | LANG ARTS PROGRAM | MATH PROGRAM | SCIENCE PROGRAM |
| ROWS = GRADE                | COLUMNS = RECEIVING PROGRAMS |       | PER CENT AND NUMBER |                   |             |                   |              |                 |
| ALL GRADES                  | 16141                        | 100.0 | 2291                | 6124              | 3031        | 820               | 749          | 624             |
|                             |                              |       | 14.2                | 37.9              | 18.8        | 5.1               | 4.6          | 3.9             |
| GRADE 12                    | 26                           | 100.0 | 3                   | 3                 | 11.5        |                   |              |                 |
|                             |                              |       | 11.5                |                   |             |                   |              |                 |
| GRADE 11                    | 7                            | 100.0 | 3                   | 4                 | 57.1        |                   |              |                 |
|                             |                              |       | 42.9                |                   |             |                   |              |                 |
| GRADE 10                    | 142                          | 100.0 | 5                   | 54                | 81          | 26                | 3            | 29              |
|                             |                              |       | 3.5                 | 38.0              | 57.0        | 18.3              | 2.1          | 20.4            |
| GRADE 9                     | 673                          | 100.0 | 138                 | 188               | 179         | 42                | 83           | 74              |
|                             |                              |       | 20.5                | 27.9              | 26.6        | 6.2               | 12.3         | 11.0            |
| GRADE 8                     | 1740                         | 100.0 | 308                 | 740               | 287         | 157               | 133          | 138             |
|                             |                              |       | 17.7                | 42.5              | 16.5        | 9.1               | 7.6          | 7.9             |
| GRADE 7                     | 1837                         | 100.0 | 295                 | 776               | 375         | 149               | 138          | 158             |
|                             |                              |       | 16.1                | 42.2              | 20.4        | 8.1               | 7.5          | 8.6             |
| GRADE 6                     | 910                          | 100.0 | 129                 | 307               | 166         | 55                | 28           | 4               |
|                             |                              |       | 14.2                | 42.5              | 16.2        | 6.0               | 3.1          | 0.4             |
| GRADE 5                     | 1011                         | 100.0 | 115                 | 349               | 206         | 51                | 51           | 16              |
|                             |                              |       | 11.4                | 34.5              | 20.4        | 5.0               | 5.0          | 1.6             |
| GRADE 4                     | 1044                         | 100.0 | 117                 | 433               | 177         | 21                | 33           | 29              |
|                             |                              |       | 11.2                | 41.5              | 17.0        | 2.0               | 3.2          | 2.8             |
| GRADE 3                     | 1108                         | 100.0 | 86                  | 467               | 179         | 20                | 32           | 1               |
|                             |                              |       | 7.8                 | 42.1              | 16.2        | 1.8               | 2.9          | 0.1             |
| GRADE 2                     | 1570                         | 100.0 | 124                 | 772               | 306         | 51                | 10           | 8               |
|                             |                              |       | 7.9                 | 49.2              | 19.5        | 3.2               | 0.6          | 0.5             |
| GRADE 1                     | 2015                         | 100.0 | 155                 | 1049              | 340         | 66                | 70           | 23              |
|                             |                              |       | 7.7                 | 52.1              | 16.9        | 3.3               | 3.5          | 1.1             |
| KINDERGARTEN                | 3654                         | 100.0 | 759                 | 806               | 678         | 150               | 153          | 130             |
|                             |                              |       | 20.8                | 22.1              | 18.6        | 4.1               | 4.2          | 3.7             |
| PRE-K                       | 404                          | 100.0 | 54                  | 103               | 50          | 30                | 15           | 8               |
|                             |                              |       | 13.4                | 25.5              | 12.4        | 7.4               | 3.7          | 2.0             |

TABLE 1.2  
(Continued)

| SOCIAL STUDIES PROGRAM | FINE ARTS PROGRAM | CULTURE STUDIES PROGRAM | SUBJECT REINFOR PROGRAM | CUSP READING PROGRAM | PERDING REINFOR PROGRAM | ORIENT CLASSES PROGRAM | OR CLANAT LAN PROGRAM | SUPPORT SERVICE |
|------------------------|-------------------|-------------------------|-------------------------|----------------------|-------------------------|------------------------|-----------------------|-----------------|
| 606<br>3.8             | 367<br>2.3        | 1483<br>9.2             | 1090<br>6.8             | 3417<br>21.2         | 1076<br>6.7             | 291<br>1.8             | 141<br>0.9            | 10290<br>63.8   |
|                        | 1<br>3.8          | 20<br>76.9              |                         |                      |                         |                        |                       | 2<br>7.7        |
|                        |                   |                         | 4<br>57.1               |                      |                         |                        |                       | 4<br>57.1       |
| 12<br>8.5              | 10<br>7.0         | 14<br>9.9               | 20<br>14.1              | 6<br>4.2             |                         |                        |                       | 124<br>87.3     |
| 65<br>9.7              | 16<br>2.4         | 25<br>3.7               | 79<br>11.7              | 102<br>15.2          | 51<br>7.6               | 50<br>7.4              | 20<br>3.0             | 334<br>49.6     |
| 134<br>7.7             | 74<br>4.3         | 48<br>2.8               | 95<br>5.5               | 245<br>14.1          | 72<br>4.1               | 13<br>0.7              | 4<br>0.2              | 1100<br>63.2    |
| 99<br>5.4              | 80<br>4.4         | 111<br>6.0              | 119<br>6.5              | 261<br>14.2          | 150<br>8.2              | 52<br>2.8              | 26<br>1.4             | 1119<br>60.9    |
| 17<br>1.9              | 6<br>0.7          | 91<br>10.0              | 89<br>9.6               | 200<br>22.0          | 105<br>11.5             | 17<br>1.9              | 1<br>0.1              | 554<br>60.9     |
| 16<br>1.6              | 43<br>4.3         | 127<br>12.6             | 16<br>1.6               | 244<br>24.1          | 65<br>6.4               | 6<br>0.6               | 14<br>1.4             | 643<br>63.6     |
| 29<br>2.8              | 4<br>0.4          | 139<br>13.3             | 41<br>3.9               | 332<br>31.6          | 66<br>6.3               | 7<br>0.7               | 2<br>0.2              | 638<br>61.1     |
| 1<br>0.1               | 4<br>0.4          | 139<br>12.5             | 73<br>6.6               | 370<br>33.4          | 100<br>9.0              | 7<br>0.6               | 3<br>0.3              | 790<br>71.3     |
| 33<br>2.1              | 8<br>0.5          | 133<br>11.7             | 127<br>8.1              | 419<br>26.7          | 125<br>8.0              | 2<br>0.1               |                       | 1116<br>71.1    |
| 42<br>2.1              | 17<br>0.8         | 171<br>8.5              | 131<br>6.5              | 395<br>19.6          | 65<br>3.2               | 29<br>1.4              | 43<br>2.1             | 1515<br>75.2    |
| 146<br>4.0             | 102<br>2.8        | 417<br>11.4             | 259<br>7.1              | 817<br>22.4          | 258<br>7.1              | 104<br>2.8             | 24<br>0.7             | 2022<br>55.6    |
| 12<br>3.0              | 3<br>0.7          | 17<br>4.2               | 37<br>9.2               | 6<br>1.5             | 19<br>4.7               | 4<br>1.0               | 4<br>1.0              | 320<br>79.2     |



Here we have introduced a computational change (from the July 1 tables) which also appears in corresponding tables in the body of the present report. Because there appeared to be some tendency in the unedited data for pupils to be counted as receiving both full bilingual instruction and other individual programs, despite instructions not to record participation in individual programs for those pupils receiving full bilingual instruction, we adjusted the data by counting as participants in other programs only those pupils for whom no hours of full bilingual instruction were recorded. That is, pupils marked by their teachers as receiving both full bilingual programs and other instruction were counted only as receiving full bilingual programs. And only those pupils without full bilingual programs were counted in any other program.

Comparing Tables 1.1 and 1.2, we note that the editing process produced relatively little difference in the results. The general pattern of participation in various services remains essentially the same. However, there are some differences worth noting, especially for specific grades. Not surprisingly, considering the decision to treat all individuals listed as receiving full bilingual instruction as legitimate, the unedited data show a slightly higher percentage with full bilingual instruction than the edited data. Thus, in interpreting the data presented in the body of this report and the body of the July 1 report, it is probably wise to subtract about five per cent from the figures for full bilingual instruction. Similarly,

the edited data show a slightly larger percentage with no specialized program services at all, so the reported data must be taken as slightly overstating the extent of available program services. However, too much should not be made of these differences since they are relatively small and do not change the basic conclusions regarding extent of participation in specialized program services. This is especially so considering that no other program services seem much affected by the editing process.

Interestingly, virtually all the difference between the two samples with respect to receipt of any service and participation in full bilingual programs occurs in grades three through six. There does seem to be a fairly large overstatement in the unedited data of the level of participation in full bilingual programs in these grades, on the order of 10 per cent, and a corresponding (although not so large) understatement of the lack of any service at all. Why the discrepancy should exist in these grades in particular is not at all clear. On the other hand, there also seems to be a tendency for the unedited data to show lower levels of participation in ESL and Comprehensive Reading programs in these grades, although this pattern is not so consistent. Apparently, teachers in these grades tended rather more than other teachers to define improperly specific services for pupils with English language difficulty as full bilingual instructional programs.

Conclusions and consequences. On the basis of this analysis, we conclude that the unedited data for the entire

population can be used, but that they must be interpreted with caution. In particular, participation rates in full bilingual programs are best regarded as slightly lower (on the order of five per cent) than shown in the data. And the same is probably true of the percentage of pupils receiving service of any kind. Nonetheless, the conclusions one might draw from the data are hardly changed in any important way. Thus, the unedited data can be interpreted in full confidence that they accurately document the pattern of services and personnel available to Hispanic pupils with English speaking difficulty.

However, we need not rely entirely upon the unedited data. First, all data were edited up to column 39. Second, approximately 22 per cent of the cases for Hispanic pupils were edited in their entirety. The remaining 78 per cent of the cases contain unedited data on program and personnel services. In order to maximize the accuracy of the data we combined the edited sample data with the partially edited (up to column 39) data for the remainder of the population. All of the tables presented in this report, including all of the Appendix tables, are based on this combined data set, except for the tables presented here and in Appendix II for purposes of comparison.

Despite the relative confidence in the data expressed here on the basis of the above analysis, a caveat is in order. A large portion of the data are still unedited. Thus, anomalous results may occasionally appear, especially for individual districts and even more especially for individual schools. We

are unable to deal with this problem and simply caution any reader who wishes to draw conclusions about the state of affairs in particular districts or particular schools to entertain as one possibility that the data are in error.

APPENDIX II

RESULTS OF A CITYWIDE "VALIDITY CHECK" ON THE ACCURACY OF  
REPORTING PROGRAM SERVICES AVAILABLE TO PUPILS  
WITH ENGLISH LANGUAGE DIFFICULTY

## APPENDIX II

### RESULTS OF A CITY WIDE "VALIDITY CHECK" ON THE ACCURACY OF REPORTING PROGRAM SERVICES AVAILABLE TO PUPILS WITH ENGLISH LANGUAGE DIFFICULTY

Because data on the percentage of pupils receiving various special services and on the number of hours of service received by pupils are the crux of the survey, and because concern has been expressed about whether teachers can accurately report such information, an independent check was carried out to determine the accuracy of teachers' reports. The design of this check is described in detail in the July 1 report (Appendix I, pp. I.8-I.10), so it need only be briefly reviewed here.

A representative sample of pupils included in the May survey was chosen for checking, consisting of about 1100 pupils in 80 schools. Staff from the Chancellor's Monitoring Task Force visited each of these schools and independently obtained information on the specialized services received by the pupils in the sample, principally by interviewing the teachers offering the services. The data thus obtained were turned over to us for analysis.

We matched the data obtained by the Monitors with data for the same pupils obtained from the teachers.<sup>1</sup> Then, for each of

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<sup>1</sup>In approximately 100 cases we were unable to match the two sets of data due to inconsistencies in the homeroom codes (e.g., "S" appearing in one set of data and "5" in the other set, or zero appearing in one set and the letter O in the other set). Due to limitations of time, we were unable to correct the inconsistent cases and thus omitted them.



the two data sets, we tabulated the number and percentage of pupils with English language difficulty who received various services, and also the mean hours of service received by participating pupils.

Consider first the percentage receiving services (Table 2.1). The figures from the two samples are strikingly similar, and confirm beyond all expectations the overall accuracy of the teachers' reports. It is clear that on the average the teacher neither over-reported nor under-reported the extent to which pupils receive remedial services.

The data on hours of service received provide an interesting, if limited, contrast (Table 2.2). The teachers tended to report more hours per week of program participation than did the Monitors, although the differences are hardly large. Our best guess is that some teachers confused class periods with hours (e.g., reporting one 40 minute period every day as 5 hours per week rather than as 3 1/3 hours per week), and that this accounts for the difference.

To summarize, these comparisons strongly confirm the accuracy of the data returned by the teachers in the May survey, and hence greatly increase the confidence we have in the results presented in the July 1 report and in the body of the present report.

TABLE 2.1

COMPARISON OF TEACHERS' AND MONITORS' REPORTS OF PERCENTAGE OF PUPILS WITH ENGLISH LANGUAGE DIFFICULTY RECEIVING VARIOUS PROGRAM SERVICES

| Program Service                       | Percent receiving services     |                                |
|---------------------------------------|--------------------------------|--------------------------------|
|                                       | Teachers' reports <sup>a</sup> | Monitors' reports <sup>a</sup> |
| Basic program only                    | 24                             | 22                             |
| Full bilingual program                | 18                             | 19                             |
| ESL program                           | 26                             | 26                             |
| Language arts program                 | 5                              | 3                              |
| Math program                          | 6                              | 4                              |
| Science program                       | 5                              | 4                              |
| Social studies program                | 5                              | 3                              |
| Fine arts program                     | 2                              | 0 <sup>b</sup>                 |
| Cultural studies program              | 13                             | 7                              |
| Subject instruction w/reinforcement   | 6                              | 5                              |
| Comprehensive reading program         | 34                             | 30                             |
| Comprehensive reading w/reinforcement | 7                              | 4                              |
| Orientation class                     | 1                              | 0 <sup>b</sup>                 |
| Orientation class in native language  | 1                              | 0 <sup>b</sup>                 |
| SAMPLE SIZE                           | 1035                           |                                |

<sup>a</sup> See text for explanation

<sup>b</sup> Less than .5%

TABLE 2.2

COMPARISON OF TEACHERS' AND MONITORS' REPORTS OF MEAN HOURS PER WEEK OF PROGRAM SERVICES RECEIVED BY PARTICIPATING PUPILS WITH ENGLISH LANGUAGE DIFFICULTY

| Program Service                       | Mean hours per week |                   |
|---------------------------------------|---------------------|-------------------|
|                                       | Teachers' reports   | Monitors' reports |
| Basic program only                    | 11.5                | 9.1               |
| Full bilingual program                | 17.2                | 16.2              |
| ESL program                           | 5.3                 | 5.8               |
| Language arts program                 | 5.3                 | 4.4               |
| Math program                          | 3.9                 | 3.2               |
| Science program                       | 3.8                 | 2.9               |
| Social studies program                | 2.7                 | 2.5               |
| Fine arts program                     | 2.4                 | 2.0               |
| Cultural studies program              | 3.1                 | 1.7               |
| Subject instruction w/reinforcement   | 8.4                 | 7.6               |
| Comprehensive reading program         | 6.5                 | 4.5               |
| Comprehensive reading w/reinforcement | 4.3                 | 4.0               |
| Orientation class                     | 8.0                 | 5.0               |
| Orientation class in native language  | 9.1                 | 2.0               |

APPENDIX III

DISTRICT BY GRADE TABLES

(Bound separately)

APPENDIX IV

TABLES FOR INDIVIDUAL SCHOOLS WITHIN EACH DISTRICT

(Bound separately)