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ABSTRACT

This study examined the teacher personnel needs of special education programs in Alabama utilizing data from a survey of the 130 local education agencies and the annual child count of students enrolled in special education classes. Data are presented in narrative and tabular form and address, first, personnel shortages and deficiencies according to location within the state and by category of exceptionality; and, second, personnel needs and requirements as they relate to the future staffing of special education programs. Included is information on historical changes in the numbers of special education students and teachers, current teacher-pupil ratios, the number of out-of-field teachers, vacant positions, the demographic characteristics of special education teachers, and the number of persons graduating from teacher training programs. Among conclusions are that though the number of special education students has increased by 3.3 percent over the last 5 years, the number of teachers has declined by 0.4 percent; that about 11 percent of all special education teachers are currently teaching under out-of-field penalty waivers; and that most of the need is concentrated in rural districts. (DB)

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AN EXAMINATION OF PERSONNEL NEEDS
AND REQUIREMENTS IN SPECIAL EDUCATION
PROGRAMS IN ALABAMA, 1986-91

PREPARED FOR THE
DIVISION OF SPECIAL EDUCATION SERVICES,
ALABAMA DEPARTMENT OF EDUCATION,
THROUGH A GRANT FROM WESTAT CORPORATION

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Abstract

The focus of the research reported herein is on the personnel needs and requirements of special education programs in Alabama, specifically as they relate to teachers. Utilizing data from the local Education Agency Personnel Survey (conducted yearly) and the annual child count of students enrolled in special education classes, information is presented concerning: (1) personnel shortages and deficiencies according to location within the state and by category of exceptionality; and (2) personnel needs and requirements as they relate to the future staffing of special education programs. The analysis utilizes all 130 public school systems in Alabama and incorporates data pertaining to historical changes in the number of special education students and teachers, current teacher-pupil ratios, the number of out-of-field teachers, vacant positions, the demographic characteristics of special education teachers, and the number of persons graduating from teacher training programs.

While the number of special education students has increased by 2,990 (or 3.3 percent) over the last five years, the number of teachers has declined by 18 (or 0.4 percent). The drop in teachers has been particularly precipitous over the last two academic years, during which time the number has declined by approximately 500. The number of newly hired teachers, furthermore, has stabilized over the last two school terms, while about 11 percent of all special education teachers are currently teaching under out-of-field penalty waivers. Teacher-pupil ratios and personnel need ratios, along with the volume of out-of-field teachers, indicate a need for additional, qualified teachers in all fields of exceptionality except, perhaps, the mentally retarded. Most of the total need is concentrated in county school systems, but within both city and county systems the need is further concentrated among a relatively small number of districts. Although the need for additional personnel appears to encompass all areas of exceptionality other than the mentally retarded, the largest proportion of graduates of teacher training programs are entering that field.

HIGHLIGHTS

~When the proportional distribution of students among the various categories of exceptionality is compared to the proportional representation of teachers in those same areas, there does not appear to be an obvious imbalance -- except, perhaps, in relation to the speech impaired.

~The number of special education students in Alabama has increased by 3.3 percent (or 2,990) over the last five years, while the number of teachers has declined by 0.4 percent (or 18). The decline in the number of special education teachers (at more than 500) has been particularly great over the last two academic years. While there was also a drop in special education students during that same period, the decline among teachers was 1.5 times greater.

~On a year-to-year basis, there is little correlation between changes in the number of students in special education classes and adjustments in the number of teachers.

~While almost three times as many new teachers were hired in 1990-91 as in 1986-87, the increase in the number of "new hires" has stabilized over the last two school years. This pattern apparently reflects the decrease in special education students that has also occurred during this period.

~Over 80 percent of the newly hired persons over the last five years have been employed as teachers of the learning disabled and the mentally retarded. While there has been a corresponding increase in LD students, the number of MR students has declined significantly.

~In terms of teacher-pupil ratios, the highest ratios in special education classes are found among the speech impaired and the learning disabled. Within both city and county school systems, teacher-pupil ratios vary significantly within specific categories of exceptionality -- with some, seemingly, much too high.

~Several school systems are characterized by consistently high teacher-pupil ratios across the various categories of exceptionality.

~Many school systems report the presence of students in a particular category of exceptionality, but no persons with that teaching specialty. This holds especially true for the emotionally conflicted, speech impaired, and "other" categories of exceptionality. Presumably, these teaching assignments are filled by out-of-field teachers. Other systems report persons with a particular teaching specialty, but no students in that grouping.

~Out-of-field teachers represent a relatively small percentage of all teachers (i.e., 5.7 percent in 1990-91), with the highest proportion observed within the learning disabled category. Nearly three-fourths of all out-of-field teachers are located in county school systems, and within both city and county school systems, these teachers are concentrated in a relatively small number of districts.

~Approximately one special education teacher in every 10 during the 1990-91 school year had been granted an out-of-field penalty waiver. Nearly two-thirds of these were concentrated in just two areas (the learning disabled and "all other" categories), while the largest proportions of all teachers who were out-of-field were serving the emotionally conflicted, the learning disabled, and others. Nearly 80 percent of all out-of-field penalty waivers were granted to county school systems, and within both city and county school systems, these waivers were associated with a small number of districts.

~The number of additional, qualified teachers that were needed during the 1990-91 school term totaled 462, or approximately 10 percent of all positions in special education in the state's public school systems. The majority (or 56.4 percent) were needed in the learning disabled and "all other" specialties. The "need ratio," however, was greatest in the "other" category. Altogether, it appears that the need is significant in all areas of exceptionality except the mentally retarded. Once again, the need is concentrated in a limited number of city and county districts.

~Nearly 1,100 teachers (or in excess of one-fifth of all teachers) had either four years or less of experience or 25 years or more. It is these teachers who are most likely to leave the field, either as a result of a career change (younger teachers) or retirement (those with long years of service).

~In 1990-91, the number of persons graduating from Alabama colleges and universities with degrees in special education totaled about 5 percent of all employed teachers in that field. The largest proportion of those graduating specialized in the study of mental retardation, but the actual need appears to be greater in other areas (especially the learning disabled).

~Overall, there appears to be a shortage of teachers in Alabama in all areas of exceptionality except, perhaps, for the mentally retarded.

**AN EXAMINATION OF PERSONNEL NEEDS
AND REQUIREMENTS IN SPECIAL EDUCATION
PROGRAMS IN ALABAMA, 1990-91**

Introduction

The information provided herein represents a follow-up to similar research that was undertaken by the authors in 1990.¹ That research, like the present investigation, was funded through a grant from the Alabama Department of Education and the Westat Resources Corporation, Washington, D.C. While the focus of the previous study was a detailed examination of child count data for local school districts throughout the state, the basic thrust of the present research is on personnel needs in special education programs. Specifically, the purpose of this study was to investigate: (1) historical patterns of change involving the number of special education teachers and students in Alabama; (2) the number of out-of-field teachers, along with those holding provisional certificates, in the state's special education programs;² (3) the number of vacant positions in special education classrooms; (4) the volume of graduates from Alabama's teacher training programs; (5) the rate at which new teachers are being assigned to special education classes relative to changes in the number of students; and (6) the demographic characteristics of special education teachers (i.e., age and years of experience) as they impinge on future needs and requirements. This information, in turn, was used to: (1) specify personnel deficiencies/shortages in present programs throughout Alabama according to category of exceptionality and the districts in which they are located; (2) to develop projections concerning future personnel requirements, also in relation to various types of exceptionality and location; and (3) to present the Alabama Legislature with accurate factual data concerning personnel needs. Altogether, 130 public school districts in Alabama were examined, including 67 county districts and 63 city districts.

The data utilized in this report were supplied by the Alabama Department of Education and, in general, cover the school terms extending from 1986-87 to 1990-91. The focus, however, is on the status of special education programs in Alabama during the 1990-91 school term. This represents not only the latest information that is available but, also, the most complete. Much of the data used in the investigation (i.e., that pertaining to number of teachers, certification status, demographic characteristics, etc.) are from the Local Education Agency Personnel System. This survey is conducted annually, usually in the fall, by the Alabama Department of Education. The data pertaining to students is from the yearly child count conducted as of December 1 of each year.

Since approximately 96 percent of all special education students in Alabama in recent years have been classified into just

four categories -- emotionally conflicted (EC), learning disabled (LD), mentally retarded (MR), and speech impaired (SI) -- other areas of exceptionality were not specifically examined in this report. Instead, they have been grouped into a general category that has been labeled as "other." This procedure simplifies the analysis significantly and -- in the opinion of the authors -- does not detract from the usefulness of the research.

Outline of the Report

The report begins at a general level of analysis, then moves to subject matter that is more specific in nature. Thus, the initial information appearing herein relates to general enrollment patterns of students in special education classes and the distribution of teachers among the various categories of exceptionality. Historical data are then provided concerning trends in enrollment over the last five years and changes in the number of both previously employed and new teachers over that same period (again, according to the major types of exceptionality). Next, the paper presents a discussion of teacher-pupil ratios as an index of classes that are presently over-subscribed, examining ratios within various types of exceptionality and across both city and county school systems. The final sections of the report focus directly on teachers, including their certification status, the number of new teachers needed in special education programs, demographic characteristics of those currently employed, and the number of teachers presently graduating from the state's teacher training programs. Incorporated into the section entitled "Summary and Conclusions" is a listing of recommendations for consideration and possible implementation by the Division of Special Education Services of the Alabama Department of Education.

City and county school districts are analyzed separately throughout the report. This relates partly to the way in which the data were organized (all information from the Alabama Department of Education was presented in that format) and partly to questions that were basic to the research (i.e., whether personnel needs, the ability to recruit new teachers, etc., might vary across classification categories). While not a perfect indicator (some "county systems" include large cities, for example), county school systems as opposed to city school systems reflect to some extent the rural-urban variation in the population. As such, they may also reflect differences in philosophies in the conduct of educational programs, as well as differential access to material resources. City school systems in Alabama are typically wealthier than their rural counterparts -- a factor that may have a number of consequences for the way in which educational systems are organized. They also tend to be smaller and more homogeneous (i.e., in terms of the socioeconomic characteristics of students) than rural systems.

General Enrollment Patterns/Distribution of Teachers

Over 93,000 students were enrolled in special education classes in Alabama's public school systems during the 1990-91 school year (Table 1, Part C). The overwhelming majority of these students (i.e., 90.5 percent) were assigned to just three categories -- the learning disabled (35.5 percent), speech impaired (27.7 percent), and mentally retarded (27.3 percent). Approximately 6 percent were classified as "emotionally conflicted," while the remaining 4.0 percent reflected a mixture of all of the other varieties of exceptionality (excluding the gifted and talented).

Some disabilities require significantly more supervision and guidance from teachers than others (e.g., the multi-handicapped, the trainable mentally retarded, etc.). Given this fact, the distribution of teachers among the various fields of special education in Alabama appears to correspond reasonably well to the actual distribution of special students (Figure 1). The correspondence is particularly close for the learning disabled, wherein 31.9 percent of all special education teachers are employed in that field compared to the placement of 35.5 percent of all special education students. The deviation is greater in the case of the mentally retarded (38.5 percent of the teachers versus 27.3 of the students), the emotionally conflicted (9.2 percent of the teachers compared to 5.5 percent of the students) and the "other" category (8.8 percent of the teachers versus 4.0 percent of the students), but these variations do not appear to be unreasonably large. Although the percentage of teachers in the "other" category for example, is over twice as great as the number of students, many of those in this classification are characterized by severe handicapping conditions (which, in turn, require much time and attention).³

The greatest difference emerges in regard to the speech impaired where 11.5 percent of the teachers are found, but 27.7 percent of the students. This finding, however, is not necessarily indicative of an unbalanced ratio. Instead many students with speech impediments may receive only a limited amount of direct contact from teachers per week. In some instances, some LEAs may provide services through contractual arrangements for SI students.

The absence of a fundamental imbalance between the distribution of teachers and students also appears to hold when city and county school systems are analyzed separately (Table 1, Parts A and B). Indeed, the same general pattern emerges within both city and county districts as that which was observed for all systems combined. There is little variation, furthermore, in either the distribution of students or teachers among the various categories of exceptionality when city school systems are compared to county systems.

While the data that have been presented at this juncture of the analysis are much too general to identify specific areas wherein additional personnel may be needed, they do not -- on the surface -- indicate a serious discrepancy between the distribution of students and that of teachers. They do suggest, however, that such categories of exceptionality as the speech impaired (for which there were only 573 teachers during the 1990-91 school year, but 25,834 students) be subjected to more detailed examination.

Trends in Enrollment and Teaching Personnel

The number of special education students in Alabama has increased by 2,990 (or 3.3 percent) over the last five years. During that same period, the number of teachers has declined by 18 (or 0.4 percent). (Tables 2 and 3.) Thus, in 1991, there was one teacher for every 18.7 special education students, while in 1986-87 the ratio was 1/18.0. A major factor in the drop has been the decline in the number of special education teachers in Alabama over the last two years. As a result of proration of the state's education budget and the inability to maintain previous levels of employment, the number of teachers declined by 517 between 1989-90 and 1990-91, or by 9.4 percent over the number employed in 1989-90. As will be noted later, there has also been a significant decline in the number of special education students over that same period.

The overall pattern, however, masks important changes that have taken place in the number of students and teachers on a year-to-year basis during that time frame. Thus, the number of special education students increased dramatically between the 1987-88 and 1988-89 school years (i.e., by 11,650, or 12.8 percent), but has been on a decline since (a drop of 3,172, or 3.1 percent, between 1988-89 and 1989-90 and a decrease of 6,084, or 6.1 percent, between 1989-90 and 1990-91.) (See Table 2.) The number of teachers, in contrast, increased for each academic year between 1986-87 and 1989-90, but--as noted above--experienced a decline totaling 517 between 1989-90 and 1990-91. In addition, proportional changes among teachers have been much more moderate and predictable (except for the last two academic years) than the substantial changes in numbers that have marked the student population. (Table 3).

There does not appear to be a very close correlation, therefore, between changes in the number of students and adjustments in the number of teachers over the last five years. More specifically, the data indicate that the number of teachers grew by 4.0 percent between 1986-87 and 1987-88, but that the number of students increased by only 0.7 percent. In contrast, the number of students rose by 12.8 percent (or nearly 12,000 from 1987-88 to 1988-89, but the number of teachers grew by just 3.5 percent (or 184). Similar variations are observed for the time period since 1988-89.

Theoretically, as the number of students increase, the number of teachers should also increase, and vice versa -- unless there is a shortage of teachers and a special effort is being made to correct past deficiencies. The pattern observed herein, however, does not necessarily follow that thesis. It should be noted that a concerted "catch up" effort was made by the state over those years in an effort to increase the number of special education teachers in Alabama. "New" teaching positions were funded by the State Legislature and school districts made extra efforts to fill these positions in order to lower the teacher-pupil ratio and to serve additional students.

Within the various categories of exceptionality, Alabama should be in a stronger position than formerly relative to providing classroom instruction to the emotionally conflicted, the learning disabled and the mentally retarded. The number of EC teachers, for example, has increased by 18.6 percent during the 1986-91 period while the number of EC students has declined by close to the same percentage (i.e., 13.2 percent). The number of LD teachers, on the other hand, has increased by 24.6 percent, while the number of LD students has grown by only 14.2 percent. Both MR teachers and students have declined, but the decrease among students (at 18.8 percent) is over twice as great as that among teachers (i.e., 8.8 percent). For the speech impaired (SI) category, the number of teachers has increased by 11.5 percent but the number of students has grown by over twice that rate. (i.e., 25.0 percent).

Only among the "all other" category, which currently represents only 4.0 percent of all special education enrollees in Alabama, has the situation appeared to have worsened appreciably. For this segment of the special education population, the number of teachers has declined by 38.7 percent but the number of students has increased by 11.3 percent. (See Figure 2.)

Before leaving this topic, it should be emphasized that, while it appears that Alabama's position has improved relative to the personnel requirements of EC, LD, and MR students, this does not actually mean that these segments of special education have reached an acceptable level of performance relative to staffing. As will be indicated later in reference to out-of-field teachers and unfilled positions, a need for additional personnel appears to exist in all areas of exceptionality except for teachers of the mentally retarded. Of special note also is the fact that school districts have historically reported only "funded positions" that are vacant (as opposed to the "needed positions") as that is what is required for federal reporting purposes.

Examining changes relative to specific types of exceptionality over the 1986-91 period does not reveal a predictable pattern (Tables 2 and 3). In some instances, increases/decreases in teachers generally parallel increases/decreases for students (i.e.,

the speech impaired and the "all other" category). For the remaining categories (i.e., the emotionally conflicted, the mentally retarded, and the learning disabled), there is an absence of a consistent pattern. Most school districts utilize their newly "funded positions" to fill immediate, identified shortages for teachers of the learning disabled and mentally retarded instead of offering initial or expanded services to students who suffer from emotional problems, speech and language disorders, or other types of disabilities where adequately trained teachers are much more difficult to find. It should also be noted that many school districts report no identified students with emotional conflicts.

Overall, the above data suggest the need for a closer correspondence between changes in the number of special education students and adjustments in the number of special education teachers. Presumably, there should be a more consistent pattern between the two than has been observed herein. Perhaps earlier identification and placement of those with various handicapping conditions would allow for better planning relative to the recruitment and employment of special education teachers. Secondly, it appears that the number of teachers in the "all other" category has not kept pace with the number of students in that same classification.

Special note should be made of the very unstable funding base for education that exists in Alabama. For example, the education budget has been pro-rated several times since 1986. Such financial uncertainty often necessitates the "laying off" of newly hired teachers in the spring of the year pending possible refunding in the fall. This approach to educational funding makes it very difficult to plan effectively and to keep pace with the changes that continually confront the field of special education.

The Impact of Newly Hired Teachers

Only 90 new teachers were hired to teach special education classes in Alabama's public school systems during the 1986-87 school year. For the 1990-91 term, however, 223 new teachers were added. While 61 more teachers were hired in 1987-88 than in 1986-87, along with 73 more in 1988-89 than in 1987-88, the growth in the number of new teachers since the 1988-89 school year has basically stabilized (Table 4). Indeed, the number of newly employed teachers since that time has only ranged from 215 in 1989-90 to 224 in 1988-89.

The stability that has characterized the hiring of new special education personnel corresponds with the decline in special education enrollment that has also characterized public school systems in Alabama since the 1988-89 school term (see Table 2). It does not, however, mirror the rather large numerical change (i.e., drop) that has marked the total number of teachers in special education since the 1988-89 school term (as presented in Table 3).

The increase in the number of "new hires" during the last five years has been concentrated within two categories of exceptionality: the learning disabled and the mentally retarded. Together, the additions in these two areas during the 1990-91 school term totaled 109 more than the number of new LD and MR teachers that were hired in 1986-87. The increments associated with these two categories, furthermore, accounted for 82.0 percent of the total increase in the newly hired between 1986-87 and 1990-91.

Over that same period, the number of mentally retarded students declined by 5,899 but the number of LD students grew by 4,123. While the increase in new teachers for the learning disabled appears warranted, the growth in the number of new teachers for the mentally retarded is more problematical. The decline in MR students over the last five years has totaled approximately 19 percent, but the drop in teachers has been less than half that amount (or 8.8 percent). The number of new teachers in that area, in contrast, has increased from one year to another in all instances except one (i.e., 1988-89 - 1989-90). Overall, the net decline in teachers of the mentally retarded over the last five years totals 186, or one teacher for every 31.7 MR students that have been lost. Teachers, therefore, have exhibited a relatively low rate of departure compared to that of students in this area of exceptionality.

Some of the decrease in students in the MR grouping may be explained by reclassification into the LD category, while some tracer to declassification altogether. The remaining MR students, therefore, are undoubtedly characterized by more severe disabilities than the original mix of students. This may have led to the retention of more teachers than that which seems to be supported by the data. Even with a declining student population in the MR category, however, there was no choice but to retain "older," tenured teachers. This is perceived to be the greatest factor associated with any imbalance that may currently exist among teachers and students in the MR classification.

Even though 223 new special education teachers were added during 1990-91, there was still a net loss of 517 teachers (i.e. in all classifications, presently employed and new teachers combined) between the 1989-90 school year and 1990-91. This pattern must be interpreted, however, in light of the 6,084 drop in special education students that has also occurred during that period. The previously mentioned "catch up" effort (p.5) could account for a great deal of this seemingly incongruous finding.

Teacher-Pupil Ratios

As to be expected, there is considerable variation in teacher-

pupil ratios across various types of exceptionality (see Table 5). The lowest ratio is associated with the "other" category (wherein more extensive services are generally required), while the highest is observed in regard to the speech impaired. On the surface, none of these ratios appear to be seriously out-of-balance. Even the seemingly high ratio for the SI category is within the official range of acceptability for that type of exceptionality.⁴ The overall ratio in special education classes for all Alabama systems in 1990-91 was 1/18.7.

Both city and county school systems correspond closely to the pattern that has been described for the state as a whole. Ratios for all categories in both systems -- including the speech impaired -- appear to be in conformity with the mandated guidelines.

While the comparison of teacher-pupil ratios across various types of exceptionality is only marginally informative, an examination of ratios within each of the specific varieties of exceptionality is much more revealing. Thus, reported teacher-pupil ratios for the emotionally conflicted ranged from 1/25.0 to 1/3.0 in city school systems (with a median of 1/10.4) and from 1/38.0 to 1/0.0 in county systems (median = 1/9.9).⁵ In two city systems (Tarrant and Haleyville) the ratio was 1/20.0 or above, while that same ratio held in four county systems (Bibb, Cherokee, DeKalb, and Tallapoosa). Twenty-one city systems and 29 county systems reported the presence of emotionally conflicted students, but no teachers in that particular specialty.

For learning disabled students in city school systems, the teacher-pupil ratio ranged from 1/62.3 to 1/0.0. One school system (Floral) reported the presence of LD students, but no teachers in that area of specialization. In 14 of the 63 city systems, the teacher-pupil ratio was 1/25.0 or more -- Bessemer, Carbon Hill, Pell City, Linden, Gadsden, Cullman, Sheffield, Hoover, Tarrant, Jacksonville, Midfield, Opp, Tusculmbia, and Elba. Other than the one school system with a ratio of 1/0.0 (i.e., the Alabama Department of Youth Services), the next lowest teacher-pupil ratio for any city school district was 1/13.0. Overall, the median ratio for all city school districts was 1/20.1.

The range of teacher-pupil ratios for the learning disabled was not as pronounced in county school systems as in city systems. Thus, the highest ratio was 1/43.8, while the lowest was 1/4.0. Fifteen of the 67 county school districts, however, exhibited ratios of 1/25.0 or more -- Covington, Randolph, Autauga, Cherokee, Etowah, Lowndes, Tuscaloosa, Marengo, Tallapoosa, St. Clair, Fayette, Talladega, Calhoun, Lee and DeKalb. One school system (Perry County) reported a number of students that was classified as LD, but no teachers were enumerated with that specialty. The median teacher-pupil ratio for county school systems was 1/22.0 -- or just slightly more than that for cities.

Teacher-pupil ratios for the mentally retarded ranged from 1/28.0 to 1/0.2 in city school systems and from 1/20.3 to 1/9.0 in county school districts. The corresponding medians were 1/12.9 (city systems) and 1/13.5 (county systems). One city district (Vestavia Hills) listed MR students, but no teachers were identified in that field of exceptionality. School systems with teacher-pupil ratios of 1/20.0 or more were Athens, Midfield, Opp, Thomasville, and Linden (all city systems) and Cleburne County (the lone county system).

The highest teacher-pupil ratios for any one category of exceptionality were observed in relation to the speech impaired. Thus, in four districts (the cities of Andalusia and Arab, plus Franklin and Marion counties), the ratios were greater than 1/100.0. In 23 other districts, the values were in excess of 1/60.0 (or beyond the state established guideline). In four school systems (all city districts), SI students had been identified, but no teachers were listed with a specialty in that particular field of exceptionality. One system (the Department of Youth Services) reported a teacher with certification in the SI field, but no students who were classified as SI. In city school districts, teacher-pupil ratios ranged from 1/209.0 to 1/0.0 while in the counties the variation was from 1/187.0 to 1/20.0. The median values, on the other hand, were 1/49.0 for cities and 1/47.0 for counties.

For other types of exceptionality (i.e., the "all other" category), the ratios were generally much lower (as is to be expected) and the variation tended to be less. Hence, in city school systems, teacher-pupil ratios ranged from 1/18.0 to 1/1.5 (with a median of 1/7.4), while the range in county systems was from 1/88.0 to 1/0.0 (with a median of 1/8.5).⁶ The five county systems with very high ratios (all 1/26.0 or above) were the Cherokee, Etowah, Calhoun, Lauderdale, and Limestone school systems. Again, several districts (totaling 34 and including both city and county) reported students classified in the "other" category, but no teachers in the particular fields that comprise that grouping.

There were a number of both city and county school systems that displayed high teacher-pupil ratios across various categories of exceptionality. Those appearing more or less consistently among the highest 20 school districts in terms of teacher-pupil ratios are Gadsden and Ozark (city school systems) and Autauga, Cherokee, Cleburne, Etowah, St. Clair and Tuscaloosa (county school systems).

The above data indicate that current teacher-pupil ratios relative to specific types of exceptionality are much too high in a number of city and county school systems. Several districts, furthermore, exhibit high ratios across most every category of exceptionality rather than in relation to one or two varieties

only. Particularly curious is the finding that a significant number of systems (N=34) report the presence of students within a particular category of exceptionality, but no teachers within that corresponding specialty. A formalized system of checking for seemingly erroneous data, along with the development of follow-up procedures, need to be established at the state level so that more accurate data are gathered from the local school districts.

Out-of-Field Teachers

"Out-of-field teachers" are those who are not certified in the area that constitutes their major teaching responsibility. A person certified to teach the mentally retarded, for example, but who is assigned instead to teach the learning disabled would be classified as "out-of-field." This group constitutes a growing group within the special education sector, both in Alabama and nationally. Such factors as the reduced number of individuals who are becoming special education teachers, increased concerns regarding teacher liability, and negative conditions within the work arena (such as the large volume of record keeping that is required of special education teachers) have contributed to a shortage of qualified personnel.

The number of special education teachers who were reported as "out-of-field" during the 1990-91 academic year was relatively small. For all school systems in Alabama, the number totaled only 285, and amounted to just 5.7 percent of all special education teachers in the state (Table 6, Part C). The typical school system in Alabama at that point in time, therefore, had approximately 2.2 special education teachers who were teaching outside their area of specialization. The vast majority (or 73.3 percent) of all out-of-field teachers were teaching in county school systems. The highest proportion of out-of-field teachers encompasses those who were teaching the learning disabled. In excess of one-third of all out-of-field teachers were serving students in this classification. As a percentage of all special education teachers within a particular specialty, however, the emotionally conflicted (at 12.2 percent) and the "other" category (13.0 percent) registered the highest proportions.

County school systems displayed a slightly higher proportion of out-of-field teachers than city school systems (i.e., 6.3 percent as opposed to 4.5). (Table 6, Parts A and B.) In addition, significantly more out-of-field teachers were assigned to learning disabled students in county school systems than in city school systems, while the reverse pattern holds in regard to teachers of the mentally retarded. Otherwise, the variations among out-of-field teachers across various fields of exceptionality and between city/county districts are minimal.

This is not the case, however, when individual school systems are examined. Thus, in 11 city districts, 10.0 percent or more of

all special education teachers were teaching out-of-field. For county districts, the corresponding number was 13. One city school system (i.e., Florala) reported that 100.0 percent of its special education staff (which totaled only one) was teaching out-of-field. Henry County, on the other hand, posted the highest proportion -- at 45.0 percent -- of any county school system. Nearly half of all school districts, however, reported no out-of-field teachers, with the specific number totaling 41 for city school districts and 22 for county districts.

Hence, it is not surprising that just four county districts (Mobile, Jefferson, Walker, and Elmore) accounted for slightly in excess of one-half of all out-of-field teachers in county systems. Likewise, out-of-field teachers in Birmingham totaled one-third of all those in city school systems.

Although relatively low, the number of out-of-field teachers should be reduced even further. This appears to be particularly true for the learning disabled, the emotionally conflicted, and for varieties of exceptionality that have been labeled as "other." In addition, individual systems with high proportions of out-of-field teachers should be subjected to special scrutiny relative to the recruitment and retention of qualified personnel.

Out-of-Field Penalty Waivers

For each person in Alabama who is teaching outside their area of certification, the school system is subject to a reduction of state funds totaling \$500 annually. Local superintendents may file an appeal with the State Superintendent of Education for a waiver of the penalty if the employee is enrolled in a program leading to certification and if that person agrees to complete at least one course during the school year. The waiver, if granted, is effective for one year only. Documentation of progress toward certification must be submitted to the State Superintendent's office to obtain a waiver for the next year. Beginning in 1991-92, a waiver is granted only for a teacher who has a plan approved to earn proper certification in three years or less.

During the 1990-91 school year, 544 special education teachers in Alabama were granted out-of-field penalty waivers (Table 7, Part C). This number totaled 10.9 percent of all special education teachers who were employed in the state's public school systems, with the overwhelming majority (i.e., 77.9 percent) located in county school systems. Most (i.e., nearly two-thirds) of these waivers were concentrated within two areas: the learning disabled and the category that has been labeled as "other." As a percentage of all teachers within a particular specialty, it is in the emotionally conflicted and the "other" categories wherein the largest proportions (i.e., 21.1 percent and 34.7 percent, respectively) have been granted permission to teach under this provision.

A somewhat larger proportion of teachers in county school systems than in city systems -- 12.8 percent versus 7.2 -- were granted out-of-field penalty waivers in 1990-91 (Table 7, Parts A and B). Indeed, approximately 41 percent of the teachers of "other" special students in county systems, compared to 27.3 percent in city systems, were teaching under this program. Likewise, in excess of one-fourth of the teachers of the emotionally conflicted in county systems had been granted waivers, while the corresponding percentage in city systems was 11.2. There is little variation between city and county school systems, however, in regard to the distribution of teachers for whom penalties have been waived among the various categories of exceptionality (see Column 2 of Table 7, Parts A and B).

Out-of-field penalty waivers are concentrated in a relatively few school districts. Approximately 60 percent of the waivers granted within county school systems, for example, occurred in just seven systems (Barbour, Chilton, Etowah, Jefferson, Madison, Mobile, and Walker). Mobile led all county systems with 115 waivers (or nearly one-third of the total). For city systems, on the other hand, approximately one-fourth of the total number of waivers was granted to just two districts (Huntsville and Birmingham).

The "out-of-field penalty waivers" (Table 7) is undoubtedly a better index of personnel needs than the "number teaching out-of-field" (Table 6). The number reported for the former category (at 544) is substantially higher than that noted for the latter (or 285). The major reason why these two numbers do not coincide more closely is that teachers granted out-of-field penalty waivers are considered in-field for State Department of Education reporting purposes.

Both sets of data, however, point to the same conclusions: (1) the number of persons teaching out-of-field needs to be reduced; (2) those teaching out-of-field are concentrated within certain categories of exceptionality (i.e., the learning disabled, emotionally conflicted, and the "other" category); and (3) out-of-field teachers are highly concentrated in county school systems and in a relatively small number of local school districts.

Personnel Needed to Fill Existing Positions

Approximately 462 vacant positions existed for special education teachers prior to the beginning of the 1990-91 fiscal year. All of these positions had been previously funded, but qualified personnel had not been located in order to fill these assignments. This total represents 9.3 percent of all special education teachers employed in the state's public school systems during the 1990-91 academic year (Table 8, Part C).

A majority of available positions were in the learning

disabled and the "other" categories of exceptionality (i.e., 25.5 and 30.9 percent, respectively), with nearly equal proportions (at 14-16 percent each) for the emotionally conflicted, the mentally retarded, and the speech impaired. These data further indicate that nearly one-third of the funded positions in the "other" category were not filled by qualified personnel in 1990-91. Relatively high percentages are also observed for the emotionally conflicted and the speech impaired categories.

An examination of "need ratios" (i.e., the number of teachers currently employed divided by the number of new teachers needed) reveals considerable variation across the various categories of exceptionality. Thus, one new teacher was needed for every 3.1 currently employed teachers of "other" exceptional children, but the ratio was only 1/29.2 for the mentally retarded. With the exception of the latter category, however, need ratios appear to be relatively high among the remaining types of exceptionality. For all classifications within special education, the need ratio was 1/10.8 in 1990-91.

Approximately 71 percent of those needed, or 330 of 462 positions, were in county school systems. In addition, the need for teachers of the learning disabled and the mentally retarded (as indicated by the "need ratio") was somewhat greater in county systems than in city districts. Otherwise, however, variations in need across various types of exceptionality between city/county school districts were minimal (Table 8, Parts A and B).

These data generally support previous findings which indicate the need for fewer teachers of the mentally retarded (see data pertaining to this group in Tables 2-7). In addition, they make a relatively strong case for increasing the number of fully certified teachers in the remaining areas of exceptionality (especially those that have been grouped into the "other" category). (See Figure 3 for a graphic depiction of the number of teachers needed by type of district and area of exceptionality.)

Looking within city systems, nearly two-thirds of the total need (or 63.3 percent) was associated with just eight systems -- Birmingham, Piedmont, Andalusia, Thomasville, Carbon Hill, Tuscaloosa, Eufaula and Huntsville. Twenty-nine systems, however, reported the absence of a need for additional personnel. Of the 34 systems that needed more teachers, the median number desired was 4.8. Fifteen of the city systems registered need ratios ranging from 1/0.4 to 1/8.0 (Florala, Carbon Hill, Piedmont, Thomasville, Andalusia, Fairfield, Roanoke, Cullman, Eufaula, Midfield, Oneonta, Opp, Oxford, Jasper and Pell City), while for 11 systems the ratio was 1/20.0 or more. Overall, the range of ratios was 1/0.4 to 1/47.4, with a median of 1/10.8.

Similar patterns emerge in regard to county school systems. Approximately 60 percent of the personnel needed, for example, were

concentrated in just 10 districts -- Jefferson, Walker, Tuscaloosa, Lauderdale, Elmore, DeKalb, Calhoun, Talledega, Escambia and Montgomery. Nearly 40 percent of the need was associated with just four systems (Jefferson, Walker, Tuscaloosa and Lauderdale). Eighteen systems, on the other hand, reported the absence of any need.

Need ratios for county systems ranged from 1/1.8 to 1/67.5, with a median of 1/6.8. In eighteen of these systems the ratio was 1/5.0 or higher. The ratio was 1/3.0 or higher in six systems (Perry, Lauderdale, Walker, Henry, Bullock and DeKalb).

In summary, a need for new personnel exists in all areas of exceptionality except, apparently, the mentally retarded. This need, furthermore, is concentrated in a relatively small number of city and county school systems.

Age and Tenure of Currently Employed Teachers

There is only minimal variation in the average age of teachers both among the various categories of exceptionality and between city and county school systems. For the state as a whole, the mean age ranged from 36.2 for teachers of the speech impaired to 42.5 for those classified as "other." Overall, teachers of the speech impaired, the emotionally conflicted, and the learning disabled tend to be slightly younger than those who teach the mentally retarded and those in the "other" category.

The average age for teachers within various teaching specialties across city and county schools systems are almost identical. The mean age for teachers of the learning disabled in 1990-91, for example, was 39.7 in city school systems versus 39.5 in county school districts -- a difference of only 0.2 years.

Years of service in special education, however, exhibits much greater variation. Thus, nearly one fifth of all special education teachers in 1990-91 had four years or less of experience, while just 3.8 percent had 25 years or more (Table 9). The bulk of the teachers had logged from 10-19 years of service (i.e., 50.3 percent), while 19.9 percent had 5-9 years of experience and 7.4 percent had been in the field from 20-24 years.

Once again, there is little variation between city and county school systems in the proportion of teachers at different levels of experience (Figure 4). There is, however, a slight tendency for a higher proportion of teachers with less experience to be found in city systems and a greater percentage with more years to be located in county districts.

Those most likely to leave the field of special education are those with a limited amount of experience (i.e., four years or less), along with those who are either approaching the normal

retirement age or who have enough years in the state retirement system to begin receiving benefits (i.e., 25 years or more). Nearly 1,100 teachers were in these two categories during the 1990-91 academic year, amounting to more than one-fifth of all special education teachers in that year. A majority of these teachers had four years or less of experience (18.4 percent), while nearly 4 percent (or about 200) had taught 25 years or more in that field. When those with 20-24 years of experience are added to these other two categories, approximately 30 percent of all special education teachers are placed in a category wherein the possibility of either a career move or retirement becomes more likely.

These data suggest, therefore, that considerable emphasis should continue to be placed on the both the retention and recruitment of special education teachers. This is particularly true in regard to city school systems, wherein two-thirds of those in the lowest and highest experience categories (i.e., four years or less and 20 years or more) are located.

Recent Graduates in Special Education

A total of 238 persons received degrees in special education from teacher training colleges in Alabama during the 1990-91 academic year (Table 10). This number represented approximately 5 percent of all currently employed teachers in special education during that year. Nearly a third of these new teachers had specialized in the study of mental retardation, with about one-fifth each in all other fields except the emotionally conflicted (which totaled 12.2 percent of all new teachers).

It is not known, however, how many of these new graduates will go directly into teaching, nor how many will continue to remain residents of Alabama. If all of these persons entered teaching and taught in their respective fields, however, the greatest impact would be felt in the speech impaired and "other" specialties (wherein they would constitute approximately 10 percent of all teachers in each of those fields), followed by the emotionally conflicted and the mentally retarded categories. The effect in the learning disabled area would be least, wherein new teachers with that specialization would total only about 2.5 percent of the currently employed persons in that field.

Since earlier data (see Tables 2 and 3) documented the need for more new teachers in the "other" categories of exceptionality, the data presented in Table 10 represent a welcome trend. On a more discouraging note, however, is the limited impact of teacher productivity on apparent shortages in LD classrooms. While the number of students classified as LD has generally been on the increase over the last five years (Table 2), a relatively small number of new teachers appear to be receiving degrees in that field. Likewise, most new teachers are specializing in the education of the mentally retarded, but the number of students

classified as MR has been on the decline in each of the last five years (as has the number of existing teachers in four of those years). (See Tables 2, 3 and 10, along with Figure 5.)

Between the 1989-90 school year and 1990-91, 9.3 percent of the special education teachers in Alabama left their positions either as a result of retirement or through resignations. This represented a numerical total of 431. Hence, if all of the recent graduates had been hired to fill these positions, nearly 200 vacancies would have still remained.

It is not known how many new graduates in special education annually move to Alabama from other states. Apparently, however, the number is quite small. Alabama's stringent certification requirements present a significant barrier to graduates of generic education programs. In addition, there are no special economic incentives that would attract new graduates to the state.

The above data, therefore, indicate that more special education graduates are needed, particularly in the area of the learning disabled. With retirement, resignations, and the significant number of special education teachers who have been granted out-of-field penalty waivers, the existing graduation level falls short of the positions available. In addition, Alabama is attracting few migrants from other states. In fact, more people are currently leaving the state than are entering it.⁷ Not only does this mean that there will be fewer teachers moving to Alabama from other states, but it also suggests the loss of teachers to other states who have been trained in Alabama. Unfortunately, the data are not available to equate this pattern to the excess of students who are also leaving.

Summary/Conclusions

From the data present herein, it is debatable how much progress Alabama has made in serving the needs of special education students during the 1980s. While the number of students, for example, has increased by 2,990 (or 3.3 percent), the number of teachers has declined by 18 (or 0.4 percent). Particularly troublesome is the significant drop in the total number of special education teachers (i.e., 517) that has occurred over the last two years. Gaps in service, furthermore, continue to characterize programs for the exceptional. There appear to be shortages or potential shortages of teaching personnel in all areas of exceptionality except the mentally retarded. These deficiencies, based on the data analyzed herein, are most clearly evident in the learning disabled classification and in the category of exceptionality that -- in this report -- has been labeled "other" (i.e., the deaf, multi-handicapped, vision impaired, etc.).

Although shortages prevail across almost all areas of exceptionality, they most frequently occur in county school

districts. This is particularly true of those in the more rural, economically depressed areas of the state wherein it is more difficult to attract new teachers and to retain those already employed. Within both county and city districts, furthermore, the need is further concentrated among a relatively small number of individual school systems. Again, it is the poorer and/or more isolated districts of the state that appear to have the greatest need. This concentration should, in some respects, make it more plausible to develop a viable strategy for addressing the classroom requirements of the special education sector.

In order to meet both current and future personnel needs, it is crucial that the state's teacher education programs keep pace with the demand. This, apparently, is not the case in Alabama today, wherein a significant number of the annual graduates in special education (e.g., those receiving masters degrees) are already employed in that field. Productivity, furthermore, lags behind the number of positions available and, while teacher education programs continue to graduate more teachers of the mentally retarded than persons in any other specialty, it is in the various other categories of exceptionality in which the current need is most critical. For productivity levels to change, additional incentives must be created for prospective teachers to enter this challenging (and often stressful) field. In an environment where support for education has traditionally lagged, innovative approaches will be required in order to accomplish this task.

Based on the data that have been analyzed in this report, the following represent the major recommendations:

1. That, through earlier identification of special education students and more detailed planning in terms of student placement, a better balance be achieved between changes in the number of teachers within various categories of exceptionality and changes in the number of students.
2. That the Alabama Department of Education carefully review those school systems that: (1) have reported the presence of teachers in a particular specialty, but the absence of students in that corresponding classification; and (2) have reported the presence of students who have been assigned to a particular category of exceptionality, but the absence of teachers in that corresponding classification.
3. That the Alabama Department of Education develop a plan as soon as feasible to address the personnel needs that exist in the relative small number of school districts wherein the need for additional teachers is most highly concentrated.

4. That the Alabama Department of Education work more closely with individual school districts in determining the "true" number of additional teaching units that are needed in special education classes throughout the state.

5. That incentives/innovative programs be developed in order to recruit new teachers into special education generally, but especially into the less popular fields of specialization wherein there is also a significant need.

6. That the Alabama Department of Education prepare for the eventuality that a significant number of special education teachers may be leaving the field over the next few years. This relates to the substantial number of present teachers who are nearing retirement age, as well as the large number of teachers who have presently been in the field less than five years.

7. That a procedure be established by the Alabama Department of Education whereby the precise number of new teachers entering special education can be determined (deleting from the current count those receiving certification who have been teaching under a penalty waiver).

8. That the Alabama Department of Education continue to work toward the improvement of data reporting and collection procedures relative to the types of information used in this report.

ENDNOTES

¹See Donald W. Bogie and Larry Martin, An Analysis of Child Count Data and Personnel Needs in Special Education Programs in Alabama, 1989. Prepared for the Division of Special Education Services, Alabama Department of Education, February 22, 1991. This paper is also available through the ERIC Clearinghouse on Handicapped and Gifted Children, The Council for Exceptional Children, Reston, Virginia (ED-332 477).

²"Out-of-field" teachers in Alabama are defined as those who are teaching outside of their field of specialization (or "certification") within special education.

³About 6 percent, or 275, of the special education teachers in Alabama may be characterized as "cross-categorical." These teachers provide services to students who have been collectively classified as "mild learning handicapped." This group includes those with mild emotional problems, mild mental retardation, and mild learning disabilities. For purposes of this analysis, these teachers (along with the students they serve) are included in the "other" category.

⁴Special education in Alabama is characterized by mandated teacher-pupil ratios across various disabilities. These ratios are based on the particular type of exceptionality and the principle of the "least restrictive environment." It is anticipated that when present caseloads for various school districts, categories of exceptionality, etc., are compared to mandated caseloads, that areas in need of further analysis will be identified and subjected to examination.

⁵In this and other sections of the report wherein information is presented relative to specific school districts, caution should be exercised in interpreting the resulting data (i.e., teacher-pupil ratios and percentages) in instances where the number of teachers and/or students is particularly small. These districts should be subjected to additional scrutiny before contemplating adjustments in present programs and services.

⁶Five school systems (three city districts and two county districts) reported teachers within designated fields but no students within those same classifications. This results from the difficulty that some local districts have in recruiting teachers with needed specialties. Where the specialized training of teachers does not match the particular need category of students, these teachers are classified as "out-of-field."

For purposes of analysis, the five districts with teacher-pupil ratios of 1/0.0 were retained in the determination of the median values reported in this section of the report. While these

districts could have been deleted from that determination, they were retained because: (1) the number is low (hence, the basic pattern evolving from the data is not altered as a result of their inclusion); and (2) they highlight a potential problem that needs to be subjected to careful examination.

⁷According to the Center for Demographic and Cultural Research, Auburn University at Montgomery (Montgomery, Alabama), over 87,000 more persons left the state during the 1980-90 period than entered it. See Alabama Population Data Sheet, 1991 Edition, published by the Center for Demographic and Cultural Research.

Table 1

**ENROLLMENT IN SPECIAL EDUCATION CLASSES
COMPARED TO THE DISTRIBUTION OF SPECIAL EDUCATION
TEACHERS, BY TYPE OF EXCEPTIONALITY, ALABAMA, 1990-91**

A. <u>City School Systems</u>				
Type of Exceptionality	Special Education Students (Percent & Number)		Special Education Teachers (Percent & Number)	
Emotionally Conflicted	6.0	(1,847)	10.6	(178)
Learning Disabled	34.3	(10,622)	32.7	(547)
Mentally Retarded	25.6	(7,930)	36.7	(615)
Speech Impaired	30.4	(9,402)	11.9	(199)
Other	3.7	(1,148)	8.1	(136)
Total	100.0	(30,949)	100.0	(1,675)
B. <u>County School Systems</u>				
Type of Exceptionality	Special Education Students (Percent & Number)		Special Education Teachers (Percent & Number)	
Emotionally Conflicted	5.2	(3,236)	8.5	(282)
Learning Disabled	36.1	(22,518)	31.6	(1,047)
Mentally Retarded	28.2	(17,558)	39.5	(1,309)
Speech Impaired	26.4	(16,432)	11.3	(374)
Other	4.1	(2,560)	9.2	(304)
Total	100.0	(62,304)	100.0	(3,316)
C. <u>Total -- All Systems</u>				
Type of Exceptionality	Special Education Students (Percent & Number)		Special Education Teachers (Percent & Number)	
Emotionality Conflicted	5.5	(5,083)	9.2	(460)
Learning Disabled	35.5	(33,140)	31.9	(1,594)
Mentally Retarded	27.3	(25,488)	38.5	(1,924)
Speech Impaired	27.7	(25,834)	11.5	(573)
Other	4.0	(3,708)	8.8	(440)
Total	100.0	(93,253)	100.0	(4,991)

Sources: Computerized data from the Alabama Department of Education, EDSERA21, July 5, 1991 (data for students) and EDLPRO28, January 9, 1992 (data for teachers).

Table 2

**NUMERICAL AND PERCENTAGE CHANGE
AMONG SPECIAL EDUCATION STUDENTS,
BY TYPE OF EXCEPTIONALITY, ALABAMA,
1986-87 - 1990-91**

Type of Exceptionality	1986-87 - 1987-88		1987-88 - 1988-89	
	Number	Percent	Number	Percent
Emotionally Conflicted	-86	-1.5	380	6.6
Learning Disabled	775	2.7	2,556	8.6
Mentally Retarded	-1,083	-3.5	-41	- 0.1
Speech Impaired	981	4.7	5,204	24.0
Other	9	0.3	3,551	106.3
Total	596	0.7	11,650	12.8

Type of Exceptionality	1988-89 - 1989-90		1989-90 - 1990-91	
	Number	Percent	Number	Percent
Emotionally Conflicted	-443	-7.2	-624	-10.9
Learning Disabled	-201	-0.6	993	3.1
Mentally Retarded	-3,415	-11.3	-1,360	- 5.1
Speech Impaired	360	1.3	-1,383	- 5.1
Other	527	7.6	-3,710	-50.0
Total	-3,172	- 3.1	-6,084	- 6.1

Type of Exceptionality	Overall Change 1986-87 - 1990-91	
	Number	Percent
Emotionally Conflicted	-773	-13.2
Learning Disabled	4,123	14.2
Mentally Retarded	-5,899	-18.8
Speech Impaired	5,162	25.0
Other	377	11.3
Total	2,990	3.3

Source: Computerized data from the Alabama Department of Education, EDSERA24, November 15, 1991.

Table 3

**NUMERICAL AND PERCENTAGE CHANGE
AMONG SPECIAL EDUCATION TEACHERS,
BY TYPE OF EXCEPTIONALITY, ALABAMA,
1986-87 - 1990-91**

Type of Exceptionality	1986-87 - Number	1987-88 Percent	1987-88 - Number	1988-89 Percent
Emotionally Conflicted	38	9.8	-2	-0.5
Learning Disabled	63	4.9	80	6.0
Mentally Retarded	12	0.6	-14	-0.7
Speech Impaired	44	8.6	70	12.5
Other	43	6.0	50	6.6
Total	200	4.0	184	3.5

Type of Exceptionality	1988-89 - Number	1989-90 Percent	1989-90 - Number	1990-91 Percent
Emotionally Conflicted	9	2.1	27	6.2
Learning Disabled	89	6.3	83	5.5
Mentally Retarded	-56	-2.7	-128	- 6.2
Speech Impaired	54	8.6	-109	-16.0
Other	19	2.3	-390	-47.0
Total	115	2.1	-517	- 9.4

Type of Exceptionality	Overall Change 1986-87 - 1990-91	
	Number	Percent
Emotionally Conflicted	72	18.6
Learning Disabled	315	24.6
Mentally Retarded	-186	- 8.8
Speech Impaired	59	11.5
Other	-278	-38.7
Total	- 18	- 0.4

Source: Computerized data from the Alabama Department of Education, #857, p. 04 - p. 06, February, 1992 (data for 1986-87-1989-90) and EDLPRO28, January 9, 1992 (data for 1990-91).

Table 4

**NUMERICAL AND PERCENTAGE CHANGE
IN NEWLY HIRED SPECIAL EDUCATION TEACHERS,
BY TYPE OF EXCEPTIONALITY, ALABAMA,
1986-87 - 1990-91**

Type of Exceptionality	1986-87 - Number	1987-88 Percent	1987-88 - Number	1988-89 Percent
Emotionally Conflicted	18	90.0	10	26.3
Learning Disabled	20	95.2	22	53.7
Mentally Retarded	10	29.4	21	47.7
Speech Impaired	3	100.0	- 2	-33.3
Other	10	83.3	22	100.0
Total	61	67.8	73	48.3

Type of Exceptionality	1988-89 - Number	1989-90 Percent	1989-90 - Number	1990-91 Percent
Emotionally Conflicted	-11	-22.9	- 7	-18.9
Learning Disabled	13	20.6	13	17.1
Mentally Retarded	- 4	- 6.2	14	23.0
Speech Impaired	2	50.0	- 1	-16.7
Other	- 9	- 20.5	-11	-31.4
Total	- 9	- 4.0	8	3.7

Source: Computerized data from the Alabama Department of Education, EDLPF105, July 23, 1991.

Table 5

TEACHER-PUPIL RATIOS FOR SPECIAL EDUCATION
TEACHERS, BY TYPE OF EXCEPTIONALITY, ALABAMA,
1990-91

A. City School Systems

Type of Exceptionality	Teacher-Pupil Ratio
Emotionally Conflicted	1/10.4
Learning Disabled	1/19.4
Mentally Retarded	1/12.9
Speech Impaired	1/47.2
Other	1/8.4
Total	1/18.5

B. County School Systems

Type of Exceptionality	Teacher-Pupil Ratio
Emotionally Conflicted	1/11.5
Learning Disabled	1/21.5
Mentally Retarded	1/13.4
Speech Impaired	1/43.9
Other	1/8.4
Total	1/18.8

C. Total -- All Systems

Type of Exceptionality	Teacher-Pupil Ratio
Emotionally Conflicted	1/11.1
Learning Disabled	1/20.8
Mentally Retarded	1/13.2
Speech Impaired	1/45.1
Other	1/ 8.4
Total	1/18.7

Sources: Computerized data from the Alabama Department of Education, EDSERA21, July 5, 1991 (data for students) and EDLPRO28, January 9, 1992 (data for teachers).

Table 6

**SPECIAL EDUCATION TEACHERS
TEACHING OUT-OF-FIELD, BY TYPE OF EXCEPTIONALITY,
ALABAMA, 1990-91**

A. <u>City School Systems</u>			
Type of Exceptionality	Number	% Distribution Within Out-of-Field Teachers	% of All Special Education Teachers Within Speciality
Emotionally Conflicted	15	19.7	8.4
Learning Disabled	18	23.7	3.3
Mentally Retarded	23	30.3	3.7
Speech Impaired	4	5.3	2.0
Other	16	21.1	11.8
Total	76	100.0	4.5
B. <u>County School Systems</u>			
Type of Exceptionality	Number	% Distribution Within Out-of-Field Teachers	% of All Special Education Teachers Within Speciality
Emotionally Conflicted	41	19.6	14.5
Learning Disabled	80	38.3	7.6
Mentally Retarded	30	14.4	2.3
Speech Impaired	17	8.1	4.5
Other	41	19.6	13.5
Total	209	100.0	6.3
C. <u>Total -- All Systems</u>			
Type of Exceptionality	Number	% Distribution Within Out-of-Field Teachers	% of All Special Education Teachers Within Speciality
Emotionally Conflicted	56	19.6	12.2
Learning Disabled	98	34.4	6.1
Mentally Retarded	53	18.6	2.8
Speech Impaired	21	7.4	3.7
Other	157	20.0	13.0
Total	285	100.0	5.7

Source: Computerized data from the Alabama Department of Education, EDLPRO28, January 9, 1992.

Table 7

**OUT-OF-FIELD PENALTY WAIVERS
GRANTED TO SPECIAL EDUCATION TEACHERS,
BY TYPE OF EXCEPTIONALITY, ALABAMA, 1990-91**

A. <u>City School Systems</u>^a			
Type of Exceptionality	Number	% Distribution Within Out-of-Field Teachers	% of All Special Education Teachers Within Speciality
Emotionally Conflicted	20	16.7	11.2
Learning Disabled	44.5	37.1	8.1
Mentally Retarded	10	8.3	1.6
Speech Impaired	5	4.2	2.5
Other	40.5	33.8	29.8
Total	120	100.0	7.2

B. <u>County School Systems</u>			
Type of Exceptionality	Number	% Distribution Within Out-of-Field Teachers	% of All Special Education Teachers Within Speciality
Emotionally Conflicted	77	18.2	27.3
Learning Disabled	145	34.2	13.8
Mentally Retarded	60	14.2	4.6
Speech Impaired	18	4.2	4.8
Other	124	29.2	40.8
Total	424	100.0	12.8

C. <u>Total -- All Systems</u>			
Type of Exceptionality	Number	% Distribution Within Out-of-Field Teachers	% of All Special Education Teachers Within Speciality
Emotionally Conflicted	97	17.8	21.1
Learning Disabled	189.5	34.8	11.9
Mentally Retarded	70	12.9	3.6
Speech Impaired	23	4.2	4.0
Other	164.5	30.2	37.4
Total	544	100.0	10.9

^aIncludes the Alabama Institute for the Deaf and Blind.

Sources: Basic data concerning penalty waivers were provided by the Alabama Department of Education, Division of Special Education Services. The base used in computing penalty waivers as a percentage of all special education teachers is from computerized data supplied by the Alabama Department of Education, EDLPRO28, January 9, 1992.

Table 8

**NUMBER OF ADDITIONAL PERSONNEL NEEDED
TO FILL FUNDED POSITIONS IN SPECIAL
EDUCATION CLASSES BY TYPE OF EXCEPTIONALITY, ALABAMA
1990-91**

A. <u>City School Systems</u>				
Type of Exceptionality	Number of Teachers Needed	Percent Distribution Within Spec. Education	Percent of All Spec. Ed. Teachers Within Speciality	Need Ratio ^a
Emotionally Conflicted	30.5	23.1	17.1	1/5.84
Learning Disabled	34.0	25.7	6.2	1/16.1
Mentally Retarded	16.0	12.1	2.6	1/38.4
Speech Impaired	17.25	13.0	8.7	1/11.5
Other	34.5	26.1	25.4	1/3.9
Total	132.25	100.0	7.9	1/12.7
B. <u>County School Systems</u>				
Type of Exceptionality	Number of Teachers Needed	Percent Distribution Within Spec. Education	Percent of All Spec. Ed. Teachers Within Speciality	Need Ratio ^a
Emotionally Conflicted	41.6	12.6	14.8	1/6.8
Learning Disabled	83.9	25.4	8.0	1/12.5
Mentally Retarded	50.0	15.2	3.8	1/26.2
Speech Impaired	46.0	13.9	12.3	1/8.1
Other	108.38	32.9	35.7	1/2.8
Total	329.88	100.0	9.9	1/10.1

C. Total -- All Systems

Type of Exceptionality	Number of Teachers Needed	Percent Distribution Within Spec. Education	Percent of All Spec. Ed. Teachers Within Speciality	Need Ratio ^a
Emotionally Conflicted	72.1	15.6	15.7	1/6.4
Learning Disabled	117.9	25.5	7.4	1/13.5
Mentally Retarded	66.0	14.3	3.4	1/29.2
Speech Impaired	63.25	13.7	11.0	1/9.1
Other	142.88	30.9	32.5	1/3.1
Total	462.13	100.0	9.3	1/10.8

^aNumber of teachers currently employed divided by the number of new teachers needed for which positions have been previously funded.

Sources: Data concerning the number of teachers were extracted from a computerized disk supplied by the Alabama Department of Education under the file name "Table2.WK1." The base used in computing teachers needed as a percentage of all special education teachers, as well as the need ratio, is from computerized data provided by the Alabama Department of Education, EDLPRO28, January 9, 1992.

Table 9

**YEARS OF TEACHING EXPERIENCE IN SPECIAL
EDUCATION, CURRENTLY EMPLOYED TEACHERS,
ALABAMA, 1990-91**

School Systems	<u>Years in Special Education</u>					Total (% & No.)
	1-4 (% & No.)	5-9 (% & No.)	10-19 (% & No.)	20-24 (% & No.)	25 & Over (% & No.)	
City	19.9 (641)	20.7 (667)	49.1 (1,582)	6.6 (212)	3.7 (118)	100.0 (3,220)
County	15.6 (263)	18.5 (311)	52.7 (887)	9.1 (153)	4.2 (70)	100.0 (1,684)
Total	18.4 (904)	19.9 (978)	50.3 (2,469)	7.4 (365)	3.8 (188)	100.0 (4,904)

Sources: Computerized data from the Alabama Department of Education,
Education, EDLPA021, December 3, 1991.

Table 10

**DEGREES CONFERRED IN SPECIAL EDUCATION
AT THE BACHELOR'S AND ALTERNATIVE DEGREE
LEVELS AT ALABAMA COLLEGES AND UNIVERSITIES, BY AREA OF SPECIALIZATION,
SUMMER, 1990 -- SPRING, 1991**

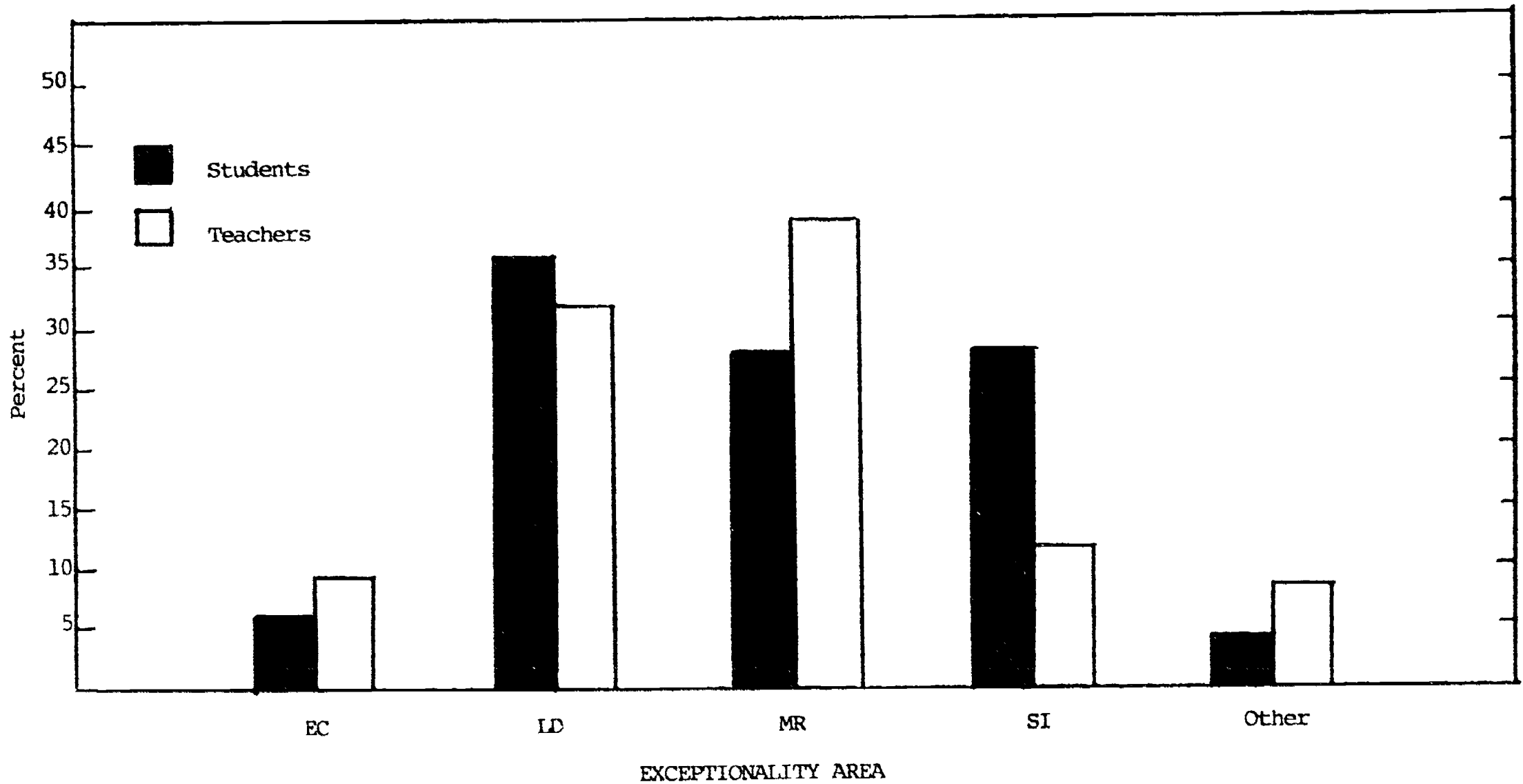
Area of Specialization	Number of Degrees Conferred	Percentage of All Degrees	Percent of Current Special Education Teachers
Emotionally Conflicted	29	12.2	6.3
Learning Disabled	40	16.8	2.5
Mentally Retarded	69	29.0	3.6
Speech Impaired	52	21.8	9.1
Other	48 ^a	20.2	10.9
Total	238	100.0	4.8

^aIncludes early childhood education for the handicapped.

Sources: Information regarding degrees conferred is from a memorandum distributed by William E. Goodwin, Teacher Education Advisor, Alabama Department of Education, September 11, 1991. The base used in computing degrees conferred as a percentage of current special education teachers is from computerized data supplied by the Alabama Department of Education, EDLPRO28, January 9, 1992.

FIGURE 1

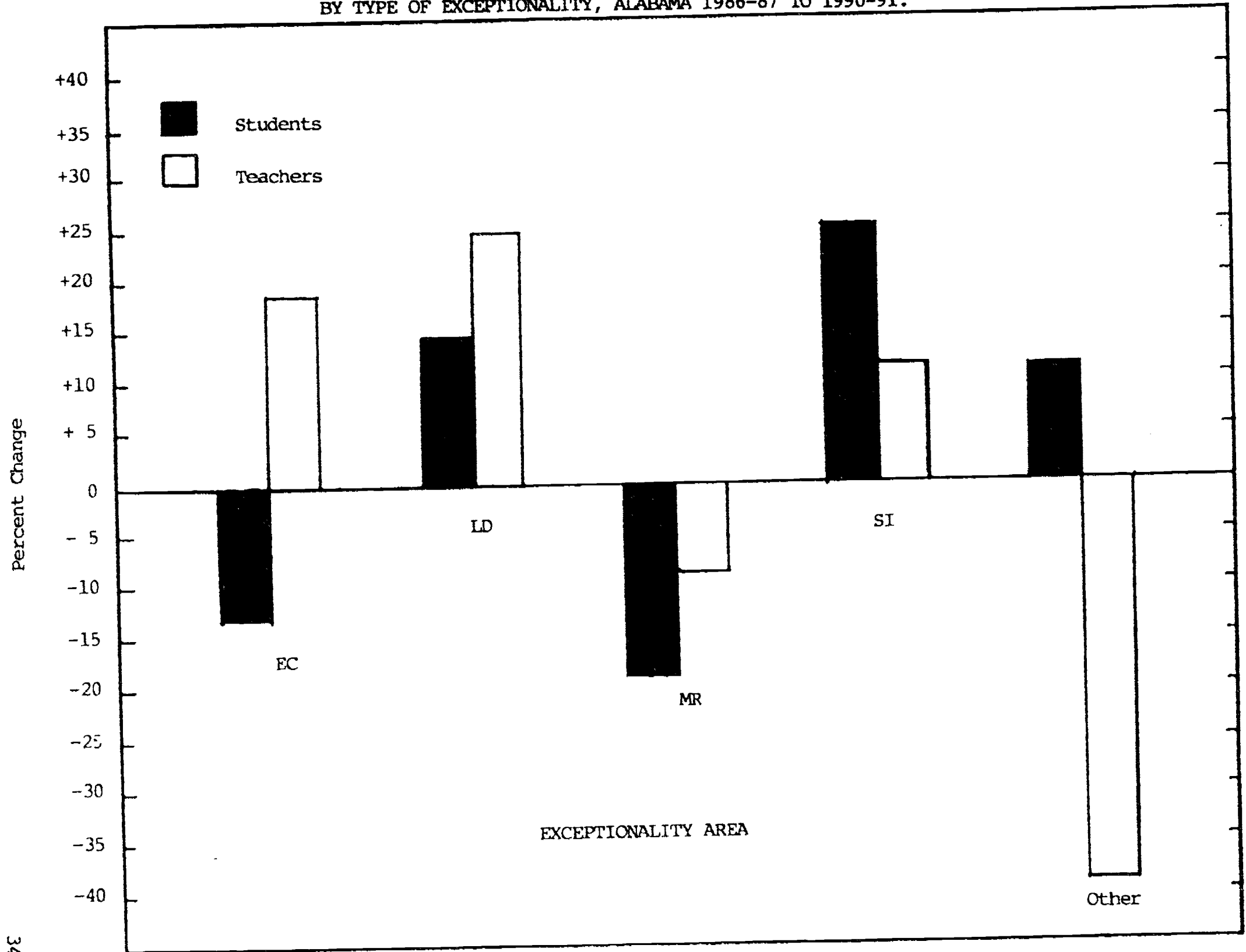
ENROLLMENT IN SPECIAL EDUCATION CLASSES COMPARED TO THE
DISTRIBUTION OF SPECIAL EDUCATION TEACHERS,
BY TYPE OF EXCEPTIONALITY, ALABAMA, 1990-91



Source: Computerized data from the Alabama Department of Education, EDSERA21, July 5, 1991 (Data for students) and EDLPR028, January 9, 1992 (Data for teachers).

FIGURE 2

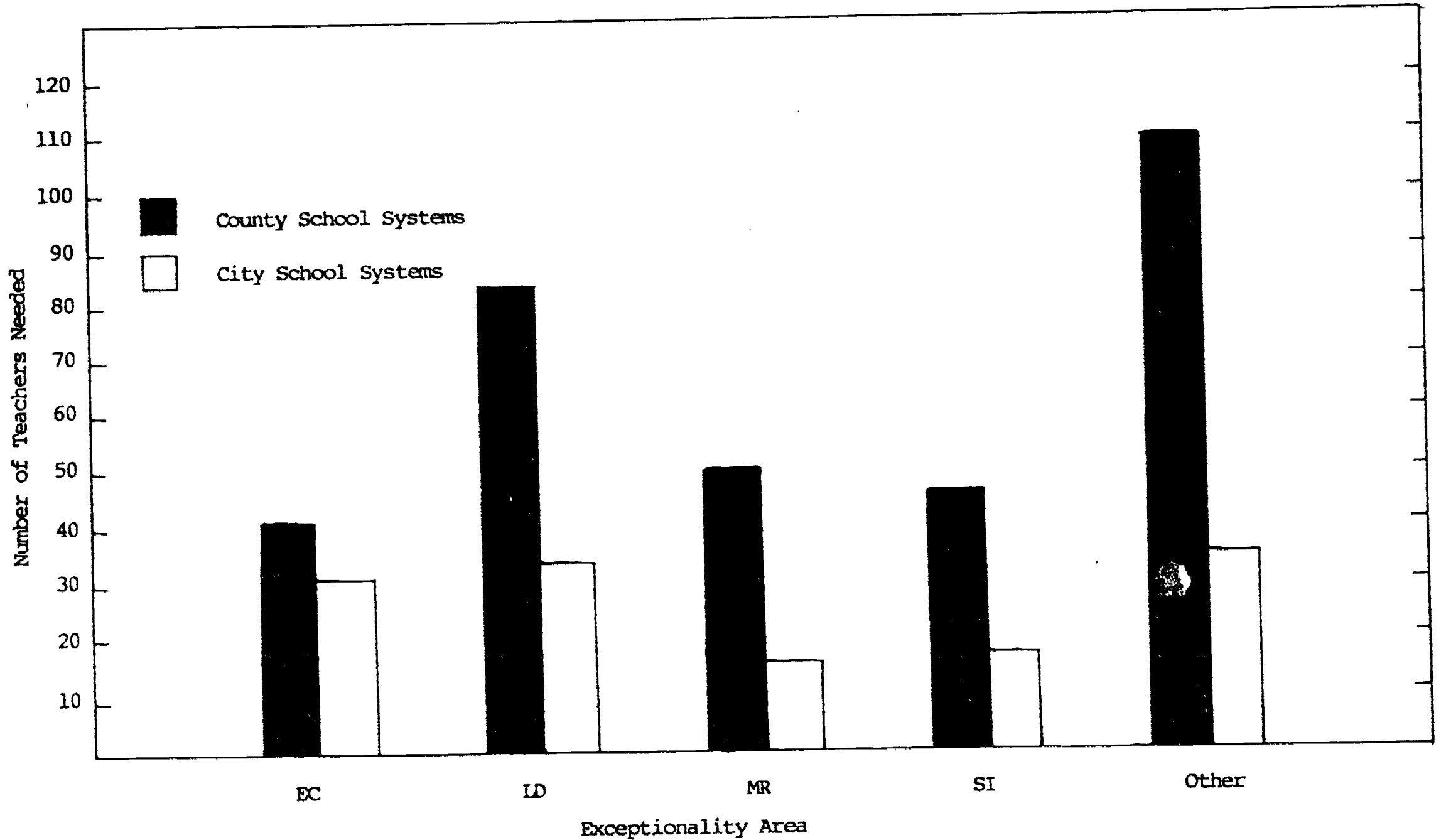
NUMERICAL AND PERCENTAGE CHANGE AMONG SPECIAL EDUCATION STUDENTS AND TEACHERS,
BY TYPE OF EXCEPTIONALITY, ALABAMA 1986-87 TO 1990-91.



Source: Computerized data from Alabama Department of Education, 1991 and 1992.

FIGURE 3

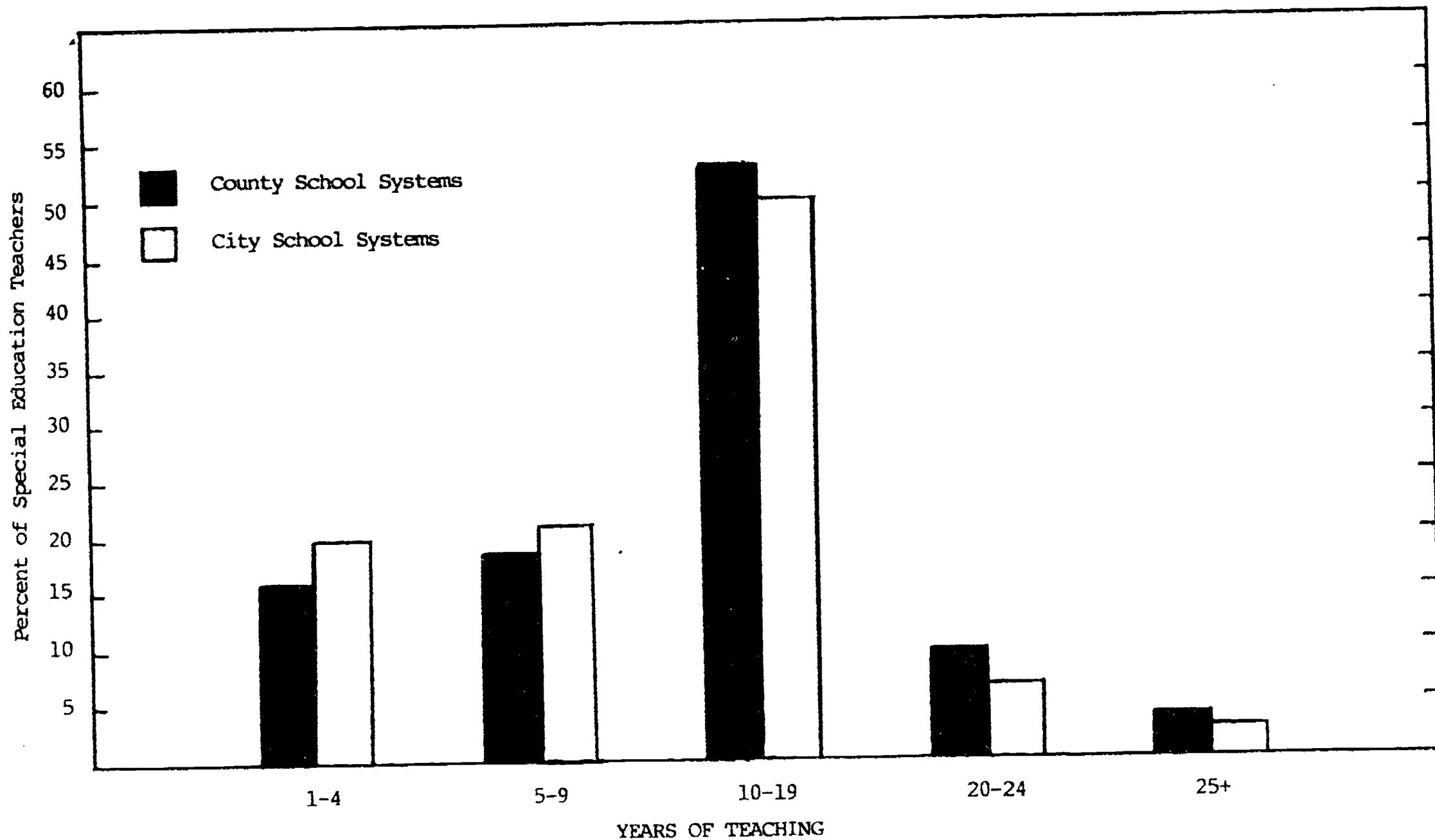
NUMBER OF ADDITIONAL PERSONNEL NEEDED TO
FILL FUNDED POSITIONS IN SPECIAL EDUCATION CLASSES,
BY EXCEPTIONALITY, ALABAMA, 1990-91



Source: Alabama Department of Education, Division of Special Education Services.

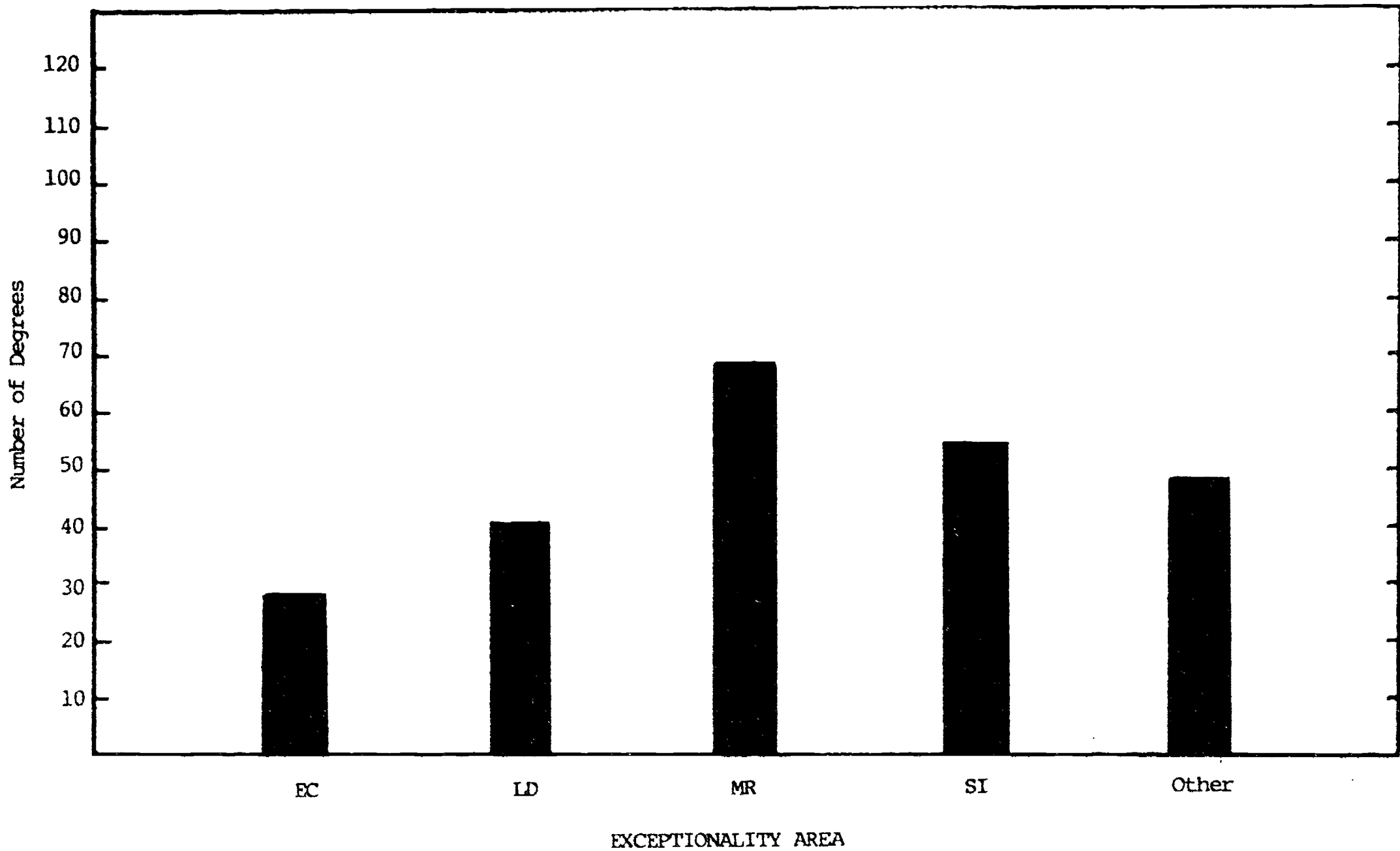
FIGURE 4

YEARS OF TEACHING EXPERIENCE IN SPECIAL EDUCATION,
CURRENTLY EMPLOYED TEACHERS, ALABAMA, 1990-91



Source: Computerized data from the Alabama Department of Education, EDLPA021, December 3, 1991.

FIGURE 5
 DEGREES CONFERRED IN SPECIAL EDUCATION AT THE
 BACHELOR'S AND ALTERNATIVE DEGREE LEVELS AT
 ALABAMA COLLEGES AND UNIVERSITIES, BY AREA OF SPECIALIZATION,
 SUMMER 1990 - SPRING, 1991



Source: Alabama Department of Education, Division of Special Education Services.