

ED 023 630

SP 001 806

Teacher Aides in the Classroom; A New England Study.

New England Educational Assessment Project.

Spons Agency - New England Educational Assessment Project.

Pub Date Nov 67

Note - 33p.

EDRS Price MF -\$0.25 HC -\$1.75

Descriptors - *Employment Qualifications, *Staff Role, *Surveys, *Teacher Aides

Identifiers - New England

A status study was conducted to "assess the qualifications and duties of teacher aides in New England, develop guidelines for both pre-service and in-service training, suggest requirements for employment, and list appropriate duties." Data from three separate questionnaire forms was collected for 1,724 aides, 2,139 teachers who had experience working with aides, and 230 superintendents of schools. Visitations to several school systems and one experimental workshop for aides provided additional information. It was found that (1) tasks performed by aides are ancillary to instruction; (2) 95 percent of aides are high school graduates; (3) although aides are not certified, state departments of education specify what tasks they may be assigned; and (4) 78 percent of aides are paid less than substitute teachers. It was concluded that teacher aides "are a significant factor in education in New England and their number will increase," encouraged by educational associations and federal funding. (Included are copies of the questionnaires, statements regarding the role of aides as issued by state departments of education, and a summary of replies concerning the role of aides from a survey of professional organizations) (SG)

TEACHER AIDES IN THE CLASSROOM

A NEW ENGLAND STUDY

**U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION**

**THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION
POSITION OR POLICY.**

PREPARED BY

THE NEW ENGLAND EDUCATIONAL ASSESSMENT PROJECT

**A cooperative regional project of the six New England States funded
under Title V, Section 505, of the Elementary and Secondary Education
Act of 1965.**

Providence, Rhode Island

November, 1967

ED023630

SP 001 806

NEW ENGLAND COMMISSIONERS OF EDUCATION

William J. Sanders, Connecticut
William T. Logan, Jr., Maine
Owen B. Kiernan, Massachusetts
Paul E. Farnum, New Hampshire
William P. Robinson, Jr., Rhode Island
Daniel G. O'Connor, Vermont (Acting Commissioner)

THE NEW ENGLAND EDUCATIONAL ASSESSMENT PROJECT

STATE REPRESENTATIVES

James M. Burke, Connecticut
Ray A. Cook, Maine
James F. Baker, Massachusetts
Frank W. Brown, New Hampshire
Edward F. Wilcox, Rhode Island
Richard S. Staudt, Vermont

STATE DIRECTORS

Joe R. Gordon, Connecticut
Philip A. Annas, Maine
Jesse O. Richardson, Massachusetts
Harvey F. Harkness, New Hampshire
Richard A. Dowd, Rhode Island
Thomas W. Dodge, Vermont

PROJECT ADMINISTRATION

Project Director, Dr. Ermo H. Scott
Providence, Rhode Island

Liaison Officer, Dr. Paul E. Blackwood, Chief
Instructional Services Section, U.S. Office of Education

PREFACE

The rapid expansion of pupil population, the lag in output of teacher education programs, and the endeavor to heighten efficiency in the use of professional teacher talent are among the factors fostering the increased employment of teacher aides by public school agencies. Such appointments have characteristically been defined by immediate need and local concept (limited by existing state statute or district regulation), because of the relative absence of commonly defined professional guidelines and definitions of role and status. To date, only a few states or districts have attempted to analyze current aide situations and related policies.

Moving in a comprehensive and regional manner, this study was initiated to secure and present information dealing with the current function of the teacher aide in New England school systems. It is based on evaluative judgments prepared by classroom teachers directing assigned teacher aides as well as those contributed by employing administrators.

In addition to its suggestive value to local system employers, it is believed that the information may prove useful to state licensing authorities, to institutions seeking to develop realistic pre-service and in-service aide training programs, and to professional associations in their relationship with members of this group.

Already, teacher aides are performing a significant supportive role in the operation of local educational programs. There is a need to clarify, through objective examination, their acceptable functions and service, and their exact relationship to the educative process and program. To facilitate such an advance, this study has been developed.

Providence, Rhode Island
24 November 67

Ermo H. Scott
Project Director

ACKNOWLEDGMENTS

Many individuals are always responsible for the development of a study of this type. Funded under the provisions of ESEA, 1965, Title V, Section 505, the basic data were contributed through the cooperation of many participating teacher aides, related classroom teachers, and associated school administrators within the six-state area.

Executive secretaries of the six educational associations provided considered opinions concerning the potential Aide-Association relationship. The school systems of Milford, N.H., Portland, Me., and Rockland, Me., assisted with preliminary instrument field-testing, while the last also cooperated in a pilot aide workshop.

Particular acknowledgement is given to the following consultants: Dr. John Finger, Rhode Island College; Dr. George Prescott, University of Maine; and Dr. Walter Durost, University of New Hampshire, for their insights, guidance, and advisement, and to Miss Marion Cooper for editing the manuscript.

The unstinted contributions of the Advisory Committee to the design, development, and direction of the study cannot be overemphasized. Its members included: Russell Capen, Connecticut; Donnell Graham, J. Wilfrid Morin, James Morrison, and Leroy Nisbet, Maine; Frederick Small and Dr. Everett Thistle, Massachusetts; Thomas Burns and Harvey Harkness, New Hampshire; Edward T. Costa and Richard Dowd, Rhode Island; and Walter Gallagher, Vermont.

Philip A. Annas
Chairman

TABLE OF CONTENTS

| | PAGE |
|---|------|
| INTRODUCTION | 7 |
| RELATED STUDIES | 8 |
| PROCEDURE | 11 |
| THE RESULTS OF THE TEACHER AIDE STUDY | 12 |
| THE TEACHER AIDE AND PROFESSIONAL ORGANIZATIONS | 21 |
| THE TEACHER AIDE AND CERTIFICATION | 23 |
| SUMMARY OF FINDINGS AND CONCLUSIONS | 26 |
| BIBLIOGRAPHY | 27 |
| APPENDIX | 28 |

TEACHER AIDES IN THE CLASSROOM

A New England Study

INTRODUCTION

Volunteer classroom assistants are not new in New England schools. In fact, 60 years ago mothers were taking turns bringing noon lunches to rural schools and helping the teachers supervise the children as they ate and enjoyed their midday recreation.

More recently, volunteers have made specific contributions to the operation of schools in such areas as playground assistants, and art and drama advisers.

These aides gained recognition and financial compensation about ten years ago with the advent of team teaching, when the amount of planning and the duplication of materials accompanying these programs required the services of secretaries and other non-teaching staff members. As the team concept developed, teachers frequently found that bringing informed lay citizens and specialists into the classroom helped them to broaden the scope of their program.

The number of actual full-time teacher aides, however, was relatively small in New England until the passage of the Elementary and Secondary Education Act of 1965 and the Economic Opportunity Act. Both of these laws provided for the creation of educational programs that could make use of classroom assistants, and also supplied federal funds with which to reimburse them. At this time, the teacher, who for years had been the only adult in the classroom, found that a second person who was qualified to carry many of the non-instructional tasks was available. Some teachers welcomed these assistants; others resented their presence. Some teachers were well oriented to the practical value of the teacher aide; others were uninformed as to the duties and responsibilities of these assistants. A few teacher aides received special training in a summer session at a college or university, but most were inexperienced in the ways of the classroom. There were no guidelines on the requirements for employment, the salaries to be paid, or the appropriate assignments of duties.

The presence of these unknown variables in the employment and utilization of teacher aides made it appropriate to review studies already conducted, assess the qualifications and duties of teacher aides in New England, develop guidelines for both pre-service and in-service training, suggest requirements for employment, and list appropriate duties.

The New England Educational Assessment Project was uniquely qualified for this task. It is a regional unit organized by the six New England State Departments of Education, under section 505 of Title V of the Elementary-Secondary Education Act—"to strengthen state departments of the region by conducting coordinated projects in the areas of educational evaluation, assessment, data collection and dissemination, and instructional institutes, which in turn, will provide decision-making resources focused upon current state and local problems".¹ The six state departments maintain a relationship with local educational agencies that provides access to information relative to school programs, and the personnel in the departments are available for consultation and committee work.

¹ New England Educational Assessment Project, *Statement of Purpose*

RELATED STUDIES:

Several representative studies of teacher aides have been examined and their findings reported whenever design made a comparison feasible and relevant to the New England study.

Dr. Andrew Bell's "Analysis of the Experiment in Education Made at Egmore, Near Madras", published in 1807, is probably the first known reference to the use of teacher aides. It refers to an experiment in education, a form of team-teaching, at a male asylum in Madras, India, in 1797. Members of each class were paired off, as tutors and pupils. The tutor and his pupil were both students, but the tutor had a better grasp of the subject matter and assisted his teammate. Each class had an assistant to help the tutors master their lessons. The assistant worked under the direction of the teacher and could be considered a teacher aide.

More practical comparisons of the duties of teacher aides are reported in Education Research Service, 1959, Norwalk study in 1961, and Michigan, North Carolina, New York, and Florida studies in 1966. Bryce Perkins¹ wrote letters to the commissioners of education in August 1960 asking them to report the number of school systems in their states having teacher aides. He received 47 replies. Reports from New England were: Connecticut, 2; Maine, 1; Massachusetts, 0; New Hampshire, 5; Vermont, 4; Rhode Island, 0. In this current study the number of school systems reporting use of aides were Connecticut, 58; Maine, 73; Massachusetts, 52; New Hampshire, 19; Vermont, 23; Rhode Island, 5.

The North Carolina study is a report of the utilization of teacher aides in the North Carolina Comprehensive School Improvement Project which was started in 1963 for the improvement of instruction at the primary level. The report was prepared by Frank C. Emmerling and Kanawha Z. Chavis.² In this study the duties of teacher aides are divided into the following categories: clerical, housekeeping, instructional support, technological, monitorial, and general. The two most frequently reported activities under each category were:

Clerical

- Making out lunch reports
- Collecting money

Housekeeping

- Insuring proper ventilation
- Insuring proper light

Instructional support

- Conducting small group drill
- Reading and telling stories

Technological

- Operating record player
- Operating film strip projector

Monitorial

- Helping with supervision of lunch period
- Helping with playground activities

General

- Making arrangements for parent-teacher conferences
- Attending PTA meetings

The March 1966 issue of the Research Bulletin published by the Florida Educational Research and Development Council³ describes a study of teacher aides in Florida schools. The following is quoted from the section on Functions Aides Perform:

"The most nearly consistent use of aides throughout the state is their utilization as clerical assistants. Forty-four of the fifty systems employing aides use them in this capacity. Duties consist of typing, making daily attendance reports, duplicating materials, assisting in preparation of instructional materials, collecting monies and making lunchroom reports, assisting in record keeping and other clerical duties.

"Teacher aides also serve as materials supervisors. This entails checking materials, distributing supplies, setting up and operating audio-visual equipment, collecting materials and assisting children in housekeeping duties.

"Approximately seventy-five percent of the respondents to the questionnaire use aides as

- 1 Bryce Perkins: *Factors Which Have Influenced the Development of the Role of the Paraprofessional in the Elementary Schools of Norwalk, Connecticut*. 1961.
- 2 Frank C. Emmerling, and Kanawha Z. Chavis: *The Teacher Aide in North Carolina's Comprehensive School Improvement Project*. 1966.
- 3 Myron Cunningham and Jeaninne Webb, *Teacher Aides*. Florida Educational Research and Development Council Research Bulletin, Volume 2, #1, College of Education, U. of Florida, Gainesville. March 1966.

monitors. These monitors serve in the lunchrooms, on the playgrounds, during physical education and play periods, in study rooms, in halls and corridors, and on bus duty. The aides work under the supervision of a teacher in lunchrooms and on the playground; they are not held responsible for supervising large groups of children in the absence of a certified teacher".

In Florida, teacher aides are frequently used in the upper grades. In this area the report states: "Teacher aides are working at every educational level in the state from kindergarten through junior college. The elementary schools employ a majority of the aides now working in the public schools. Of the fifty counties with teacher aide programs, only two do not employ aides in the elementary school. Teacher aides are also found in the secondary schools, 39 counties employing them at this level. Two counties also have aides serving in the junior college."

The New York State Department made a survey of teacher aides in the fall of 1965,⁴ indicating that 428 of the 629 school districts in the state, or 68%, were using teacher aides. The report points to the recency of teacher aides and says:

"Of the 428 responding districts now using aides, only ten have used them in excess of ten years. Twenty-three are employing them for the first time in 1965-66. The median district has been using them 3.5 years."

In New York, 65% of the teacher aides are working at the elementary school level; 7% at both levels; and 28% in the secondary schools. The study includes a report on the jobs performed by 2,654 teacher aides:

"The job assignments of 75% of the aides are in the areas of noninstructional supervisory and clerical duties. Slightly over half of the aides work only in the area of noninstructional supervision while 6% perform clerical duties only. Seventeen percent are general classroom aides, of whom 96% are working at the elementary school level. Eight percent are library aides, lay readers, instructional materials aides, and laboratory assistants."

The NEA Research Bulletin for May 1965⁵ describes an investigation of duties, educational requirements, salaries and educational background of 29,995 paid aides. The ten most frequent duties of paid teacher aides in descending order of frequency were:

| | |
|--|---|
| Duplicating tests and other materials | Supervising the playground |
| Helping with classroom housekeeping | Correcting tests, homework, workbooks, etc. |
| Typing class materials, tests, etc. | Reading aloud and story telling |
| Setting up A-V equipment and other instructional materials | Assisting in the school library |
| Helping with children's clothing | Collecting money from pupils |

The New York study includes a section on the educational qualifications of aides, and indicates that 15% had attended high school, 53% had graduated from secondary school, 23% had attended college, and 9% held degrees.

The Florida study lists the salaries in hourly rates ranging from \$1 to \$1.50. The median hourly wage for the state was \$1.25.

The hourly rates are reported under eight categories in New York, and the median is from \$1.59 to \$2.56 per hour.

The NEA Research Bulletin records: "Salaries paid to teacher aides in 1965-66 vary greatly. Because some systems listed payment by the hour while others reported daily, weekly, monthly, or yearly rates, it is not possible to compute an average or median salary. However, it can be reported that in the 129 systems which gave hourly rates, the average pay was \$1.83 per hour. Hourly rates ranged from \$1.25 to \$3.15."

⁴ Survey of Public School Teacher Aides, University of the State of New York, State Education Dept., Bureau of Schools and Cultural Research, fall, 1965.

⁵ "Teacher Aides in Public Schools", *NEA Research Bulletin*, Volume 45, No. 2, May 1967.

Training programs for teacher aides are singularly lacking. The Florida survey reveals:

"The entire area of training teacher aides is still in the embryonic stage in most programs. One-half of the counties which employ teacher aides require no special training for aides; one-half have no in-service training programs. Twelve counties provide training through in-service meetings and workshops; seven counties provide orientation programs for their aides."

The NEA report states: "After teacher aides are selected, they are given some type of training in all but 7.4 percent of the systems reported. Teacher aide training most frequently takes the form of conferences between the aide and her supervisor, although it may also include the preschool institutes or in-service workshops. Written materials developed for aides were used in 46.1% of the systems".

According to the Florida study: "There is a wide variation in the criteria used in the selection of teacher aides throughout Florida. Some respondents indicated that specific job requirements have been used as criteria for employment; others use subjective criteria such as ability to work with people, interest in children, personality and appearance in aide selection. However, 64 percent of those counties which use aides stipulate that the educational level attained by the prospective aide is a determining factor in his employment . . . Proficiency in typing and clerical skills is used as a criterion for selecting aides in 18 counties, less than one-half of the total fifty. However, several counties encourage aides to enroll in adult education classes to acquire sufficient mastery of these skills to enable them to assist teachers in their clerical duties".

The New York study discusses qualifications for employment as: "Twenty-eight percent of the districts employing aides (nine cities, thirty villages, seventy-nine schools in supervisory districts) reported that they have no formal qualifications required for employment as a teacher aide, but that they do take into consideration the educational background, special skills, prior work experience, personal appearance, level of maturity and culture, and other personal factors. The remaining districts (72%) reported one or more of five requirements: age, sex, education, special skills, and prior work experience".

Malcolm Provus, Research Professor at the University of Pittsburgh, in his study of "Staffing for Better Schools" included a five year study of teacher aides in 25 Michigan public schools, and found that teachers used the time saved by having teacher aides to increase the time spent on lesson preparation, 105%, preparation of homework assignments, 20%, and helping the individual child, 17%.⁶ The New England study of *Teacher Aides in the Classroom* has been conducted to provide an assessment of the current status of teacher aides in the northeastern states.

⁶ Provus, Malcolm. *Staffing for Better Schools*. Washington: U.S. Office of Education, 1967.

PROCEDURE

The New England study of teacher aides in the classroom initiated in June 1966 with a postal card survey to identify local school systems employing teacher aides. It was concluded in August 1967 with the analysis of the data collected by the Research and Development Center of the Massachusetts State Department of Education. The postal card questionnaire was mailed to every superintendent of schools in New England asking him to indicate if the school district employed teacher aides in the school year 1965-66, the summer of 1966, or planned to employ them during the school year 1966-67. The superintendent was also asked if the funds for the salaries for the aides originated with federal government, or were state or local funds. The survey form is included in the appendix.

Data were collected on forms completed by 1724 teacher aides, 2139 teachers who had experience working with aides, and 230 superintendents of schools. The first, designed to be filled out by a teacher aide, listed 27 duties frequently performed by aides and provided space for indicating the work performed, the grades to which he was assigned and the extent of his education. After each duty listed, the teacher aide was asked to indicate if this was a duty performed routinely, quite often (approximately 75% of the time), occasionally (approximately 50% of the time); seldom (approximately 25% of the time) or never.

The questionnaire was first prepared in mimeograph form and field tested in selected communities in two states. A similar procedure was followed with the forms used by teachers and superintendents. (See sample mimeograph forms in appendix).

In the past, teacher aides had been assigned duties largely on the basis of what teachers or administrators thought they were capable of doing, because of limited experience. However, by 1967, a number of teachers had worked with teacher aides from six months to two years. A form was designed to take advantage of what their experience had revealed were the best activities to assign to these assistants.

The second questionnaire was completed by teachers who had worked with teacher aides. They were given the same twenty-seven duties to rate in the same manner as those rated by teacher aides. However, they were asked to complete them on the basis of what their experience indicated would be appropriate assignments, rather than on what teacher aides actually had done in their classrooms. Field-testing indicated that the requirements for employment could be more precisely determined if teacher aides were grouped into three general classifications according to the duties performed.

1. Educational materials assistant
2. Clerical worker
3. Instructional assistant

The third form was used to determine the requirements for employment under each of these three categories. In addition to checking on requirements, the superintendent or the employing officer was asked to report the salary of a teacher aide as compared with a substitute teacher. The superintendents were asked who they thought should be responsible for the in-service training of teacher aides.

The three instruments were developed with the assistance of Dr. George Prescott, University of Maine, and Dr. Walter Durost, University of New Hampshire; and the final form arranged by the Research and Development Center of the Massachusetts State Department of Education.

Each of the six executive secretaries of the New England state educational associations was asked to reply to a two part questionnaire (see appendix). In addition, each was interviewed by the director of the study.

These formal procedures were supplemented by visitations to several school systems using teacher aides, and by one experimental workshop for teacher aides.

RESULTS OF THE TEACHER AIDE STUDY

The postal card survey indicated that 2532 teacher aides were employed in New England during the school year 1966-67. Replies were received from 1724 teacher aides (68%) to the questionnaire asking them to check how frequently they performed each of 27 duties which field testing indicated were typical assignments. Connecticut provided 22% of the replies, Maine 21%, Massachusetts 46%, New Hampshire 4%, Rhode Island 4%, Vermont 3%. The detailed report of the New England responses to the questionnaire is in the appendix.

An examination indicated the practicability of combining those duties assigned routinely and those that were performed "quite often" (approximately 75% of the time). These appear in the first graph (Figure 1)*. The assignment of the 27 duties varies from a low of 3% of the teacher aides "taking notes at a staff meeting", to 64% "providing clerical assistance including duplicating materials". The tasks assigned to a teacher aide appear to depend upon his educational background, and special abilities.

The eleven duties that 30% or more of the teacher aides reported were assigned to them 75% of the time are ancillary to instruction with the exception of helping the individual child with his lessons. The aide's effectiveness in the classroom is not fully expressed in the 27 duties listed in the graph. There are additional factors that do not lend themselves to a questionnaire or rating scale, but are better described by a teacher and a teacher aide.

Teacher aide:

"I discovered that having had my own family in public school gave me a little insight into some of the needs of young children. At first I was inhibited, but soon learned that the young children needed an extra pat on the head, a little more encouragement than they received at home, and someone to treat them like their other classmates. The pupils that were doing well scholastically also needed attention. They would ask why I didn't sit beside them. I discovered that they soon learned to be a discipline problem to get my attention. I gave most of my time to the poor achiever, but did not neglect others. I enjoyed my duties and found them very rewarding".

Teacher:

"Classroom procedures and routine are carried out more smoothly and in less time. I have more time for lesson planning, and to give each child individual attention. Even though the teacher aide program has been in effect for a short time, I feel there have been noticeable results shown working with the slow learners, and in carrying out the school routine more smoothly. Correction of workbook pages by the aide and immediate correction of errors by the children have been helpful. There is time to give more attention to individuals."

In the second phase of the study, 2,139 teachers with experience working with teacher aides checked the 27 duties they would recommend for teacher aides. Figure 2 shows the percentage of teachers that would assign each duty 75% or more of the time it appears in the classroom schedule. These vary from a low of 5%, "teaching one or more classes", to a high of 88%, "providing clerical assistance including duplicating materials". The detailed results of this opinionnaire are shown in the appendix.

There is a surprisingly close agreement between the duties recommended by experienced teachers and those actually assigned to teacher aides. The ten duties most frequently assigned and the ten most frequently recommended are of particular significance and are displayed in Figure 3. Eight of the ten duties most frequently recommended by teachers also appear in the top ten assignments of teacher aides. "Helping supervise bus loading" is recommended by 63% of the teachers. Significantly it is not one of the ten most frequently assigned duties. The aides reported that it is assigned to them only 25% of the time. (Figure 1). "Making out lunch reports" is recommended by 60% of the teachers, and assigned to 23% of the teacher aides. "Helping the individual child with his lessons" is assigned to 44% of the responding teacher aides; while not on the duties most frequently recommended, it is suggested by 45% of the teachers. "Correcting workbooks" is assigned to 38% of the teacher aides, and is recommended by 49% of the teachers.

*All graphs are on a percentage basis to facilitate comparison.

Figure 1--DUTIES OF TEACHER AIDES

Percentage of teacher aides performing the following duties routinely or quite often (75% or more of the time they appear in the classroom schedule)

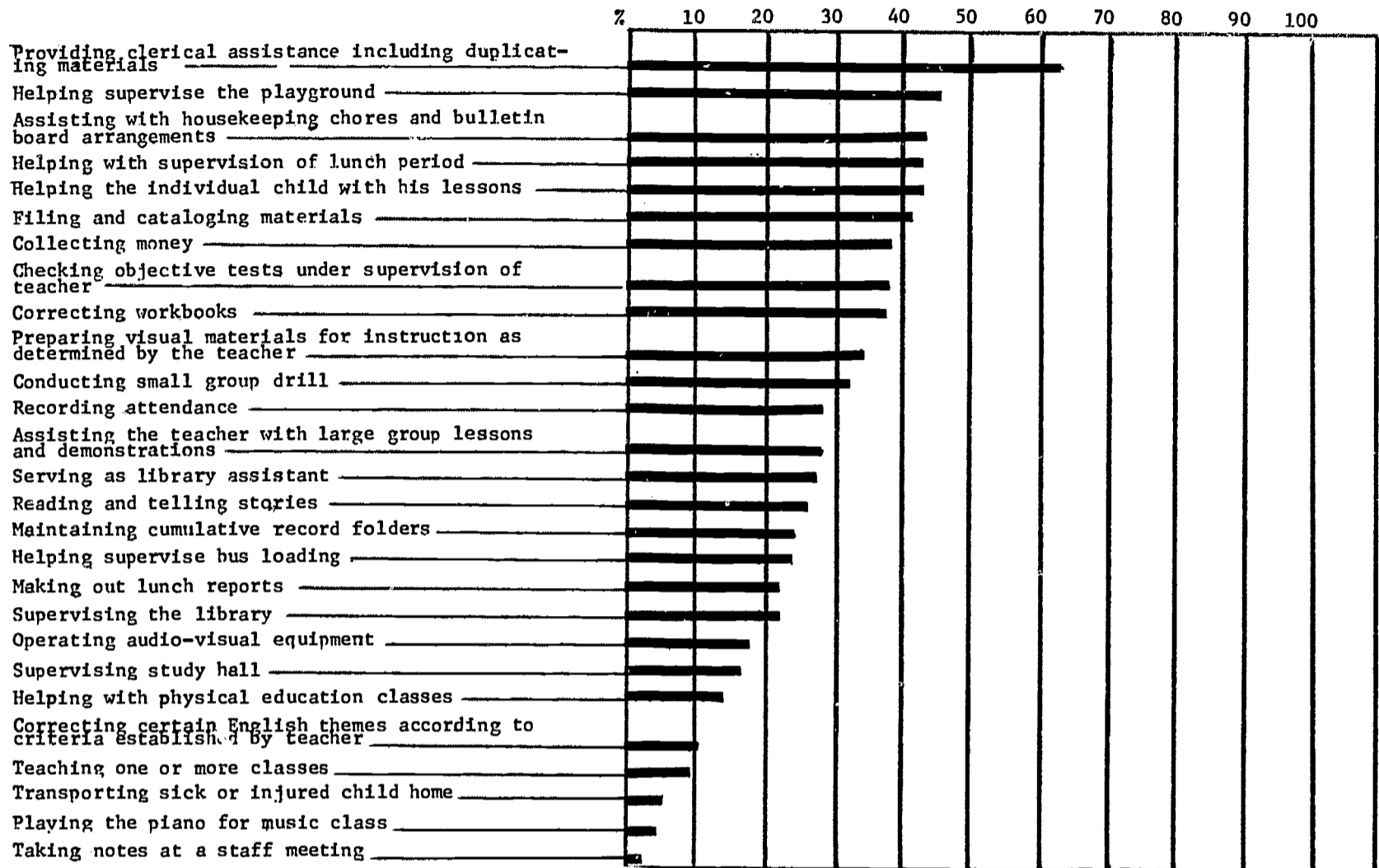


Figure 2--RECOMMENDED DUTIES OF TEACHER AIDES

Percentage of teachers recommending the following duties routinely or quite often (75% or more of the time they appear in the classroom schedule)

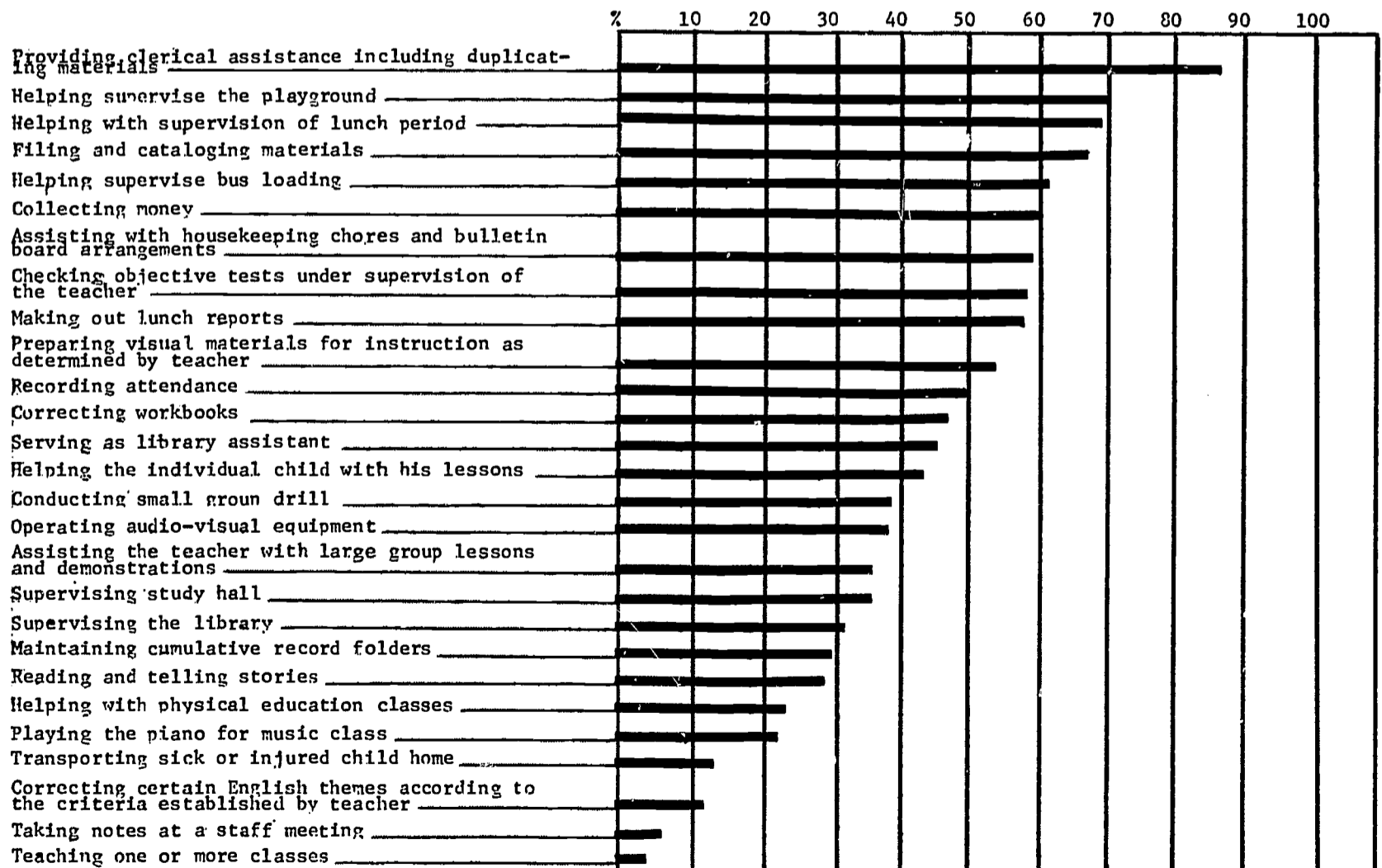


Figure 3—TEN MOST FREQUENT DUTIES

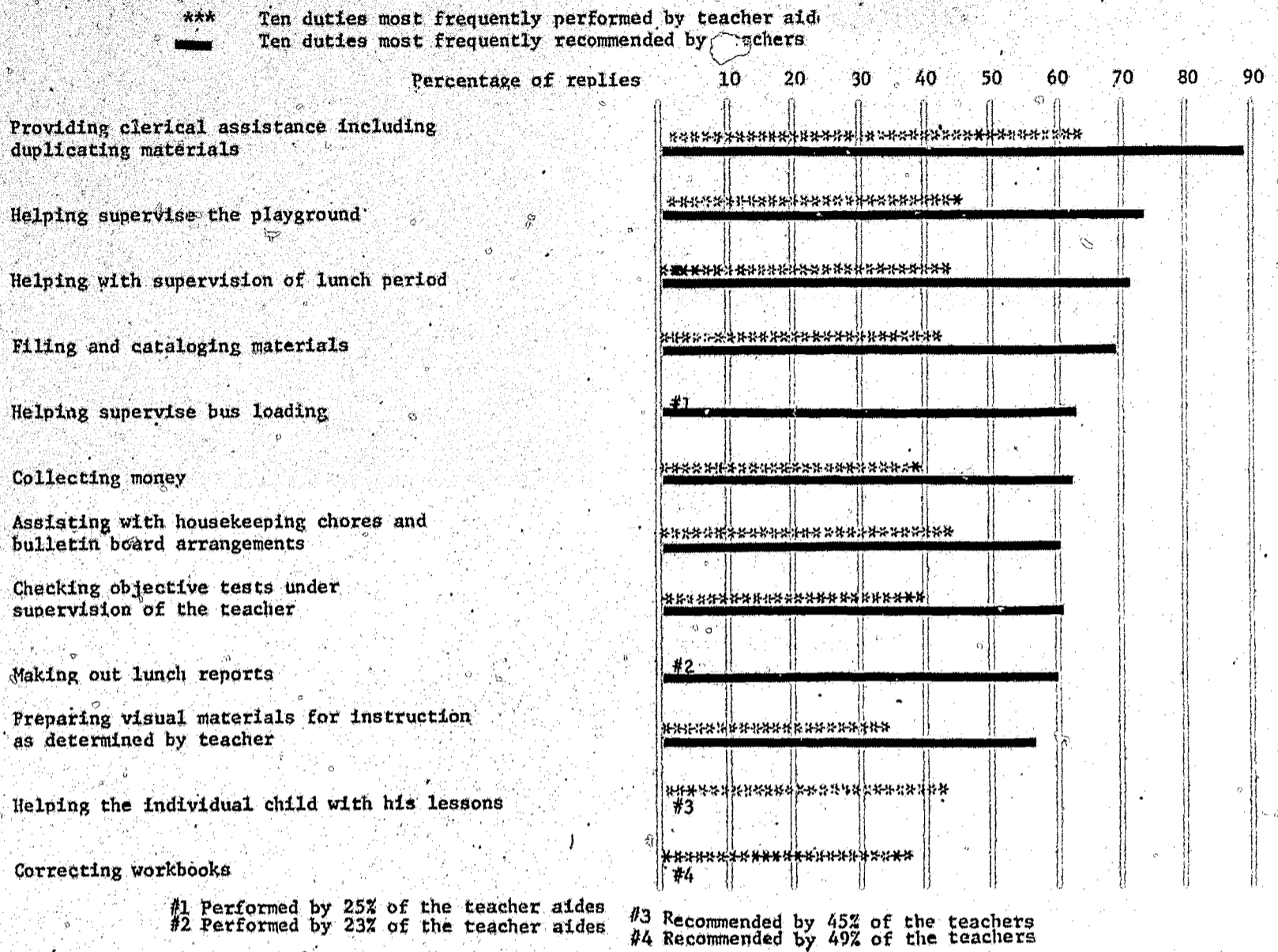
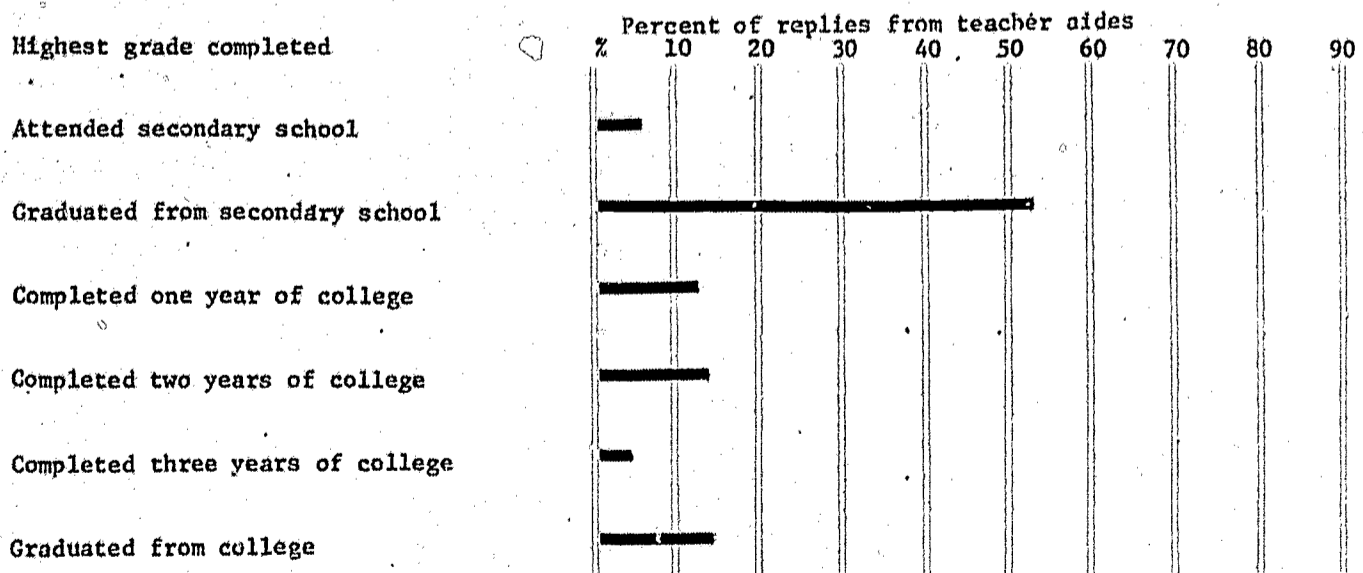


Figure 4—EDUCATIONAL BACKGROUND OF TEACHER AIDES



The twelve duties in Figure 3 are of special significance as they are the principal duties either performed by teacher aides or recommended by teachers, and should be of special interest to those planning pre- or in-service training programs.

Figure 4 indicates the educational background of the aides. Only 5% have less than a high school diploma; 52% have graduated from secondary school; 29% have attended college, and 14% hold a degree.

Of the school systems reporting, 78% are paying teacher aides less than substitute teachers; 10% the same as substitute teachers, and 7% more than substitute teachers. (See Figure 5). Salaries which employees receive usually reflect their educational background.

Field testing revealed that teacher aides could be divided into three groups:

1. Educational Materials Assistant—prepares materials for instruction, maintains bulletin board displays, operates audio-visual equipment.
2. Clerical Worker—provides clerical assistance, duplicates materials, maintains student records, collects money and may perform some of the duties of an Educational Materials Assistant.
3. Instructional Assistant—tutors the individual child, tells stories, teaches one or more classes, and performs some of the duties assigned a Clerical Worker or Educational Materials Assistant.

The superintendent or employing officer of the school system was asked to check the requirements for employment under each of these headings. The results are indicated in the following table.

It is obvious that educational requirements increase as we move from Educational Materials Assistant to Instructional Assistant. It is interesting to note that the educational requirements are lower than the average educational background of teacher aides serving in New England schools. "Parent of a school age child" is a minor requirement, but successful experience working with children is obviously an asset for a person seeking a position as a teacher aide.

Teacher aides participating in the study were grouped by the grades in which they were working: elementary, 1399 or 81%; secondary, 190 or 11%; elementary and secondary, 135 or 8%. The teachers replying were grouped on the same basis: elementary, 1803 or 84%; secondary, 252 or 12%; elementary-secondary, 84 or 4%.

The data received from those working at the elementary and secondary levels were analyzed and the results arranged in descending order of frequency. (Figures 7 and 8). Six of the ten duties most frequently performed in the elementary grades also appear in the corresponding list at the secondary level: providing clerical assistance including duplicating materials, assisting with housekeeping chores and bulletin board arrangements, helping with supervision of lunch periods, helping the individual child with his lessons, filing and cataloging materials, checking objective tests under supervision of the teacher.

Four appearing in the first ten of the elementary list and not in the secondary list are: helping supervise playground, collecting money, correcting workbooks, and conducting small group drill. Four appearing in the top ten duties at the secondary level but not in the elementary list are recording attendance, supervising study hall, maintaining cumulative record folders, and preparing visual materials for instruction as determined by the teacher.

Figure 5—SALARIES TEACHER AIDES RECEIVE

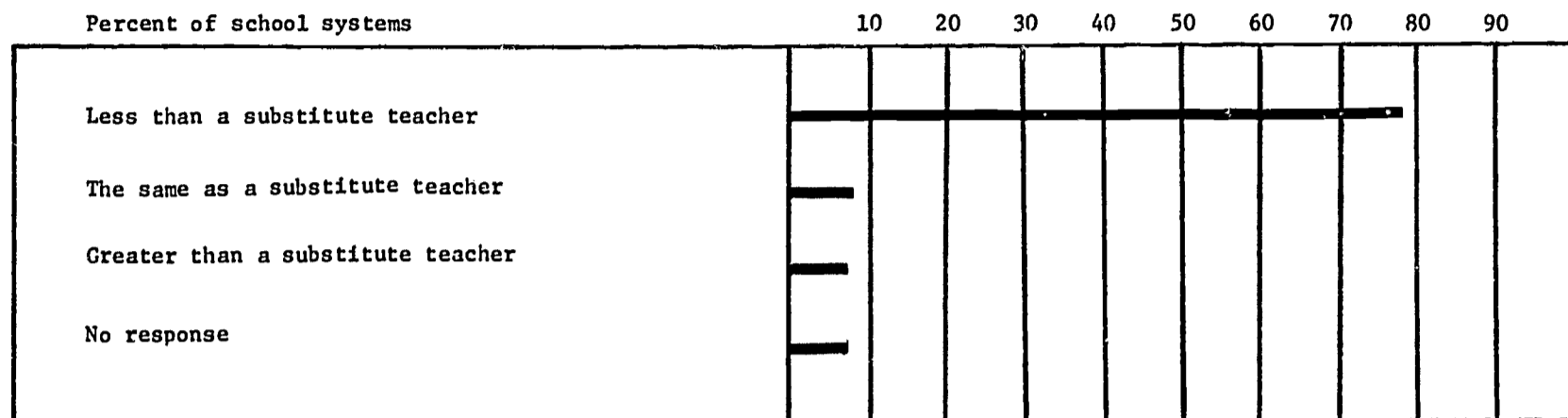


Figure 6—REQUIREMENTS FOR EMPLOYMENT REPORTED BY 230 SUPERINTENDENTS
PERCENTAGE OF RESPONSES

| | NO RESPONSE | DOES NOT APPLY | DESIRED | REQUIRED |
|---|-------------|----------------|---------|----------|
| 1. EDUCATIONAL MATERIALS ASSISTANT | | | | |
| Secondary school attendance | 40 | 4 | 33 | 23 |
| Graduation from secondary school | 59 | 7 | 13 | 20 |
| Post secondary school study | 9 | 49 | 21 | 21 |
| A college degree | 1 | 37 | 40 | 22 |
| Clerical skills | 20 | 47 | 12 | 20 |
| Successful experience working with children | 18 | 47 | 15 | 20 |
| Parent of a school age child | 2 | 20 | 57 | 21 |
| Ability to assist with instruction | 7 | 35 | 37 | 20 |
| Ability to teach one or more classes | 2 | 14 | 62 | 22 |
| 2. CLERICAL WORKER | | | | |
| Secondary school attendance | 47 | 7 | 27 | 20 |
| Graduation from secondary school | 68 | 10 | 10 | 12 |
| Post secondary school study | 3 | 63 | 20 | 14 |
| A college degree | 0 | 39 | 46 | 15 |

| | NO RESPONSE | DOES NOT APPLY | DESIRED | REQUIRED |
|---|-------------|----------------|---------|----------|
| Clerical skills | 44 | 26 | 10 | 20 |
| Successful experience working with children | 13 | 56 | 17 | 14 |
| Parent of a school age child | 3 | 19 | 63 | 15 |
| Ability to assist with instruction | 3 | 31 | 53 | 14 |
| Ability to teach one or more classes | 1 | 11 | 73 | 14 |
| 3. INSTRUCTIONAL ASSISTANT | | | | |
| Secondary school attendance | 46 | 3 | 29 | 22 |
| Graduation from secondary school | 63 | 3 | 15 | 19 |
| Post secondary school study | 30 | 38 | 13 | 19 |
| A college degree | 7 | 50 | 24 | 19 |
| Clerical skills | 7 | 30 | 6 | 58 |
| Successful experience working with children | 23 | 47 | 11 | 18 |
| Parent of a school age child | 0 | 26 | 53 | 20 |
| Ability to assist with instruction | 31 | 34 | 16 | 19 |
| Ability to teach one or more classes | 11 | 32 | 38 | 19 |

Figure 7—DUTIES OF TEACHER AIDES - ELEMENTARY

Percentage of teacher aides performing the following duties routinely or quite often (75% or more of the time they appear in the classroom schedule)

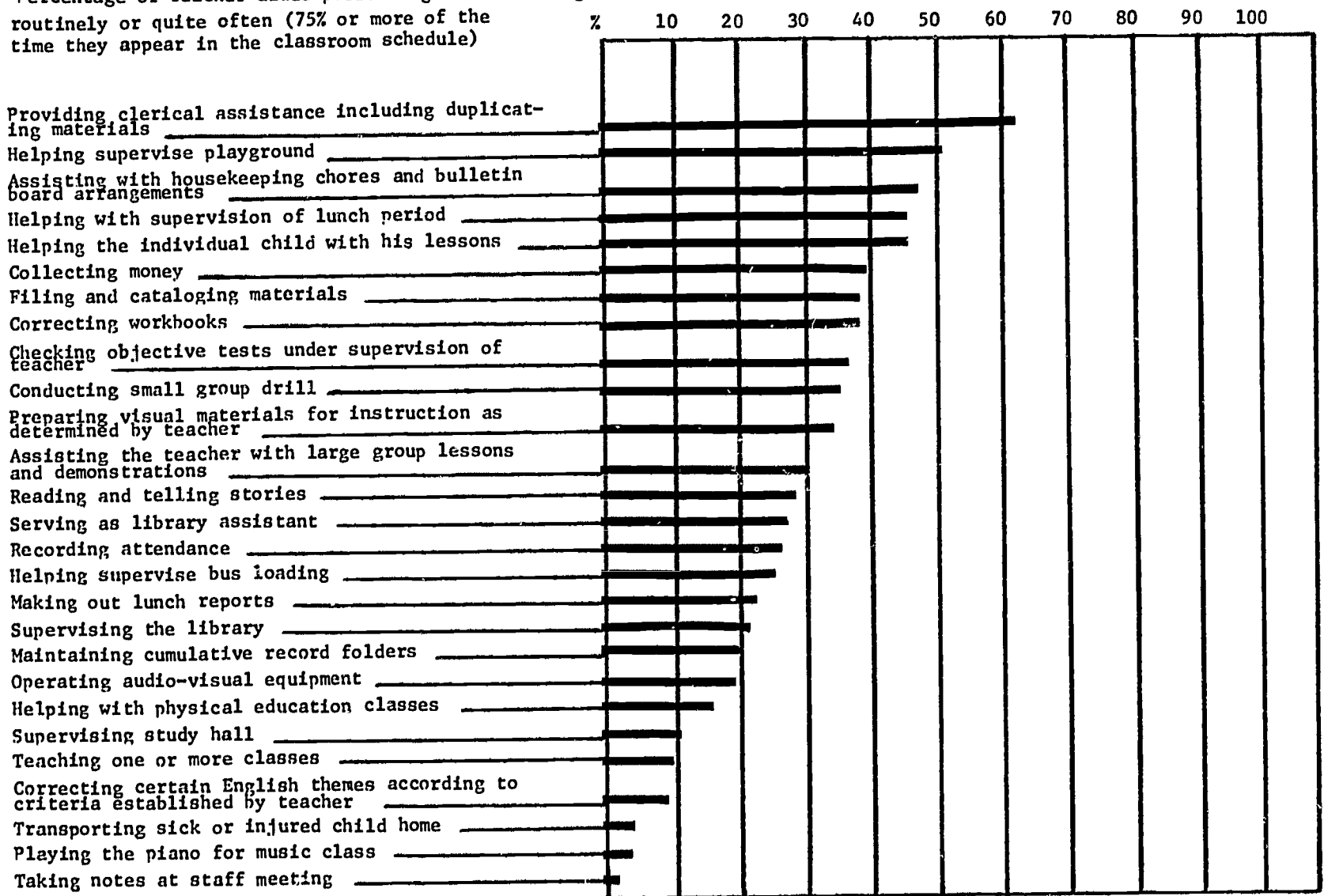


Figure 8—DUTIES OF TEACHER AIDES - SECONDARY

Percentage of teacher aides performing the following duties routinely or quite often (75% or more of the time they appear in the classroom schedule)

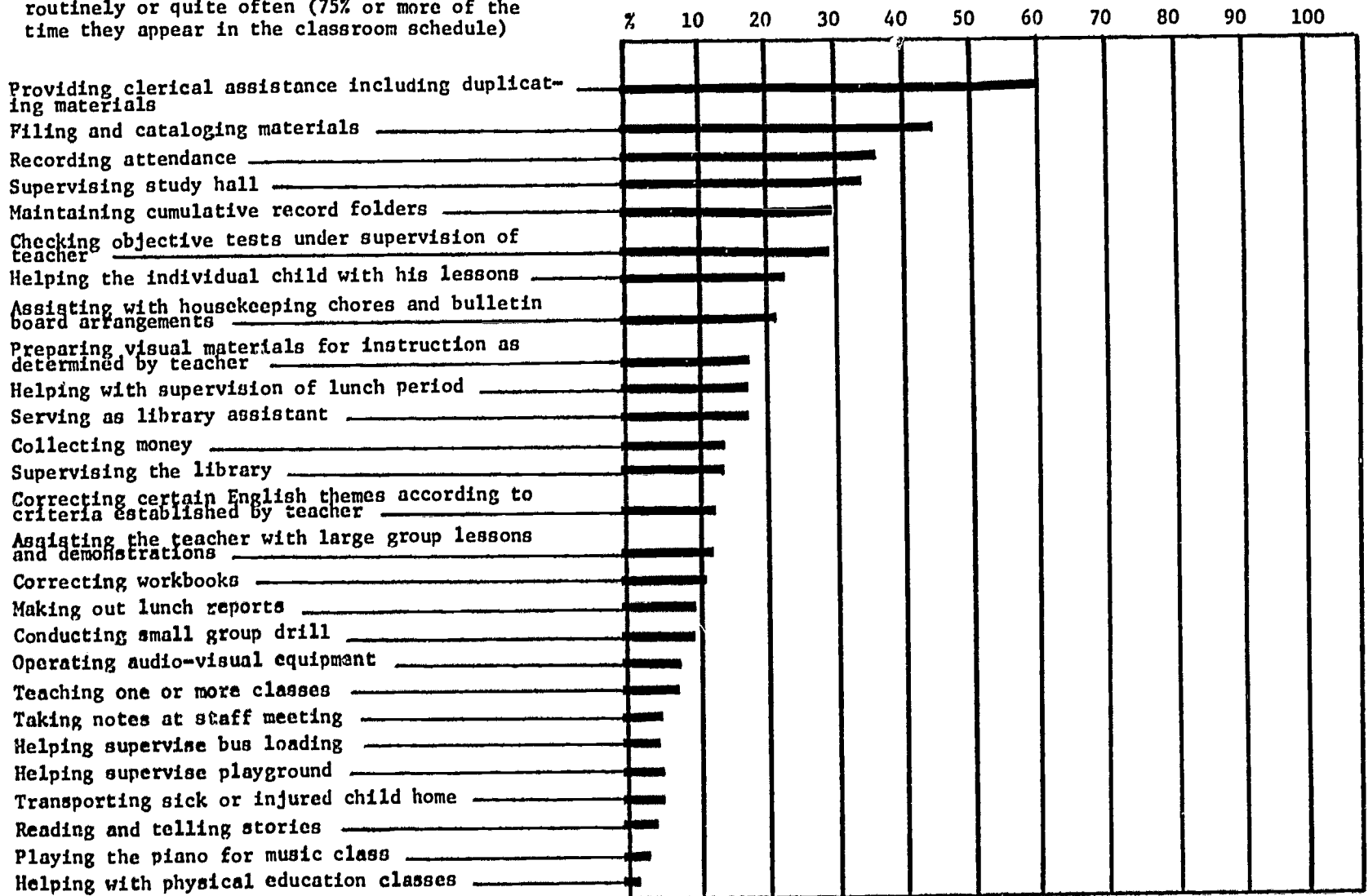


Figure 9—RECOMMENDED DUTIES TEACHER AIDES - ELEMENTARY - SECONDARY

Percentage of teachers recommending the following duties 75% or more of the time they appear in the classroom schedule.

| Duties | Elementary | Secondary | Duties | Elementary | Secondary |
|---|------------|-----------|--|------------|-----------|
| Providing clerical assistance including duplicating materials | 77 | 90 | Helping the individual child with his lessons | 49 | 26 |
| Helping supervise the playground | 75 | 53 | Serving as library assistant | 47 | 46 |
| Helping with supervision of lunch period | 72 | 61 | Conducting small group drill | 44 | 20 |
| Filing and cataloging materials | 68 | 75 | Operating audio-visual equipment | 39 | 35 |
| Helping supervise bus loading | 65 | 50 | Assisting the teacher with large group lessons and demonstrations | 38 | 34 |
| Collecting money | 64 | 57 | Supervising study hall | 36 | 43 |
| Assisting with housekeeping chores and bulletin board arrangements | 62 | 55 | Supervising the library | 34 | 28 |
| Making out lunch reports | 60 | 55 | Reading and telling stories | 33 | 15 |
| Checking objective tests under supervision of the teacher | 59 | 68 | Maintaining cumulative record folders | 31 | 44 |
| Preparing visual materials for instruction as determined by the teacher | 57 | 54 | Helping with physical education classes | 26 | 18 |
| Recording attendance | 50 | 58 | Playing the piano for music class | 24 | 24 |
| Correcting workbooks | 50 | 41 | Transporting sick or injured child home | 14 | 22 |
| | | | Correcting certain English themes according to the criteria established by the teacher | 12 | 19 |
| | | | Taking notes at a staff meeting | 5 | 14 |
| | | | Teaching one or more classes | 5 | 5 |

Duties recommended by teachers who have worked with teacher aides are listed in Figure 9 in descending order of frequency at the elementary level, with corresponding percentages at the secondary level in the right hand column. There is more consistency in teacher-rating than in the actual duties assigned, as nine duties in the first ten recommended by the elementary teachers are also recommended by secondary teachers. Helping supervise the playground is of special interest to elementary teachers, but a minor consideration in secondary schools. Recording attendance, however, is a duty frequently recommended for teacher aides working at the secondary level.

The educational background of teacher aides, elementary and secondary, is recorded in Figure 10. Teacher aides employed at the secondary level have more advanced training than those working in the elementary schools. Sixty-one percent have attended college for one or more years, and twenty-eight percent hold a degree. At the elementary level, thirty-one percent have attended college one or more years and ten percent have a degree.

Teacher aides at both the elementary and the secondary level have general educational background for the duties assigned. It appears that specialized training in business education, preparation of educational materials, human growth and development and other special training is an advantage.

Figure 10—EDUCATIONAL BACKGROUND TEACHER AIDES

| Highest grade completed | Percent Employed in Elementary School | Percent Employed in Secondary School |
|----------------------------------|---------------------------------------|--------------------------------------|
| Attended secondary school | 5 | 1 |
| Graduated from secondary school | 48 | 34 |
| Completed one year of college | 11 | 14 |
| Completed two years of college | 11 | 16 |
| Completed three years of college | 4 | 3 |
| Graduated from college | 10 | 28 |
| No response | 11 | 4 |

THE TEACHER AIDE AND PROFESSIONAL ORGANIZATIONS

The professional organizations in New England affiliated with the National Education Association have always been active in their support of good education, and in recent years they have encouraged their members to take part in formulation of school policy at the local level. A study of teacher aides would not be complete without including the reaction of these organizations and the opinions of their leaders.

The executive secretaries of the six New England professional organizations completed a two-part questionnaire: Part One reported any official action taken by state educational association pertaining to teacher aides; Part Two asked for the opinion of the executive secretary on questions relating to teacher aides. (See questionnaire in Appendix).

The questions and replies to Part One were as follows:

1. What formal action has the association or any of its committees taken relative to teacher aides?

Three of the associations have taken no formal action. The TEPS commission in one state has given some consideration to certification status. One state has provided a workshop for teacher aides as part of its state convention, passed a resolution favoring teacher aides, and asked the TEPS commission to work on the professional nature of teaching. One association in a published statement of continuing responsibilities includes this item: "Seek to assure that all activities for pupils in the public schools which involve teaching functions shall be carried out only by certified professional persons; non-professional personnel shall be employed in local school systems only for work which involves no teaching responsibilities." *

2. Are teacher aides admitted to membership in the association?

Three states replied "yes"; one, "yes if certified". Two replied "no".

3. If the answer to Question 2 is yes, are they admitted to regular membership or a special classification?

Two states replied "regular membership"; one, "special classification".

4. Does the association plan to hold one or more conferences for teacher aides in 1966-67?

Five states replied "no"; and one "possibly".

5. Does the association plan to conduct one or more workshops for teacher aides in 1966-67?

Five states answered "no", and one "yes". One state said the association would encourage local associations to conduct workshops.

6. Does the association plan to issue bulletins to teacher aides?

Five responded "no"; one uncertain. One state which admits teacher aides to membership said that they would receive all published bulletins, but no special publication for teacher aides was planned.

Part Two of the questionnaire referred to the opinion or judgment of the executive secretary. The questions and responses were as follows:

1. Should the employment of teacher aides be encouraged?

All six executive secretaries replied "yes". One added: "Only when their roles have been clearly defined. All teacher aides should be certified. They should not engage in any instructional activities".

2. What should be the minimum educational requirements for teacher aides?

One secretary did not reply to the question. One checked secondary school attendance. One stated secondary school attendance for some and two years of post secondary for others, depending upon their duties. Two checked graduation from secondary school, and one commented: "It depends on the definition of their duties

*Connecticut Teacher, April 1962, Connecticut Education Association

and other factors, personal and professional. Graduation from secondary school might serve as a bare minimum with as much additional preparation as possible". One would require two or more years of college training.

3. What salary should a teacher aide receive? Less than a substitute teacher? The same as a substitute teacher? Greater than a substitute teacher?

Two secretaries did not reply to the question. One checked "Less than a substitute teacher". One said "Less than substitute teacher" but added the following comment: "Off hand I would not think a teacher aide should be paid more than one-third to one-half of the salary of the substitute teacher. I would suggest an investigation of the relationship of the salaries of practical nurses to R.N.'s, or of medical technicians to M.D.'s". One did not reply, but made a note "No opinion—market must determine". One checked all three and added the note: "Dependent upon educational training and job".

4. Which of the following in-service training activities do you recommend for teacher aides? Conference by state department of education. Workshop by state department of education. Conference by professional organization. Workshop by professional organization. Summer session by state university or state college.

Two checked "conference by state department of education". Four checked "workshop by state department of education", one, "conference by professional organization", two, "workshop by professional organization", three, "summer session by state university or state college". One added: "All of these might have a place, but a program of orientation and in-service training might better be one devised by joint consultation with representatives of all these and other agencies in the field of teacher preparation".

5. Who should provide the pre-service training for teacher aides? State college. State University. Junior college. Manpower Development and Training Program. Other.

Two secretaries checked state college; two, state university; two, junior college; two, Manpower Development and Training Program; one under "Other" listed the state department of education; another, local school system; and a third, high school.

6. Check the duties you feel could be satisfactorily performed by a teacher aide with two years of post secondary training. Maintaining records. Completing reports. Assisting with instruction. Teaching one or more classes. Other.

Six secretaries checked maintaining records and completing reports; four checked assisting with instruction; one checked teaching one or more classes, and added a note: "Depending on individual's talent". Under "Other", there were several suggestions—classroom maintenance, bulletin board displays, assistance on field trips, assistance in class organization and management, assistance in pupil supervision in study halls and on playground and corridors; assistance with audio-visual work. One added this comment: "Any professional tasks to be performed by a certified teacher; others done by a sub-professional".

The results of the questionnaire indicate a variety of opinions. However, there was unanimous agreement that the employment of teacher aides should be encouraged and that one of the responsibilities assigned to them should be maintaining records and completing reports. Associations at this time are planning neither pre-service nor in-service training of teacher aides.

The executive secretaries in their interviews with the director of the study indicated a sincere interest in encouraging employment of teacher aides. In-service training and pre-service training for these employees were also stressed. The secretaries are concerned that the duties assigned to teacher aides are in keeping with their training and ability, and that certain duties be retained by certified teachers. One secretary reflected the thinking of the others when he said that a certified teacher should diagnose and prescribe; a teacher aide should assist in implementing the prescription.

THE TEACHER AIDE AND CERTIFICATION

The State Departments of Education in New England have not licensed or certified teacher aides. Statements have been issued by each of the Departments.

CONNECTICUT

"The use of non-professional personnel in the schools raises no problems unless the duties performed by such persons infringe on the work usually assigned to a person professionally trained and certified as one qualified to hold the position and capable by training and special preparation to perform the functions of the assignment.

"There are situations, in the secondary schools especially, where the function may be interpreted as instructional or non-instructional, depending on the duties prescribed, methods of conducting the work involved, direct contact with the children, and the nature of the communication between worker and learner. The study hall may be organized as a learning situation just as the reading or study room in a library, or it may be policed as a detention room where otherwise unassigned students may spend time under adult supervision between instructional appointments. The school library may have many instructional functions to be performed by properly trained librarian-teachers, but it also has custodial responsibilities and clerical duties which may be done by those of limited training unassociated with the education of children.

"Of considerable significance is the category of teacher aides who read and judge compositions, even noting educational progress, criticize reports of research checking for accuracy and method, library assistants who cannot avoid recommending desirable reading and available reference, members of instructional teams doing some personal counseling, disciplining, directing of study, and laboratory assistants who may be called upon to set up experiments, dictate on magnetic tape in language laboratories, check records of animal feeding, formulate, weighing, and general care of experimental materials and procedures. In most cases these people are relieving the certified teacher of time-consuming chores and necessary checking or lesson preparation in order that the teacher may plan, prepare, tutor, instruct and attend to other decidedly professional duties.

"Under the statutes, pupils in the public schools will be taught by legally qualified teachers; and the determination of such qualification and the legal licensing have been systematized in the certification procedures of the State Board of Education. The responsibility for the legal conduct of the educational system of the town has been delegated to the town board of education which is required to employ a superintendent of schools as its agent. The qualifications of such superintendent make him the responsible legal and professional leader who must decide, and advise the employing board of education, on the assignments of personnel; he must know the legal status of the work and the persons so assigned, and the limitations which must be imposed because of any lack in qualifications.

"During the past four years the Certification Advisory Committee has received suggestions and conducted studies in an attempt to compose a policy which the State Board of Education could use as a guide for determining the legality of certain practices and experimental programs in the state. The version of the proposed statement which has been most acceptable to those who have pursued the study contains the following provisions:

1. Non-instructional duties may be performed by non-professional personnel.
2. There must be a clear definition of duties to be performed by such teacher aides, understood by all persons involved.
3. Determination of non-professional duties is made by the superintendent, but assignments clearly professional may not be delegated to a non-professional person.
 - a. Classrooms, study halls and libraries are instructional situations, and are necessarily under the supervision of certified teachers;
 - b. Cafeterias and playgrounds may not be instructional situations, depending on program organization, the decision to be made by the superintendent.
4. No certificate will be required for the teacher aide whose duties are non-professional in na-

ture or are carried out under the supervision of the teacher; if however, the aide works independently of the teacher and directly with students, an appropriate certificate is required.

5. The responsibility of the superintendent in the legal assignment of duties is subject to review by the State Department of Education, and aides performing professional duties as shown by collected evidence will require certification."

MAINE

"Definition: A teacher aide is a noncertificated person employed by a school district whose assignment consists of and is limited to assisting a certificated teacher.

"Purpose for Employment of Teacher Aides

The basic criterion for judging the worth of any school practice is its effect upon the welfare of the children involved. The contribution of the teacher aide is to free the teacher from routine and non-professional activities that there may be opportunity to provide better instruction and better learning situations for the children in the class. Disproportionate increases in class size when teacher aides are used will nullify the justifiable bases for their employment.

"Types of Responsibilities Which Aides May Assume

The teacher's task generally relates to the total school experience of the child. It is therefore difficult, if not impossible, to draw a clear line between teaching and non-teaching functions.

"The work which aides perform shall be as nearly as possible non-instructional in nature as the following:

Record grades

Transcribe records

Correct tests and written work which does not require subjective evaluation or where, under direction of the teacher, attention is given to correction of technical errors only.

Duplicate or mimeograph materials, set up demonstrations, prepare audio-visual equipment for use, write on the board, prepare bulletin boards.

Collect money such as for drives, milk, lunch, et cetera.

Take the roll.

Take attendance and supervise secondary school study halls that are set up for independent study. This does not apply to study halls used for supervised study.

Assist in supervision on the playground, in the lunchroom, and at intermissions where a certificated teacher is present.

Do room housekeeping.

Play the piano for physical education, music, and rhythms.

"Limitations on the Use of Teacher Aides

Aides shall not be used as substitute teachers, to relieve teacher overload, or to replace teachers on leave.

"Qualifications of Teacher Aides

Persons to be employed as teacher aides shall meet the following minimum qualifications:

Be at least 17 years of age.

Be a secondary school graduate.

Have an acceptable tuberculin test.

Have moral character equal to that required of teachers.

"School boards are urged to set standards higher than the minimum and to observe personality and appearance, interest in children, and interest in school problems before employing persons as aides.

"Persons to be employed as 'lay readers' or 'readers' to assist secondary school English teachers shall meet the following minimum qualifications:

Graduation from an approved or accredited college.

Completion of at least 6 semester credit hours in English composition and 12 semester credit hours in literature.

"School District's Responsibility to the Aide

If aides are to render real service to a school district, it is necessary that they be prepared for the responsibilities they are to assume. This preparation should take place both before and after employment and should include orientation, acquaintance with the operation of the school, understanding of responsibilities to children, and knowledge of ethical responsibilities in relationship to teachers, the school, and the community.

"Legal Responsibilities of Aides

As school employees, teacher aides shall conform to Maine laws applicable to other school employees. This shall include registration of a health certificate with the school superintendent.

"Approval of Plans for Use of Teacher Aides

1. School districts employing teacher aides or 'readers' for the school year shall present their plans for employment and use of such aides for approval to the State Department of Education. The plans should be directed to Executive Director, Division of Professional Services.
2. The plans shall include the following information:
 - Purpose for which the aides are being employed.
 - Number of aides being employed and the grades to which they are being assigned.
 - Tasks which the aides are expected to perform.
 - Standards used by the district in selection of aides other than those specifically required by the State Board of Education.
 - Age, preparation, experience, and other qualifications of each aide employed.
 - Procedure to be used in orienting the aide to the school and the special assignment.
3. During the first year of operation of a program the Department shall have the authority to approve on a trial basis other plans for use of teacher aides than those presented herein.
4. It will not be necessary for school districts to present new plans for employment of teacher aides each school year. A plan once approved will stand until the district receives notice to the contrary from the State Department of Education or until the State Board of Education makes some regulation with which the approved plan does not comply. Any major changes in the original approved plan shall be sent to the Department for approval prior to their incorporation in the district's educational program."

MASSACHUSETTS

"Massachusetts through Chapter 164 of the Acts 1965 makes provision for school committees to appoint instructional and administrative aides with the intent that such aides not be given instructional responsibilities".

NEW HAMPSHIRE

"Teacher's aide—One who assists one or more teachers with routine duties other than instruction. This person is usually not a certifiable teacher".

RHODE ISLAND

"The State Board of Education has not issued an official statement of policy regarding the use of Teacher-Aides in Rhode Island schools. Studies of the use of auxiliary personnel are in progress, however, and a report is forthcoming."

VERMONT

"The distinguishing mark of a teacher, for certification purposes, is employment with some responsibility for instruction or assisting pupils with their school work. Such an assignment, or the performance of such a function, marks the difference between a teacher and teacher aide or other employee.

"A teacher aide is a non-certified person employed by a school district whose assignment consists of, and is limited to, assisting one or more certified teachers. Duties may include such activities as correcting papers, passing out material, putting material on the blackboard or bulletin boards, operating audio-visual equipment, supervising lunch rooms, playgrounds, study halls, bus loading, helping children with their wraps, and performing other tasks of a similar nature".

The New England state departments of education recognize the position of teacher aide, but have not developed requirements for certification. Their regulations are designed to delineate the duties appropriately assigned to teacher aides.

SUMMARY OF FINDINGS AND CONCLUSIONS

Teacher Aides in the Classroom is primarily a status study of teacher aides in New England. The study provides answers to the following questions: Are teacher aides employed in sufficient numbers to be a significant factor in education? What is the attitude of educational associations toward teacher aides and their work? What duties should be assigned to teacher aides in the opinion of teachers who have had experience working with them? What is the educational background of teacher aides? What is the certification status of teacher aides? What salaries do teacher aides receive?

The answers to these questions as indicated in the study are that teacher aides have increased in New England from twelve school systems employing them in 1960 (reported in the Norwalk study) to 230 in 1967 (reported in the present study). One thousand seven hundred twenty-four teacher aides participated in this survey. They are a significant factor in education in New England and their number will increase as educational associations are encouraging their employment, and the federal government is providing funds for payment of their salaries through many of its programs. The aides are performing tasks that are ancillary to instruction, thus providing the teacher with more time for planning and conducting the instructional activities of the classroom. Teacher aides have an adequate general education for the tasks they are performing, 95% having graduated from high school. Of this number, 14% hold a degree and 29% have attended college one or more years. Teacher aides are not certified, but are employed under state regulations that describe in general terms what duties may be assigned to them. Seventy-eight percent of the teacher aides are paid less than a substitute teacher.

What are the implications of these findings for persons in leadership positions in education at the state and local level?

Teacher aides have an adequate general educational background for their task. They appear to need training in business education, preparation of educational materials, the operation of audio-visual equipment, an understanding of child growth and development, and a knowledge of the policies and regulations pertaining to school lunch service, playground supervision, and other activities if they are to perform the duties recommended by teachers who have worked with them. The services of teacher aides now employed could be strengthened through in-service training programs which could be planned by state department of education personnel working with local school systems.

The growing numbers and educational background indicate the need for pre-service training which could be developed through the cooperation of the state department of education and the teacher preparation institutions.

Teachers who are to work with teacher aides for the first time need direction in organizing the work of the classroom to utilize efficiently the time of both the teacher and the teacher aide.

Policy statements of state educational agencies vary from a definition of teacher aides to a lengthy statement of possible assignment of duties. It is suggested that the certification officers of the New England states could develop a common statement of policy on the appropriate functions of teacher aides. Such a statement should delineate carefully the broad responsibilities of the classroom teacher and the teacher aide leaving the specific assignment of duties to the local authorities. Some thought should be given to the title "Teacher Aide", as this implies teacher assistant. What is needed is a title that implies classroom assistant or a person conducting ancillary activities in the classroom.

Three further studies are suggested. One—an analysis of the activities in the classroom to determine which are specifically instructional and which are ancillary to instruction. Two—a study of the effect of teacher aides on pupils, related to such factors as attendance, academic achievement, and classroom behavior. Three—a comparative study of salaries paid to teacher aides, practical nurses, clerical assistants, draftsmen, and others with comparable post secondary school training.

Teacher aides constitute a rapidly growing segment of the educational family. Both teachers and aides need guidance and assistance from professional leaders at the state and local levels.

BIBLIOGRAPHY

- American Association of School Administrators and National Education Association, Research Division. *Teacher Aides: Current Practices and Experiments*, Educational Research Service Circular #5 (July 1960). Washington, D.C.: The Association.
- Auxiliary School Personnel: Their Roles, Training and Institutionalization*. (Based on a nationwide study of teacher-aides, teacher-assistants, family workers and other auxiliary personnel in education by Garda W. Bowman and Gordon J. Klopff.) Conducted for the Office of Economic Opportunity by Bank Street College of Education, New York. October 1966.
- Bell, Andrew. *An Analysis of the Experiment in Education Made at Egmore, Near Madras*. London: Cadell and Davies, 1807.
- Connecticut Education Association, Research Department. *Teacher Aides in Connecticut Public Schools, Parts I and II*. Hartford: The Association, 1967.
- Florida Educational Research and Development Council. "Teacher Aides," Section Two, *Research Bulletin*, Vol. 2, No. 1 (March 1966). Gainesville: University of Florida.
- Lyon, Harold C., Jr. "Introduction to Success." *American Education*, Vol. 3, No. 5, p. 5-6, 25 (May 1967). Washington: U.S. Office of Education.
- National Education Association, Research Division. "Teacher Aides in Public Schools." *NEA Research Bulletin*, Vol. 45, No. 2, p. 37-39 (May 1967).
- North Carolina State Department of Public Instruction. *The Teacher Aide in North Carolina's Comprehensive School Improvement Project*, Publication 395. Raleigh: The Department, 1966.
- Perkins, Bryce. *Factors Which Have Influenced the Development of the Role of the Paraprofessional in the Elementary Schools of Norwalk, Connecticut*. Unpublished Doctor's Dissertation, New York University, 1961.
- Perkins, Bryce. *Team Teaching in Barbados (A Teacher's Handbook)*. A Barbados Ministry of Education Publication, 1966.
- Provus, Malcolm. *Staffing for Better Schools*. Washington: U.S. Office of Education, 1967.
- Reigart, John Franklin. *The Lancasterian System of Instruction in the Schools of New York City*. New York: Teachers College, Columbia University, 1916.
- Turney, David T. *The Instructional Secretary as Used by Classroom Teachers*. Nashville, Tennessee: George Peabody College for Teachers, 1959.
- University of the State of New York, State Education Department, Bureau of School and Cultural Research. *Survey of Public School Teacher Aides*. Albany: The Department, April 1966.
- Western Reserve University, Center for Urban Studies. "The Use of Volunteers in a School System." *Urban School Notes*, Vol. 1, No. 3 (December 1965).
- Yale-Fairfield Study of Elementary Teaching. *Teacher Assistants* (abridged report, p. 38-54; prepared by John J. Howell and others). New Haven, Conn.: The Study (Box 2164, Yale Station), February 1959.

APPENDIX POSTAL CARD SURVEY

To: Superintendents and Private School Principals (Date)

From:, Director

Subject: Assessment of Teacher Aides

The New England Educational Assessment Project plans to make an assessment of teacher aides during the summer of 1966 and the school year 1966-67.

The purpose of the assessment is to secure sufficient information to indicate to state departments of education and local educational agencies desirable qualifications and duties of teacher aides and the in-service training needed to strengthen their contribution to education.

Please help the planning committee determine the extent of the project by completing the attached card.

School District Name

Address

1. Does District employ or plan to employ teacher aides? YES NO If YES, please answer below.
2. Number of teacher aides employed or to be employed. School yr. 1965-66 Summer 1966
School yr. 1966-67
3. Number of teacher aides with source of salaries

| | Federal | State/Local |
|--------------------|---------|-------------|
| School yr. 1965-66 | | |
| Summer 1966 | | |
| School yr. 1966-67 | | |

STATE TEACHERS ASSOCIATION QUESTIONNAIRE

Date.....

Name of the Association

State Membership of the Association

Name of the Executive Secretary

1. What formal action has the Association or any of its committees taken relative to teacher aides?
2. Are teacher aides admitted to membership in the Association? Yes.... No....
3. If the answer to question 2 is yes, are they admitted to regular membership or in a special classification? Regular membership.... Special classification....
4. Does the Association plan to hold one or more conferences for teacher aides in the 1966-67 school year? Yes.... No....
5. Does the Association plan to conduct one or more workshops for teacher aides in the school year 1966-67? Yes.... No....
 - a. What will be the minimum and the maximum length of these workshops?
Minimum..... Maximum.....
6. Does the Association plan to issue bulletins to teacher aides? Yes.... No....

The following questions are asked to obtain the opinion of the Executive Secretary, a key person in professional organizations. It is understood that the answers represent his thinking and not necessarily that of other officials of the Association.

1. Should the employment of teacher aides be encouraged? Yes.... No....
2. What should be the minimum educational requirements for teacher aides? Secondary school attendance.... Graduation from secondary school.... Two or more years of post-secondary school study.... A college degree....

3. What salary should a teacher aide receive? Less than a substitute teacher.... The same as a substitute teacher.... Greater than a substitute teacher....
4. Which of the following in-service training activities do you recommend for teacher aides? Conference by state department of education.... Workshop by state department of education.... Conference by professional organization.... Workshop by professional organization.... Summer session by state university or state college.... Other
5. Who should provide the pre-service training for teacher aides? State College.... State University.... Junior College.... Manpower Development and Training Program.... Other.....
6. Check the following duties you feel could be satisfactorily performed by a teacher aide with two years of post-secondary training. Maintaining records and completing reports (attendance records, lunch reports, etc.).... Assisting with instruction (reading and telling stories, conducting small group drill).... Teaching one or more classes.... Other.....

NEW ENGLAND EDUCATIONAL ASSESSMENT PROJECT - SURVEY OF TEACHER AIDES
 To be completed by the **TEACHER AIDE**
 (FOR FIELD TESTING ONLY)

Note: The New England Educational Assessment Project is conducting a study of teacher aides to assist the state departments of education and local education agencies in planning. Please complete this form by placing a checkmark after each of the next 23 items in the square best describing your activities. If you have duties not included in this list, please add them under "other duties".

| | ROUTINE | QUITE OFTEN | OCCASIONALLY | SELDOM | NEVER |
|--|---------|-------------|--------------|--------|-------|
| 1. Providing clerical assistance including duplicating materials | | | | | |
| 2. Maintaining cumulative record folders | | | | | |
| 3. Filing and cataloging materials | | | | | |
| 4. Taking notes at a staff meeting | | | | | |
| 5. Making out lunch reports | | | | | |
| 6. Assisting with housekeeping chores and bulletin board arrangements | | | | | |
| 7. Operating audio-visual equipment | | | | | |
| 8. Preparing visual materials for instruction as determined by the teacher | | | | | |
| 9. Collecting money | | | | | |
| 10. Helping with supervision of lunch period | | | | | |
| 11. Helping supervise bus loading | | | | | |
| 12. Helping supervise the playground | | | | | |
| 13. Helping with physical education classes | | | | | |
| 14. Transporting sick or injured child home | | | | | |
| 15. Correcting objective tests under the supervision of the teacher | | | | | |
| 16. Correcting certain English themes according to the criteria established by the teacher | | | | | |
| 17. Helping the individual child with his lessons | | | | | |
| 18. Serving as library assistant | | | | | |
| 19. Reading and telling stories | | | | | |
| 20. Conducting small group drill | | | | | |
| 21. Playing the piano for music class | | | | | |
| 22. Assisting the teacher with large group lessons and demonstrations | | | | | |
| 23. Teaching one or more classes | | | | | |
| 24. Other duties | | | | | |

Signed City or Town

Highest grade you have completed: High school 9.... 10.... 11.... 12....
 College 13.... 14.... 15.... 16....

Grades in which you are working: Elementary (K-6).... Jr. High School (7-9)....
 Senior High School (10-12)....

NEW ENGLAND EDUCATIONAL ASSESSMENT PROJECT - SURVEY OF TEACHER AIDES

To be completed by SUPERINTENDENT OF SCHOOLS or ASSISTANT SUPERINTENDENT responsible for instruction.

(FOR FIELD TESTING ONLY)

Note: The New England Educational Assessment Project is conducting a study of teacher aides to assist the state departments of education and local educational agencies in planning. For the purpose of this study a teacher aide is considered to be a person who performs certain tasks hitherto considered to be part of a job of a certified teacher. The following questions are asked to obtain the opinion of a person who has had experience in employing teacher aides for the instructional program.

WHICH OF THE FOLLOWING BEST DESCRIBES THE DUTIES OF TEACHER AIDES YOU HAVE EMPLOYED

1. *Educational Materials Assistant*: Prepares materials for instruction, maintains bulletin board displays, operates audio-visual equipment.
2. *Clerical Worker*: Provides clerical assistance, duplicates materials, maintains cumulative record folders, collects money. (Duties may include some of those of Educational Materials Assistant)
3. *Instructional Assistant*: Tutors the individual child, tells stories, teaches one or more classes (Duties may include some of those of Clerical Worker or Educational Materials Assistant)

PLEASE CHECK EACH OF THE FOLLOWING ITEMS AS REQUIRED OF TEACHER AIDES EMPLOYED IN YOUR SCHOOL SYSTEM, NOT REQUIRED BUT DESIRABLE, OR UNNECESSARY.

| | REQUIRED | DESIRED | UNNECESSARY |
|--|----------|---------|-------------|
| 1. Secondary school attendance | | | |
| 2. Graduation from secondary school | | | |
| 3. Post secondary school study | | | |
| 4. A college degree | | | |
| 5. Clerical skills | | | |
| 6. Successful experience working with children | | | |
| 7. Parent of school age child | | | |
| 8. Ability to assist with instruction | | | |
| 9. Ability to teach one or more classes | | | |

WHAT SALARY DOES A TEACHER AIDE RECEIVE? Less than a substitute teacher. . . . The same as a substitute teacher. . . . Greater than a substitute teacher. . . .

WHO SHOULD PROVIDE PRE-SERVICE TRAINING FOR TEACHER AIDES? State University. . . . State College. . . . Junior College. . . . Manpower Development and Training Program. . . . Local Educational Agency. . . .

WHO SHOULD PROVIDE IN-SERVICE TRAINING OF TEACHER AIDES? State Department of Education. . . . State University. . . . Professional Organization. . . . Local Educational Agency. . . .

SHOULD THE STATE DEPARTMENT OF EDUCATION ENCOURAGE THE EMPLOYMENT OF TEACHER AIDES? Yes. . . . No. . . .

Signed City or Town

Title

NEW ENGLAND EDUCATIONAL ASSESSMENT PROJECT - SURVEY OF TEACHER AIDES
To be completed by TEACHERS WHO HAVE WORKED WITH TEACHER AIDES
(FOR FIELD TESTING ONLY)

Note: The New England Educational Assessment Project is conducting a study of teacher aides to assist the state departments of education and local education agencies in planning. Because you have had experience working with teacher aides you are asked to give your opinion as to which duties should be assigned to teacher aides. Please check the square after each item that best describes your opinion of the assignment of a duty to a teacher aide. **THIS DOES NOT REFER TO DUTIES CURRENTLY ASSIGNED TEACHER AIDES, BUT TO YOUR JUDGMENT AS TO THE APPROPRIATE ASSIGNMENT OF THESE DUTIES.**

| | ROUTINE | QUITE OFTEN | OCCASIONALLY | SELDOM | NEVER |
|--|---------|-------------|--------------|--------|-------|
| 1. Providing clerical assistance including duplicating materials | | | | | |
| 2. Maintaining cumulative record folders | | | | | |
| 3. Filing and cataloging materials | | | | | |
| 4. Taking notes at a staff meeting | | | | | |
| 5. Making out lunch reports | | | | | |
| 6. Assisting with housekeeping chores and bulletin board arrangements | | | | | |
| 7. Operating audio-visual equipment | | | | | |
| 8. Preparing visual materials for instruction as determined by the teacher | | | | | |
| 9. Collecting money | | | | | |
| 10. Helping with supervision of lunch period | | | | | |
| 11. Helping supervise bus loading | | | | | |
| 12. Helping supervise the playground | | | | | |
| 13. Helping with physical education classes | | | | | |
| 14. Transporting sick or injured child home | | | | | |
| 15. Correcting objective tests under the supervision of the teacher | | | | | |
| 16. Correcting certain English themes according to the criteria established by the teacher | | | | | |
| 17. Helping the individual child with his lessons | | | | | |
| 18. Serving as library assistant | | | | | |
| 19. Reading and telling stories | | | | | |
| 20. Conducting small group drill | | | | | |
| 21. Playing the piano for music class | | | | | |
| 22. Assisting the teacher with large group lessons and demonstrations | | | | | |
| 23. Teaching one or more classes | | | | | |
| 24. Other | | | | | |

Signed City or Town
 Grade in which you are teaching: Elementary (K-6) Jr. High School (7-9)
 Senior High School (10-12)

FORM B NEW ENGLAND EDUCATIONAL ASSESSMENT PROJECT - SURVEY OF TEACHER AIDES
To be completed by TEACHERS WHO HAVE WORKED WITH TEACHER AIDES



INSTRUCTIONS: You are asked to give your opinion as to which duties should be assigned to teacher aides. This does not refer to activities currently assigned to teacher aides, but your judgment as to appropriate duties. Please read the instructions on the reverse side of this form, and darken with a #2 pencil the box after each of the next 27 items which best describes, in your opinion, the assignment of the duty to a teacher aide.

| | | | | | |
|---|---|---|---|---|---|
| 1. Providing clerical assistance including duplicating materials | R | Q | O | S | N |
| 2. Maintaining cumulative record folders | R | Q | O | S | N |
| 3. Filing and cataloging materials | R | Q | O | S | N |
| 4. Taking notes at a staff meeting | R | Q | O | S | N |
| 5. Recording attendance | R | Q | O | S | N |
| 6. Making out lunch reports | R | Q | O | S | N |
| 7. Assisting with housekeeping chores and bulletin board arrangements | R | Q | O | S | N |
| 8. Operating audio-visual equipment | R | Q | O | S | N |
| 9. Preparing visual materials for instruction as determined by the teacher | R | Q | O | S | N |
| 10. Collecting money | R | Q | O | S | N |
| 11. Helping with supervision of lunch period | R | Q | O | S | N |
| 12. Helping supervise bus loading | R | Q | O | S | N |
| 13. Helping supervise the playground | R | Q | O | S | N |
| 14. Helping with physical education classes | R | Q | O | S | N |
| 15. Transporting sick or injured child home | R | Q | O | S | N |
| 16. Checking objective tests (true and false, and other printed tests) under supervision of the teacher | R | Q | O | S | N |
| 17. Correcting certain English themes according to the criteria established by the teacher | R | Q | O | S | N |
| 18. Correcting workbooks | R | Q | O | S | N |
| 19. Helping the individual child with his lessons | R | Q | O | S | N |
| 20. Serving as library assistant | R | Q | O | S | N |
| 21. Supervising the library | R | Q | O | S | N |
| 22. Reading and telling stories | R | Q | O | S | N |
| 23. Conducting small group drill | R | Q | O | S | N |
| 24. Playing the piano for music class | R | Q | O | S | N |
| 25. Assisting the teacher with large group lessons and demonstrations | R | Q | O | S | N |
| 26. Supervising study hall | R | Q | O | S | N |
| 27. Teaching one or more classes | R | Q | O | S | N |

Never
 Seldom
 Occasionally
 Quite often
 Routine

Does not apply
 Desired
 Required

No response
 Raw Score
 New England
 Elementary

PRINT YOUR NAME IN THE BOXES PROVIDED, THEN BLACKEN THE LETTER BOX BELOW WHICH MATCHES EACH LETTER OF YOUR NAME

| YOUR LAST NAME | | | | | | | | | | | | YOUR FIRST NAME | | | | | | | | | | | | MI |
|----------------|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|---|---|---|---|---|---|---|---|---|---|----|
| A | B | C | D | E | F | G | H | I | J | K | L | A | B | C | D | E | F | G | H | I | J | K | L | |
| M | N | O | P | Q | R | S | T | U | V | W | X | M | N | O | P | Q | R | S | T | U | V | W | X | |
| Y | Z | | | | | | | | | | | Y | Z | | | | | | | | | | | |

SCHOOL NAME _____ SCHOOL NUMBER _____

SYSTEM NAME _____ SYSTEM NUMBER _____

OFFICE USE ONLY

| Grades in which you are teaching: | Minimum education requirement for a teacher aide: | SYSTEM NUMBER | | SCHOOL NUMBER | | | | | |
|-----------------------------------|---|---------------|---|---------------|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kindg. | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-7 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8-10 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11-12 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

No response 308

FORM A NEW ENGLAND EDUCATIONAL ASSESSMENT PROJECT - SURVEY OF TEACHER AIDES
To be completed by SUPERINTENDENT OF SCHOOLS OR ASSISTANT SUPERINTENDENT responsible for instruction.



INSTRUCTIONS: The New England Educational Assessment Project is conducting a study of teacher aides to assist state and local educational agencies in planning. For the purpose of this study teacher aides are described under three classifications that refer to tasks hitherto considered to be part of the job of a certified teacher. Please review the instructions on the back of this form before answering the questions below. Please use a #2 pencil when completing this form.

| | | | |
|---|----------------|---------|----------|
| 1. Educational Materials Assistant | Does not apply | Desired | Required |
| Secondary school attendance | 4 | 17 | 9 |
| Graduation from secondary school | 5 | 17 | 9 |
| Post secondary school study | 4 | 17 | 9 |
| A college degree | 5 | 17 | 9 |
| Clerical skills | 4 | 17 | 9 |
| Successful experience working with children | 4 | 17 | 9 |
| Parent of a school age child | 4 | 17 | 9 |
| Ability to assist with instruction | 4 | 17 | 9 |
| Ability to teach one or more classes | 4 | 17 | 9 |

Does not apply
 Desired
 Required

No response
 Raw Score
 New England

PRINT YOUR NAME IN THE BOXES PROVIDED, THEN BLACKEN THE LETTER BOX BELOW WHICH MATCHES EACH LETTER OF YOUR NAME

| YOUR LAST NAME | | | | | | | | | | | | YOUR FIRST NAME | | | | | | | | | | | | MI |
|----------------|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|---|---|---|---|---|---|---|---|---|---|----|
| A | B | C | D | E | F | G | H | I | J | K | L | A | B | C | D | E | F | G | H | I | J | K | L | |
| M | N | O | P | Q | R | S | T | U | V | W | X | M | N | O | P | Q | R | S | T | U | V | W | X | |
| Y | Z | | | | | | | | | | | Y | Z | | | | | | | | | | | |

SCHOOL NAME _____ SCHOOL NUMBER _____

SYSTEM NAME _____ SYSTEM NUMBER _____


OFFICE USE ONLY

| What salary does a teacher aide receive? | Who should provide in-service training of teacher aides? | SYSTEM NUMBER | | SCHOOL NUMBER | | | | | |
|--|--|---------------|---|---------------|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Less than a substitute teacher | State Dept. of Ed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| The same as a substitute teacher | State University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Greater than a substitute teacher | Professional Org | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Ed Agency | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

No response

FORM C NEW ENGLAND EDUCATIONAL ASSESSMENT PROJECT - SURVEY OF TEACHER AIDES
To be completed by the Teacher Aide

INSTRUCTIONS: The New England Educational Assessment Project is conducting a study of teacher-aides to assist the state departments of education and local education agencies in planning. Please read the instructions on the reverse side of this form and then darken the box after each of the next 27 items which best describes your activities. Please use #2 pencil. Do not use pen or ink. The completed form should be returned to the building principal.



1. Providing clerical assistance including duplicating materials
 2. Maintaining cumulative record folders
 3. Filing and cataloging materials
 4. Taking notes at a staff meeting
 5. Recording attendance
 6. Making out lunch reports
 7. Assisting with housekeeping chores and bulletin board arrangements
 8. Operating audio-visual equipment
 9. Preparing visual materials for instruction as determined by the teacher
 10. Collecting money
 11. Helping with supervision of lunch period
 12. Helping supervise bus loading
 13. Helping supervise the playground
 14. Helping with physical education classes

Never
Seldom
Occasionally
Quite often
Routine

15. Transporting sick or injured child home
 16. Checking objective tests (true and false, and other printed tests) under supervision of the teacher
 17. Correcting certain English themes according to the criteria established by the teacher
 18. Correcting workbooks
 19. Helping the individual child with his lessons
 20. Serving as library assistant
 21. Supervising the library
 22. Reading and telling stories
 23. Conducting small group drill
 24. Playing the piano for music class
 25. Assisting the teacher with large group lessons and demonstrations
 26. Supervising study hall
 27. Teaching one or more classes

FORM #37591

PRINT YOUR NAME IN THE BOXES PROVIDED. THEN BLACKEN THE LETTER BOX BELOW WHICH MATCHES EACH LETTER OF YOUR NAME

| YOUR LAST NAME | | | | | | | | | | | | YOUR FIRST NAME | | | | | | | | | | | | MI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K |

