

A STUDY OF CURRENT PUBLIC SCHOOL BUILDING MAINTENANCE
PERSONNEL PRACTICES IN LARGE CITIES AND BEST
PRACTICES AS RECOMMENDED BY AUTHORITIES

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CHAPTER I

A HISTORY OF PUBLIC SCHOOL BUILDING MAINTENANCE PERSONNEL PRACTICES AND PROCEDURES

1. History of Public School Building Maintenance

The people of the United States have shown an unparalleled interest in education from the earliest days of our history. Widespread approval and increased support have built the American schools into a great ramifying enterprise to serve the educational needs. The capital investment involved is tremendous; the operational expense is expanding; and the problems of personnel management have increased with the complexity of modern industrial living.

In colonial days when people lived in small towns and were primarily an agricultural people, the school was the natural center of community life. "The little red school house," of historical fact and fiction was the center about which community activities revolved. Through the years as our Nation's population increased and progressed toward an industrial nation, the centralization of population in cities began. This trend in population affected the policies of school administration, as Robert D. Orcutt, Business Manager, South Bend, Indiana, pointed out:

The transition from administering schools in the town meeting to the enactment of state laws delegating power to school boards was followed by the employment of the first city superintendent at Providence, Rhode Island, in 1836. With the growth of the educational enterprise, other administrative services were required and superintendents, principals, and supervisors were employed and they grew in professional status.¹

Along with the industrialization and urbanization have come increased conveniences and greater comforts of life. The little red school house has gradually been replaced by larger, more modern buildings improved by professional students of education, architects, and construction engineers. Regardless of the size of the school district, its chief function is the instruction of children. In carrying out this function the district must provide housing, teaching, supervision, and business control.

Business administration of public schools as we now know it has evolved gradually. N. L. Engelhardt and Fred Engelhardt, in their Public School Business Administration explained the evolution thus:

The existing organization for the business management of a public school system is a product of evolution without reference to a fixed set of principles. The development of public education has forced changes in business management. Such changes have been made in local units and frequently without reference to what has been done elsewhere. No well defined scientific attack

¹ Robert D. Orcutt, "Public School Business Administration," School Business Affairs, 14:1, December, 1948.

of national scope has tended to establish principles or to modernize practices.²

This lack of orderly evolution of business administration was not peculiar to the public schools; for private enterprise was lacking in business efficiency also as may be seen in Rufus A. Putnam's "Essential Qualification For Business Administration":

Prior to 1920 very little thought was given to school business administration as we now know it. ... This situation is understandable when one considers the relative unimportance of the business department during the early part of this century. Another factor was the lack of business efficiency in private enterprise during the same period which carried over into school operation. This lack of business interest in school work changed with the advent of technological progress in industry, and school systems throughout the country were compelled to gear their business affairs in keeping with those of private enterprise. Immediately after World War I free public education assumed a new role in this country. Education in all its aspects became progressively important in American life, and a more adequate program was devised to provide better trained administrators, teachers, and non-teaching personnel.³

Of the non-teaching personnel, the building operation and maintenance workers have been slow in developing to a more efficient status, although progress has not been entirely lacking. As late as 1929, Ward G. Reeder, Ohio State

² N. L. Engelhardt and Fred Engelhardt, Public School Business Administration. (New York: Teachers College, Columbia University, 1927). p. 37.

³ Rufus A. Putnam, "Essential Qualifications For Business Administration," School Business Affairs. 13:1, April, 1947.

University, commented on the situation as follows:

...it must be admitted that the development of school janitorial service has not kept pace with the development of other phases of school work.... The school janitorship...has been largely permitted to maintain its original and lowly status. Even at the time of writing the position of school janitor is frequently given to a pauper, to an aged person, to a cripple, to a moron, to a politician, to a politician's friend, or to some other type of incompetent person. As evidence for these generalizations, witness the janitorial personnel of almost any school plant.⁴

School authorities began recognizing gradually the importance of the skilled and technical work of the school building engineer. This recognition, however, was not widespread, as recently as 1928, according to Charles Everand Reeves and Harry Stanley Ganders who said:

The rapid evolution of janitorial-engineer service from comparatively simple, non-skilled work to that of the skilled and technical type has come so unobtrusively that school₅ authorities are as yet but vaguely aware of the change.

Although school authorities had a gradual awakening to the importance of the skill of the building engineer, the public at large falls behind educators in the appreciation of the need of personnel of a high type to take care of

⁴ Ward C. Reeder, The Fundamentals of Public School Administration. (New York: The Macmillan Company, 1930.) p. 234.

⁵ Charles Everand Reeves and Harry Stanley Ganders, School Building Management. (New York: Teachers College, Columbia University, 1928), p. 1.

school plant operation and maintenance. When expenditures are considered, the needs and importance of the work of the janitorial staff are more real. In his Practical School Economics, Henry H. Linn, Columbia University, gives these statistics on building maintenance:

For the school year 1929-1930, the cost of keeping the physical plant open and ready for use, which involved the cleaning, heating, and lighting of buildings together with a variety of other related services, amounted to \$216,072,433.00. Of this amount it may be estimated that approximately 50%, or not less than \$100,000,000.00 was spent for salaries and wages of custodians, engineers, maids, and various other classes of laborers. While this sum may be amply justified in light of the needs and importance of the work of the janitorial staff, the fact remains that there have been much waste and inefficiency in this department of school service.⁶

George F. Womrath, former Assistant Superintendent in charge of Business Affairs, Minneapolis Public Schools, Minneapolis, Minnesota, said that with the passing of the little red school house with the teacher..."acting as both instructor and janitor, there came the advent of the present highly specialized era of modern school house construction, equipment, operation, maintenance and administration."⁷

⁶ Henry H. Linn, Practical School Economics (New York Teachers College, Columbia University, 1934), p. 194.

⁷ George F. Womrath, Efficient Business Administration (New York: The Bruce Publishing Company, 1932), p. 275.

2. The Need For This Investigation

Information of the kind presented in this study should be of interest to members of boards of education, superintendents of schools, school business officials, and others who are responsible for city-school management. This information may be used as a guide to the formation of policies and to assist in the solution of problems concerning the socio-economic conditions surrounding a large group of workmen.

The staff of the public school has become greatly diversified because of influences which have become effective since the Civil War; namely, a broadened social program, the newer philosophy of education, and the professionalization and specialization of teaching. It is a basic assumption of this study that improved service by the non-teaching personnel will tend to help the instructional staff to serve more competently. On the contrary, inefficiency and incompetency of the non-teaching personnel limit the educational process to a great extent.

The causes of inefficiency and incompetency of non-teaching personnel should be determined and suggestions for reduction of these shortcomings are necessary. In order that means may be discovered for utilizing most advantageously every dollar of maintenance expenditure, further research is

needed in the field of the non-teaching personnel. The impact of this phase of the overall school program upon classroom activities is admittedly of sufficient importance to justify its orientation into a field for intensive study.

Because of the increasing school population and of the extensive building program since World War II, both calling for increased teaching and non-teaching personnel, greater efficiency in building maintenance is becoming increasingly more necessary. Because of some known instances of occupational dissatisfaction arising through personnel administration and from the socio-economic conditions, resulting in decreased efficiency on the job, this study was made to discover how general the problem really is, and what progress is being made in solving it.

3. The Problem

Study the present public school building maintenance personnel practices of cities of 200,000 population and above in the United States and of cities of 25,000 population and above in Texas.

4. Importance of the Study

In general, the non-teaching personnel of public schools has not been studied as carefully or so frequently as other public school personnel. Efficient building

maintenance employees are valuable assets to the school system, and a careful consideration of their working conditions reveals strengths and weaknesses in practices of personnel administration.

Policies that govern non-teaching personnel working conditions, if they are to meet the needs of the entire profession, should grow out of the experience and the thinking of workmen and administrators who have analyzed, planned, and executed satisfactory working conditions.

In this study an attempt is made to make available recent concrete information concerning the building maintenance personnel.

5. Definitions of Terms Used

Non-teaching personnel. The term "non-teaching personnel" used in this study is that defined by Moehlman:

Non-teaching personnel includes all those specialized professional and non-professional agents whose work is essential to the facilitation of the instructional process. In the professional group are included doctor, dentist, nurse, social worker or visiting teacher and attendance officer, and in the non-professional group clerical, custodial and lunchroom and transportation employees.⁸

Personnel administration. The definition of

⁸ Arthur B. Moehlman, Social Interpretation (New York: Appleton Century, 1938), p. 247.

personnel administration as interpreted by Tead and Metcalf follows:

Personnel administration is the planning, supervision, direction, and coordination of those activities of an organization which contribute to realizing the defined purposes of that organization with a minimum of human effort and friction, with an animating spirit of cooperation, and with proper regard for the genuine well-being of all members of the organization.⁹

6. Procedures and Sources of Data

In order to limit the number of cities included in this study it was decided to include the public schools of cities of 200,000 population and above in the United States and all cities in Texas with 25,000 population or more.

A questionnaire was prepared and mailed to forty-three selected cities on December 2, 1948. The size of the sample was determined by the 1940 census. A list of the cities may be found in Table No. I. A copy of the questionnaire is included in the Appendix. There were thirty-eight usable replies received from cities of 200,000 population and above in the United States, and the total number of employees included in the study is 26,302.

Eighteen cities in Texas having a population of 25,000 and above were sent copies of the same questionnaire, April 19,

⁹ Ordway Tead and Henry C. Metcalf, Personnel Administration in the United States (New York: Farrar and Rinehart, 1937), pp. 140-41.

1949, and replies were received from fifteen. The total number of employees included in the fifteen Texas cities is 2,208.

The questionnaire dealt with number of employees, physical examination required, educational requirements, hours of work, salaries, retirement plan, age limit, and in-service training program.

For convenience those cities exceeding 200,000 population have been designated as Group I, and Texas cities with 25,000 population and above, as Group II.

Numerous letters were written, including follow-ups in an effort to secure one hundred per cent reply.

In addition to information asked for in the questionnaire, a representative collection of printed materials was received in the form of in-service training pamphlets, physical examination forms, detailed salary schedules, and retirement plan folders. These materials, together with other original data may be found in the office of the writer, Director of Buildings, Houston Public Schools, Houston, Texas.

Several personal interviews with authorities in the field of business maintenance personnel were held; one, with Nelson E. Viles, Specialist for School Plant Management, U. S. Office of Education, and author of The Custodian At

Work¹⁰; another, with A. D. Brainard, Business Manager, Public Schools, Dearborn, Michigan co-author of Handbook for School Custodians¹¹; and, with Ray Hamon, U. S. Office of Education, Chief of School Housing Section.

The data obtained from the questionnaire are presented by tables and discussion. Regional tabulations are also made, and when important regional differences exist these, too, are pointed out either in tables or in the text.

Since this study is based on reports from the nation's largest cities and the largest cities of Texas, the facts as reported herein should be fairly reliable in indicating building maintenance personnel practices in large schools.

For the most part, the material in the tables is presented as it appears on the questionnaire replies. Job titles are designated as individual city replies; the number of employees and number of hours worked per week are indicated as received; salaries paid are given as reported. It will be seen that some cities did not answer every item in full.

An occasional inconsistency in the number of employees and in salary schedule will be noted. This is due to the

¹⁰ Nelson E. Viles, The Custodian At Work. (University Publishing Company, Lincoln, Nebraska, Kansas City, New York, and Dallas, 1941). 391pp.

¹¹ Alanson D. Brainard, and others, Handbook for School Custodians (Lincoln, Nebraska, University of Nebraska, 1941). 170 pp.

fact that information was reported as received. Some respondents to the questionnaire failed to comply with the request of reporting flat rate salaries under "minimum", the lowest salary being paid in each classification, and under "maximum", the highest salary being paid.

7. Organization of Thesis by Chapters

In Chapter I, the introductory chapter, a history of building maintenance, the significance of the problem, and procedures and techniques of the study are set forth. Chapter II is a review of the literature concerning building maintenance and operation, and Chapter III is a summary of the more recent research studies, made of non-teaching school employees. Chapter IV deals with the classification and activities of the building maintenance personnel. Chapter V, presents a survey of building maintenance employees of 200,000 population and above in the United States; and Chapter VI is a similar treatment of a group of public schools in Texas cities having more than 25,000 population. The final chapter includes the summary, conclusions, and recommendations.

CHAPTER II

A REVIEW OF THE LITERATURE CONCERNING BUILDING MAINTENANCE AND OPERATION PERSONNEL

1. The Extent of the Literature

This chapter contains a review of the literature concerning building maintenance and operation personnel. Although the literature on the subject of school administration has increased in quantity as well as quality in recent years, it has neglected the more important phases of operation, maintenance, and the managerial technique involved in those phases.

In books about school business administration, certain sections or chapters pertinent to the study were given. Excellent additional sources of information were provided by the research divisions of educational organizations, and by several of the current educational journals. Also, the bulletins and other reports of cities, states, and institutions of higher learning where outstanding custodial training programs have evolved, furnished information leading to the development of best practices in building maintenance and operation personnel.

The outstanding books and parts of books will be summarized briefly; the leading current educational journals will be discussed in their relation to this study; and, some

of the best city, state, and college, or university practice will be indicated.

2. The Literature in Assembled Form

The first comprehensive treatment of the whole field of school business administration presented in book form was Engelhardt and Engelhardt's Public School Business Administration¹, designed primarily for those who are responsible for the management of city school systems. In the dedicatory statement the authors recognized the leadership of a predecessor, George Dayton Stayer, "whose administrative genius and constructive leadership have contributed so extensively to the progress made in educational administration during the first quarter of the twentieth century and whose teaching and counsel have made this volume possible."²

The respective backgrounds of the authors showed the degree of authority with which they have written. Of N. L. Engelhardt, School Business Affairs, official organ of the Association of School Business Officials, had this to say:

Presently a School Building Consultant, a member of the Problems and Policies Committee of the American Council on Education and of the Commission on International Education Reconstruction, he has recently

1 N. L. Engelhardt and Fred Engelhardt, Public School Business Administration. (New York: Teachers College, Columbia University, 1927.) 1068 pp.

2 Loc. cit.

completed five years as Associate Superintendent of Schools in New York City.

As professor of Educational Administration in Columbia University for thirty years, he has devoted his time and energies to the improvement of public school business administration.³

Fred Engelhardt, the co-author, wrote with the experience of Professor of Educational Administration at the University of Minnesota.

Their book was predicated on the belief that more time should be given to the analysis, planning, and direction of others, in the work of business management which involves (1) accounts, (2) maintenance and operation of buildings, and, (3) supplies. They recommended that (1) the routine of all work be systematized; (2) that standards be established for all workmanship and materials; and, (3) that standard written instructions be prepared for all employees, who, in turn should be governed by sensible regulations. These regulations were said to be influenced by local tradition to a great extent, since management is intimately connected with local environmental conditions. By an intensive study of the local situation, the number of trade representatives, staff members, engineers, custodians, helpers, and other employees might be determined more wisely.

³"N. L. Engelhardt", School Business Affairs, 14:2, September, 1948.

They further recommended a program for rating a trained and skilled personnel for maintenance and operation, as stated in their Public School Business Administration:

The effective carrying out of a program requires constant study and check on standards of materials, use, and workmanship. The various elements of the plant must be inspected to insure that the standards are maintained. For this reason, a schedule of inspection and a check list should be provided those to whom this responsibility is delegated. This inspection should cover every aspect of the operations performed and should be in the form of a rating scale to judge the proficiency of the operator as well as the effect on property.⁴

A rating scale prepared by Engelhardt, Reeves, and Womrath⁵ is one which has been widely used.

In the Strayer-Engelhardt School Administration Series, Reeves and Ganders prepared for publication their School Building Management.⁶ It was intended for use as a manual for custodians and a textbook in courses for maintenance men. The authors had had first-hand experience (four years, at their writing) in the training of custodians; Reeves having

⁴ N. L. Engelhardt and Fred Engelhardt, Op. cit., p. 353.

⁵ N. L. Engelhardt, C. E. Reeves, and George F. Womrath, Standards for Janitorial-Engineering Service. (New York: Teachers College, Columbia University, 1926.) 53pp.

⁶ Charles E. Reeves, and Harry S. Ganders, School Building Management, Strayer-Engelhardt School Administration Series. (New York: Teachers College, Columbia University, 1928.) 395pp.

been Professor of Education at Elmira College, and Ganders having served in the same capacity at the University of Cincinnati.

Of the four parts into which the book was divided, the first and last were found the most pertinent to this study. Part One was entitled "Personnel and Management of School Janitorial-Engineering Service"; and, Part Four, "Efficiency and Economy in the Special Work of School Building Management." In Part One there was included an organization plan for a large city school system. It was in diagram form, showing the relationship of building maintenance to the overall educational program. The authors were of the opinion that the rating of efficiency of custodians was necessary, for several reasons; namely:

A rating of efficiency of janitor-engineers will be useful for purposes of diagnosis of weaknesses in the service, to aid in supervision and training, and for determining merit of particular employees in placing them upon a salary schedule which recognizes merit in the efficiency and economy of service.

In stressing the value of a trained personnel several types of learning were set forth and recommended to proceed simultaneously, each reinforcing the other; they were knowledge, skill, attitudes, and ideals.

⁷ Ibid., p. 38.

The authors referred to the Minneapolis school for janitor-engineers which has been in operation since 1919, with four fulltime instructors. It was considered the leader in the United States, and, rating a close second place was the plan of the Kansas State Board of Vocational Education for janitorial training. Short courses in similar training mentioned were those at Ames, Iowa, Madison, Racine, Kenosha, Superior, La Cross, and the University of Wisconsin. As a result of these courses better training resulted in more adequate service.

The important reasons for adequate janitor service were included in a summation by Reeves in an earlier treatise; they were:

1. School health and sanitation.
2. The influence of physical conditions upon the comfort and learning attitude of the child.
3. The influence upon pupils of order and cleanliness of buildings in the maintenance of discipline, the formation of character, and the acquirement of habits of cleanliness.
4. The wider use of the school building and equipment by the school and the community.
5. The care of the valuable public property in the form of grounds, buildings, and equipment.⁸

⁸ C. E. Reeves, An Analysis of Janitor Service in Elementary Schools. (New York: Teachers College, Columbia University. Contributions to Education No. 167, 1925.) 194pp.

On the subject of labor unions, Reeves and Ganders were of the opinion that the affiliation of janitor-engineers with labor unions was a serious obstacle to the operation and care of schools in some cities. Since the schools constitute a public service enterprise, they should not be closed upon the order of any outside authority.

Reeder⁹ analyzed some of the frequently recurring problems of building maintenance and operation from the point of view of the superintendent of schools and the board of education. His most unique recommendation was that of a magazine for custodians. He said:

Unfortunately there are only a few things in print on school-janitorial service.....Here is a large opportunity for someone to make a real contribution to education. Why doesn't someone launch a magazine for janitors? In the United States there are probably 100,000 school janitors; yet there is no magazine for this large group of workers. ...The 800,000 teachers, in the United States, on the other hand, have available for their perusal more than 100 magazines.¹⁰

Womrath¹¹ has made a preeminent contribution to the janitorial training schools. The first school of its kind was established in 1919, in the Minneapolis Public Schools

⁹ Ward G. Reeder, The Fundamentals of Public School Administration. (New York: Macmillan, 1930.) 579pp.

¹⁰ Ibid., p. 246.

¹¹ George F. Womrath, Efficient Business Administration of Public Schools. (New York: The Bruce Publishing Company, 1932.) 463pp.

under his direction when he was the Business Superintendent of Schools there. The summer extension courses which he taught at Columbia University and at the University of Minnesota, as well as his lectures at Ohio State University and at the University of Missouri, further contributed to the dissemination of preferred practice information.

In Womrath's Efficient Business Administration of Public Schools¹² the three chapters devoted to building maintenance and operation gave attention to (1) training, (2) the salary schedule, and (3) the problem of janitorial-engineering service.

Womrath described an intelligent building maintenance and operation employee as one who could be an economist, a sanitarian, a sociologist, an expert housekeeper, a moralist, and a safety engineer. Suggestions for the training provided to meet his needs were:

1. It should be continuous and carefully arranged.
2. Attendance should be compulsory.
3. The expense should be met by the school board on school board time.
4. The courses should be graded to meet the widely differing abilities of various groups of men.
5. The purpose should be to make better artisans and

¹² Ibid., p. 275-335.

to provide uniformity of service throughout a school system.

6. There should be a careful differentiation between classroom, laboratory, home-study, and lecture work.

The best type of training is that provided by a training school which provides the following essentials listed by Womrath:

(1) Sufficient financial support; (2) Good organization; (3) Adequate housing space; (4) Suitable equipment and supplies; (5) Proper classification of the students; (6) A comprehensive program of work; (7) Competent instructors; (8) Good textbooks (not too technical).

Good qualifications and thorough training are essential to efficient, economical janitorial service; but three other factors enter into the planning for such service. They are (1) work, (2) manpower, and (3) wages paid.

For the correlation of these three factors Womrath enumerated nine steps:

1. Ascertain the kinds of work to be done.
2. Determine standards and quality of work.
3. Standardize and establish standards of quality of service throughout the entire janitorial-engineering service of a school system.
4. Determine the volume of work which an able-bodied workman should do in a given time.

5. Determine the volume of work which is to be done in each school building.
6. Determine the man power required for each building, and for the entire school system.
7. Set up a salary schedule.
8. Find the relation between man power, the volume of work to be performed, the thoroughness and efficiency with which the work is performed, the salary schedule, and the salary budget.
9. Provide a procedure to assure that the required work will be performed according to the standards set up, involving supervision, work schedule, and an enlightened personnel.¹³

Henry H. Linn, formerly Assistant Superintendent of Schools in charge of Business Affairs, Muskegon, Michigan, and later Professor of Education, Columbia University, wrote Practical School Economies¹⁴ at a time that the problems of economy seemed more acute. However, it is generally agreed that economy is the watchword of public school administrators throughout this country. Economy was defined by Strayer and Engelhardt, in the Editors' Introduction in this manner:

Real economy results when the interests of the entire

¹³ Ibid., pp. 327-328.

¹⁴ Henry H. Linn, Practical School Economies, Strayer-Engelhardt School Administration Series. (New York: Teachers College, Columbia University, 1934), 461 pp.

school organization are the sole criteria for the expenditure of money for material things or human service.¹⁵

It was the author's purpose to point out ways and means of reducing school expenditures with a minimum degree of loss in efficiency. Parts of two chapters were given to the discussion of economies in plant operation and maintenance. Relative to the personnel of the operating force, Linn cited Minneapolis' list of general qualifications to guide authorities in selecting individuals to be appointed as janitor-engineers.

The appointee:

- a. Shall be able-bodied and of good character.
- b. Shall be able to read, write, and speak the English language.
- c. Shall be clean and neat in appearance.
- d. Shall not be addicted to the use of intoxicating liquors or tobacco.
- e. Shall be qualified to perform in a reasonably proficient manner the duties of the position he or she may be employed to fill.
- f. Shall not be under the age of twenty-one years nor over the age of forty years.
- g. Shall be a citizen of the United States and a resident of Minneapolis.
- h. Shall agree to devote his or her employment

¹⁵ Loc. cit.

to the discharge of the duties assigned to him or her.¹⁶

Linn believed that Minneapolis had done more in the field of janitor-engineer training for public school service than any other school system. He summarized the program as follows:

The school is devoted exclusively to the training of janitors and engineers, with from 425 to 470 men and women in training. The school is operated on an 8-hour-day work schedule, $5\frac{1}{2}$ days each week, for 32 weeks each year. The program of training-school work is divided into two semesters per year of four months each. Each month is divided into four weeks with two hours of training per week in engineering subjects and two hours per month in housekeeping subjects, or a total of ten hours a month for each student. The training work is divided into twenty-four lessons and a month's training is devoted to each lesson, thus requiring three years for the completion of the course, this being done, of course, on a part-time extension school basis. The program of each student is so arranged that he will have one classroom period of two hours, one laboratory period of two hours, and two field-work periods of two hours each per month on each lesson on engineering subjects, and one two-hour period each month on housekeeping subjects. At the end of each month a true-false test is given on the lessons in engineering and housekeeping for the month.¹⁷

Linn favored short-term summer school courses at school board expense such as those which had at that time been offered at Colorado State Teachers College, Greeley, Colorado, at Nebraska State University, and at the Pittsburgh, Kansas State Teachers College.

¹⁶ Henry H. Linn, Op. cit., p. 197.

¹⁷ Ibid., P. 199.

He deplored the paucity of written material in assembled form on janitorial service, but recommended School Business Management¹⁸ as the outstanding textbook devoted to these problems. He also recommended as an excellent reference, Standards For Public School Janitor-Engineer Service.¹⁹

Economies other than those effected by a well-selected, thoroughly trained operating personnel included (1) the reduction of the number of employees, if work schedules show that man power is wasted; (2) staggering the work hours so that more people are employed during the peak periods of the day; (3) the hiring of part-time workers; (4) employing women where they can be used to advantage as members of the janitorial staff; and, (5) using student labor for janitorial work where the economic and social results justify the practice. However, the last plan was not recommended on a wide scale.

The human element in the personnel management of maintenance force was considered significant by Linn who enumerated the characteristics of the members of an efficient maintenance crew must be:

1. Proficient in their respective lines of labor.
2. Willing to assist and cooperate with workmen

¹⁸ George Womrath, Op. cit.

¹⁹ N. L. Engelhardt, C. E. Reeves, and George F. Womrath, Op. cit.

in other lines in order to carry on work economically. This arrangement should be possible without creating dissension and disapproval of the various labor unions.

3. Honest about supplies, equipment, and time.
4. Courteous, neat, of good moral character; as they often meet pupils and teachers.
5. Industrious and intelligent so that a minimum of close supervision is required.
6. Rightfully proud of accomplishing good results and in being members of a public school organization.

Among Linn's collaborations was that with Helm and Grabarkiewicz in the publication of The School Custodian's Handbook.²⁰ This was a useful source of information for those interested in the general field of building service. Of the thirty-two sections in the book only the first three dealt with the maintenance and operating personnel, especially explaining their responsibilities, relationship, and personal appearance.

Nelson E. Viles, Specialist in the School Plant Division, U. S. Office of Education, prepared a general

²⁰ Henry H. Linn, Leslie C. Helms, and K. P. Grabarkiewicz, The School Custodian's Housekeeping Handbook. (New York: Teachers College, Columbia University, 1948.) 256 pp.

textbook for janitorial training schools entitled The Custodian At Work.²¹ His study was started under the direction of school plant specialists in National Council on Schoolhouse Construction. In his study he set forth the following tenets which a satisfactory work program and wage scale should include:

1. A living wage if employed full time regardless of the size of the building.
2. Decent working conditions.
3. Fair treatment with promotion and retention based on merit and the service rendered.
4. A salary scale based on responsibility, labor involved, and ability to do the job.
5. Hours of labor limited to acceptable standards.
6. Employment during summer months.
7. Security of position.
8. Extra pay for overtime.
9. Vacation and sick leave permits similar to those granted teachers.
10. A retirement plan.²²

Viles devised a check list of janitorial service that also serves as a rating scale for employees. The check list,

²¹ Nelson E. Viles, The Custodian At Work. (New York: The University Publishing Company, 1941.) 391 pp.

²² Ibid., p. 29.

which is simple, per se, was accompanied by detailed instructions for computing the percentage score of an employee who has checked his own list.

Moehlman,²³ in discussing the school plant, stated that large city plants may secure and provide for the continuity of the efficient service of well-qualified operation and maintenance employees. He concluded that:

Where intelligent personnel practices prevail, the complicated large-city plants offer career possibilities for graduate engineers. Salaries for chief engineers or custodians in these large units are as high as \$4800 per year. During the past decade capable mechanical and civil engineers who prefer security to occasional high rewards have been attracted to this work. If this tendency continues, another generation may see the large-city plant operating aspect of the executive activity staffed by men with as sound technical training as the professional training of the teacher.²⁴

Mort and Reusser, in their Public School Finance²⁵, discussed the importance of selecting the appropriate units of cost. The per pupil unit has been widely used in the expression of costs of teaching; but, in considering the cost of the service of the building maintenance and operation personnel, the per pupil unit has not been found

²³ Arthur B. Moehlman, School Administration. (Boston: Houghton Mifflin Co., 1940), 929 pp.

²⁴ Ibid., p. 426.

²⁵ Paul R. Mort and Walter C. Reusser, Public School Finance. (New York: Mc Graw Hill Book Company, Inc., 1941), 509 pp.

satisfactory. On the other hand, the amount of floor space has been found more appropriate as a unit of cost than the number of pupils occupying the room. Janitorial cost per unit was found to have varied with the size of the building, and, that wasteful practices prevailed in some instances. Mort and Reusser cited three examples of floor area cared for in three types of public school buildings showing a wide variation of square feet per employee:

1. 21,000 square feet of floor space in a two story building surrounded by grounds and a hedge, all maintained by one full-time man and one half-time maid.
2. Less than 23,000 square feet of floor area making use of three full-time men (\$5,600). This is one of ten schools in a school district in New Jersey. Another report showed 5,266 square feet with three full-time men (\$6,175).
3. 16,000 square feet requiring the service of one full-time man for nine classrooms, 1 gymnasium, 1 auditorium, terraced lawn, and play space, in the rear and at the sides to be maintained.²⁶

Reeves and Ganders reported in School Building Management,²⁷ that most school systems had made little progress toward standardizing the work load of building maintenance and operation personnel. Their study of work load assignment included seventy unselected city school

²⁶ Ibid., p. 252.

²⁷ Charles E. Reeves and Harry S. Ganders, Op. Cit., p. 28.

systems in widely-distributed parts of the United States. The median number of square feet of floor space per janitor they found to be 17,300; the range, from 2,862 square feet to 37,619 square feet. Although pupil-load and room-load were considered less meaningful, the statistics for those units were given. The average enrollment of pupils per janitor was 313; the range having been from 32 to 1,143 pupils per janitor. The average number of rooms per janitor was 10; the range having been from one to 18 rooms per janitor.

The American Association of School Administrators' Twenty-seventh Yearbook for 1949, entitled American School Buildings,²⁸ devoted one chapter to plant preservation through proper maintenance. The purpose of the chapter was to provide assistance to school administrators and boards of education. Problems and policies were stressed, rather than maintenance and operation.

The authors believed that, over a long period of years, a maintenance policy that would contribute most would include (1) periodic inspection for determining maintenance needs before the occurrence of emergencies; (2) scheduled expenditures for meeting needs; and, (3) the provision of

²⁸ American Association of School Administrators, American School Buildings. (Washington, D. C.: The Association, 1949), 525 pp.

well-trained and experienced maintenance personnel equipped with adequate tools.

The School Administrators emphasized the fact that so few states and local systems had carried on good in-service training programs, for custodians (as late as 1949). They added that: "The care of an expensive plant is too important to be entrusted to some kindly old citizen whose qualification is that he needs a job or has helped repair a barn."²⁹

Numbers of handbooks have been prepared by various individuals and school systems. One of the early handbooks with courses of instruction planned for the janitor-engineer was a text prepared and used in a program of vocational education. This text, Short Courses For Janitor-Engineers, by Kenneth G. Smith was designed to serve as a reference book "to be read by a janitor during his leisure moments (if he has any) or it may be used as the basis of a definite course of instruction in an evening or day class under a regular instructor."³⁰

Martin, Hundson, and Shaver³¹ offered a similar treatise for instructors of maintenance personnel.

²⁹ Ibid., p. 282.

³⁰ Kenneth G. Smith, Short Course For Janitor-Engineers (Milwaukee, Wisconsin: The Bruce Publishing Company. 1919), p. 3.

³¹ R. L. Martin, N. S. Hundson, and C. N. Shaver, Instructor's Manual For Training Public School Janitors and Engineers (Austin, Texas: State Board for Vocational Education, August, 1932), 35 pp.

Among those handbooks most frequently referred to in custodian-training bibliographies was Handbook For School Custodians by Broady and others.³² The authors presented material of a practical nature that would be of immediate value in the operation of the school plant. They included a portion of the Self-Rating Scale for School Custodians,³³ with permission from Wayne E. Mase, Kansas State Teachers College, Emporia, Kansas. The Code of Ethics as adopted by the custodians of Columbia, Missouri was deemed proper and fitting as a guide for formulating a code of ethics by the personnel in any local situation. It was reproduced in part, below:

That we may ever have our thoughts directed toward the proper care of the plant, and that custodians' work may truly be a profession, we proclaim this code of ethics:

We Believe That

Our profession stands for ideals and efficient service.

Our highest obligation is to the boys and girls by keeping the schools in a sanitary condition.

³² Knute O. Broady, and others, Handbook For School Custodians. Revised by A. D. Brainard, Publication No. 137, Contribution to Education No. 16. (Lincoln Nebraska: Extension Division, University of Nebraska 1940), 170 pp.

³³ Wayne E. Mase, A. Self Rating Scale For School Custodians, Bulletin of Information V 19, No. 10. (Topeka, Kansas: Kansas State Teachers College, Emporia, Kansas. W. C. Austin Printer, 1939), pp. 21-4.

Custodians should be selected or appointed upon the basis of professional merit...

The custodian should be physically sound and in good health. For his own happiness and for the well-being of the pupils, the custodian must guard his health at all times.

A worthy custodian will possess a pleasing personality and a love for children.

A worthy custodian will possess a desire for knowledge of and training in operation and maintenance of the school plant.

It is perfectly proper at all times for custodians to seek preferment and promotion by legitimate means.

It is the duty of the custodian to inform the administration as soon as possible of definite decision to resign.

It is unprofessional for a custodian to violate a contract. Unless the consent of the board of education is obtained, releasing the obligation, the contract should be filled.

Whenever the work of any custodian is unsatisfactory, the administration should notify the custodian and give him a chance to make the correction before dismissal is recommended.

If a custodian is not re-elected he is entitled to know the cause of non-election, if it is in the power of the administration to report the same.

It is unprofessional for a custodian to offer destructive criticism to the administration; to other custodians, teachers, pupils or the patrons about a fellow custodian, teacher, pupil or about the management of the school in general. All criticism should be constructive in character and voiced to the proper authority and only for the purpose of remedying the existing evil. Therefore, it becomes equally unprofessional not to report to the administration matters that involve the interests and well-being of the school.

The custodian should consistently refrain from becoming a partisan upon issues which divide the community.

We believe that our Code of Professional Standards and Ethics is a statement of conscientious practice.³⁴

3. Current Educational Journals

There were several current educational journals devoting space frequently to articles pertaining to the building maintenance personnel. The most noteworthy were the American School Board Journal, the School Executive Magazine, Nation's Schools, and School Management.

The Research Division of the National Education Association has directed studies such as John Garber's The School Janitor,³⁵ the data for which were collected prior to 1919. Subsequent salary studies have been made by the Division at regular intervals every few years. More information about the latest studies will be given in Chapter III.

The American Association of School Administrators, a Department of the National Education Association, has offered the results of studies periodically.

The United States Office of Education, Research Division, has contributed research studies in the field of

³⁴ Knute O. Broady and others, Op. cit., p. 18.

³⁵ John A. Garber, The School Janitor, Bulletin No. 24. (Washington, D. C.: U. S. Bureau of Education, 1924), 55 pp.

the non-teaching personnel. James F. Rogers³⁶ made the latest study, and its findings will be discussed along the more recent studies in Chapter III.

The National Association of School Business Officials in its annual Proceedings³⁷ has reviewed current practice, indicating trends, and calling attention to unanswered questions on school business administration practices of all phases. The Association's monthly official organ, School Business Affairs,³⁸ has included reports of investigations, practices, and needs of the non-teaching personnel in its relationship to public school administration.

The literature in assembled form concerning the building and maintenance personnel, though meager in extent, is of an excellent quality.

36 James F. Rogers, The School Custodian. United States Office of Education Bulletin No. 2 (Washington, D. C.: Government Printing Office, 1938), 44 pp.

37 Association of School Business Officials, Proceedings. Published annually. Harley W. Anderson, Secretary-Treasurer, 306 East Lovell Street, Kalamazoo, Michigan.

38 Association of School Business Officials, School Business Affairs, Published monthly. H. C. Roberts, Editor, 1221 Pierce Street, Sioux City, Iowa.

CHAPTER III

A SUMMARY OF THE MORE RECENT RESEARCH STUDIES AND OF RESEARCH STUDIES IN PROGRESS CONCERNING BUILDING MAINTENANCE PERSONNEL

1. Types of Recent Research Studies

The more recent research studies, and those in progress concerning building maintenance personnel, may be classified into two groups; namely, those which were conducted under the direction of organizations and those undertaken as individual research. The organizations whose studies are discussed in this chapter are: The National Education Association, The American Association of School Administrators, the United States Office of Education, and the Association of School Business Officials.

In this chapter studies made by individuals are treated separately, and those studies in progress are indicated.

2. Research by the National Education Association

Since 1922, the Research Division of the National Education Association has conducted surveys biennially of the salaries paid in city school systems. The salaries of teachers, principals, and non-teaching personnel have been included in the surveys.

The Educational Research Service of the National Education Association, together with the American Association

of School Administrators, issued their first salary report of maintenance and operation personnel in December, 1943.¹ It was intended as a beginning of systematic studies of similar data. In 1948, appeared the second report² in the intended series, and it included only the salaries of the supervisors in operation and maintenance work. In the four-year period between the two studies there had been a general increase in salaries, of \$500.00 to \$600.00 annually. The work week had been shortened by approximately two hours. (from 47 hours to 45 hours). There had been an increase over the previous report in the number of cities showing that salaries were scheduled. The information was compiled from copies of a questionnaire sent to city-school systems in the fall of 1946. The plan of the report included a general discussion of the findings; a selected list of references pertaining to custodial service; and, seven detailed tables of information assembled. The classification of

1 National Education Association, Research Division, and American Association of School Administrators, Salaries of Employees Engaged in Operation and Maintenance of Buildings in 155 School Systems in Cities Above 30,000 in Population, 1942-43. Education Research Service Circular No. 10, 1943. (Washington, D. C. The Association, 1943). 47 pp.

2 National Education Association, Research Division, and American Association of School Administrators, Salaries of Employees Engaged in Operation and Maintenance of Buildings in 133 School Systems in Cities Above 30,000 in Population, 1946-47. Education Research Circular No. 1, 1948. (Washington, D. C.: The Associations, 1948). 47 pp.

personnel was found difficult, due to the great variety in the titles of employees. A suggested list of titles to be used in classification was included, and it may be found in Chapter IV of this study.

In the 1949 Research Bulletin³ of the National Education Association, the percentage of salary increase for head janitors showed an upward trend as shown by the Association's Table No. 3, "Trends in Salaries Paid Employees In School Systems in Cities 100,000 to 500,000 in Population, 1930-31 to 1948-49".⁴ That part of the table relating to head janitors is reproduced:

HEAD JANITORS

Median Salaries Paid				
1930-31	1938-39	1940-41	1946-47	1948-49
2257	1905	2733	3508	4283
Percent of Increase				
1930-31	1938-39	1940-41	1946-47	1948-49
1948-49	1948-49	1948-49	1948-49	1948-49
89.8	124.8	56.7		22.1

The Association also prepared a two-page monograph, References on School Janitorial Service,⁵ under the date of 1947.

³ National Education Association, Research Division, "Salaries and Salary Schedules of City-School Employees, 1948-49", Research Bulletin, Vol. XXVII No. 2, April, 1949. Washington, D. C.: The Association, 1949). 71pp.

⁴ Ibid., p. 48.

⁵ National Education Association, References on School Janitorial Service. (Washington, D. C.: The Association, 1947). 2pp.

3. Research by the United States Office of Education

Rogers⁶, under the direction of the United States Office of Education, made a nation-wide study of custodians, from the hygienist's point of view. It was based on data from a questionnaire which he sent to cities of 10,000 population and above. Inquiries were also sent to smaller cities in nine states. Rogers found that only one-fourth of the cities and only six states had retirement plans for the maintenance personnel. The states providing retirement pensions which he listed were Massachusetts, New Hampshire, New Jersey, New York, Ohio, and Pennsylvania.

An earlier study, national in scope was Garber's The School Janitor.⁷ It was undertaken by means of a questionnaire of twenty questions sent to superintendents of schools in cities with 2,500 population and above. His findings, given entirely to phases of custodial problems, revealed that the average regular salary of custodians was about \$355.00 more than the average salary paid to around

⁶ James F. Rogers, The School Custodian. U. S. Office of Education Bulletin, 1938 No. 2. (Washington, D. C.: Government Printing Office, 1938), 44 pp.

⁷ John Absalom Garber, The School Janitor. Bureau of Education, Bulletin, 1922. No. 24. (Washington, D. C.: Government Printing Office, 1922), 55 pp.

600,000 teachers, including principals. (This salary comparison was based on estimates by the Commissioner of Education in the United States in 1919). In a list of fifty cities, he observed that in every city except one, the janitors were "paid higher salaries than the teachers, ... and in some cases, twice as much."⁸ In seven per cent of the 1,099 cities reporting, living quarters were still furnished to the janitors. The method of selection reflected in the data indicated that of 1,085 cities replying as to the selection of men for janitorial-engineering service of school houses, 796 were pickups, 213, appointed for merit, and 76, appointed by Civil Service.

Nelson Viles, School Plant Specialist, U. S. Office of Education, and Nolan Pulliam reviewed briefly school plant operation maintenance, and insurance in one chapter of The Review of Educational Research,⁹ for February, 1948. Their discussion was prefaced by a brief description of the overall picture of operation and maintenance, as quoted:

During the war years greater use of the school plant

⁸ Ibid., p. 10.

⁹ Nelson Viles, and Nolan D. Pulliam, "School Plant Operation, Maintenance, and Insurance", Review of Educational Research, 18:52-63, February, 1948.

increased the operating load. ...At the same time operating supplies were limited and many of the more able custodians and engineers were lost to the armed forces or to better paid jobs. Due to these and other causes, operating standards were lowered and the many administrative problems connected with plant operation programs increased in number and scope. These problems have been freely discussed but there has been only a limited amount of experimentation or research reported that would help the school administrator solve his operating problems. Even as late as the end of the year 1947 many administrators had not yet been able to rebuild competent custodial staffs to overcome the effects of poor operating practices of war years.¹⁰

Viles and Pulliam gave a resume of the studies of operation and maintenance problems of recent years. They called attention to an investigation by O'Keefe¹¹ who was said to have found out that, in 1945, ten states, or only about twelve per cent of the non-teaching employees of the schools were permitted the benefits of retirement laws. The American School Board Journal¹² supplied evidence supporting the belief that legal opinion was generally to the effect that public employees' unions had no status for limiting the authority of a public body. It indicated that boards of education were not compelled to recognize unions.

¹⁰ Ibid., p. 52.

¹¹ T. G. O'Keefe, "Help Your Non-Teaching Employees Gain State Retirement Plan, Too", School Management, 16:26-27, January, 1947.

¹² American School Board Journal, "Unionization of School Employees", American School Board Journal, 114:46, March, 1947.

As yet, it stated, there was no single accepted policy that covered union relationships between employee and school-

board.¹³ The wholesome effects of the state wide custodial training program in Kansas were enumerated by Winkel and Parker.¹⁴ The thirty-five schools for janitor-engineers operating continuously for seventeen years, had had an aggregate attendance of over 3,700, according to the statements of Winkel and Parker.

4. Research by The Association of School Business Officials

The Association of School Business Officials' annual Proceedings¹⁵ supplied research reports on the subject of building maintenance and operation personnel, since the aims and objects of the association, as stated in their Constitution,¹⁶ include:

¹³ American School Board Journal, "School Boards and Labor Unions", American School Board Journal, 115:43, July, 1947.

¹⁴ L. W. Winkel, and Lawrence Parker, "The Training of School Janitor-Engineers", American School and University. (New York: American School Publishing Corporation, 1944), pp. 410-413.

¹⁵ National Association of Public School Business Officials, Proceedings. Published Annually. H. W. Anderson, Sec.-Treas., 306 East Lovell Street, Kalamazoo, Michigan.

¹⁶ National Association of Public School Business Officials, "Constitution of the National Association of Public School Business Officials", Proceedings. Twenty-fifth Annual Meeting, St. Louis, Mo., October, 1936. pp. 313-318.

Comprehensive and progressive study of school business requirements and the establishment, as far as possible, of efficient standards.

The promulgation and establishment of the highest standards of ethics and efficiency in business methods and practices.

The study, analysis, and dissemination of most efficient methods and practices in all matters pertaining to school business administration.¹⁷

The needs of school business administrators have been expressed; studies have been made, and reports on the most efficient practices have been recorded, in keeping with those expressed aims.

During the Seventeenth Annual Meeting of the Association of School Business Officials, in Denver, Colorado, in 1928, the need of systematic research was reflected in the choice of speakers and in their respective topics for presentation. In the "President's Address", H. L. Mills expressed the responsibility of the organization for stimulating research in business administration when he said:

If this progress in public education is to continue and keep up with the 'High Pressure Business Methods' we of the business side must do our part, and whether we want to or not, we must get into this new department now known to all business, namely, Research. Your Executive Committee was exceedingly fortunate this year in securing several outstanding men to cover this new field on our program. I expect to ask permission to appoint a Committee on Research, and I hope the Committee on Constitution and By-laws will make a recommendation for its appointment and continuance. And it is my earnest

¹⁷ Ibid., p. 313.

hope and trust that this committee, if authorized, will have the whole-hearted support of the Executive Committee, in that a regular Research Division of this organization will soon get under way with a study that will be complete in every detail. I trust that such a program will have your united support.¹⁸

George W. Frasier, another speaker at the meeting in Denver, delivered an address on "Research and the Business Department of a Public School System",¹⁹ in which he stated that any research in education has a direct bearing on the business department. He mentioned janitorial service as a problem worthy of study.

On the same program, John Guy Fowlkes, directed attention to some outstanding problems in need of research in the field of the business administration of public education. He suggested that the Association of School Business Officials center its energies for the decade 1928-38 on eight divisions needing research; namely:

1. A study concerning the status of all school officials who are at present directly responsible for the business administration of public schools.
2. Administrative problems--
 - a. Administrative organization;
 - b. Problems in the selection and purchase of school supplies;
 - c. Allotment of supplies;

¹⁸ H. L. Mills, "The President's Address", Proceedings, Seventeenth Annual Meeting, Denver, Colorado, June, 1928, p. 15.

¹⁹ George M. Frasier, "Research and the Business Department of a Public School System", Proceedings, 1928. p. 24.

- (1) Who shall allot---
 - (a) Allotments to divisions,
 - (b) Allotments to schools,
 - (c) Allotments to pupils.
- 3. Curriculum analysis to determine needed types of equipment and supplies.
- 4. Quality cost and allotment standards for school supplies.
- 5. Who shall furnish school supplies--school, pupils, or school and pupils jointly.
- 6. Inventory problems.
- 7. Budgeting of school supplies.
- 8. Architectural problems in school building and planning, with particular reference to storage and filing space.²⁰

In his conclusion, Fowlkes gave a challenge to his hearers when he said:

I have attempted to point out some outstanding problems in the business administration of public education today. It is obvious that most careful and scholarly research is needed in order that these problems may be properly solved. However, such research must be incubated and hatched in terms of real daily needs as experienced, recognized and felt by people such as the membership of this Association. ...Only as...you are committed to a program of unrelenting investigation will the business administration of public education emerge from the grab-bag, hit-and-miss sort of activity into a scientific profession.²¹

²⁰ John Guy Fowlkes, "Some Needed Research in the Business Administration of Public Education," Proceedings, June, 1928. p. 34.

²¹ Ibid., pp. 37, 38.

Immediately following Fowlkes' address, a research committee was authorized, by due process. The president of the Association announced the names of the following members of the Research Committee, at a later session of the convention: George Womrath, Minnesota, Chairman; R. W. Adkisson, Oklahoma; Russell E. Tilt, Ohio; R. R. Ritchie, Georgia; J. J. Ball, Colorado; and two ex-officio members, the president, and the committeeman.²²

George Womrath, the first chairman of the Research Committee, conducted a round table discussion on "The Selection and Training of School Custodians"²³ at a subsequent session of the Denver Convention. In summarizing the views of the discussion group, Grill, Womrath's assistant, reported:

Since in the selection of school janitors and engineers such factors as personality, disposition, morality and similar qualifications of character are of importance equal to or greater than physical strength and efficiency, it was the general feeling of the conference that the janitorial service and personnel of the public schools would be improved if boards of education were emancipated from the technicalities of Civil Service, especially as this relates to the difficulties experienced in connection with the dismissal of employees for inefficiency, incompetency, or for the good of the

²² Ibid., p. 82.

²³ Ibid., pp. 73-76.

service. In certain cities, it was brought out, that labor union affiliations frequently meant the reinstatement by the Civil Service Commission of men dismissed by the school officials for the good of the service.²⁴

Womrath's continuing interest in research and the activities of school business affairs was seen in the publication of his book, Efficient Business Administration,²⁵ in 1932. In 1934, at the annual meeting of the Association of School Business Officials, he made the "Report of the Committee on Suitable Rating Scheme for Janitors, Engineers, and Custodians".²⁶ The committee had been appointed by the Association of School Business Officials May, 1933, at the request of the National Association of Janitors, Engineers, and Custodians, to cooperate with that association for better organization and administration of janitor-engineer service of the public schools. At that time the national membership of the custodial organization was around 800. The objective of the study by the joint committee was to elevate the service of the members to protect them individually, in the

²⁴ George Grill, Op. cit., p. 73.

²⁵ George F. Womrath, Efficient Business Administration (New York: The Bruce Publishing Company, 1932), p. 275.

²⁶ George Womrath, "Report of the Committee on Suitable Rating Scheme for Janitors, Engineers and Custodians," Proceedings, Twenty-third annual meeting, New York, August, 1934., pp. 195-98.

service.

Some of the inconsistencies they desired to correct were the inefficiency of poorly qualified men; the unfairness of employing properly trained, competent men without tenure provisions for their protection; the danger of placing the responsibility of costly and intricate equipment in charge of improperly trained and licensed men.

The course of action which they recommended for the joint committee was to:

1. Specify the qualifications desirable in a public school janitor-engineer-custodian.
2. Designate channels through which properly qualified personnel should be obtained.
3. Work toward setting up the procedure and legislation for state licensing of public school engineers in every state.
4. Formulate an outline of rules and regulations which should prevail in each public school system.
5. Seek to provide channels through which training and instruction may be received by men seeking employment.
6. Construct an organization chart showing responsibilities and activities of the custodial personnel.
7. Formulate a salary schedule outline.

8. Study state laws regarding tenure rules, and ascertain how to proceed for their passage.

In the report, Womrath also commented on the type of personnel in the National Association of Janitors, Engineers, and Custodians, and, on his approval of their goal, as follows:

We have been impressed with the high type of personnel that is motivating the activities of the NAJEC and the idealistic goal that organization has set up for the administration of their branch of public school service. It is quite evident that the activities are being conducted on a high level of accomplishment, and your committee requests that it be continued to further cooperate in the bringing about of the desirable ends which are being sought. ... They have started out to do things which will improve the janitor-engineer service of public schools and they have asked the National Association of School Business Officials to cooperate with them so that whatever is done will be in conformity with the best ethics of the public schools and which work comes directly under the supervision of our organization.²⁷

In 1936, Womrath, who had been referred to frequently as the "father of modern janitorial-engineering service",²⁸ spoke with a protective interest toward the personnel of the custodial service whose welfare he would guard. He considered his subject from a nation-wide viewpoint.

First, he cited some of the accomplishments of the incorporated organization known as the Custodians and

²⁷ Ibid. p. 198.

²⁸ George Womrath, "School Custodians in Cooperative Service", Proceedings, 1936. p. 211.

Matrons Benevolent Annuity Association of the St. Louis Schools. The organization was credited with having (1) made investments in bonds, cash, and deeds of trust in the amount of \$21,691.74; (2) paid group insurance claims of \$28,500; (3) organized a band, a string ensemble, and three baseball teams; (4) raised \$6,000.00 for the Benevolent Association by having their own minstrel show; (5) furnished transportation for the convention delegates all week; and (6) contributed \$500.00 cash to the entertainment of the same delegates.

Then, he described personnel practices of the previous twenty-two years, during which time a persistent and consistent movement had been under way for improving building service and personnel practice. The Association of School Business Officials was credited with having been the first educational organization to recognize the importance of the status of custodial service personnel in their relationship to the public schools.

However, a transition in personnel came about on a national scope, as the result of a movement manifested in many localities. Womrath reported that this transition had resulted in:

A devastating case of swell head.

A self-conscious complex that is engendering the

antagonism of principals, teachers, administrators, and the public.

An exaggerated ego that is manifesting itself in the form of an attitude on the part of the members of the vocation in many places that they have learned all that there is to learn about the vocation and are no longer in need of training, guidance, inspiration, or supervision from any source whatsoever.

An independence of action that foretells the doom of all of the good that has been accomplished. ... The order of loyalty has become reversed and mixed up.

Instead of God, country, family, schools, and union, it is union, family, country, and schools, with God left out altogether.²⁹

Womrath recognized the problem of seeing that the custodial personnel return to fundamentals, adding that:

They cannot hope to succeed as an integral part of the school system by being independent of all other parts of that system, or with ideals and purposes fitted to a lower plane than those held by the great educational institutions with which they are connected.³⁰

N. I. Engelhardt, in his address on "Improvement of School Business Management",³¹ also stressed the importance of molding the school business personnel into a cooperative and effective service organization. He believed such

²⁹ Ibid., Pp. 214-215.

³⁰ Ibid., p. 215.

³¹ N. I. Engelhardt, "Improvement of School Business Management", Proceedings, 1936, pp. 166-171.

cooperation and effectiveness could be possible through advanced planning on the basis of known research. Best practices must be constantly adapted to the newly rising demands of a changing society. The manually-skilled personnel should have their service developed so that it would reflect a desirable social spirit in a community and in a school system, Engelhardt further maintained.

In 1940, Linn³² discussed the selection of employees for building service. He was of the opinion that the most efficient use of services and materials depended largely on the personal element rather than on the material element itself. He described a four-part examination given to fill a vacancy of school custodian in the city of New York for which there were forty-five applicants, with pressures of all types having been brought to bear. He explained:

Old men wanted jobs because they could get no employment elsewhere; war veterans asked for preference; physically handicapped men wished special consideration; men on relief sought the position. There was some evidence that a religious group was supporting one candidate. ... The Board of Education was interested in being relieved of these pressures, which was no doubt responsible for their request that I assist them in listing the men on some objective basis.³³

³² Henry H. Linn, "Selection of Building Service Employees", Proceedings. Twenty-ninth Annual Meeting, Detroit, Michigan, October, 1940. p. 176.

³³ Ibid., p. 178.

The examination consisted of (1) a written intelligence test; (2) a true-false test on problems and attitudes of custodial service; (3) a brief composition test on the same subject; and, (4) a personal interview. A rating sheet was devised, by assigning point values to such items (in addition to the four tests) as age, physical condition, personal status as to marriage, family, habits, experience, and abilities.

Linn ranked intelligence as the highest factor (30 points out of a possible 100), and eliminated two of the men who had an I Q of about 80.

He concluded that with social changes going on in this country, more and more security provisions would be granted to labor, making the elimination of inefficient and undesirable employees from public service much more difficult than it had been formerly; and, that the weak and misfit had to be eliminated by non-hiring policies as the simplest way to counteract inefficiency in service.

Since there had been considerable labor unrest throughout the nation, Robert W. Conder, Director of Labor Relations, Chrysler Corporation since 1939, reviewed the labor situation before the annual meeting of the Association of School Business Officials in 1947. He concluded that unions had not accomplished their purposes they had intended, because,

(a) Union representatives have sometimes placed political consideration over the wishes of union members and have followed national union policies even though they may not appeal to the particular local union members involved.

(b) The union members have struck instead of using the procedure agreed upon and therefore deprived it of the chance of accomplishing its purpose.³⁴

Conder believed that greater responsibility in unions was a need; that factionalism and politics must be subordinated to representation of the union members. He found much to indicate that the rank and file were becoming tired of so much useless loss of earnings through strikes; and he considered the reaction healthy.

Rich³⁵ analyzed the securing of an efficient organization of employees in operation and maintenance. He discussed Detroit's competitive examination for applicants for positions of the non-teaching personnel. He was of the opinion that those applicants who did not favor Civil Service were the ones whose rating was too low to qualify for the eligible lists when there were hundreds of applicants for every vacancy. Rich reported, also, that Detroit's classification of positions were based on responsibility; and promotion was based on merit and seniority. Morale was

³⁴ Robert W. Conder, "Labor Relations", Proceedings, Thirty-third Annual Meeting, Grand Rapids, Michigan, 1947. p. 86.

³⁵ L. H. Rich, "Efficient Control of the Custodian-Engineer Force", Proceedings, 1936. pp. 52-54.

built by a reasonable tenure policy and by some measure of security in old age and misfortune.

Bruce³⁶ recommended the credit union for non-teaching employees as an effective means of improving the morale of school employees with the least criticism from pressure groups within the community. Custodians' credit unions were said (1) to relieve members from the clutches of loan sharks; (2) to assist members in purchasing needed articles at a low cost for the money borrowed; (3) to inculcate habits of saving; (4) to develop personal and family solidarity; and (5) to discover superior ability in leadership.

Knoll³⁷ enumerated the incentives of (1) security, (2) rate of pay, and (3) working conditions resulting in employees' remaining on the job. He stated that in private corporations and in government operations promotion is too often on a political basis. Some of the values of the merit plan outlined by Knoll were: (1) it provides a means of testing objectively the ability of an employee to contribute to the effectiveness of the employer; (2) it relieves the administrative officials of political pressure; (3) it makes for a feeling of satisfaction among employees.

³⁶ W. C. Bruce, "Credit Unions For Non-Teaching Employees of City School Systems", Proceedings, 1936. pp. 62-66.

³⁷ Arthur A. Knoll, "Some Aspects of the Merit System of Employment", Proceedings, Thirty-second Annual Meeting, Pittsburgh, Pennsylvania, April, 1946. Pp. 147-149.

School Business Affairs³⁸, a monthly publication of the Association of School Business Officials, has served as a stimulus to research, since its founding in 1936. In an effort to further the research, Roberts,³⁹ editor, in his annual report to the Association said:

Studies and research have been made; school business administration has been greatly improved as a result. ... Many individuals have made valuable contributions which have raised our standards, but as yet we have not attained all of the requisites of a real profession. ...Any real profession must make recognized contributions and its members must be generally recognized as authorities; it must produce its own literature. ...We as a group are not producing the literature of which we are capable. ...From an examination of four leading school administration journals of this year I find only six articles from our members. ...Who writes the articles on school business matters in the education magazines? ...They are practically all college professors, superintendents, and principals. I admire them for their willingness to contribute, and they should continue to do so, but as long as they constitute the contributors, our business experts and our authorities will go relatively unknown among the rank and file of our educators. We shall never attain general prestige and professional status while the present condition continues to exist - while we hide our light under a bushel.⁴⁰

³⁸ School Business Affairs, Published monthly by the Association of School Business Officials, H. C. Roberts, Editor, 1221 Pierce Street, Sioux City, Iowa..

³⁹ H. C. Roberts, "Report on School Business Affairs", Proceedings, 1947. pp. 56-58.

⁴⁰ Loc. cit.

The School Business Affairs Index⁴¹, covering the first fourteen volumes of the publication, was prepared by George W. Grill, (who also assisted George Womrath and Dr. N. L. Engelhardt in giving the first course in Public School Business Administration ever given for graduate credit in the United States).⁴²

George⁴³ reported the success of employee participation in policy making in Oklahoma. Linn⁴⁴ contributed a bibliography on custodial training, and McMeekin⁴⁵ discussed the importance of the recruitment of the non-teaching personnel in the light of the great portion of a school district's operating budget spent for personal services.

O'Keefe⁴⁶ pointed out the major features of a good

41 George W. Grill, "School Business Affairs Index", School Business Affairs, 15:1-14(supplement), May, 1949.

42 "A Personalized Editorial", School Business Affairs, 15:4, May, 1949.

43 N. L. George, "Policy Participation By Building Service Employees", School Business Affairs, 12:1,2, October, 1946.

44 H. H. Linn, "Bibliography on Custodial Training", School Business Affairs, 13:3, May, 1947.

45 Glenn D. McMeekin, "Recruitment For Non-Teaching Jobs," School Business Affairs, 13:1, January, 1947.

46 T. G. O'Keefe, "Essentials of a Good Retirement Plan", School Business Affairs, 13:12-4, January, 1947.

retirement plan for the non-teaching personnel, chief among them being the establishment of a sound administrative board removed from politics; a large membership for economical, more equitable provisions; a jointly-contributory system, with contributions limited; benefits based on old age and not as a reward for years of service; and, proper financial support.

Brainard stated that the Association of School Business Officials had "produced valuable research studies on supplies, equipment, accounting, playground surfacing, and insurance,"⁴⁷ but found that research in the field of school buildings and the related field of operation and maintenance was negligible. He contrasted the policy of industry and government, on one hand, spending several hundred million dollars annually on research, with education, on the other hand, devoting comparatively little.

Cate⁴⁸ gave a timely discussion of the custodian's relationship to the public, with emphasis on efficiency, loyalty, tact, and a sense of humor.

Custodial and maintenance trends surveyed by Muller⁴⁹

⁴⁷ A. D. Brainard, "Need of Research In the School Building Field", School Business Affairs, 13:2, June, 1947.

⁴⁸ John T. Cate, "Custodians' Relations With The Staff And The Public", School Business Affairs, 14:1,2, January, 1948.

⁴⁹ R. L. Muller, "Custodian and Maintenance Trends", School Business Affairs, 15:1,8, May, 1949.

gave evidence of a shorter work-week, overtime payments, paid vacations, sick-leave pay, and retirement pensions for custodians, along with increased pay schedules for the non-teaching employees.

5. Research by Individuals

Among the individual studies of a more detailed nature was that of Vander Meer⁵⁰ who was convinced that more janitors were discouraged because of a long work week with correspondingly low pay than from any other cause. His salary findings he summarized in this manner:

The average salary of head janitor of the Rocky Mountain Region for 1925-26 is \$2,000, per year. ...The median salary...\$1,200 ... The monthly salaries paid most frequently in the order of their frequencies are \$100, \$125, \$85, \$90 and \$110.⁵¹

Gillis⁵² made a local survey of custodial service in Connecticut. Long hours prevailed, 26% of the custodians having reported a sixty-hour week and 39% more, having a fifty-hour week. Gillis recommended shorter hours, increased salaries, and a better trained personnel.

⁵⁰ Cornell Vander Meer, The Status of the School Janitor of the Rocky Mountain Region, (Unpublished master's thesis at Colorado State College, Greeley, Colorado, 1926). 217 pp.

⁵¹ Ibid., p. 14.

⁵² William E. Gillis, The Status and Desirable Preparation of School-Custodians in Connecticut, (Unpublished master's thesis at the University of Connecticut, Storrs, Connecticut, 1942). 179 pp.

Holy⁵³ explained the necessity of specific rules and regulations for the care of school property, suggesting six sections of such a list of regulations to be placed in the hands of custodians: (1) General Supervision; (2) Building and Furniture Care; (3) Ventilating and Heating; (4) Sanitation and Toilets; (5) Outhouses and Grounds; and, (6) Personal Conduct. He also stated that the value of all United States elementary and secondary school property in 1930 was \$6,211,327,040.00 and, that the loss of even one per cent due to negligence would amount to \$62,000,000.00.

Hazel Davis⁵⁴ compared approved personnel procedures with adequate performance in the non-teaching services of twelve elementary schools within a radius of two hundred miles of New York City. The cities, four from each of three states, were in the population range of 30,000 to 120,000. Personal visits were made to the schools in each of the twelve cities in order to have interviews; to make field observations; to analyze personnel procedures; and, to measure the effectiveness of services by check lists which were prepared by the investigator.

⁵³ T. C. Holy, "Uniform Regulations For School Janitors", The American School and University, Sixth Annual Edition. (New York: American Publishing Corporation, 1933-1934). pp. 125-128.

⁵⁴ Hazel Davis, Personnel Administration In Three Non-Teaching Services of the Public Schools. Contribution to Education, No. 784. (New York: Teachers College, Columbia University, 1939). 255 pp.

The study was limited to those three groups of the non-teaching personnel engaged in school attendance service, secretarial service, and nursing. However, those three services were shown in their relationship to business administration, and to the total program of public education. Concerning this relationship, Davis said:

Many of the non-teaching workers have frequent personal contacts with pupils which are helpful or harmful to the children, depending on the personal qualities of the school employee. Beyond these relationships with pupils, however, the total service of each non-teaching employee either assists or obstructs the professional services that teachers render. Buildings are built, repaired, and kept clean and warm and bright, in order to provide a setting for the educational work of the school. ...It is only through their educational contribution that the employment of the non-teaching staff can be defended.⁵⁵

At the time of Davis' investigation, the latest estimate of the number of employees in the non-teaching classification was one-seventh of all school employees. This estimate was based on figures in "Salaries of School Employees, 1936-37",⁵⁶ made by the National Education Association.

Davis' study was developed through the analysis, interpretation, and evaluation of such activities as: (1) the planning for personnel service and supervisory leader-

⁵⁵ Ibid., p. 3.

⁵⁶ National Education Association, Research Division, "Salaries of School Employees, 1936-37", Research Bulletin, 15:57-58, March, 1937.

ship; (2) the development of personnel resources, involving the induction of new employees and provision for their continuous growth and development; (3) classification and salary scheduling; (4) terms of employment; (5) working conditions; and, (6) distribution of personnel.

She explained the necessity of keeping adequate personnel records, and the advisability of continuous appraisal of the service rendered by the personnel, whose records should offer an opportunity of interpreting the efficiency of the personnel program.

She concluded that there was a positive relationship between adequate personnel administration and adequate performance for non-teaching employees.

Clifford⁵⁷ investigated the economic and social status of the non-teaching personnel in the State of Michigan. He divided the personnel under investigation into three groups: (1) custodial, engineering, and maintenance employees; (2) the clerical employees, and (3) the service and miscellaneous employees (bus drivers, cafeteria workers, and the nurses).

His study was based on information derived from the personnel records collected, and, with the background of experience, in the administration of the Michigan Public

⁵⁷ John M. Clifford, The Economic and Social Status of the Non-Teaching Personnel in Michigan Public Schools. (Unpublished doctor's dissertation, University of Michigan, Ann Arbor, 1944.) 228 pp.

Schools Employees' Retirement Fund. Further information was gained from his personal visits to eighteen schools of three group sizes. (Since employees of schools in the city of Detroit do not participate in the State's retirement plan, the Detroit retirement plans were treated in a separate section.)

The four areas into which Clifford divided the influence of custodians were: (1) efficiency; (2) safety and health; (3) influence on the pupils; and, (4) influence on interpretation.

He mentioned briefly the city practices of Minneapolis, Los Angeles, Seattle, New York, Chicago, Philadelphia, Cleveland, Baltimore, St. Louis, Boston, and Pittsburgh. He referred to New York, Ohio, and California state practices of personnel management of custodial employees. Among the custodial training courses to which he referred were: the short courses by Linn, Grabarkiewicz and Helm, at Teachers College, Columbia University; by Linn and Helm in Connecticut and West Virginia; and, such other courses for custodians conducted at Iowa State University, at Oklahoma Agricultural and Mechanical College, North Dakota Agricultural College, The University of Nebraska, and at Colorado State Teachers College. The Kansas State Board for Vocational Education was credited with having conducted excellent short courses, and the Missouri State Department

of Public School series of one-week janitor courses in various parts of the State, were considered effective.

In his survey of the 1943 non-teaching personnel in Michigan as to age, years of service, salaries, hours, education, Clifford found that too many old men were employed as janitors, many having entered that service after the age of fifty or sixty years. He outlined the difficulty of teaching old custodians, and recommended the practice of setting an age-limit on employment. He further recommended a required medical examination by physicians employed by the school, by all custodians before their assignment to duty.

Union observations, general observations, selection, training, and certification of the non-teaching personnel were also discussed, and from his observations he concluded that efficient service was increased by good provisions for tenure, rewards, improved working conditions, leaves, and retirement benefits.

Clifford favored Detroit's plan for administering the non-teaching personnel. The superintendent of schools, the chief personnel officer, was said to have one assistant in charge of teachers, and two assistants in charge of the non-teaching personnel. This plan seems to be in the right proportion for this city. In Detroit's classified system of job specifications, selection was said to be made on the

basis of competitive examination.

A recent investigation of custodian's emoluments (including their salaries, fees, benefits, and perquisites) was conducted, on a national scope, by Phay.⁵⁸ Only the male employees who clean and/or heat school buildings were included in the study. A total of 358 questionnaires was distributed to school systems in cities of 30,000 population and above. Replies from 245, or 68%, were usable. A division of the replies resulted in the grouping of cities above 100,000 population into Group One; and, cities between 30,000 and 100,000 population, Group Two.

The cities in Group One were seen to have higher salaries, and had better conditions as to salary schedule, working hours, and tenure.

The range in salaries in 1945-46 was very wide, extending from \$800.00 to \$4700.00. This showed that one city had paid its custodian about one-sixth the salary received in another city. Phay suggested a plan of adding increments to a determined standard of living that might proceed as follows:⁵⁹

⁵⁸ John E. Phay, The Emoluments of School Custodians. (Unpublished doctor's dissertation. New York: Teachers College, Columbia University, 1946). 166 pp.

⁵⁹ Ibid., p. 44.

Maximum salary for 'health and decency' standard of living	\$2800
Salary at which 'career custodians' may be secured. (This salary should be too low to attract people who want only a 'fill-in' job.)	1800
Difference in salaries	1000
Number of increments allowed	4
Amount of yearly increment	250

The salary schedule would then be as follows:

Step	Increment	Salary
1 (Beginning)		\$1800
2	\$250	2050
3	250	2300
4	250	2550
5	250	2800

Phay found that in 8.6 per cent of the cities all of the custodians belonged to a union; and, one-third of the larger cities reported substantial custodial membership in labor unions. The A. F. L. was found to be larger than the C. I. O. membership.

Strikes of custodians were reported in nineteen cities, mostly in large cities of Group One. The purpose of most of the strikes had been pay increase, but other purposes listed were shorter working hours, closed shops, union recognition, and dues checkoff. All except one of the strikes

reported had come about since 1940, indicating, perhaps, that strikes constituted a comparatively new problem in school administration.

One strike, in Indianapolis, Indiana, lasted seven days (April 10-17, 1944). The purpose and outcome as stated in Table No. XI of Phay's dissertation were:

Purpose: Demanded recognition.

Outcome: Attorney General ruled collective bargaining agreements between labor unions and city, county, and state government units had no legal force.⁶⁰

As to vacations, about eighty per cent of the cities allowed two weeks with pay; about ten per cent of the cities granted three or four weeks, with pay. Only seven cities permitted cumulative vacation allowances, the number of days ranging from eighteen to thirty.

The average number of holidays, as determined by Phay's investigation, was seven and one-half days. Several cities allowed no holidays with pay, and others observed as many as fifteen.

Two weeks (10, 11, or 12 work days) was the sick-leave period granted most frequently; the range having been from eleven per cent with no sick-leave provisions, to three cities reporting unlimited or a full year of sick leave.

⁶⁰ Loc. cit.

The majority of the cities had cumulative sick leave provisions, and seventy-seven per cent of the cities had a group hospitalization plan.

The two types of retirement plans found in operation were the outright pension system and the contributory system, the latter having been more generally favored. Custodians in three-fourths of the cities had retirement plans. Teachers' and custodians' plans in more than half of the cities were rated either identical, or, "about equal". In the case of inequality, the plan was better for the custodians than for the teacher. In most instances the district was the contributor (43.7%) rather than the state (30.2%).

In Phay's comparisons were made throughout, with other groups of workers in order to show comparative practices. However, direct comparison of custodial emoluments was found impossible.

From the compiled data, Phay described the "average" custodian, in a summarized statement, which follows, in part:

The 'Average' Custodian

The 'average' custodian...received an annual salary of about \$1950 in 1945-46, or about \$300 more than he received in 1942-43. ...So far salary schedules have ignored his special family responsibilities. ...

He worked about 48 hours per week, working eight or nine hours daily. If he worked overtime, or on holidays (which was a rare occurrence), he was paid for it. ...

When the 'average' custodian was ill, he could absent himself from work as long as two weeks without loss of pay. If he had been well enough in the past to allow his sick leave to accumulate, he could be absent as much as four weeks without loss of pay. If he was injured on the job he received workmen's compensation as provided under his state laws, but usually this was less than he would have received under his local sick leave allowance. ...There was no school sponsored group hospitalization plan available for his use, but if he needed to borrow money there was a credit union available.

He paid half the cost of his retirement, a plan which was on a par with teachers' retirement plans. A school sponsored life insurance policy was not available to him, however.

The 'average' custodian did not belong to an organized labor group but many of his fellow custodians belonged to affiliates of the A.F. of L. and C.I.O. He did not engage in collective bargaining nor did he work under any form of a closed shop. ...He had never participated in a strike but he was aware that labor unions and strikes were becoming a real and relatively new problem for school administrators.⁶¹

Among Phay's twenty-eight recommendations, a few had bearing on this study. Some of them were:

1. Custodians should be hired for the entire twelve months of the year.
2. Multiple working shifts should be used where practicable.
3. "Roving custodians" should be used, where practicable, to work in several schools.
4. Definite salary schedules should be provided custodians.

⁶¹ Ibid., pp. 129-131.

5. Rules of promotion should be established and made known.

6. At least two weeks' vacation should be granted to all full-time custodians.

7. Vacations should not be cumulative.

8. Custodians should be granted sick-leave.

9. All custodians should be covered by a retirement or old-age insurance plan.

10. The Social Security Act should be extended to include custodians with existing state and/or local retirement plans superimposed upon the federal plan.

11. Policies should be established so that custodians could be discharged only for good reasons, such as incompetence, neglect of duty, insubordination, intoxication on the job and immorality.

12. Some holidays with pay should be granted custodians.

Hope⁶², in his study, outlined the statutes proposed for the non-teaching employees at Howard University, an institution established under Congressional Charter of 1867, in Washington, D. C., for educating the youth of all races in liberal arts and sciences. The university serves the

62 E. S. Hope, Statutes Proposed For Non-Teaching Employees At Howard University. (Unpublished doctor's dissertation. New York: Teachers College, Columbia University, 1942). 95 pp.

Negro race as its nearest approach to a national university, having a student body of two thousand, and a physical plant valued at more than ten million dollars, according to Hope.

Hope's project was conducted with the experience of many years as Superintendent of Buildings and Grounds at the University, and with a background of study of personnel relations in university administration. His study grew out of the belief and experience that, in order to increase operating efficiency, human relations, rather than technical planning and administrative supervision needed improvement, because the absence of employee good will can prevent a well planned project from functioning smoothly.

Union activities resulting from labor unrest led to the appointment of a committee, by the University president, to work out regulations to improve personnel relations between the non-teaching personnel and the University. A joint committee composed of employee and administrative representatives, after a study of proposals and actions, adapted the existing regulations and procedures of the University to conformity with the Regulations of the Federal Security Agency.

The resulting statutes were proposed on the premises of their financial helpfulness, their educational soundness, and their social desirability.

To compensate for the inability to meet salary

demands, greater job satisfaction through more security, along with improved educational opportunities and status were offered by means of extending free tuition to the wives and husbands of employees, whose children already enjoyed that privilege.

According to the outline, the project was reported in two divisions; Part One, the proposed statutes, and Part Two, an outline of the origin, purpose, procedure methods, and values of the statutes. There was a total of four Articles, two of which contained sectional divisions. The four Articles listed in the Table of Contents were:

ARTICLE I: Statement of Policy Regarding Non-Teaching Employees

ARTICLE II: Regulations Applying to Non-Teaching Employees

ARTICLE III: Procedures

ARTICLE IV: Amendment⁶³

The statement of policy in Article One provided for the adoption of fair wages, hours, and security practices; and, in addition, for participation in policy formation insofar as it was concerned with daily opportunities and relationships.

Article Two contained more of the items that relate

⁶³ Loc. cit.

to personnel service, welfare, and job satisfaction; such as (1) appointments and tenure; (2) promotions and transfers; (3) work hours; (4) leaves of absence; (5) service termination; (6) security; (7) compensation according to classification; (8) health and safety, and personnel relations.

Article Three offered a plan of organization of committees, with their composition, their duties, and their methods of procedure indicated.

The amendment procedure was discussed in Article Four.

The regulations applying to the non-teaching personnel, Article Two, were particularly related to this study. Therefore, a brief summary of the proposals is included in the paragraphs immediately following.

One of the proposals was a written notice of appointment, such notice including classification, the number of work hours, wages, benefits, and rights (the terms temporary, probationary, and regular employment having been defined beforehand, along with other terms in foregoing section). The rights of transfer and promotion on the basis of suitability and competence, with consideration for seniority, were assured, with freedom to apply after public announcement of a vacancy.

An eight-hour day and a forty-four-hour week were proposed, with overtime and holiday compensation, or, adjustment of working periods within the week to compensate.

Leaves of absence to be taken with pay were annual vacation (after twelve months' service), one month; sick leave, one week (or creditable to vacation time). Those leaves granted without pay were: education leave (or part-time work arrangement); military leave (until forty days after discharge); maternity leave (granted after completion of twelve months of service,) and jury leave (if charged to vacation leave).

The holidays granted with pay were eight in number, including Labor Day, Armistice Day, Thanksgiving Day, Christmas Day, New Year's Day, Washington's Birthday, and Memorial Day.

In considering the termination of service, the right of dismissal was specifically reserved to the administrative officers with the following provisions: (1) that in reduction in personnel the best, rather than the oldest, employees be retained; (2) that thirty days' notice be given by either party desiring to terminate the employment contract; (3) that a written warning notice be given for unsatisfactory service; (4) that a generous specified allowance be paid an employee upon his dismissal for reasons other than moral turpitude and/or incompetency.

The security provisions included: (1) a retirement allowance of a minimum of \$25.00 per month, or one-third of the final salary after service of twenty-five years, which ever is greater, to be paid by the University; (2) workmen's

compensation, as required by law; (3) group insurance, by requirement; (4) group hospitalization by payroll deduction; (5) salary advances; and, (6) credit union.

The method of determining fair wages was by classification and salary scales guided by similar criteria in the United States government in Washington, D. C. In addition, free tuition in Howard University was granted to all full-time regular or probationary employees, their children and wives or husbands.

Certain health and safety measures were assured, including physical examinations before appointment and at periodic intervals, by the University Health Service. It was considered desirable, if not feasible, for the University Health Service to serve all employees, if arrangement could be made.

The program of personnel relations called for an organization in Article Three. The official and committees designated were: a personnel officer, a personnel committee, departmental committee, and craft committee.

It was deemed unlikely that amendment of the statutes would be necessary for five years. However, the proposed statutes were said to be subject to review, amendment, and modification by the Board of Trustees of the University at any stated meeting of the complete Board. The amendment statement follows:

This entire section of statutes shall become inoperative immediately following corresponding meeting of the full Board of Trustees which occurs approximately five years after its adoption unless prior to that time its extension shall have been recommended by the Personnel Committee and approved by the Board of Trustees.⁶⁴

One of the research studies in progress is that by Konvolinka.⁶⁵ He is making an analysis of personnel administration for the custodial staff in cities of 100,000 population or more. The questionnaire which he distributed is in the form of a check list, and it embraces recommended principles and procedures relative to planning and supervisory leadership; selection and appointment of the custodial employees; their classification, salary schedules, and working conditions.

The National Education Association, the United States Office of Education and the Association of School Business Officials have produced valuable research studies in the field of building maintenance and operation in recent years. Only a limited number of individuals have undertaken the investigation of building maintenance personnel practices.

⁶⁴ E. S. Hope, Op. cit., p. 32.

⁶⁵ H. L. Konvolinda, An Analysis of the Principles and Procedures in Personnel Administration Recommended For The Custodial Staff In Large Cities. (Questionnaire. Graduate School, University of Pittsburgh, Pittsburgh, Pennsylvania. January 18, 1949), 11 pp.

CHAPTER IV

CLASSIFICATION OF NON-TEACHING EMPLOYEES AND AN ANALYSIS OF DUTIES OF RESPECTIVE CLASSIFICATIONS

1. Some Factors Influencing Personnel Classification

In personnel management the classification of employees is dependent on the nature of the enterprise for which their service is intended and on the purpose of their service. The present methods of classifying the non-teaching personnel engaged in the maintenance and operation of school buildings have been influenced somewhat by state or municipal requirements, and by local precedent. These influences have resulted in such a variety of classifications that comparative studies of the non-teaching personnel, on a nation-wide basis have been found difficult, if not almost impossible.

It is the purpose of this chapter to present the suggestions of authorities in school administration on the classification of the non-teaching personnel. Their suggestions for achieving efficient building maintenance by the analysis of the duties of the personnel and through planning of the work schedule are included. A discussion of the work and the opinions of authorities in business administration, and, of the best practice in classification

as reported by reputable experimenters will be given.

The discussion will include the responsibilities of leadership in personnel management; the determination and satisfaction of need for personnel, involving the classification of services and the selection of employees by one of several methods: civil service, a state merit plan such as that in operation in California, or by informal selection.

The best practice for the efficient functioning of the personnel under classification will be reported. Reclassification, becomes necessary from time to time due to personnel improvement through training, experience, and natural ability.

2. Personnel Leadership and Planning

All personnel employed in the public schools has as its purpose the attainment of efficient service as a contribution to more efficient instruction. For increased efficiency of building and maintenance service the delegation of the responsibility of leadership for the planning and direction of the personnel program has been considered in most schools as a function of business administration. This practice of placing leadership in the business administration department was recommended in the report of a recent survey of school administration in the State of New York. In the business management of public schools, as recommended in the

report, there would be:

A personnel division with sections or individuals carrying such duties as the administration of the classification of positions, salary plan, recruitment progress, employee rating, in-service training, personnel investigations, employee welfare measures, and retirement; and a buildings and grounds division engaged in construction, operation, and maintenance of all fixed property. ...

The cost of personnel services represents from 70 to 90 per cent of the total expense of school systems and in this field there is real need for personnel management services.¹

Following the same theory of leadership placement,
²
 Orchard² reported that in a survey of 116 cities (of 50,000 to 100,000 population) in 84% of the cities the selection and assignment of all maintenance and custodial employees was made by the buildings and grounds superintendent who had been appointed by the business manager.

The responsibility for the integration of management organization for building service with the total educational program rests with the business department which operates through the individual who serves as a staff specialist on building service. The administrative control of the school

¹ Gustave Moe, "School Business Administration Findings And Recommendations From The Report of the New York Regents' Survey", Proceedings, 1939. pp. 93-105.

² Ralph P. Orchard, "Fundamentals of Municipal Personnel Administration As Applied to Cities of 50,000 - 100,000", Proceedings, 1939. pp. 141-144.

plant operating activity should be under the building principal who looks to the staff specialist, usually referred to as the Superintendent of Buildings and Grounds, for the responsibility for technical problems, and for the inspection and improvement of service.³ Proper integration not only enhances educational service, but also insures harmonious employee relations.

The nature of other planning and leadership responsibilities delegated to the superintendent of buildings and grounds and his assistants were found in a list of duties prepared by Reeves and Ganders. Duties listed were:

1. Collect requisitions from various schools and make requisition to the purchasing agent.
2. Let major repair work to contractors or to special help.
3. Organize some of the janitor-engineers and assistants into repair squads for summer work.
4. Keep records of supplies...used, keep records of the cost of janitorial-engineering service, and make comparisons of unit costs between buildings.
5. Keep personnel records of employees.
6. Accept principals' and janitors' reports on janitorial-engineering service.
7. Summarize the reports in an annual report...to the board of education.

³ Arthur B. Moehlman, School Administration, (Dallas: Houghton Mifflin, 1940.) p. 427.

8. Standardize, with the aid of assistants and janitor-engineers, a list of janitorial engineering supplies.
9. Select, promote, demote, retain, or discharge janitor-engineers and assistants, with the approval of the...board of education.
10. Make assignments of janitor-engineers and assistants and place them in positions where they can work effectively.
11. Provide for substitute service.
12. Organize training in-service for janitor-engineers.
13. Supervise, with the aid of assistants in his department, the work of janitor-engineers.⁴

To properly integrate the services and maintain harmonious employee relationship in the exercise of his duties the supervisor of buildings and grounds of a big organization must give continuous study, thought, and planning to all the phases of his position in order to develop more and better plans of personnel management. Some of the qualities suited to administration that he is expected to possess or acquire include plain common sense and practical judgment gained from experience in administration; ability to think objectively; to establish leadership and win cooperation; to inspire and stimulate; and, to anticipate response or reaction of people under certain circumstances.

⁴ Charles Everand Reeves and Harry Stanley Ganders, School Building Management. (New York: Teachers College, Columbia University, 1928.) pp. 33-34.

He should have a broad social outlook with an understanding of the human element; and, a positive attitude, with a record of fair dealing, with insensitiveness to criticism, and tolerance toward the ideas of others.⁵

The procedure for combining the qualities of managerial ability with accepted technique is (1) to arrive at a correct understanding of what the job consists; (2) to adapt a workable, consistent organization to the job to be done; (3) to work out a system that is simple and direct for producing the service anticipated; (4) to adopt a method for checking the results; and, (5) to appoint capable, well-qualified individuals to key positions.⁶

In adapting the accepted technique to the problems of organization, as stated above, there are certain general principles which apply to administrative practices which may be applied to any unit of an organization for administration, and are thus applicable to the organization for building service, such as:

1. Assigning every necessary function involved in the objectives of the organization to a unit of that organization.
2. See that the responsibilities assigned to any unit of organization are specifically clear-cut and understood by all.

⁵ L. E. Travers, "Administrative Practices and Procedures", School Business Affairs, 13:3, August, 1947.

⁶ Ibid.

3. Assign no function to more than one independent unit of organization. Overlapping functions will cause confusion and delay.
4. Apply consistent methods of organization structure at each level of the organization.
5. See that each member of the organization knows to whom he reports and who reports to him.
6. See that no member of an organization reports to more than one administrator.
7. See that responsibility for a function is matched by authority necessary to perform that function.
8. See that independent individuals or units reporting directly to administrators do not exceed the number that can be feasibly and effectively coordinated and directed.
9. Be sure that line authority is not violated by staff units.
10. See that responsibility for actions is decentralized to the unit and individual responsible for actual performance of operation to the greatest extent possible so long as decentralization does not hamper necessary control over policy or the standardization of procedures.
11. Never permit the organization to grow so elaborate as to hinder organization accomplishment.
12. Remember that attention to organization is a continuous process, calling for almost constant adjustment of structure and relationship.⁷

3. The Need for Personnel

The need for building maintenance and operation

⁷ Ibid., pp. 3, 4.

personnel arises out of the anticipation of the service contributed to the instructional process. The number of employees needed is arrived at by the consideration of (1) what duties they will perform; (2) the quality of service expected; and, (3) the amount of work each employee should do.

Although the specific listing of the numerous duties and activities of the employees might seem unnecessary, on the contrary, it was deemed important as a first step in determining the number of employees. In listing the activities and duties, Womrath⁸ used a method of dividing the various activities to be performed suggestive of the locale of the performance; as, (1) room duties, such as sweeping and washing the blackboards; (2) nonroom duties, as building repairs of a minor nature and boiler manipulation; and, (3) outside duties, as inspection of grounds and sweeping the walks.

Even as the listing of duties was considered a tedious task, it has been difficult to arrive at the standards of precision, or the thoroughness of performance of each duty listed. For example, good judgment should determine whether a room should be swept twice a day for added cleanliness or only once a day for economy.

⁸ George F. Womrath, Efficient Business Administration of Public Schools. (New York: The Bruce Publishing Company, 1932.) 463 pp.

Similarly, in a recent survey, Stenquist found that "most cities have outside windows washed at least three times a year;"⁹ however, some cities fell far below that standard, and others showed more frequent washing of windows.

The quality of service and the amount of service are determined to a large degree by the employee's own ability and inclination to work; but there are bases for arriving at reasonable work-loads after standards have been established, and after a record of reasonable time allowable for the respective duties performed by efficient workmen has been kept and verified. Womrath explained the time factor in computing man power in this manner:

A study of the time required by these men to perform each duty, while maintaining the degree of thoroughness established as standard, will yield a time factor in minutes for each duty and kind of work performed. The answer is then reached by a simple problem in multiplication, as the kinds of work multiplied by the factors of repetition, and this result multiplied by the minutes per operation, equals the total volume or work to be done and is expressed in minutes.

It is quite evident that the amount of work that may be demanded from each employee equals the volume of work which should be performed within the number of minutes worked within the year, or 132,960. This figure is established on the basis of $5\frac{1}{2}$ days per week of 8 hours per day, or 44 hours per week for 52 weeks, less 9 legal holidays. No allowance is here made for absences from work for personal reasons, or for vacations and sick

⁹ John L. Stenquist: Letter to H. S. Brannen, November 21, 1948.

leave. The figure 132,960 therefore, represents one man power, or the amount of work in minutes to be delivered per year by every able-bodied industrious workman in the service. ...

Having determined the total volume of work to be performed in each building and for all the buildings in the school system, and the volume of work to be delivered per man, the total man power required is found by dividing the total volume of work, expressed in minutes, by the volume of work per man, expressed in minutes. Fractions represent less than full-time service, namely, months instead of years. Thus, if the total volume of work equals 2,659,200 minutes the system will require 20 men (2,659,200 divided by 132,960) on full time, or every man figured on the payroll for 12 months. If the total volume of work equals 1,429,320, the system will require 10 $\frac{3}{4}$ men, which means that 10 men should be employed for 12 months and 1 man for 9 months.¹⁰

The duties and activities of the non-teaching employees come under one or more of the classifications involving kinds of activities; such as, heating and ventilating, cleaning, supervision, or interpretation. The services in each class of activities demand special skills, or abilities, attitudes or qualities. The specialization of services is further influenced by the limitations of state and municipal requirements (such as the licensing of engineers); and by local policy. The grouping of services according to organization unit or location (elementary, junior high school or senior high school building) further adds to specialization. In addition, there are those

¹⁰ George F. Womrath, Op. Cit., pp. 312, 313.

services which can be performed by employees possessing skill but hindered by the limitations of such counteracting characteristics as the inability to adjust to any other than one type of service.

4. Classification of Services and Employees

The classification of services parallels the classification of employees for the respective services. Engelhardt and Engelhardt¹¹ gave as the principal reason for classifying employees the improvement of the procedures of management in order to increase the efficiency of the personnel. The National Education Association recommended the standardization of the terms used in classifying school-building employees in the hope that uniformity of classification would result in facilitating research and in aiding administrators in the grading of employees for salary purposes.

For a larger school system the tentative grouping of building employees suggested by the Association was:

1. Employees concerned primarily with the planning, improvement, and repair of school buildings

Chief architect
Assistant architects
Draftsmen

¹¹ N. L. Engelhardt and Fred Engelhardt, Public Business Administration. (New York: Teachers College, Columbia University, 1927.) p. 241.

Superintendent of construction

Electricians
 Mechanics
 Plumbers
 Steamfitters
 Carpenters
 Painters
 Plasterers
 Roofers
 Sheet-metal workers
 Glaziers
 Shademakers

2. Employees concerned primarily with cleaning and caring for school buildings and grounds.

Chief custodian
 Janitors and janitresses
 Cleaners
 Window washers
 Watchmen

Landscape Superintendent

Gardeners
 Laborers

3. Employees concerned primarily with heating and ventilating school buildings.

Chief engineer
 Engineers
 Firemen
 Coalpassers
 Oilers

4. Employees classified as school-building workers, but not included in above groups

Matrons
 Bus drivers
 Chauffeurs
 Truck drivers
 Auto Mechanics.¹²

¹² National Education Association, Educational Research Service, Salaries of Employees Engaged in Operation and Maintenance of Buildings in 133 Cities Above 30,000 in Population, 1946-47. Educational Research Circular No. 1. (Washington, D. C.: The Association, January 1948.) pp.4-5.

The classification suggested by the National Education Association should form the basis for each local school's terminology adjustment which could be effected without inconvenience.

Mattier,¹³ too, advised the proper classification of each position in the school district, or system, using only those classifications necessary in order to provide for flexibility. This classification would involve not only an analysis of the work each employee does, but also the training requirements, the level of difficulty, special skills required, and how the position differs from any other position in the district.

The level of difficulty of the position was found to be influenced by the size, age, state of repair, and location of the building; by the type and condition of the heating system; by the special services required; and, by the after-school services demanded. Written records of such data must supersede personal memory in large organizations.

5. The Satisfaction of Need for Personnel

The satisfaction of the need for personnel through the selection of employees and their appointment for service

¹³ Al P. Mattier, "Personnel Management as Applied to Small Districts", Proceedings, 1939, pp. 145-150.

involves (1) determining the basis and methods of selection; (2) analyzing the relationship of job specifications and the wage scale; and (3) arriving at a mutual understanding between employer and employee of the rules and regulations concerning the personnel, for efficient service through proper orientation.

The necessary and desirable qualities of an employee, which form the basis of his selection for appointment to service, include his natural abilities, his training, and his previous experience. Womrath believed that fitness for service should be based on the employee's "age, health, character, honesty, ability, deportment, education, appearance, previous training, and their tendencies and attitudes toward school janitorial-engineering work".¹⁴ He considered as counteracting characteristics, carelessness in personal attire, disloyalty, laziness, shiftlessness and moral turpitude.

The method of selection of the public school janitor-engineer has been a debated question. Adkisson¹⁵ found that 62 cities out of 351 tabulated were using civil service as a means of selection. The states of Ohio, New York and Massachusetts reported almost all of their cities using the

¹⁴ George F. Womrath, Op. Cit., p. 283.

¹⁵ R. W. Adkisson, "Training of Public School Janitor-Engineers", Proceedings, 1930, p. 90.

methods of civil service.

The advantages and disadvantages of civil service selection were given in tabular form, showing a comparison of opinions of those cities using civil service with those cities which do not:

Advantages and Disadvantages of Civil Service ¹⁶				
Advantages	Cities not under civil service		Cities under civil service	
	Yes	No	Yes	No
Eliminates spoils system	39	14	29	3
Eliminates political and personal preferences	35	17	28	5
Assures the induction of only good men into the service	20	32	6	24
Protects employees after getting into service	48	8	28	2
Eliminates importunities of board members, politicians and friends seeking positions for their acquaintances	43	15	26	6
- - - <u>Disadvantages</u> - - -				
Difficult to discharge an inferior workman or trouble maker	57	8	27	6
Civil service test does not really test fitness for this particular job	37	22	20	10
Choice is limited to the next three men in line	27	8	29	3
Removes selection of men from school authorities	39	8	21	10
Favor this plan of selection	24	63	22	12

¹⁶ Ibid., p. 91.

In summarizing the advantages and disadvantages, Adkisson reported that:

Where the rules are liberally construed and the system reasonably administered, the plan seems to meet with general approval, but in cities which are bound by ironclad methods and where politics is allowed to rule the commissions, there is just as general dissatisfaction. The success of the system depends apparently upon the reasonableness with which it is administered. However, the combined opinion of all replies indicates that the majority of officials responsible for the operation of all school plants would prefer to choose their men directly if given a free hand in making this choice. This system will of course produce good results provided the school officials are efficient and are themselves free from politics.¹⁷

Rich inferred that large cities had a decided advantage over small ones in making selections on a more scientific, formal basis; but that, "Any system of civil service selection, however, is productive of good results only if it is well administered."¹⁸

On the other hand, Rich believed that appointment by informal selection was conducive to furnishing just as good employees as could be secured by civil service method provided the appointive official had "sufficient intestinal fortitude".

Another method of selection of employees is

¹⁷ Ibid.

¹⁸ Lester H. Rich, "Fundamentals of Personnel Administration As Applied To Large Cities", Proceedings, 1939., p. 151.

California's Merit System, applying to non-certified employees of school districts. It was put into operation legally by a bill passed by the California legislature in 1935.

Provision was made for a three-member personnel commission, the members appointed by the State Superintendent of Public Instruction, the County Superintendent of Schools and the Executive Officer of the State Personnel Board, respectively. The Commission, by appointment removed from local political pressure, was charged with the responsibility of drafting the rules and regulations to properly administer the service. Since the plan is permissive, any school district may adopt it, and only a majority vote of the district may repeal it. For those employees who merit retention by their performance, the plan of employment is rather permanent. The experts who drafted the bill designed a special civil service program to meet the needs of school districts according to their various sizes.

In placing a district on the Merit System in California, first, the classification of each position provided a basis for the selection of new employees, the establishment of the salary ranges, and the preparation of job specifications for making clear the duties of each position. Then, the drafting of the rules and regulations was undertaken, followed by provision for in-service training, tenure, and

other phases of employee improvement and welfare.¹⁹

Following is a sample of a job specification sheet for the position of custodian, for Los Angeles City School District:

<u>TITLE OF POSITION:</u>	CUSTODIAN
<u>FILING TO OPEN:</u>	Monday, July 19, 1948
<u>FILING TO CLOSE:</u>	Friday, July 30, 1948
<u>DATE OF EXAMINATION:</u>	Candidates to be notified.

DUTIES: A Custodian ordinarily works under the immediate supervision of a Junior Head Custodian, a Senior Head Custodian, or a Supervising Custodian. An employee of this class maintains the buildings and unplanted areas of the Los Angeles District in a clean, sanitary, and safe condition, and performs related work as assigned.

MINIMUM QUALIFICATIONS: EDUCATION, ability to read and write and to follow written or verbal instructions. EXPERIENCE, some paid experience in janitorial, custodial, or maintenance work, or successful completion of a course in janitorial engineering, is desirable.

SCOPE AND WEIGHTS OF EXAMINATION: A knowledge of cleaning materials, and modern cleaning, sterilization and sanitation methods; some knowledge of low pressure heating plants, knowledge of flag courtesy; ability to make minor repairs, skill in the use of simple fire fighting extinguishers; ability to clean, sweep, mop, and dust, and to read water, gas and electric meters; good health, keen eye-sight, and good hearing; physical strength to do vigorous manual work, climb stairs and ladders and lift fairly heavy loads; neat appearance; ability to get along with children and school personnel; ability to take orders. The examination will consist of a written test (50%) and evaluation of training and experience (50%). In order to expedite completion of

¹⁹ Al. P. Mattier, Op. Cit., pp. 145-150.

examination before end of 90 days, The Personnel Division may take advantage of amendment to rule 22.617.

SALARY AND HOURS: FORTY HOURS PER WEEK as regulated.

1st	2nd	3rd	4th	5th	Year
\$173	\$181	\$190	\$200	\$211	

ADDITIONAL INFORMATION

APPLICATION must be made out on official application blanks, procurable at Room 153A, Administrative Office, 451 North Hill Street, Los Angeles 12, California.

CITIZENSHIP: If foreign born, evidence of citizenship must be submitted to the Personnel Division prior to appointment.

VETERAN PREFERENCE: Proof of actual service must be submitted at time application is filed.

RETIREMENT: Generous pension and retirement allowance are features of the service. Employment with the Board of Education is automatically terminated at the age of 65.

PHYSICAL REQUIREMENTS: Candidates will be required to pass a medical examination prior to appointment. This will be given by the Health Services Branch of the Los Angeles City Board of Education without charge.

APPOINTMENTS are immediately available.²⁰

After having determined the basis and method of selection of employees, and of outlining the job specifications, it was found necessary to analyze the relationship between job specifications and the wage scale. Since salaries vary widely according to the geographical location of a city, and also its size, the determination of a fair wage is something of a local nature. It is influenced by the general

²⁰ Loc. cit.

level of wages in a given community, and by the payment for the same service in nearby communities. There should be a good living wage, suitable to provide ample food, clothing, and shelter for the employee and his family, including allowance for a reasonable amount of recreation, and sufficient for some saving.

Some of the elements that should enter into the construction of salary schedules for the non-teaching personnel engaged in building maintenance and operation service listed by Reeves and Ganders were: (1) experience, (2) training; (3) merit (determined by a system of ratings); and, (4) the degree of responsibility.²¹

Stigers and Reed²² explained the need of wage and salary standardization by saying that such standardization "has as its chief objective the development of harmony, understanding, and cooperation among employees through the feeling of a sense of fair play in wage administration and control".²³

The salary schedule tends to eliminate ill-feeling and dissatisfaction among employees and, when merit is one of the

²¹ Reeves and Ganders, Op. cit., p. 32.

²² M. F. Stigers and E. G. Reed, The Theory and Practice of Job Rating. (New York: McGraw Hill, 1944.)

²³ Ibid., p. 41.

elements of consideration, also, serves as an incentive to the employee to do better work in order to receive better pay.²⁴

To avoid a waste of time and money a definite work schedule for each employee has proved not only desirable but necessary for the following reasons: (1) it eliminates waste of time deciding what should be done; (2) it provides no excuse for service being left undone because of overlapping of activities by different employees; (3) it places definite responsibility for detailed jobs; (4) the work is done on time.²⁵

Below is a table showing a daily work schedule for a head custodian of a building:

CUSTODIAN

Time	Activity
7:00 - 8:00	Start boiler, clean entrances, put up flag.
8:00 - 8:30	Dust rooms 1, 2, 3, 4.
8:30 - 9:00	Dry mop and dust gymnasium.
9:00 - 9:30	Clean boy's toilets, fill soap dispensers, paper holders.
9:30 - 11:30	Dry mop corridors, firing, and miscellaneous odd jobs.
-- 11:30-12:30 --	General supervision of building --

²⁴ Rufus A. Putnam, "Fundamentals of Municipal Personnel Administration," Proceedings, 1939, p. 138.

²⁵ Ibid., p. 202.

CUSTODIAN (continued)

Time	Activity
12:30 -1:00	General supervision of building
1:00 -1:20	Clean boy's toilets
1:20 -3:30	Firing and miscellaneous odd jobs
3:30 -4:45	Clean rooms 1, 2, 3, 4, 5, dry mop corridors.
4:45 -5:00	Bank fire, take in flag, check and lock doors. ²⁶

In most large city school systems today there were found printed rules and regulations of boards of education concerning janitorial service. Some of the matters covered consisted of the classification, selection and tenure of the employees; attendance requirements; salaries and other benefits; the authority and the responsibility of the employees; the care and use of the ventilation and heating apparatus and other janitorial equipment; methods of performing various duties; the making of reports; the personal conduct of the personnel; and any other rules and regulations deemed necessary. It was considered an advantage to have printed regulations in order that the instructions might be reread.²⁷

Written rules and regulations provided for clarification, specialization, standardization and systematization, all considered necessary in the management of large numbers

²⁶ Reeves and Ganders, Op. cit. p. 203.

²⁷ Ibid., p. 43.

of personnel.

The proper dissemination of information found in the rules and regulations brought about better morale, also. In a recent attitude survey of several hundred thousand workers, it was found that workers were not so interested in information about their salaries as they were in finding out the answers to the following three questions:

1. What is my job?
2. Whom do I work for? and
3. What does he expect of me?²⁸

Good workmanship demands that every employee knows definitely his duties and responsibilities. A book of rules and regulations placed in the hands of a new employee upon his appointment to service affords a means of promoting good workmanship.

6. Functioning of Personnel Under Classification

The efficient functioning of the building maintenance personnel under a classified system depends largely on managerial factors, after selection and appointment have been made according to the best practice. Husband²⁹ maintained

²⁸ L. B. Travers, Op. cit., p. 3.

²⁹ J. H. Husband, "An Efficient Maintenance Staff Means Well Kept Schools", School Management, 16:3, December, 1946.

that "Efficiency is determined by the capacity of the individual; by his ability to adjust to his surroundings and by the instructive influence of the organization itself in assisting, leading and stimulating the individual".³⁰

For efficient functioning, too, the staff specialist should know the problems, the advantages, and disadvantages of each building and each classification. He should keep a permanent personnel record in order to eliminate errors in judgment and memory, of important qualifications.

The personnel record should include such items as the employee's name, address, telephone number, age, sex, marital status, family; his qualifications as to education, training, and previous experience; the date of his first employment by the school system; a salary statement for each year; a record of transfers, promotions, absences; a record of his yearly rating; and, provision for miscellaneous remarks.³¹

7. Improvement of Personnel

The improvement of the personnel through training and experience under planned supervision was considered of vital importance by the leading authorities, as was shown in the discussion of the literature on the subject in Chapter III. Whether the training was carried on in a more formal manner,

³⁰ Loc. cit.

³¹ Reeves and Ganders, Op. cit., p. 332.

as in the Minneapolis plan, or, by having a new employee spend a training period under the direction of the head custodian of a building, training was strongly recommended.³²

Knoll³³ reported that employees remain on the job as a result of the incentives of security, rate of pay, and working conditions.

Greater security can be provided the non-teaching building maintenance personnel by a system of seniority and tenure based on the merit system. The morale value of greater job satisfaction through security is beneficial to the employee; and the continuity of efficient, trained employees enhances the value of the services of the non-teaching personnel to the instructional field.

Promotion involving seniority and tenure should be considered after a probationary period, during which an employee has had opportunity to prove his worth. Promotion should be based on "character, efficiency, cooperation, loyalty, ability to deal with people, and seniority."³⁴

If properly kept, the personnel record provides a basis of determining promotion readiness. At the annual

³² Ibid.

³³ Arthur A. Knoll, "Some Aspects of the Merit System of Employment", Proceedings, April, 1946. pp. 147-149.

³⁴ Rufus A. Putnam, Op. cit. p. 138.

promotion time, yearly ratings by the building principal and the superintendent of buildings and grounds should be given. The rating should include service and personal qualities, such as attitude toward principal, teachers, and pupils; cooperation, industry, personal appearance, and other traits discussed in connection with the selection of employees.

Promotion and new recruitment are two phases of changing personnel. The need for new recruits emerges as a result of the extension of the school plant, or the dismissal of employees, or the loss of employees to other industries, by retirement, or by natural causes.

The necessity for reclassification of some of the personnel is occasioned by promotion, by new recruitment, and by partial disability after long years of useful service, or, by advanced age before the requisite number of years prior to retirement. For example, old men, or those recently returned from an illness have been known to benefit from outdoor work.

CHAPTER V

A STUDY OF QUALIFICATIONS AND REQUIREMENTS OF BUILDING MAINTENANCE AND OPERATION EMPLOYEES IN CITIES OF 200,000 POPULATION AND ABOVE IN THE UNITED STATES

1. Trends in Personnel Practice

The first four chapters have provided a setting for the employees engaged in public school operation and maintenance. Some of the practices have been indicated, and trends were pointed out.

It was noted that as the school system grew from small beginnings, so did the organization of the non-teaching personnel. The growth of cities, the development of state systems of education, the industrialization of the Nation, and the changing philosophy of education presented educational problems hitherto unknown.

The demand for improved buildings gave rise to increased expenditures. Faced with the problem of costly buildings improperly kept, school administrators gradually awakened to the need for more efficient operation and maintenance of costly plants. The non-teaching personnel engaged in providing building service emerged as a group in need of better direction and training after more careful selection.

The field of business administration in general has been the subject of a sufficient quantity of literature in recent years. However, the management of the operation and maintenance personnel is a phase of public school administration which has been neglected in the literature of that field. Recent studies by research departments of various educational organizations and by individuals have shown the need for further scientific investigation and planning, taking into account the human element of the organizational structure through which the non-teaching personnel functions.

The organizational structure of a large city-school system, having evolved more or less gradually from a smaller unit, necessitated the classification of services for increased efficiency, as growth proceeded.

There are socio-economic implications of classification, recruitment, payment, and retirement of the non-teaching personnel. Out of experience good and bad practices have emerged, through trial and error.

To reduce the loss of time and money and service through trial-and-error procedures, desirable procedures may be accepted from the diversity of school systems having similarities of size, requirements, and standards.

The pattern of organization of the non-teaching personnel as outlined in Chapter IV constitutes the structure through which the services of building maintenance and

operation are performed. Personnel management through the organization is not an end in itself; it is, on the other hand, a means of permitting the most effective functioning of the educational program. To make it function effectively requires managerial skill through the interpretation of educational policies and the application of administrative practices that will not retard changes that are needed. Those administrative practices which are accepted need not be considered for all time, but as they fit into the general pattern of changing education.

It is the purpose of this chapter to present the findings of a study of certain qualifications and requirements of building operation and maintenance personnel in cities of 200,000 population and above in the United States. Similar findings for the larger city-school systems in Texas will be discussed in Chapter VI.

Copies of a questionnaire were sent to the forty-three cities in the United States having a population of 200,000 or more, according to the census of 1940. (See Appendix for a list of cities and a copy of the questionnaire.) Thirty-eight usable replies, or 88.3% of the number of questionnaires sent out, were received. One questionnaire was returned unmarked, and four were not returned or heard from after follow-up letters had been sent. The five cities qualifying as to size, but not

included in this study are Providence, Rhode Island; Washington, D. C.; Jersey City, New Jersey; Louisville, Kentucky; and San Francisco, California.

All geographic regions of the United States were fairly well represented among the thirty-eight cities. The distribution of the respondents by geographical regions was as follows:

GEOGRAPHICAL REGION	NUMBER OF CITIES OF 200,000 POPULATION AND ABOVE
<u>New England</u> ¹ Boston, Massachusetts	1 city
<u>Middle Atlantic</u> ² Baltimore, Maryland Newark, New Jersey Buffalo, New York New York, New York Rochester, New York Syracuse, New York Philadelphia, Pennsylvania Pittsburgh, Pennsylvania	8 cities
<u>Southeast</u> ³ Birmingham, Alabama Atlanta, Georgia New Orleans, Louisiana Memphis, Tennessee	4 cities

1 Includes: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

2 Includes: Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania, and West Virginia.

3 Includes: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.

GEOGRAPHICAL REGION	NUMBER OF CITIES OF 200,000 POPULATION AND ABOVE (continued)
<u>Middle</u> ⁴	14 cities
Chicago, Illinois	
Indianapolis, Indiana	
Detroit, Michigan	
Minneapolis, Minnesota	
St. Paul, Minnesota	
Kansas City, Missouri	
St. Louis, Missouri	
Akron, Ohio	
Cincinnati, Ohio	
Cleveland, Ohio	
Columbus, Ohio	
Dayton, Ohio	
Toledo, Ohio	
Milwaukee, Wisconsin	
<u>Southwest</u> ⁵	4 cities
Oklahoma City, Oklahoma	
Dallas, Texas	
Houston, Texas	
San Antonio, Texas	
<u>Northwest</u> ⁶	2 cities
Denver, Colorado	
Omaha, Nebraska	
<u>Far West</u> ⁷	5 cities
Los Angeles, California	
Oakland, California	
San Diego, California	
Portland, Oregon	
Seattle, Washington	

4 Includes: Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin.

5 Includes: Arizona, New Mexico, Oklahoma, and Texas.

6 Includes: Colorado, Idaho, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming.

7 Includes California, Nevada, Oregon, and Washington.

On both the size and the representativeness of the sample, the facts should be fairly reliable in indicating the practice involved regarding the qualifications and requirements of building maintenance personnel of large city-school systems, as all but five cities in this class responded.

For the purpose of assisting in presentation of the information received from the questionnaire, tables were prepared covering the following areas:

1. The number of building maintenance employees
2. School systems requiring physical examination of building employees
3. The educational requirements of the building maintenance employees
4. The number of hours per week spent by employees in performing services
5. Minimum and maximum salaries of the employees under investigation
6. Retirement plans for the employees
7. The compulsory retirement provisions in effect
8. The in-service training program for the non-teaching personnel in building operation and maintenance.

The personnel administration in each of these areas is concerned with the practices and procedures that are

current in carrying on the educational program through proper integration, according to the policies which school officials have accepted.

2. Number of Employees

Table I is presented to show the number and distribution according to classification, of building maintenance in 37 cities of 200,000 population and above in the United States. (Cleveland's response to the information for Table I was omitted in the questionnaire.) The table was compiled from answers to the question of how many building maintenance employees were employed in the classifications of (1) engineers, (2) custodians, (3) maids, (4) carpenters, (5) painters, (6) plumbers, (7) others, and, (8) the total of all classifications named.

The total number of employees in the eight classifications asked for was as follows: engineers, 2499; custodians, 8205; maids, 4734; carpenters, 657; painters, 650; plumbers, 233; others, 9324; and the grand total, 26,302.

The difficulty of compiling the data because of such a wide variety of titles of positions (as discussed in Chapter IV) was encountered. An attempt was made to report as accurately as humanly possible in the light of this difficulty. For example, as to variety in classification, whereas one city listed a total of 391 employees under only

TABLE I
NUMBERS OF BUILDING MAINTENANCE EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948-49

Cities	Engineers	Custod- ians	Maids	Carpen- ters	Painters	Plumbers	Others	Total
Akron, Ohio	78	55	25	17	23	15	6	219
Atlanta, Georgia	-	90	143	11	13	2	94	353
Baltimore, Maryland	210	180	454	24	28	8	88	992
Birmingham, Alabama	1	61	152	6	12	2	135	369
Boston, Massachusetts	-	384	7	-	-	-	-	391
Buffalo, New York	110	8	111	28	32	8	550	847
Chicago, Illinois	104	378	520	-	-	-	1931	2933
Cincinnati, Ohio	70	74	238	20	36	15	49	502
Cleveland, Ohio*								
Columbus, Ohio	17	191	27	2	7	-	3	247
Dallas, Texas	2	216	16	13	4	3	36	290
Dayton, Ohio	22	123	35	9	8	10	28	235
Denver, Colorado	80	88	22	9	14	4	32	249
Detroit, Michigan	451	910	-	-	-	-	321	1682
Houston, Texas	36	164	253	20	12	2	15	502
Indianapolis, Indiana	6	99	46	10	21	4	331	517
Jersey City, New Jersey*								
Kansas City, Missouri	15	274	3	10	16	4	68	390
Los Angeles, California	23	1475	29	115	107	36	742	2527
Louisville, Kentucky*								
Memphis, Tennessee	-	118	70	12	20	4	12	236
Milwaukee, Wisconsin	97	85	180	-	-	-	6	368
Minneapolis, Minnesota	200	195	95	35	29	10	120	684
New Orleans, Louisiana	15	292	-	22	17	10	104	460
New York, New York	-	733	-	19	7	6	3229	3994
Newark, New Jersey	4	69	78	18	13	7	477	666
Oakland, California	2	150	-	26	23	5	101	307

TABLE I (continued)

NUMBER OF BUILDING MAINTENANCE EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948-49

Cities	Engineers	Custod- ians	Maids	Carpen- ters	Painters	Plumbers	Others	Total
Oklahoma City, Oklahoma	75	93	8	3	2	3	36	220
Omaha, Nebraska	11	132	51	8	9	1	11	223
Philadelphia, Pennsylvania	230	220	1110	43	33	17	230	1883
Pittsburgh, Pennsylvania	29	318	308	20	13	14	121	823
Portland, Oregon	-	72	-	28	10	3	46	159
Providence, Rhode Island*								
Rochester, New York	215	-	197	-	-	-	-	412
San Antonio, Texas	55	75	76	4	8	3	17	238
San Diego, California	2	188	12	27	25	6	44	304
San Francisco, California*								
St. Louis, Missouri	21	316	154	59	38	18	183	789
St. Paul, Minnesota	128	46	88	6	6	2	35	311
Seattle, Washington	87	199	16	17	24	7	61	411
Syracuse, New York	36	49	110	9	17	3	61	285
Toledo, Ohio	67	85	100	7	23	1	1	284
Washington, D. C.*								
Total	2499	8205	4734	657	650	233	9324	26302

* No Reply

three classifications (224 senior custodians, 160 junior custodians and 7 janitresses) another city listed 460 employees under twenty-four separate titles.

Highly specialized job titles indicate a large number of craft workers.

The total number of employees as reported and interpreted, ranged from 159 in one city to 3994 in another. In some instances where the total figure is small, "boy helpers" not included in the total figure are employed. Where the total number is extremely large, part-time and/or seasonal workers are included.

Akron, Ohio reported the use of "boy helpers", and Seattle, Washington listed part-time minor help in the salary schedule.

A large number of carpenters, painters, and plumbers listed indicates that the school system keeps those employees on the payroll continuously for maintenance work. (Cincinnati and Akron list 15 plumbers each). A small number of plumbers probably means that the school has the same work done by contract. (Houston and Toledo listed only one plumber each). Boston, Chicago, Detroit, Milwaukee, and Rochester listed no carpenters, painters, or plumbers. This practice means that these city systems have all maintenance work done by contract.

The absence of maids, matrons, or janitresses is

reported by Detroit, New Orleans, New York, Oakland, and Portland. On the other hand, maids predominate in the number of workers in Baltimore, Chicago, Houston, and Pittsburgh. This predominance of maids is probably due to local conditions and precedent rather than to sectionalism or to industrial influences.

Los Angeles listed among "others", 13 traveling crew custodians, a practice not widespread in use, but considered satisfactory in Los Angeles.

In a recent study of salaries of employees engaged in operation and maintenance of buildings made by the National Education Association, the fourteen cities of over 100,000 population included six of the cities included in the present study. The six cities were Indianapolis, St. Louis, Omaha, Newark, Syracuse, Akron, and Cincinnati. Their numbers of employees were listed by job titles as each city had reported them. Some of the difference in numbers of employees in the Association's report may be accounted for by the fact that the Association's investigation was conducted in 1946-47.⁸

⁸ 8 Salaries of Employees Engaged In Operation and Maintenance of Buildings In 133 School Systems In Cities Over 30,000 In Population, 1946-47. American Association of School Administrators and National Education Association, Research Division. (Washington, D. C.: The Associations, January, 1948.) pp. 10-13.

3. Physical Examination

A very important consideration in the selection of an employee who comes in daily contact with school children is the condition of the applicant's health. Only able-bodied persons who are free from serious physical defects and communicable diseases should be hired. A physician's statement to the condition of the applicant's health is required by the majority of schools in cities of 200,000 population and above in the United States.

An examination of Table II reveals that 29 of the 38 cities, or 76.3% required a physical examination of employees; and, 9 cities, or 23.7% did not require a physical examination. These percentages are based on the replies to the question, "Do you require a physical examination?"

The physical examination was given either under civil service regulations (51.8%); or, by a school physician (24.1%); or, by a personal physician (24.1%).

Reeves and Ganders reported for the nation as a whole, in 1928, "Only six per cent of janitor-engineers are at present required to take a physical examination upon entrance into the service."⁹ The increase in the percentage of applicants required to have a medical examination (from

⁹ Charles E. Reeves and Harry S. Ganders, School Building Management. (New York: Teachers College, Columbia University, 1928.) p. 9.

TABLE II

SCHOOLS REQUIRING PHYSICAL EXAMINATION OF NON-TEACHING EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948 - 49

Cities	<u>Physical Examination</u> <u>Required:</u>		<u>Examination Given By:</u>		
	Yes	No	Civil Service	School Physician	Personal Physician
Akron, Ohio	X		X	X	
Atlanta, Georgia	X		X		X
Baltimore, Maryland	X		X		
Birmingham, Alabama		X			
Boston, Massachusetts	X		X		
Buffalo, New York	X		X		
Chicago, Illinois	X		X		
Cincinnati, Ohio	X		X		
Cleveland, Ohio	X		X		
Columbus, Ohio	X			X	
Dallas, Texas	X				X
Dayton, Ohio	X			X	
Denver, Colorado	X				X
Detroit, Michigan	X				
Houston, Texas	X				X
Indianapolis, Indiana		X			
Kansas City, Missouri		X			
Los Angeles, California	X				X
Memphis, Tennessee		X			
Milwaukee, Wisconsin	X		X		
Minneapolis, Minnesota	X		X		
New Orleans, Louisiana	X				
New York, New York	X		X		
Newark, New Jersey	X				X
Oakland, California		X			

TABLE II (continued)
SCHOOLS REQUIRING PHYSICAL EXAMINATION OF NON-TEACHING EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948 - 49

Cities	<u>Physical Examination</u> <u>Required:</u>		<u>Examination Given By:</u>		
	Yes	No	Civil Service	School Physician	Personal Physician
Oklahoma City, Oklahoma		X			
Omaha, Nebraska		X			
Philadelphia, Pennsylvania	X			X	
Pittsburgh, Pennsylvania	X			X	
Portland, Oregon		X			
Rochester, New York	X		X		
St. Louis, Missouri	X			X	
St. Paul, Minnesota	X		X		
San Antonio, Texas	X		X		
San Diego, California	X				X
Seattle, Washington	X			X	
Syracuse, New York		X			
Toledo, Ohio	X		X		
Totals	29	9	15	7	7

6% in 1928 to 76.3% in 1949) is due in part to the raising of the general level of the health standard. It is probably due also to the fact that large city-school systems, such as those under investigation in this study, would tend to place more emphasis on a health examination than school systems of smaller sizes.

The medical examination blanks enclosed with the returned questionnaires revealed the stress laid on the screening for tuberculosis, in particular. In Seattle and Los Angeles, a chest X-ray is required for all engineers, firemen, custodians, and maids. Newark's medical blank included a statement to the effect that New Jersey State law requires a health certificate every three years, and that all employees are required to submit to a tuberculin test and an X-ray if the reaction is positive. St. Paul's requirements were stated similarly to Newark's. Minneapolis requires a Wassermann test in addition to the tuberculin test. Atlanta also reported the requirement of a Wassermann test for all employees.

4. Educational Requirements

Although state laws generally provide for the education of the youth to a certain age or grade, this requirement is not always carried out in practice. Various maintenance and operation employees began working for the

public schools before their state's school attendance laws were passed, and they missed the opportunity of availing themselves of an elementary-school education. On the other hand, some of the younger "career custodians" are well-prepared, educationally. Reeves and Ganders illustrated the wide range of educational training and preparedness of the personnel under study, as shown in the following statements:

The normal education of janitors ranges from no schooling, to college graduation. The average janitor is an eighth grade graduate. The median intelligence score of 43 janitors in attendance in 1926 at the School for Janitor-Engineers in Colorado State Teachers College was 67.0 (Army Alpha) in comparison with the median score for skilled laborers in the Army draft, which was 56.7. Janitors, to a greater extent than is realized, read a few technical books which deal with various phases of their work...

Janitors are usually recruited from such occupations as farmer, laborer, grocer, fireman, steam fitter, plumber, and machinist. In certain cities some high school graduates are induced to enter the service as assistants and they soon qualify for promotion to head janitorships.¹⁰

As shown in Table III, the educational requirements range from none, through elementary school, to high school. Three cities failed to respond to the question concerning educational requirements, leaving 35 respondents. Twelve cities (34.3%) replied "None" to the question; six (17.1%) reported at least an elementary-school education requirement. Only five cities (14.3%) mentioned civil service in

¹⁰ Ibid.

TABLE III

EDUCATIONAL REQUIREMENTS OF NON-TEACHING EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948 - 49

Cities	Engineers	Custodians	Maids	Carpenters	Painters	Plumbers
Akron, Ohio	*	Elem.	None	Elem.	Elem.	Elem.
Atlanta, Georgia	*	*	*	*	*	*
Baltimore, Maryland	Elem.	Elem.	Elem.	Elem.	Elem.	Elem.
Birmingham, Alabama	None	None	None	None	None	None
Boston, Massachusetts	Civil S.	Civil S.	Civil S.	Civil S.	Civil S.	Civil S.
Buffalo, New York	High Sch.	High Sch.	Elem.	Elem.	Elem.	Elem.
Chicago, Illinois	Civil S.	Civil S.	Civil S.	Civil S.	Civil S.	Civil S.
Cincinnati, Ohio	None	None	None	None	None	None
Cleveland, Ohio	*	*	*	*	*	*
Columbus, Ohio	Elem.	Elem.	None	None	None	None
Dallas, Texas	None	None	None	None	None	None
Dayton, Ohio	None	None	None	None	None	None
Denver, Colorado	None	None	None	None	None	None
Detroit, Michigan	None	None	None	None	None	None
Houston, Texas	None	None	None	None	None	None
Indianapolis, Indiana	None	None	None	None	None	None
Kansas City, Missouri	High Sch.	High Sch.	Elem.	None	None	None
Los Angeles, California	Elem.	None	None	Elem.	Elem.	Elem.
Memphis, Tennessee	*	Elem.	None	None	None	None
Milwaukee, Wisconsin	Civil S.	Civil S.	Civil S.	Civil S.	Civil S.	Civil S.
Minneapolis, Minnesota	Civil S.	Civil S.	Civil S.	Civil S.	Civil S.	Civil S.
New Orleans, Louisiana	Elem.	Elem.	None	Elem.	Elem.	Elem.
New York, New York	*	Elem.	*	Elem.	Elem.	Elem.
Newark, New Jersey	Elem.	Elem.	Elem.	Elem.	Elem.	Elem.
Oakland, California	High Sch.	None	None	Elem.	Elem.	High Sch.
Oklahoma City, Oklahoma	None	None	None	None	None	None

TABLE III (continued)

EDUCATIONAL REQUIREMENTS OF NON-TEACHING EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948 - 49

Cities	Engineers	Custodians	Maids	Carpenters	Painters	Plumbers
Omaha, Nebraska	High Sch.	Elem.	None	Elem.	Elem.	Elem.
Philadelphia, Pennsylvania	None	None	None	None	None	None
Pittsburgh, Pennsylvania	Elem.	Elem.	Elem.	Elem.	Elem.	Elem.
Portland, Oregon	*	*	*	*	*	*
Rochester, New York	Civil S.	Civil S.	Civil S.	Civil S.	Civil S.	Civil S.
St. Louis, Missouri	None	None	None	None	None	None
St. Paul, Minnesota	Elem.	Elem.	Elem.	Elem.	Elem.	Elem.
San Antonio, Texas	None	None	None	None	None	None
San Diego, California	Elem.	Elem.	Elem.	None	None	None
Seattle, Washington	None	None	None	None	None	None
Syracuse, New York	None	None	None	*	*	*
Toledo, Ohio	Elem.	Elem.	Elem.	Elem.	Elem.	Elem.

* No Reply

connection with educational requirements, while there had been 15 cities that specified medical examination under the supervision of civil service. So, the educational requirements are probably actually higher than the response indicates.

The clarifying remarks added on the questionnaire show, for example, that St. Louis specified no educational requirements, but volunteered the information that custodians and matrons must pass a written examination given by its Board of Examiners. Similarly, San Antonio requires no formal education, but does require the ability to read and write. Birmingham, too, has no specific requirement except that of literacy and skill in craft.

The fact that the engineers must meet city or state requirements presupposes some formal education where none is specifically required.

Pittsburgh indicated apprenticeship of four years in addition to elementary-school education for carpenters and painters, and five years apprenticeship for plumbers.

The educational requirements show a tendency toward being highest for engineers and lowest for maids.

Literacy should be a minimum requirement because printed rules and regulations, bulletins and instructions reach all employees, and they are held responsible for the contents of such written communications. The raising of the

educational requirements tends to result in the hiring of more capable, efficient employees.

5. The Number of Hours Per Week

The average number of hours worked per week varies somewhat, the strongest tendency shown in Table IV being toward a 40-hour work week, with twenty-two cities, or 59.5% averaging 40 hours weekly; and, fifteen cities, or 40.5% averaging 44 hours weekly.

The adoption of the 40-hour week means that the practice of the non-teaching employees engaged in maintenance and operation is following the trend in government and industry in reducing the number of hours of work per week.

In arriving at the average number of hours worked per week, a difference of several hours per week among groups of employees had to be considered. For instance, Buffalo's maintenance men work 40 hours per week, and plant operation men, 48 hours per week; whereas, in Columbus, Ohio, 40 is the number of weekly work hours for women employees, and 48, for men, an average of 44 hours per week. New York, Newark, Omaha, Pittsburgh, and Dallas mentioned the difference in work hours due to trade practice, also.

The practice of hiring part-time employees, where cleaning work is to be done, for a period of 20, 25, 30, and 40 hours weekly, as reported by Rochester, New York, affects

TABLE IV

NUMBER HOURS PER WEEK NON-TEACHING EMPLOYEES WORK
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948-49

Cities	36	40	44	48
Akron, Ohio		X		
Atlanta, Georgia			X	
Baltimore, Maryland		X		
Birmingham, Alabama			X	
Boston, Massachusetts		X		
Buffalo, New York			X	
Chicago, Illinois			X	
Cincinnati, Ohio		X		
Cleveland, Ohio		X		
Columbus, Ohio			X	
Dallas, Texas			X	
Dayton, Ohio		X		
Denver, Colorado		X		
Detroit, Michigan		X		
Houston, Texas			X	
Indianapolis, Indiana			X	
Kansas City, Missouri	*	*	*	*
Los Angeles, California		X		
Memphis, Tennessee			X	
Milwaukee, Wisconsin			X	
Minneapolis, Minnesota		X		
New Orleans, Louisiana		X		
New York, New York			X	
Newark, New Jersey		X		
Oakland, California		X		
Oklahoma City, Oklahoma			X	
Omaha, Nebraska			X	
Philadelphia, Pennsylvania			X	
Pittsburgh, Pennsylvania			X	
Portland, Oregon		X		
Rochester, New York		X		
St. Louis, Missouri		X		
St. Paul, Minnesota		X		
San Antonio, Texas		X		
San Diego, California		X		
Seattle, Washington		X		
Syracuse, New York		X		
Toledo, Ohio		X		
Total		22	15	

* No Reply

the average number of work hours per week on the lower end of the scale. On the upper end, custodians and firemen often must spend 50-52 hours at work per week during the firing season, in order to protect property against freezing weather.

Previous studies showed that in 1946-47 the median number of hours worked by the custodian-janitor group of employees in cities over 30,000 was 45.4, as compared with 47.7 in 1942-43.¹¹ These studies reveal that the length of the work week was shortened by about two hours.

Reducing the number of working hours to 40 per week tends to improve the morale of the employees. More efficient service can result from improved morale which has been brought about by fair practice. By careful planning of the work schedule and the addition of a few employees, if found necessary, the service standards can be met on a 40-hour work week.

6. Salaries

On considering the salaries of the non-teaching personnel, the purchasing power of the take-home pay is of vital importance. The Research Department of the National Education Association discussed the purchasing power and

¹¹ National Education Association, Op. cit., p. 4.

comparative values of salaries in the Salaries and Salary Schedules of City-School Employees, 1948-49 as quoted below:

Attention should be given to the purchasing power of school employees' salaries. The term 'purchasing power' is currently used to mean what today's actual dollars would buy in terms of the average value of dollars in prewar years from 1935 thru 1939. The average price level for those years represents 100.0 in the 'Consumer's Price Index' reported monthly by the federal Bureau of Labor Statistics. By averaging the monthly indexes from September of one year thru August of the next a school-year price index is derived.

The price index began to rise after the entrance of the United States into World War II. The school-year average of the price index was 99.4 in 1938-39; 100.1 in 1939-40; 102.1 in 1940-41; 115.3 in 1941-42; and 125.9 in 1942-43...156.4 in 1946-47; and 168.5 in 1947-48... The latest figure for 1949 is 170.9, the price index for January, 1949....

A 1948-49 salary of \$5000 is still considered 'high' although it means in purchasing power only what \$2941 did before World War II...\$7000 in 1948-49 equals a prewar \$4118; to-day's \$3500 equals a prewar \$2059. With \$170.00 as the price index each salary dollar is worth about 59 cents in prewar value.¹²

Salary policy for school employees has developed more or less independently in the various cities of 200,000 population in the United States. This practice of independence in policy formation is due to the democratic

¹² Salaries and Salary Schedules of City-School Employees, 1948-49. National Education Association, Research Department. (Washington, D. C.: The Association, 1949.) 27:53, April, 1949.

principle of keeping public education close to the local community it is to serve. The economic ability of the community, the concern for educational values, the prevailing practices of finance in industry and government, and the adaptability to other socio-economic changes are reflected in the salary practice of a school system.

The salary facts shown in Table V tend to shed some light on what is current practice. Variations are due to differences in school programs, differences in industrial practices, and differences under which both function.

The salary policy has been recorded according to the individual city replies. In some cases however, it was necessary to calculate the weekly salary from the monthly or annual amount in order to equate the salaries. Since there was no reply as to salaries by one city, thirty-seven cities contributed to the salary phase of this study. The average weekly salary range for each of the six classifications of maintenance employees is as follows: (1) engineers, from \$55.49 to \$68.26; (2) custodians, from \$42.30 to \$60.05; (3) maids, from \$29.84 to \$33.80; (4) carpenters, \$69.30 to \$73.92; (5) painters, \$66.17 to \$70.36; and, (6) plumbers, \$78.12 to \$83.56.

The practice of paying engineers, custodians and maids by the month and other maintenance employees by the week, the day, or the hour, is prevalent. As indicated in Table VI

TABLE V

MINIMUM AND MAXIMUM WEEKLY SALARIES OF NON-TEACHING EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948-1949

Cities	Engineers		Custodians		Maids	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Akron, Ohio	\$53.84	\$73.07	\$42.30	\$71.15	\$21.15	\$36.53
Atlanta, Georgia	*	*	20.76	51.92	*	*
Baltimore, Maryland	38.46	65.38	46.15	53.84	19.23	31.73
Birmingham, Alabama	*	*	26.53	54.23	13.84	13.84
Boston, Massachusetts	*	*	12.10	24.84	8.25	8.25
Buffalo, New York	60.57	77.88	54.80	60.57	35.57	35.57
Chicago, Illinois	89.65	111.92	89.53	130.96	45.11	45.11
Cincinnati, Ohio	49.61	72.69	40.38	58.84	31.15	34.61
Cleveland, Ohio	69.20	69.20	56.73	76.92	31.00	31.00
Columbus, Ohio	58.61	60.92	46.61	57.00	42.00	44.30
Dallas, Texas	49.61	49.61	38.07	57.69	24.23	24.23
Dayton, Ohio	49.96	52.96	38.42	50.88	31.67	35.73
Denver, Colorado	*	*	34.61	78.46	31.15	35.76
Detroit, Michigan	79.15	100.30	59.92	75.30	50.00	50.00
Houston, Texas	51.92	58.84	40.38	52.50	20.00	23.00
Indianapolis, Indiana	49.61	61.53	42.69	57.69	31.15	36.92
Kansas City, Missouri	*	*	*	*	*	*
Los Angeles, California	59.76	73.61	38.07	69.92	34.61	41.76
Memphis, Tennessee	*	*	33.46	42.69	17.83	17.83
Milwaukee, Wisconsin	40.76	61.53	36.92	40.38	34.23	36.53
Minneapolis, Minnesota	63.69	78.69	53.88	60.80	44.65	51.57
New Orleans, Louisiana	38.98	50.39	25.99	25.99	*	*
New York, New York	*	*	34.61	105.76	33.00	35.63
Newark, New Jersey	82.83	82.83	53.84	73.07	35.76	40.38
Oakland, California	*	*	*	*	*	*

TABLE V (continued)

MINIMUM AND MAXIMUM WEEKLY SALARIES OF NON-TEACHING EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948-1949

Cities	Engineers		Custodians		Maids	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Oklahoma City, Oklahoma	\$36.53	\$48.07	\$34.61	\$35.76	\$11.53	\$15.00
Omaha, Nebraska	52.50	67.26	37.50	51.34	29.42	39.80
Philadelphia, Pennsylvania	46.66	87.50	39.09	43.21	22.26	25.15
Pittsburgh, Pennsylvania	58.96	65.12	40.00	76.50	31.60	31.60
Portland, Oregon	*		*		*	
Rochester, New York	48.26	73.65	*		23.40	27.00
St. Louis, Missouri	69.23	75.00	41.65	55.61	23.53	32.76
St. Paul, Minnesota	58.15	63.68	53.37	63.68	44.00	51.60
San Antonio, Texas	39.23	46.15	34.61	39.23	27.69	27.69
San Diego, California	47.76	68.76	38.30	61.61	32.53	47.76
Seattle, Washington	53.07	64.61	55.38	72.69	45.00	48.46
Syracuse, New York	47.11	47.11	49.03	58.65	22.59	22.59
Toledo, Ohio	65.67	71.44	48.07	51.92	35.76	35.76
Average Weekly Salaries	55.49	68.26	42.30	60.05	29.84	33.80

* Salary not reported.

TABLE V (continued)

MINIMUM AND MAXIMUM WEEKLY SALARIES OF NON-TEACHING EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948-1949

Cities	Carpenters		Painters		Plumbers	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Akron, Ohio	\$ *	\$	\$ *	\$	\$ *	\$
Atlanta Georgia	36.92	51.69	36.92	51.69	43.84	61.38
Baltimore Maryland	49.60	49.60	47.60	47.60	*	
Birmingham, Alabama	39.60	56.53	38.42	57.69	66.15	66.15
Boston, Massachusetts	*		*		*	
Buffalo, New York	82.40	82.40	82.40	82.40	86.00	86.00
Chicago, Illinois	*		*		*	
Cincinnati, Ohio	*		*		*	
Cleveland, Ohio	95.00	95.00	85.00	85.00	95.00	95.00
Columbus, Ohio	50.00	52.40	50.00	52.40	*	
Dallas, Texas	75.00	85.00	75.00	80.00	75.00	88.46
Dayton, Ohio	74.82	86.00	70.47	80.80	78.64	90.40
Denver, Colorado	*		*		*	
Detroit, Michigan	88.00	88.00	84.00	84.00	96.00	96.00
Houston, Texas	56.53	64.61	56.53	63.46	49.61	66.92
Indianapolis, Indiana	*		*		*	
Kansas City, Missouri	*		*		*	
Los Angeles, California	63.00	77.76	63.00	77.76	69.92	86.53
Memphis, Tennessee	*		*		*	
Milwaukee, Wisconsin	*		*		*	
Minneapolis, Minnesota	82.00	82.00	78.00	78.00	90.00	90.00
New Orleans, Louisiana	38.00	57.20	36.40	52.80	44.00	66.00
New York, New York	*		*		*	
Newark, New Jersey	116.00	116.00	94.00	94.00	100.00	100.00
Oakland, California	*		*		*	

TABLE V (continued)

MINIMUM AND MAXIMUM WEEKLY SALARIES OF NON-TEACHING EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948-1949

	Carpenters		Painters		Plumbers	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Oklahoma City, Oklahoma	\$45.19	\$45.19	\$45.19	\$45.19	\$37.69	\$46.15
Omaha, Nebraska	57.11	57.11	52.50	52.50	86.00	86.00
Philadelphia, Pennsylvania	48.15	66.15	45.90	60.75	50.40	68.40
Pittsburgh, Pennsylvania	100.00	100.00	95.00	95.00	100.00	100.00
Portland, Oregon	77.00	77.00	75.00	75.00	95.00	95.00
Rochester, New York	*		*		*	
St. Louis, Missouri	*		*		*	
St. Paul, Minnesota	82.00	82.00	76.00	76.00	90.00	90.00
San Antonio, Texas	56.53	56.53	56.53	56.53	73.84	73.84
San Diego, California	81.20	81.20	84.00	84.00	100.00	100.00
Seattle, Washington	82.60	82.60	82.60	82.60	100.00	100.00
Syracuse, New York	88.00	88.00	76.00	76.00	90.00	90.00
Toledo, Ohio	67.98	67.98	67.98	67.98	79.80	79.80
Average Weekly Salaries	\$69.30	\$73.92	\$66.17	\$70.36	\$78.12	\$83.56

* Salary not reported.

Note: Salaries have been equated on a weekly basis according to information given in the questionnaire and in Table VI. Salaries reported by the hour and by the day were computed on a weekly basis directly. Salaries reported on an annual basis were divided by 52. Salaries reported for 9, 10, or 11 months were calculated on a monthly basis, first; then, on a 12-months basis; and then, on a weekly basis.

TABLE VI

NUMBER OF MONTHS CUSTODIANS AND HELPERS ARE EMPLOYED,
 YEARLY CONTRACTS GRANTED AND RATE OF PAY PER HOUR FOR EXTRA WORK, 1948-49.^a
 SELECTED CITIES OF 25,000 - 200,000 POPULATION AND ABOVE IN THE UNITED STATES.

City	Number of Months Employed		Yearly Contract	Rate Per Hour Extra Work
	- - - per Year - - - Custodians	Helpers		
Chicago, Illinois	12	12	No	1½ time
Detroit, Michigan	12	12	No	\$2.15 hour
Philadelphia, Pennsylvania	12	12	No	1½ time
Newark, New Jersey	12	12	No	Flat rate
Minneapolis, Minnesota	12	9	No	1½ time
District of Columbia	12	12	Yes	1½ time
Pittsburgh, Pennsylvania	12	12	No	\$1.10 hour
Cleveland, Ohio	12	12	No	\$1.62 hour
St. Louis, Missouri	12	12	No	\$1.50 hour
Rochester, New York	12	12	Civil Service	Regular
Seattle, Washington	12	12	No	1½ time
Oakland, California	12	12	Yes	1½ time
Kansas City, Missouri	12	12	No	Regular
Milwaukee, Wisconsin	12	12	No	\$1.50 hour
San Francisco, California	12	12	No	1½ time
Buffalo, New York	12	12	Yes	\$1.50 hour
Cincinnati, Ohio	12	12	Civil Service	\$1.18 hour
Houston, Texas	12	12	No	\$4.00 per night
Indianapolis, Indiana	12	12	Yes	\$1.00 hour
Columbus, Ohio	12	12	Civil Service	\$1.53 hour
Boston, Massachusetts	12	12	Civil Service	\$2.00 hour
Baltimore, Maryland	12	12	Civil Service	\$1.35 hour
Fort Worth, Texas	12	12	Yes	\$3.00 per night

TABLE VI (continued)

NUMBER OF MONTHS CUSTODIANS AND HELPERS ARE EMPLOYED,
 YEARLY CONTRACTS GRANTED AND RATE OF PAY PER HOUR FOR EXTRA WORK, 1948-49.^a
 SELECTED CITIES OF 25,000 - 200,000 POPULATION AND ABOVE IN THE UNITED STATES.

City	Number of Months Employed per Year		Yearly Contract	Rate Per Hour Extra Work
	Custodians	Helpers		
Dallas, Texas	12	9	No	\$1.00 per hour less than 3 hours.
Atlanta, Georgia	12	-	No	\$3.00 Minimum Regular
Los Angeles, California	10	-	Civil Service	\$2.33 hour
San Antonio, Texas	12	9	No	\$5.00 per night
Galveston, Texas	12	12	No	\$1.00 per hour

^a Data assembled by Bryan Adams, Business Manager, Dallas Public Schools, Dallas, Texas, 1948-49.

most cities pay custodians and helpers on a twelve-month basis, and either fix a rate per hour for extra work, or specify a flat rate for the extra services. Twenty-four of the twenty-eight cities furnishing the data for Table VI are included in the study of the investigator.

Cleveland's salary schedule for custodians is based on floor area of the buildings, according to the following scale:¹³

10,000 sq. ft. or less	\$2950 per year
10,000 sq. ft. to 25,000 sq. ft.	3200 per year
25,001 sq. ft. to 50,000 sq. ft.	3400 per year
50,001 sq. ft. to 90,000 sq. ft.	3600 per year
90,001 sq. ft. to 140,000 sq. ft.	3800 per year
140,001 sq. ft. and up	4000 per year

St. Louis' basic monthly salary schedule for custodians as indicated on that city-school system's salary authorization sheet, effective July 1, 1948, was based on square-foot area, also. The information given below was taken from the salary sheet accompanying the returned questionnaire:

¹³ Letter: E. F. Smircina, Business Manager, Public Schools, Cleveland, Ohio, to H. S. Brannen. January 27, 1949.

CLASSIFICATION	SQUARE FOOT AREA	BASIC SALARY RANGE	
		1st Year	2nd Year
Head Custodians			
Large High Schools	225,000 and over	\$230.00	\$241.00
Class "A"	40,000 to 172,000	213.50	226.70
Class "A" Elem.	40,000 to 172,000	202.50	212.40
Class "E" Elem.	20,000 to 40,000	202.50	212.40
Class "C" Elem.	20,000 and under	197.00	201.40
Custodians			
All High Schools		180.50	186.00
Elementary "A"		187.10	194.80
Elementary "B"		181.60	186.00
Elementary "C"		175.00	180.50
Spec. "C"		180.50	186.00
Probationary		169.50	Flat 6 month
Matrons			
All Schools		102.00	122.00

In addition to the basic salary, the 1948-49 Cost of Living Authorization of \$250.00 is applicable to all.¹⁴

The City of New York has a plan of contracting custodial work. It was described by Harold Hynds, Superintendent of Plant Operation and Maintenance in the following manner:

The public school buildings of the City of New York are operated on a quasi-contractual system, wherein the custodian-engineer is a civil service employee and is compensated for the cleaning, heating and minor repairs in the building on a measurement basis in accordance with the floor area varying according to the total size of the building, and the rates of compensation for the paved area, likewise vary according to the total floor area of the building.

¹⁴ Letter: V. Harry Rhodes, Commissioner of Buildings, St. Louis, Missouri, to H. S. Brannen. December 3, 1948.

The custodian-engineer, in turn employs the help necessary for the cleaning, heating and minor repairs in the building to which he is assigned, paying not less than the minimum rates of pay for the particular classification of the help employed, in accordance with the minimum rates approved by the Board of Education.

In addition, the custodian-engineer is required to cover the persons he employs by Workmen's Compensation Insurance.

The Board of Education of the City of New York maintains a repair shop where over 200 mechanics of the various trades...are paid the prevailing rate for the particular trade. These shops are maintained to take care of emergency work throughout the school system.¹⁵

The practice of contracting custodial work was not found in any other city of 200,000 population and above.

7. Retirement

The purpose of a retirement system for the non-teaching personnel of public schools is to provide for that group of employees greater security during old age or disability. The philosophy of retirement influences the plan, as discussed in the Foreword to Detroit's retirement system's guide book:

To some, retirement is considered as a benefit provided by a grateful and benevolent employer for long and faithful service. To those of the legal mind, it

¹⁵ Letter: Harold Hynds to H. S. Brannen. November 23, 1948.

is part of a man's contract of hire, and as such, a legal obligation due him to the same extent as is his wage.

To the philosopher, retirement is a means by which man, in his eternal struggle for existence, may look forward to his old age with enthusiasm - as a pause along life's highway during which he has time for rest-for play - and for doing all of those things he has so long dreamed of doing - happy and secure in the thought that his minimum monetary needs shall be provided for.

He philosophizes further that the common man is no longer master of his own economic destiny. He furnishes no cause for the economic cycles, which, overnight, dissipate his life-long savings. ...To the philosopher, retirement is not a gift. It is not a contract. It is not a benevolence. Rather, it is a right to which all men in a modern democracy is entitled as a safe port of shelter to come home to after weathering a lifetime of economic storm.

One person's philosophy of retirement may differ from that of another. His whole retirement outlook is influenced thereby. Probably no one philosophy alone, but rather a careful blending together of many, provides the best background for understanding retirement provisions.¹⁶

The age for retiring school personnel is influenced somewhat by government and industry practices regarding retirement. The age for retirement of army and navy personnel is 64, while state and federal civil service systems provide for compulsory retirement from the ages of 65 to 70. In the case of federal judges there is no age for

¹⁶ Augustus J. Christie, Jr., "Foreword", Our Retirement System, Employees Retirement System, School District of the City of Detroit, Michigan, First Revision, 1947. pp. 5, 6.

mandatory retirement.¹⁷

Hoehlman stated that, "If the retirement allowance is considered administratively as a means for maintaining personnel efficiency, broad provisions must be made for progressive retirement before the attainment of the mandatory separation age".¹⁸

The retirement plans for the non-teaching personnel have followed the teacher retirement plans in many of the states. The first plans for teacher retirement were started in 1869.¹⁹ There were mutual protective associations to which teachers made voluntary contributions for the aid of others, believing that similar aid would come to them when needed. Later, legislative plans were put into operation; but it was not until after 1920 that legislative action, for the establishment of plans on a sound actuarial basis, has been widespread. By 1937, thirty-one states had offered protection by some type of state or local system. By 1946, forty-eight states provided some type of retirement plan for teachers; but in 1946, "not over 60% of the non-teaching school employees were covered by any type of a

¹⁷ Arthur B. Hoehlman, School Administration. (Boston: Houghton Mifflin Company, 1940.) p. 713.

¹⁸ Ibid., p. 714.

¹⁹ Paul B. Jacobson and William C. Reavis, Duties of School Principals, (New York: Prentice-Hall, Inc., 1941.) p. 484.

retirement plan".²⁰

The reason for the impossibility of determining the extent of retirement coverage for the non-teaching personnel was stated by O'Keefe thus:

It is impossible to accurately determine the number who are covered because the several state departments of education in the United States have no information concerning this subject. They are not certificated and therefore, in many states, it is not even known how many there are; let alone how many of them are covered by a retirement plan. It is unfortunate that retirement plans for teachers have been set up to cover only their group. However, this is quite natural because they are highly organized and naturally provide adequately for themselves first of all. ...

School business officials and school administrators are as much obligated to provide for the retirement of non-teaching employees as for members of their staff. ...Either they must be included in the Social Security plan or a system must be provided by the state."²¹

Tables VII and VIII are presented to show the extent of compulsory retirement of the non-teaching personnel and the types of retirement plans in effect, respectively, in the thirty-eight cities having over 200,000 population.

According to Table VII, 33 cities, or 86.8% have provisions for compulsory retirement; 5 cities, or 13.2% do not. Age 70 was found most prevalent as the mandatory

²⁰ T. G. O'Keefe, "Does Your State Have a Retirement Plan for Non-Teaching School Employees?", School Business Affairs, 12:1, November, 1946.

²¹ Ibid.

TABLE VII

AGE FOR COMPULSORY AND OPTIONAL RETIREMENT FOR NON-TEACHING EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948-49

Cities	Retirement Compulsory		Age for Retirement	
	Yes	No	Optional	Compulsory
Akron, Ohio	X			70
Atlanta, Georgia	X			65
Baltimore, Maryland	*	*	60	70
Birmingham, Alabama		X	70	
Boston, Massachusetts	X			70
Buffalo, New York	X			70
Chicago, Illinois		X		
Cincinnati, Ohio	X			70
Cleveland, Ohio	X			70
Columbus, Ohio	X			70
Dallas, Texas	X			70
Dayton, Ohio	X			70
Denver, Colorado	X			65
Detroit, Michigan	X			70
Houston, Texas	X			70
Indianapolis, Indiana	X			70
Kansas City, Missouri	X		62	70
Los Angeles, California			60	65
Memphis, Tennessee		X		
Milwaukee, Wisconsin	X			70
Minneapolis, Minnesota	X			65
New Orleans, Louisiana	X			
New York, New York	X		60	70
Newark, New Jersey	X			65
Oakland, California	X			70
Oklahoma City, Oklahoma	X			65
Omaha, Nebraska	X			70
Philadelphia, Pennsylvania	X			68
Pittsburgh, Pennsylvania	X		62	66
Portland, Oregon	X			65
Rochester, New York	X			70
St. Louis, Missouri	X			70
St. Paul, Minnesota		X		
San Antonio, Texas	X			
San Diego, California	X			65
Seattle, Washington		X		65
Syracuse, New York	X			70
Toledo, Ohio	X		60	70
Total	32	5	7	31

* No reply.

TABLE VIII

RETIREMENT PLANS FOR NON-TEACHING EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948-49

Cities	Retirement Plan		Local	Type
	Yes	No		State
Akron, Ohio	X		X	
Atlanta, Georgia	X		X	
Baltimore, Maryland	X		X	
Birmingham, Alabama		X		
Boston, Massachusetts	X		X	
Buffalo, New York	X			X
Chicago, Illinois	X		X	
Cincinnati, Ohio	X		X	X
Cleveland, Ohio	X			X
Columbus, Ohio	X		X	
Dallas, Texas	X			X
Dayton, Ohio	X			X
Denver, Colorado	X			X
Detroit, Michigan	X		X	
Houston, Texas	X			X
Indianapolis, Indiana	X		X	
Kansas City, Missouri	X		X	
Los Angeles, California	X			X
Memphis, Tennessee		X		
Milwaukee, Wisconsin	X		X	
Minneapolis, Minnesota	X		X	X
New Orleans, Louisiana	X			X
New York, New York	X		X	
Newark, New Jersey	X		*	*
Oakland, California	X			X
Oklahoma City, Oklahoma	X			X
Omaha, Nebraska	X			X
Philadelphia, Pennsylvania	X			X
Pittsburgh, Pennsylvania	X			X
Portland, Oregon	X			X
Rochester, New York	X			X
St. Louis, Missouri	X		X	
St. Paul, Minnesota	X		X	X
San Antonio, Texas	X			X
San Diego, California	X		X	
Seattle, Washington		X		
Syracuse, New York	X			X
Toledo, Ohio	X			X
Total	35	3	16	21

* No reply

age for retirement, 21 cities, or 55.2% citing age 70. Six cities had provisions for earlier retirement, having optional retirement at either 60 or 62. One city having no retirement plans, as such, specified age 70 as the optional retirement age, but specified no compulsory retirement age.

Table VIII shows that 35 of the 38 cities, or 92.1% have retirement plans. One other city, Seattle, has had retirement provisions, but at present new employees are not included in the provisions. "Older employees who voluntarily entered teachers retirement system previous to July 1, 1947 (are) eligible for \$100.00 per month at age 60 with 30 years service. The State legislature (is) now considering a plan."²²

According to the reports received, the plan of retirement varies. Operating under a state retirement plan were 21 cities, or 56.8%; under a local plan were 16 cities, or 43.2%. Some of the replies indicate that there is a combination plan permitting local and state contributions. Among those cities reporting the combined plan are Cincinnati, Minneapolis, Pittsburgh, St. Paul, San Diego, and Rochester.

Some pertinent information concerning retirement in addition to that asked for in the questionnaire follows:

²² Letter: Harold B. Jeffery to H. S. Brannen, February 7, 1949.

AKRON, DAYTON, AND TOLEDO, OHIO

Each employee contributes 5% of his salary, not exceeding \$150.00 per year. The system started in 1937. Prior service credit is given at the rate of forty dollars times the number of years service rendered prior to 1937.

ATLANTA, GEORGIA

After ninety days, membership in the retirement plan is compulsory. Salary deductions of 3% are made except in case a man names his wife as beneficiary; then a 4% deduction is made. Retirement on one-half of salary (~~maximum~~ pension \$100.00 after twenty-five years through 35 years, with a maximum of \$140.00 for 35 years of service, is possible.

BOSTON, MASSACHUSETTS

The system permits 4% to 5% of salary deduction.

BUFFALO, NEW YORK, ROCHESTER, AND SYRACUSE, NEW YORK

The formula for figuring the amount of pension on retiring is: about 1/70 of the best five years' salary times the number of years of service.

CINCINNATI AND COLUMBUS, OHIO

A 5% deduction is matched by the Board of Education.

CLEVELAND, OHIO

Employees may retire:

- (a) At special pension at the age of 55 years provided they have 30 years of service
- (b) At full pension at any time for disability provided they have a doctor's affidavit
- (c) At full pension at the age of 60 years provided they have 36 years of service
- (d) At special pension at the age of 60 years based on length of service less than 36 years.

DALLAS, HOUSTON, AND SAN ANTONIO, TEXAS

All maintenance employees are under the Teacher Retirement plan as of September 1, 1949. It is a 5%-contributory system matched by the State.

DENVER, COLORADO

The non-teaching employees contribute 6% of the annual salary to a retirement fund.

DETROIT, MICHIGAN

Retirement benefits for all school employees of the local school district are under a local plan. After 30 years of service, at age 60 a full pension not exceeding \$1800.00 is granted. Payment by the employee to the pension accumulation fund is in the amount of 5% of the annual

salary (\$3600.00 maximum).

KANSAS CITY, MISSOURI

Retirement of a member on a service retirement allowance is as follows:

Any member who has five or more years of creditable service may retire on a service retirement allowance... provided that the member...shall have attained his minimum service retirement age, and notwithstanding that during such period of notification he may have separated from service. The minimum service retirement age shall be 62.

Any member in service who has attained the age of seventy years shall be retired forthwith.

Upon retirement from service a member who has had five or more years of creditable service shall receive a retirement which shall consist of:

(a) An annuity which shall be the actuarial equivalent of his accumulated contributions, with interest, at the time of his retirement; and

(b) A pension in addition to his annuity which, together with his annuity shall aggregate:

One and one-fourth ($1\frac{1}{4}$) per cent of his average final compensation multiplied by the number of years of his creditable service.²³

LCS ANGELES, CALIFORNIA

All permanent employees pay into a retirement fund each month. The rate is determined by salary and age of the employee.

²³ Letter: Nate W. Downes, Kansas City, Missouri to H. S. Brannen, November 15, 1948.

MILWAUKEE, WISCONSIN

The annual pension upon retirement is equal to 1/70 of the annual salary times the number of years of service. The State matches a 5%-contribution of employees.

MINNEAPOLIS, MINNESOTA

The percentage of the employee's contribution is fixed by his age at the time he starts to work for the city and remains the same thereafter.

NEWARK, NEW JERSEY

There are three different pension funds for the public school non-teaching personnel in New Jersey:

The first is known as the Teachers' Pension and Annuity Fund which is set up under State control and to which all janitors must belong. This fund is actuarially sound.

The employees contribute by deduction from their salaries on a percentage basis according to their age at the time of enrollment in the fund.

The State contributes its share so that an employee with 35 years service and attaining age 62 may be retired at about $\frac{1}{2}$ salary...

The second fund is known as The Board of Education Employees' Pension Fund and is permitted to operate only in First Class Counties of which there are only two in New Jersey.

Employees eligible for this fund are those not eligible for the Teachers' Pension and Annuity Fund.

The employees contribute through deductions from salaries at a rate of 3% or 3½% according to age, and the local Board of Education must contribute at the rate of 4%...

The third fund is known as the State Employees' Retirement System of New Jersey.

All non-teaching employees not covered by the two previous funds mentioned may join this fund provided the municipality in which the school board is located has by referendum voted to permit its employees to join the State Retirement System.

This fund has been placed on an actuarial basis and members contribute on a percentage basis according to their age at the time of joining...

Not all non-teaching personnel in New Jersey are assured of a pension after years of faithful service.²⁴

OKLAHOMA CITY, OKLAHOMA

After three months employment and not over 55, non-teaching employees are required to participate in the retirement plan.

OMAHA, NEBRASKA

At age 65 after 25 years of service a pension of \$50.00 per month is granted. The pension fund is accumulated by employee contributions of 3% of salary (to a maximum of \$3,000.00 salary), and the Board of Education contributes an

²⁴ Frank J. Hochstuhl, "New Jersey's Non-Teaching Pension System", Proceedings, Thirty-fourth Annual Meeting, St. Louis, Missouri, October, 1948. pp. 121-122.

equal amount. As funds are needed, the employee contribution may be increased to 5%, and the Board of Education's to 6%.

PITTSBURGH, PENNSYLVANIA

The formula for calculating the pension of non-teaching employees, who are members of the same retirement system as the teachers is: $1/80$ of the average salary for the last ten years of service times the number of years served.

PORTLAND, OREGON

All non-teaching employees who work over 600 hours a year and are not eligible for the Teachers' Retirement are members of the Public Retirement System by condition of employment.

ST. LOUIS, MISSOURI

All persons permanently employed by the Board of Education after January 1, 1944 are required to participate in the Public School Retirement System of the City of St. Louis. A 5% contribution is deductible from each employee's salary.

SAN DIEGO, CALIFORNIA

Membership in the retirement system is compulsory for all persons regularly employed by the month. The employee contributes 6% of his salary and the Board of Education an equal amount. After 18 years of service the minimum retirement pay is \$45.00 per month.

ST. PAUL, MINNESOTA

The retirement plan provides for one-half of the average salary after 20 years of service at the age of 65.

8. In-service Training

It will be observed in Table IX that the majority of the large city-school systems provide an in-service training program for employees engaged in building maintenance and operation. Twenty cities (55.6%) provide in-service training; and sixteen cities (44.4%) do not. Information for two of the 38 cities is missing.

The kind of in-service training varies from incidental training gained by observing and practicing approved methods while employed as a helper, to taking training courses offered by trade schools. The significant fact revealed by the replies to the kind of in-service training program in operation was that more city-schools train employees on the

TABLE IX

IN-SERVICE TRAINING PROGRAM FOR NON-TEACHING EMPLOYEES
CITIES 200,000 POPULATION AND ABOVE - SCHOOL YEAR 1948-49

Cities	In-service Program		Type of Program	
	Yes	No	Trained as: a Helper : Course	Training Course
Akron, Ohio*				
Atlanta, Georgia	X		X	
Baltimore, Maryland	X		X	
Birmingham, Alabama		X		
Boston, Massachusetts		X		
Buffalo, New York		X		
Chicago, Illinois	X			
Cincinnati, Ohio		X		
Cleveland, Ohio	X		X	
Columbus, Ohio	X			X
Dallas, Texas	X		X	
Dayton, Ohio		X		
Denver, Colorado	X			
Detroit, Michigan	X		X	
Houston, Texas	X		X	X
Indianapolis, Indiana	X		X	
Kansas City, Missouri	X			X
Los Angeles, California*				
Memphis, Tennessee		X		
Milwaukee, Wisconsin	X			
Minneapolis, Minnesota		X		X
New Orleans, Louisiana	X			X
New York, New York		X		
Newark, New Jersey	X			X
Oakland, California		X		
Oklahoma City, Oklahoma	X			X
Omaha, Nebraska		X		
Philadelphia, Pennsylvania		X		
Pittsburgh, Pennsylvania		X		
Portland, Oregon		X		
Rochester, New York	X		X	
St. Louis, Missouri	X		X	
St. Paul, Minnesota	X		X	
San Antonio, Texas	X		X	
San Diego, California		X		
Seattle, Washington	X		X	X
Syracuse, New York		X		
Toledo, Ohio		X		
Total	20	16	12	8

* No Reply

job, under the direction of experienced employees than by training courses. Only eight cities specified training courses in the in-service training program. Minneapolis, a city whose well-established training program of long standing was discussed in Chapter II, reported the absence of an in-service training program at present. No doubt, the general curtailment of training courses has been due to a reduction of requirements in the hope of increasing the numbers of employees needed to operate and maintain public school buildings in large cities. The cost of training, and the labor situation during, and several years following World War II, were probable contributory factors in a decrease of training courses offered.

For the past seven years, Milwaukee has offered a three-day course on School Board time the first week of the summer after school has closed. On the program for June, 21-23, 1948, the topics listed for study were: Combustion and Smoke Control; Floor Maintenance; Plumbing, Heating, and Electrical Maintenance; Personnel: Heat Regulation; and, Heating and Ventilating.²⁵

A copy of a notice of an in-service meeting for custodians in Newark, New Jersey public schools is given below to show the nature of Newark's training program:

²⁵ In-service Training School For Plant Operation Employees. Folder arranged by Myron L. Hineline. Milwaukee, Wisconsin. N.P. 1948.

To Principals and Custodians:

The next in-service meeting for Custodians will be held on Friday, October 1, 1948, at 10 A.M. in the auditorium of the Arts High School.

The meeting will be addressed by Mr. Edgar Spitz, Purchasing Agent, who will discuss 'Procedures in Ordering Supplies.' This topic should be of much interest to all Custodians especially as we are now preparing our advance order lists.

Mr. John Kelly, Head Custodian will also present for discussion items of general interest to Custodians. There will be the usual opportunity for questions and answers on the assigned topic.

Each Custodian or Acting Custodian is expected to attend; also the Assistant Custodian if possible. Every school must be represented at the meeting. Principals are authorized to excuse Custodians who are prevented from attending. In such cases, a substitute must be sent and a report made to this office prior to the meeting. ...26

Oklahoma City's supervisor of custodians and other building employees directs a school once a year, in the fall, for employees who have been in the school system less than one year. The accompanying schedule shows the variety of subjects presented in the program:

CUSTODIAL SCHOOL FOR BEGINNING FLOORMEN AND CUSTODIANS

Classes 10:00 A.M. to 12 Noon

1st Oct. 2	Sweeping; Floor brushes and Mop Brooms; Care of Brooms.
------------	--

²⁶ Letter: Joseph H. Schotland, Assistant Superintendent of Schools in charge of Business Administration, Newark, New Jersey to Principals and Custodians, Newark Public Schools, September 29, 1948.

2nd Oct. 9	Dusting; Oil and Wax.
3rd Oct. 16	Cleaning Floors and Heating.
4th Oct. 23	Care of Window Glass, Light Fixtures, and Blackboards.
5th Oct. 30	Floor Waxing and Cleaning
6th Nov. 6	Cleaning and Care of Toilet Rooms; Drinking Fountains and Cafeterias...
8th Nov. 20	Treatment and Maintenance of Concrete Floors; Fire Hazards.
9th Nov. 27	Care of Offices, Clinics and Swimming Pools
10th Dec. 4	Cleaning and Maintenance of Asphalt, Tile, Terrazo, and Linoleum Floors. ²⁷

To encourage the engineers, custodians and maids to participate in the in-service training program the Seattle School Board offers a maximum salary increase of \$15.00 per month for the training. Forty hours of attendance are required per semester for credit. Two credits grant a monthly wage increase of \$5.00; three credits, \$10.00; four credits, \$15.00. Only one five-dollar increase is given per year toward the maximum of \$15.00 for training credit.

In summarizing the findings of the qualifications and requirements of the building and maintenance and operation employees in cities of 200,000 population and above it has been found that the employees included in this study number

²⁷ Letter: N. I. George, Oklahoma City, Oklahoma to H. S. Brannen, November 16, 1948.

26,302, with a range of 159 to 3994 per city. A physical examination is required of new employees in 76.3% of the cities; the majority, or 51.8% having examinations under civil service requirements. The educational requirements are low, 34% reporting no requirements whatever; 14.3%, civil service requirements, and the rest, elementary education, or, merely meeting state legal requirements. A 44-hour work week predominates in cities 200,000 population and above in the nation. The retirement age of 70 is mandatory in 86.6% of the cities, and 92.1% have some system of retirement, usually a state plan. In-service training is held for employees in 55.6% of the cities. The tendency to train new employees under the direction of experienced personnel prevails, rather than offering training courses for credit or for additional salary.

CHAPTER VI

A STUDY OF QUALIFICATIONS AND REQUIREMENTS OF BUILDING MAINTENANCE AND OPERATION EMPLOYEES IN CITIES OF 25,000 POPULATION AND ABOVE IN TEXAS

1. Introduction

This chapter deals with the qualifications and requirements of the non-teaching employees engaged in the operation and maintenance of public school buildings in cities of 25,000 population and above in Texas.

Only three cities in Texas (Dallas, Houston, and San Antonio) qualify in size to be included in the nationwide investigation of personnel practices relating to the non-teaching employees in cities of 200,000 population and above in the United States (discussed in Chapters I through V of this study).

Inasmuch as city-school systems have related problems, and in order to provide a larger number of city-schools in Texas for comparison of non-teaching personnel practices with those in cities of 200,000 population and above, it was decided to include for investigation the cities of 25,000 population and above in Texas. Also, local school authorities in Texas will have an opportunity to know the regulations and policies adopted by cities in their own

state.

According to the census of 1940, in Texas there are eighteen cities having a population of 25,000 and above; namely, Abilene, Amarillo, Austin, Beaumont, Corpus Christi, Dallas, El Paso, Fort Worth, Galveston, Houston, Laredo, Lubbock, Port Arthur, San Angelo, San Antonio, Tyler, Waco, and Wichita Falls.

Copies of the questionnaire sent to the cities of 200,000 population and above in the United States, hereinafter designated as Group I Cities, were mailed to the eighteen cities of 25,000 population and above in Texas, designated as Group II Cities, for convenient reference. Replies were received from all except three cities (Galveston, Laredo, and Lubbock), leaving a total of fifteen cities in Texas for investigation.

This investigation takes into account the factors of (1) number of non-teaching employees engaged in building maintenance and operation service; (2) their physical examination requirements; (3) educational requirements; (4) the average number of hours worked per week; (5) salaries; (6) retirement age; (7) retirement plans; and, (8) the extent and kind of in-service training provided by the various city-school systems of Texas for the employees.

The great size of Texas and the varied conditions under which the people live has modified somewhat the

character of the public schools. However, the state educational framework provides for policies and procedures adaptable to local situations.

A state's educational philosophy determines the framework for its educational program. Eby and Arrowood, in discussing the distinctive character of American public schools had this to say of the state's freedom to develop its own philosophy:

There is no national system of schools in the United States. Each state has been free to develop its own system. Educational developments have, however, followed so much the same lines in different states that there is justification for speaking of the American educational system.¹

In keeping with the state's freedom to continue to develop education along its own lines, in 1949, the Gilmer-Aiken² proposals for education in Texas went into effect. The passage of these proposals follows the trend in state school legislation to an increased interest in seeing that every child has access to a minimum educational program which is guaranteed by the state.

¹ Frederick Eby and Charles F. Arrowood, The Development of Modern Education (New York: Prentice Hall, Inc., 1946). p. 707.

² "Gilmer-Aiken Bills 115,116,117", Senate Journal Supplement, Fifty-first Legislature, State of Texas, 1949. Austin, Texas. 27 pp.

During the past decade, particularly, school systems in cities of 25,000 population and above in Texas have been confronted by numerous problems arising from an evolving school program in a growing community. Population increases have given rise to school building needs, which in turn increased the demands for capable operation and maintenance employees, equitably distributed and wisely administered. Decisions on the number of custodians for each building and the general quality of care to be given the old and the new buildings have been someone's responsibility. An idea as to the extent of building of public schools in Texas was indicated by Dr. W. B. Irving in the following statement to a School Plant Conference in Austin, in 1946:

We have in the State of Texas about \$240,000,000.00 worth of school buildings, not counting equipment. It is estimated by those who know in Texas that we are likely within the next few years, to vote approximately \$165,000,000.00 or \$175,000,000.00 in bonds for new school buildings.³

Curriculum changes following the trends in education and provided for meeting the school's responsibility for the development and welfare of the community have posed problems of integration of the services of the non-teaching personnel with the instructional program and with the

³ Dr. W. B. Irving, "Financing a Building Program", Proceedings, School Plant Conference, University of Texas, Austin, Texas, June 26-28, 1946. p. 24.

community.

Special classes for exceptional children, for adult education, special rooms and/or equipment for audio-visual education, art, music, library activities, clubs, hobbies, health and physical education, industrial and commercial arts, homemaking, and community recreation require added space and serviceability, plus additional upkeep.

Community recreation facilities are often increased by cooperative action between the parks and recreation departments. "In Houston such cooperation...has existed since 1919".⁴

Camping under school auspices is one of the newer educational services to which public school maintenance and operation employees may be called upon to adjust. While such camping is still in the experimental stage, it was considered of sufficient consequence for the American Association of School Administrators' Yearbook Commission to include the following statements regarding Public School camping:

A few school systems are blazing new trails which may develop into real trends...It will be interesting

⁴ Henry J. Otto and Others, Report of School Plant And Curriculum Study, Houston Independent School District, Houston, Texas, Five Volumes, 1945-46, 2:51, November, 1945.

to watch the growth and development of camping under public-school auspices. This is now in early experimental stages and it is too soon to predict general acceptance...Summer camps have been conducted largely by teachers recruited from the nation's schools...Many public schools already employ experienced camp directors...⁵

It may be seen that by following the trends in education and by looking ahead to future trends the maintenance and operation employees continue to emerge as a pivotal group in the total educational personnel.

The remainder of the chapter is given to qualifications, requirements and policies regarding this important personnel group. Data that could be arranged in tabular form will be found presented with discussion and interpretation in relation to the general educational program and policies of the state.

2. Number of Employees

Table X shows the distribution of building maintenance employees in city-school systems in Texas. The 2239 employees represent those regularly employed, as the figure would be far greater if all of the employees giving service under contract by the job (painters, plumbers, carpenters, and others) were included. The classifications and their

⁵ American Association of School Administrators, Op. cit., p. 18.

TABLE X

NUMBER OF BUILDING MAINTENANCE EMPLOYEES
CITIES OF 25,000 POPULATION AND ABOVE IN TEXAS - SCHOOL YEAR 1948-49

Cities	Engineers	Custodians	Maids	Carpenters	Painters	Plumbers	Others	Total
Abilene	1	18	0	0	0	0	2	21
Amarillo	2	50	0	3	1	3	5	64
Austin	8	58	15	4	6	4	21	116
Beaumont	1	22	35	2	4	2	11	77
Corpus Christi	0	85	1	4	3	1	17	111
Dallas	2	216	16	13	4	3	36	290
El Paso	25	36	31	7	4	4	19	126
Ft. Worth	0	118	69	1	0	1	1	190
Houston	36	164	253	20	12	2	15	502
Port Arthur	4	34	9	0	2	0	16	65
San Angelo	1	23	2	1	0	0	0	27
San Antonio	55	75	76	4	8	3	17	238
Tyler	2	21	10	2	2	1	0	38
Waco	0	44	17	4	4	2	1	72
Wichita Falls	3	21	1	0	0	0	2	27
Total	140	985	535	65	50	26	161	2239

respective numbers of employees are: engineers, 140; custodians, 985; maids, 535; carpenters 65; painters, 50; plumbers, 26; others, 161; total 2239.

The custodians, 985 in number comprise the largest single classification; the maids are second, 535; and the plumbers are fewest in number, 26.

While the maid classification was largest in Beaumont, Houston, and San Antonio, no maids were listed for Abilene and Amarillo. The practice of using maids in cleaning work is probably due to the fact that larger numbers of maids already trained in that work are available in some sections than in others.

Under the column headed "Engineers", Dallas listed 2, Houston 36, San Antonio 55, El Paso 25, Austin 8, Port Arthur 4. A difference in terminology exists in the job classification. Usually the kind of boiler operator's license held in addition to the possession of other skills and qualities determines the relative classifications.

The average total number of employees per city is 149.2, and the median number, 77. The range is from 21 employees reported in Abilene to 502 in Houston.

The largest number of employees is used in Houston due to the fact of its great and rapidly increasing size. Table XI is included in order to show some comparative census data for continental United States, Texas, Harris County, and

TABLE XI
COMPARATIVE FEDERAL CENSUS DATA^a

Year	<u>Continental U. S.</u>		<u>Texas</u>		<u>Harris County</u>		<u>City of Houston</u>	
	Population	Per Cent Increase Per Decade	Population	Per Cent Increase Per Decade	Population	Per Cent Increase Per Decade	Population	Per Cent Increase Per Decade
1900	75,994,575		3,048,710		63,786		44,633	
1910	91,972,266	21.	3,896,542	27.8	115,693	81.3	178,800	76.5
1920	105,710,620	15.	4,663,228	19.6	186,667	61.3	138,276	75.4
1930	122,775,046	6.7	5,824,712	24.9	359,328	90.2	292,352	111.4
1940	131,669,272	7.2	6,414,824	10.1	528,961	47.1	384,514	34.6

^a Henry J. Otto and Others, Report of School Plant And Curriculum Study, Houston Independent School District, Houston, Texas, Five Volumes, 1945-46, 2:51, November, 1945.

the City of Houston. The following explanations to the table are quoted in order to indicate the progression of population increases, plant expansion, and attendant problems:

Data from the federal census provide the indices shown in the table. Note that throughout the period from 1900 to 1940 the population of Texas, of Harris County and of the City of Houston has increased at a much greater rate than the population of continental United States. Special attention should be called to the fact that the population of Harris County increased 81.3 per cent from 1900 to 1910, 61.3 per cent from 1910 to 1920, 90.2 per cent from 1920 to 1930, and 47.1 per cent from 1930 to 1940. The population increases for the city of Houston for the same time intervals were 76.5 per cent, 75.4 per cent, 111.4 per cent, and 34.6 per cent.

Two significant things are evident from the data in Table (XI), namely that the population of the city of Houston and of Harris County has increased each decade since 1900 at a rate which was three or more times as large as the rate of increase for the continental United States or the State of Texas, and that this unusual rate of population increase in Houston has brought with it school building needs of like proportion. A school district whose population has increased each decade at a rate of from 3 to 15 times as fast as that of the state in which it is located or that of the nation as a whole should have been spending during that same time interval from 3 to 15 times as much as the country in general for school buildings.

As a result of the disproportionate rate of expansion of population and school plant program, the Houston Independent School District now finds itself far behind in meeting its school plant needs and is confronted with school plant problems far out of proportion to recent population increases.⁶

Other cities in Texas, too have been confronted with crowded conditions, buildings growing old and difficult to

⁶ Henry J. Otto and Others, Op. cit., pp. 3, 5.

maintain and operate effectively on account of the general increase in population and as a result of the increasing industrial expansion of Texas, during and after World War II.

3. Physical Examination and Education Requirements

Table XII indicates the extent to which Texas non-teaching employees are required to undergo a physical examination before being assigned to duty in the public schools. Only seven cities (46.7%) require the physical examination; and eight cities (53.3%) do not. The examinations are given by personal physician in five of the cities; by school physician in one city; and by County Health Unit in one city.

According to the percentages for cities in Group I (76.3% require a physical examination; 23.7% do not), the city-schools of Texas fall below the national standard in percentage of physical examination requirements.

Few cities in Group II have any educational requirements for employees engaged in maintenance and operation services, as may be observed in Table XIII. Since only five cities specified the requirement of an elementary-school education, it is probable that the respondents considered it understood that engineers meet the city and state regulations concerning boiler operation and other safety measures.

TABLE XII

SCHOOLS REQUIRING PHYSICAL EXAMINATION OF NON-TEACHING EMPLOYEES
CITIES OF 25,000 POPULATION AND ABOVE IN TEXAS - SCHOOL YEAR 1948-49

Cities	<u>Physical Examination Required:</u>		Service	<u>Examination Given By:</u>		
	Yes	No		School Physician	Personal Physician	Others
Abilene		X				
Amarillo		X				
Austin		X				
Beaumont		X				
Corpus Christi		X				
Dallas	X				X	
El Paso		X				
Fort Worth	X			X		
Houston	X				X	
Port Arthur		X				
San Angelo	X					
San Antonio	X				X	
Tyler	X					X
Waco	X				X	
Wichita Falls		X			X	
Total	7	8		1	5	1

TABLE XIII

EDUCATIONAL REQUIREMENTS OF NON-TEACHING EMPLOYEES
CITIES OF 25,000 POPULATION AND ABOVE IN TEXAS - SCHOOL YEAR 1948-49

Cities	Engineers	Custodians	Maids	Carpenters	Painters	Plumbers	Others
Abilene	None	None	None	None	None	None	None
Amarillo	Elem.	Elem.	Elem.	Elem.	Elem.	Elem.	Elem.
Austin	High S.	Elem.	Elem.	High S.	Elem.	High S.	*
Beaumont	None	None	None	None	None	None	None
Corpus Christi	None	None	None	None	None	None	None
Dallas	None	None	None	None	None	None	None
El Paso	None	None	None	None	None	None	None
Fort Worth	None	None	None	None	None	None	None
Houston	None	None	None	None	None	None	None
Port Arthur	Elem.	None	None	None	None	None	None
San Angelo	Elem.	Elem.	Elem.	Elem.	*	*	*
San Antonio	None	None	None	None	None	None	None
Tyler	None	None	None	None	None	None	None
Waco	Elem.	Elem.	Elem.	Elem.	Elem.	Elem.	Elem.
Wichita Falls	None	None	None	*	*	*	*

* No Reply

4. Hours of Work Per Week and Salaries

The average number of hours worked per week is 44 for a majority of Group II cities, as shown in Table XIV. Nine cities, or 60% indicated a work week of 44 hours. Three cities, 20%, indicated 40 hours worked per week, and the remaining 20% of fifteen cities was divided among three cities, two of which listed 48 hours, and one, 46 hours worked per week. According to Table IV in Chapter V of this study, Group II cities follow the trend of Group I cities in the adoption of the 40-hour work week by a majority of the cities.

Because the salary policies for non-teaching personnel in the fifteen cities of 25,000 population and above in Texas are governed by local conditions in and surrounding each city the policies are not standardized, but highly individualized.

In general, the salaries shown in Table XV indicate that the varying degrees of training and skill required of engineers, carpenters, painters, and plumbers are compensated by larger salaries. The average weekly salary range for each classification is as follows: engineers, from \$49.20 to \$57.64; custodians, from \$30.86 to \$44.20; maids, from \$21.84 to \$23.14; carpenters, from \$49.96 to \$56.95; painters, from \$46.16 to \$53.46; plumbers, from \$53.91 to

TABLE XIV

NUMBER OF HOURS PER WEEK NON-TEACHING EMPLOYEES WORK
CITIES OF 25,000 POPULATION AND ABOVE IN TEXAS
SCHOOL YEAR 1948-49

Cities	40	44	46	48
Abilene				X
Amarillo		X		
Austin		X		
Beaumont	X			
Corpus Christi		X		
Dallas		X		
El Paso			X	
Fort Worth		X		
Houston		X		
Port Arthur		X		
San Angelo		X		
San Antonio	X			
Tyler		X		
Waco	X			
Wichita Falls	—	—	—	<u>X</u>
Total	3	9	1	2

TABLE XV

MINIMUM AND MAXIMUM WEEKLY SALARIES OF NON-TEACHING EMPLOYEES
CITIES OF 25,000 POPULATION AND ABOVE IN TEXAS - SCHOOL YEAR 1948-1949

Cities	Engineers		Custodians		Maids	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Abilene	\$64.42	\$64.42	\$25.96	\$48.46	\$ *	\$
Amarillo	36.92	51.92	34.61	40.38	*	
Austin	36.46	50.76	31.61	40.38	26.07	31.15
Beaumont	80.76	96.15	21.15	57.69	12.16	12.16
Corpus Christi	*		23.07	46.15	23.07	27.30
Dallas	55.38	55.38	38.07	57.69	24.23	24.23
El Paso	46.15	58.84	28.84	41.15	25.81	27.23
Fort Worth	*		34.61	51.92	18.46	18.46
Houston	51.92	58.84	40.38	58.84	20.00	23.00
Port Arthur	43.84	43.84	39.23	43.84	28.84	30.76
San Angelo	57.69	57.69	31.15	38.07	23.44	23.44
San Antonio	39.23	46.15	34.61	39.23	27.69	27.69
Tyler	38.46	38.46	23.07	23.07	16.15	16.15
Waco	*		25.38	32.30	16.15	16.15
Wichita Falls	39.23	69.23	31.15	43.84	*	
Average Weekly Salaries	\$49.20	\$57.64	\$30.86	\$44.20	\$21.84	\$23.14

* Salary not reported.

TABLE XV (continued)

MINIMUM AND MAXIMUM WEEKLY SALARIES OF NON-TEACHING EMPLOYEES
CITIES OF 25,000 POPULATION AND ABOVE IN TEXAS - SCHOOL YEAR 1948-1949

	Carpenters		Painters		Plumbers	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Abilene	\$*	\$	\$*	\$	\$*	\$
Amarillo	40.38	51.92	40.38	51.92	40.38	51.92
Austin	40.38	54.23	48.46	56.53	34.61	69.23
Beaumont	57.69	69.23	42.30	61.63	52.88	75.08
Corpus Christi	46.15	46.15	40.38	46.15	46.15	46.15
Dallas	75.00	85.00	75.00	80.00	75.00	88.46
El Paso	46.15	69.23	40.38	48.46	72.11	76.92
Fort Worth	*		*		*	
Houston	56.53	64.61	56.53	63.46	49.61	66.92
Port Arthur	45.00	45.00	45.00	45.00	*	
San Angelo	55.00	55.00	*		*	
San Antonio	56.53	56.53	56.53	56.53	73.84	73.84
Tyler	46.15	46.15	36.92	36.92	57.69	57.69
Waco	34.61	40.38	36.92	41.53	36.92	46.15
Wichita Falls	*		*		*	
Average Weekly Salaries	\$49.96	\$56.95	\$46.16	\$53.46	\$53.91	\$65.22

* Salary not reported.

Note: Salaries have been equated on a weekly basis according to information given in the questionnaire and in Table VI. Salaries reported by the hour and by the day were computed on a weekly basis directly. Salaries reported on an annual basis were divided by 52. Salaries reported for 9, 10, or 11 months were calculated on a monthly basis, first; then, on a 12-months basis; and then, on a weekly basis.

\$65.22.

Fort Worth gave no figures but indicated union scale for carpenters, painters, and plumbers.

The question of pay for extra services of operating employees is a phase of the wage-hour problem. In a recent survey of 36 large cities of the United States it was found that 13 cities, consider extra services as a separate job; 8 cities consider the extra services as a continuation of regular work; and 3 cities, either separate or continuation of job services. Twelve cities failed to reply as to policy. Further information on the subject of extra services is given in the following excerpt from the report:

Actual compensation for extra service varies from a minimum of less than the rate paid for regular service to a maximum of $1\frac{1}{2}$ times the regular rate...

Notes on the replies returned indicate that policies and practices in this matter vary according to the type of work performed, when the work is done, and who pays for the services. That is, in some cities a flat rate is charged to all who rent school buildings after school hours. This fee covers the compensation of operating employees who may be paid directly by the group renting the building. Some cities pay for such services on a contractual basis. That is, a contract for operation of a building is entered into and a flat fee paid by the board of education to the head custodian for such services...⁷

A flat rate for a specified time not to exceed

⁷ Letter: C. C. Tower, Director of Research, Cincinnati Public Schools, Cincinnati, Ohio to H. S. Brannen, April 7, 1949.

specifications has indications of being fair practice.

5. Retirement

The Teacher Retirement System of Texas has been in effect since 1937. Senate Bill 333 was passed in the Spring of 1949, amending the Teacher Retirement Act to include all auxiliary employees of public schools. That is, all maintenance and operation personnel employed on a full-time regular salary basis are eligible to membership in the Teacher Retirement System as of September 1, 1949. Senate Bill 333 makes provision for the school employees not heretofore eligible for either Teacher Retirement System or the Employees' Retirement System, both systems of Texas.

Article III, Section 3 of Chapter 470, Acts of the 45th and 50th Legislature in Regular Session, is amended so as to include the auxiliary employees, reading as follows:

(3) (a) All persons who are auxiliary employees of the public schools of this State on the first day of September, 1949, or who become auxiliary employees therein within ninety (90) days thereafter shall as of September 1, 1949 become members of the Teacher Retirement System as a condition of employment upon the terms and conditions set out in this Act, unless within the period of ninety (90) days after September 1, 1949, any such person shall file with the State Board of Trustees of said System, a notice in writing on such forms as the State Board of Trustees may prescribe, of his election not to be covered into the membership of said System, and a duly executed waiver of all present and prospective benefits which otherwise would inure to him on account of participation in the Retirement System.

(b) Any person not in service at any time between September 1, 1949 and November 30, 1949, both inclusive, who shall become an auxiliary employee in the public schools of this State on or after December 1, 1949, shall become a member of the Retirement System as a condition of employment.⁸

With the adoption of Senate Bill 333, Texas has corrected a situation which had been unfair to school employees who had been ineligible for retirement benefits commensurate with their services to the public schools.

The tabulation of data concerning retirement plans in Group II cities as reported in the questionnaire has been omitted because of the adoption of a system of retirement for all auxiliary employees in the public schools of Texas.

6. In-Service Training Program

Table XVI is presented to show the extent of in-service training provided by the fifteen city-schools of Texas. Twelve of the fifteen cities, 80%, indicated in-service training in their replies; two had none; and one city's reply was missing. The majority, nine cities, train new employees by placing them under the direction of experienced employees, and by infrequent meetings where demonstrations, discussion and question-and-answer periods

⁸ Morris-Allen Senate Bill 333, Fifty-first Legislature, State of Texas, 1949, Austin, Texas. Chapter 470, Article III, Section 3.

TABLE XVI

IN-SERVICE TRAINING PROGRAM FOR NON-TEACHING EMPLOYEES
CITIES OF 25,000 POPULATION AND ABOVE IN TEXAS
SCHOOL YEAR 1948-49

Cities	<u>In-Service Program</u>		<u>Kind Of Program</u>	
	Yes	No	Trained as a Helper	Training Course
Abilene	X			X
Amarillo	X		X	
Austin	X			X
Beaumont	X			X
Corpus Christi		X		
Dallas	X		X	
El Paso	X		X	
Fort Worth	X		X	
Houston	X		X	
Port Arthur	X		X	
San Angelo		X		
San Antonio	X		X	
Tyler	X		X	
Waco*				
Wichita Falls	<u>X</u>	<u> </u>	<u>X</u>	<u> </u>
Total	12	2	9	3

* No reply

are held. Too, employees draw freely from the literature of manufacturers for instructions.

The value of group discussion by the employees, as expressed by Martin, Hundson, and Shaver may be seen in the following paragraph:

In every group of experienced janitors there will be a man who has learned to do some job better than any of the others, but who perhaps would like to know another member of the group has managed to do some other piece of work better than he. If every member of the group contributes his ideas and each man takes away all of the best ideas, it is needless to say that the efficiency of the force will be raised. There is no man, no matter how good he is on the job, but who can profit by the experience and opinions of others.⁹

In Texas, the training of the non-teaching personnel engaged in operation and maintenance is largely left up to each school district. However, trade schools provide training in some of the larger cities.

Since the development of the summer workshop various colleges and universities in Texas, as elsewhere, have included on their programs building maintenance problems for administrators. The investigator has participated in workshops including maintenance studies at the University of Texas, June, 1946, and June, 1948, and at the University of

⁹ Ray L. Martin, N. S. Hundson, Charles N. Shaver, Instructors' Manual For Training Public School Janitors and Janitor Engineers, Bulletin No. 306. (Austin, Texas State Board for Vocational Education, August, 1932). p. vi.

Houston during the summers of 1948 and 1949.

In the summer workshop at the University of Houston, in 1949, one week of study included "Building Maintenance Problems", with special reference to personnel matters involved. Administrators and custodial personnel participated in the program. The value of such joint participation lies in better understanding and appreciation of the function of the other.

The fifteen cities of 25,000 population and above in Texas, in keeping with the educational philosophy of the state, and through the framework of the state and local educational systems have evolved from simple origins to complex organizations. The problems of population increase and curriculum changes have had repercussions in the field of building maintenance and operation in numbers of employees required and in the quality and uniqueness of their service. The practices affecting the 2239 employees reported in this study include the policy of a 44-hour work week, the payment of average weekly salaries ranging from \$21.80 to \$65.22, varying with the types of employment; retirement under a state plan at age 70; and, in-service training provided by a majority of cities under experienced employees, through demonstrations, discussions and workshop programs.

CHAPTER VII

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

1. Problem

This study was carried on to obtain information regarding the present public school building maintenance personnel practices of cities of 200,000 population and above in the United States and of cities of 25,000 population and above in Texas.

The plan of the study involved (1) tracing the history of administrative practices and procedures of building maintenance personnel; (2) reviewing the literature and the more recent research studies concerning the personnel in six classifications: engineers, custodians, maids, carpenters, painters, and plumbers; and, (3) presenting and interpreting the questionnaire findings regarding the qualifications and requirements of the employees studied.

The investigation was based on data received in reply to a questionnaire, copies of which were sent to the forty-three cities of 200,000 population and above in the United States and to the eighteen cities of 25,000 population and above in Texas according to the federal census of 1940.

A historical review of the practices and procedures of building maintenance and operation employees revealed that

public school business administration in general evolved very gradually with no fixed set of principles, following a local pattern without reference to what had been done elsewhere. Since World War I, increased expenditure for improved school buildings prefaced the need for greater technical skill in the maintenance of costly school plants. The public at large is still far behind educators in appreciation of the need of maintenance personnel of a higher type.

The literature concerning the building and maintenance personnel, though meager in extent, attests to the need for further investigation on the subject.

By an analysis of the duties of the employees, the adoption of a standard of quality of service reasonable to expect of them, and by careful planning of the work schedule the classified personnel was able, according to authorities in public school business administration, to contribute more efficient service to the instructional field.

2. Summary of Findings

Data from Group I cities (of 200,000 population and above in the United States) and from Group II cities (of 25,000 population and above in Texas) in tabulated form revealed the following findings:

(a) The total number of maintenance and operation employees in cities of Group I was 26,302, the range being

from 159 employees to 3994 employees; in cities of Group II the total number of employees was 2239, and the range, from 21 to 502.

(b) Physical examinations were required of new employees in 76.3% of Group I cities; while the cities of Group II fell below the national average with a percentage of 46.7.

(c) The absence of educational requirements for new employees was reported in 34.3% of Group I cities, and in 66.7% of Group II cities.

(d) For Group I cities, a work week of 40 hours was reported by 59.5%, and a 44-hour week by 40.5%. Twenty per cent of the Group II cities had a 40-hour week, and 60% had a 44-hour week.

(e) Salaries equated on a weekly basis showed the following average weekly salary ranges for Group I cities: engineers, from \$55.49 to \$68.26; custodians, from \$42.30 to \$60.05; maids, from \$29.84 to \$33.80; carpenters, from \$69.30 to \$73.92; painters, from \$66.17 to \$70.36; and plumbers, from \$78.12 to \$83.56. The average weekly salary ranges for Group II cities were: engineers, from \$49.20 to \$57.64; custodians, from \$30.86 to \$44.20; maids, from \$21.80 to \$23.14; carpenters, from \$49.96 to \$56.96; painters, from \$46.16 to \$53.46; and, plumbers, from \$53.91 to \$65.22.

(f) In cities of Group I 86.8% had provisions for compulsory retirement, at age 70 in the majority of cases;

and 92.1% had some type of plan for retirement benefits for the employees. Due to the fact of recent legislation 100% of Group II cities were found to have retirement plans on a state basis, with 70 years of age as the mandatory age of retirement.

(g) In-service training was provided for employees in 55.6% of the cities of Group I, and in 80% of the cities of Group II.

3. Conclusions

Conclusions drawn from the findings of the study were:

(a) The lack of standardization of job titles for maintenance and operation employees impedes the progress of research in the maintenance phase of public school business administration.

(b) The requirements for physical examinations for beginning custodial employees are too lax, considering the fact of the employees' close association with children.

(c) The educational requirements for beginning custodial employees are astoundingly low when the high type of service it is reasonable to expect of them is taken into consideration.

(d) There is a trend toward shortening the work week for custodial employees.

(e) There is a wide range in average weekly salaries paid for the various duties of employees engaged in building maintenance.

(f) There is a trend toward lowering the optional age for retirement after long years of service in a school system in order to provide more efficient service to schools without undue loss of retirement benefits by the employees.

(g) The trend of in-service training indicates that new employees are being trained under the direction of more experienced employees rather than by enrolling for training courses.

4. Recommendations

The following recommendations based on the findings of the study seemed justifiable:

(a) That in the classification of maintenance personnel, job titles be standardized in accordance with the terminology suggested by the National Education Association, as an aid to the interpretation of personnel duties in further research.

(b) That a physical examination be required of all employees entering employment for the first time, and a followup examination be required every third year thereafter, and when there is a question as to the health of the employee.

(c) That all maintenance and operation employees have

at least an elementary school education.

(d) That multiple work shifts be used wherever practicable to eliminate excessive long working hours.

(e) That in order to attract younger men with better educational and physical qualifications to a custodial career adequate salaries must be paid.

(f) That all maintenance and operation personnel be classified, and a distinct salary scale for each classification be determined, with promotion based on seniority and merit - not on seniority alone.

(g) That retirement of maintenance and operation personnel be mandatory at 70 years of age and optional at 65 years of age.

(h) That all non-teaching personnel of public schools have the privilege of participating in an adequate retirement plan.

(i) That pre-service and in-service training be provided for all maintenance and operation personnel.

(j) That after-school services of the maintenance and operation personnel be ground for further investigation.

(k) That at repeated intervals future studies be made relating to non-teaching employees as to duties, work load, salary, status, and contributions to the educational betterment of schools.

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APPENDIX

THE UNIVERSITY OF HOUSTON
3801 St. Bernard Street
Houston 4, Texas

School of Education
Graduate School

192
Arvin N. Donner
Director

November 9, 1948

SUPERINTENDENT IN CHARGE OF MAINTENANCE OF SCHOOL PLANT:

Dear Sir:

This is a request for information on the non-teaching employees in building maintenance of the public schools of your city.

At the University of Houston a study of non-teaching personnel in public school maintenance is being made. This study includes engineers, custodians, maids, carpenters, painters, plumbers, and other maintenance employees with similar classification.

It will be deeply appreciated if you will comply with the request for information pertinent to the study.

Sincerely yours,

H. S. Brannen
Director of Buildings
Houston Public Schools

REQUEST FOR INFORMATION

RE: NON-TEACHING PUBLIC SCHOOL PERSONNEL

193

Would you be willing to give the information below?
If so, please return this sheet in the stamped envelope enclosed. These data are needed in a nationwide survey of public school building maintenance employees in United States cities of 200,000 population and above. This study is being made as a research study at the University of Houston. If you are interested, a summary of the results will be mailed you as soon as all city systems have replied:

Name of Public School System Reporting _____
City _____ State _____ Date _____

1. Number of building maintenance employees?

Engineers _____; Carpenters _____;
Custodians _____; Painters _____;
Maids _____; Plumbers _____;
Others _____;

Total _____

2. Do you require a physical examination for employees?

Yes _____ No _____

3. What are your educational requirements?

Engineers: None _____ Elem. Sch. Ed. _____ High Sch. Ed. _____
Custodians: None _____ Elem. Sch. Ed. _____ High Sch. Ed. _____
Maids: None _____ Elem. Sch. Ed. _____ High Sch. Ed. _____
Carpenters: None _____ Elem. Sch. Ed. _____ High Sch. Ed. _____
Painters: None _____ Elem. Sch. Ed. _____ High Sch. Ed. _____

Plumbers: None____Elem. Sch. Ed.____High Sch. Ed.____

4. On the average how many hours per week do your employees work?

36_____40_____44_____48_____52_____

5. What is your beginning salary and maximum salary for:

Engineers: Beginning \$_____Maximum\$_____

Custodians: Beginning \$_____Maximum\$_____

Maids: Beginning \$_____Maximum\$_____

Carpenters: Beginning \$_____Maximum\$_____

Painters: Beginning \$_____Maximum\$_____

Plumbers: Beginning \$_____Maximum\$_____

6. Do you have an age limit that employees have to retire Yes_____No_____

If yes, what age?

7. Do you have a retirement plan for public school building maintenance employees? Yes_____No_____

8. Do you have an in-service training program? Yes_____No_____

If yes, comment briefly or send a copy of in-service program for the year

REQUEST FOR INFORMATION

RE: NON-TEACHING PUBLIC SCHOOL PERSONNEL

Would you be willing to give the information below?
If so, please return this sheet in the stamped envelope enclosed. These data are needed in a survey of public school building maintenance employees in Texas cities of 25,000 population and above. This study is being made as a research study at the University of Houston. If you are interested, a summary of the results will be mailed to you as soon as all city systems have replied.

Name of Public School System Reporting_____

City_____State_____Date_____

1. Number of building maintenance employees?

Engineers_____; Carpenters_____;

Custodians_____; Painters_____;

Maids_____; Plumbers_____;

Others_____

Total_____

2. Do you require a physical examination for
employees? Yes_____No_____

If yes, please enclose a copy of medical blank or
describe type of examination required_____

3. What are your educational requirements?

Engineers: None_____Elem. Sch. Ed._____High Sch. Ed._____

Custodians: None_____Elem. Sch. Ed._____High Sch. Ed._____

Maids: None_____Elem. Sch. Ed._____High Sch. Ed._____

Carpenters: None_____Elem. Sch. Ed._____High Sch. Ed._____

Painters: None_____Elem. Sch. Ed._____High Sch. Ed._____

Plumbers: None_____Elem. Sch. Ed._____High Sch. Ed._____

4. On the average how many hours per week do your employees work? 36_____40_____44_____48_____52_____

5. What is your beginning salary and maximum salary for:

Engineers: Beginning \$_____Maximum\$_____

Custodians: Beginning \$_____Maximum\$_____

Maids: Beginning \$_____Maximum\$_____

Carpenters: Beginning \$_____Maximum\$_____

Painters: Beginning \$_____Maximum\$_____

Plumbers: Beginning \$_____Maximum\$_____

6. Do you have an age limit that employees have to retire? Yes_____No_____

If yes, what age?

7. Do you have a retirement plan for public school building maintenance employees? Yes_____No_____

If yes, describe plan briefly_____

8. Do you have an in-service training program?

Yes_____No_____

If yes, comment briefly or send a copy of in-service program for the year.

CITIES 200,000 POPULATION AND ABOVE IN THE UNITED STATES,
ACCORDING TO 1940 CENSUS

City	Population 1940	City	Population 1940
New York, N. Y.	7,380,259	Rochester, N. Y.	324,694
Chicago, Ill.	3,384,556	Louisville, Ky.	318,713
Philadelphia, Pa.	1,935,086	Denver, Colo.	318,415
Detroit, Mich.	1,618,549	Portland, Ore.	307,572
Los Angeles, Calif.	1,496,792	Columbus, Ohio	304,936
Cleveland, Ohio	878,385	Oakland, Calif.	304,909
Baltimore, Md.	854,144	Atlanta, Ga.	302,538
St. Louis, Mo.	813,748	Jersey City, N. J.	301,012
Boston, Mass.	769,520	Dallas, Texas	293,306
Pittsburgh, Pa.	665,384	Memphis, Tenn.	291,312
Washington, D. C.	663,153	St. Paul, Minn.	288,023
San Francisco, Calif.	629,553	Toledo, Ohio	281,096
Milwaukee, Wis.	589,558	Birmingham, Ala.	264,151
Buffalo, N. Y.	575,150	Providence, R. I.	253,504
New Orleans, La.	492,282	San Antonio, Tex.	253,143
Minneapolis, Minn.	489,971	Akron, Ohio	243,130
Cincinnati, Ohio	452,852	Omaha, Neb.	223,185
Newark, N. J.	428,236	Dayton, Ohio	211,456
Kansas City, Mo.	400,175	Syracuse, N. Y.	205,637
Indianapolis, Ind.	386,170	Oklahoma City, Okla.	204,517
Houston, Texas	386,150	San Diego, Calif.	202,038
Seattle, Wash.	366,847		

CITIES 25,000 POPULATION AND ABOVE IN TEXAS
ACCORDING TO 1940 CENSUS

Cities	Population
Houston	386,150
Dallas	293,306
San Antonio	253,143
Fort Worth	177,748
El Paso	96,677
Austin	87,878
Galveston	60,334
Beaumont	58,912
Corpus Christi	57,443
Waco	55,844
Amarillo	51,497
Port Arthur	45,500
Wichita Falls	44,937
Laredo	38,921
Lubbock	31,588
Tyler	28,256
Abilene	27,292
San Angelo	25,794