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PENSION SYSTEMS FOR PUBLIC-SCHOOL TEACHERS

By

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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
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Washington, September 2, 1927.

SIR: One of the difficult problems that have arisen in the social development of the present generation is proper provision for employees who have given the best years of their lives to service at small salaries and because of age or disability are no longer able to continue the performance of their duties. This problem is presented in varied aspects to every industrial concern that employs considerable numbers of persons, and it demands the serious consideration of administrators of municipal and other governmental corporations.

In the past, teachers attempted to maintain mutual benefit associations by means of voluntary contributions and by receipts from fairs, parties, oyster suppers, and the like. The practical impossibility of permanent and reliable service from organizations thus supported became apparent after a few years of trial. The attention of boards of education and legislators was directed to the subject, not as a matter of philanthropy, but as a necessity to efficient administration.

Serious difficulties have been encountered in administering teachers' pension systems, and many of the early projects met disaster because they were based upon unsound theory. After 30 years of experience the most glaring weaknesses have been eliminated, but even now no general agreement has been reached upon many fundamental questions.

I have procured the cooperation of Prof. Fletcher Harper Swift, a recognized authority in matters of school finance, in further study of this important problem. Under his guidance an effective investigation was pursued by Miss Nida Pearl Palmer in the graduate division of the University of California. The resulting manuscript, prepared under Professor Swift's direction and revised by him, is submitted herewith. It is a noteworthy contribution to the literature of a subject of prime importance, and I recommend its publication as a bulletin of the Bureau of Education.

JNO. J. TIGERT, *Commissioner.*

The SECRETARY OF THE INTERIOR.

FOREWORD

It has seemed advisable to call attention in a prefatory note to certain distinctions as to types of funds which the present study ignores and which might from an *à priori* point of view be expected to be emphasized. The explanation of this policy on the part of the author is to be found in the fact that the aim of the present study is to show the tendencies characterizing the organization and administration of teacher pension funds. For this reason the type of fund as actually established, rather than the methods or steps which led to its establishment, is the supremely important factor.

Consequently no attempt has been made to distinguish funds which were established after extensive actuarial investigation from funds which were not so established except in so far as the former were established earlier and the latter later.

In the case where a fund has been reconstituted after actuarial investigation, as, for example, the fund of New York City, it has seemed appropriate to regard the reconstituted fund as essentially a new creation—in other words, a new fund.

No distinction has been made with respect to funds on the basis of the number of teachers affected. While it might be expected that funds affecting a large number of participants would be constituted upon the basis of a more careful investigation than those affecting a smaller number, such has not always been the case. Moreover, a smaller fund more recently established has frequently profited by the experiences of older and larger funds.

Pension Systems for Public-School Teachers

Chapter I

INTRODUCTION

The problem of the thesis.—The development of pension systems for public-school teachers in the United States has been both recent and rapid. A beginning in their establishment was made in the latter part of the nineteenth century, and to-day, after 30 years, very few States are without some form of a teachers' pension system.

The purpose of the present study of pension systems for public-school teachers in the United States is twofold: (1) To discover the tendencies in the development of teachers' pension systems in the United States; and (2), in so far as possible, to formulate criteria by which to evaluate any particular teacher pension system. It has been found that any such study involves a consideration of the following questions: In the evolution of pension systems for public-school teachers in the United States, what policies and criteria have been found satisfactory and therefore retained, what have been or are being discarded? What new policies and criteria have made their appearance in the later systems?

Plan of treatment.—The method by which it is proposed to seek answers to these questions involves the examination of teachers' pension systems in the order of their establishment, with a view to discerning not only changes but tendencies in pension theories and resultant methods and policies. Important changes in policies and practices are bound to be reflected in the provisions found in many newer systems, for the reason that before a pension bill is formulated existing pension systems are generally carefully studied by its authors, the success or failure of special features noted, and the pitfalls of systems judged unsound avoided if possible.

In preparing this thesis, pension systems have been arranged in chronological groups for purposes of comparison, since tendencies are more clearly apparent over a period of years than over any single year.

The differences between the provisions of local and State systems have been found to be so slight that no distinction has been made between them in the present study, except that which has been made in Chapter II for the purpose of classification.

Sources of data.—Both primary and secondary sources have furnished the data used in the preparation of this thesis. The most important classes of primary sources include: (1) The laws establishing these teachers' pension systems; (2) the constitutions and by-laws of teachers' pension systems. While it was impossible to secure information with regard to every pension system established in the United States, data were available for the study of 93 systems, of which 29 were State systems and 64 local (city or county) systems. In practically 72 per cent of the cases materials were gathered from the sources listed above.

Of the many secondary authorities consulted, the following proved the most helpful and have been most used by the author: (1) Reports and bulletins issued by the Carnegie Foundation for the Advancement of Teaching; (2) the publications of the National Education Association; and (3) Studensky's well-known study, "Teachers' Pension Systems in the United States."

The Carnegie Foundation for the Advancement of Teaching has made an intensive study of pensions for teachers almost from the time of its establishment. A review of pension legislation for the year, criticisms, both of established and proposed systems, together with timely discussions of the social philosophy underlying them, have appeared in practically every annual report and in special bulletins. These reports and bulletins have proved to be a fruitful source of the data, particularly in cases where the primary sources mentioned above could not be consulted.

The National Education Association, also, early turned its attention to pension problems. Reports and addresses have been given frequently at its annual meetings. The findings of its committee of one hundred on retirement allowances have been made available to the public through the research division of the association.

Paul Studensky, under the auspices of the Institute for Government Research, has published the results of his thorough study of teachers' pension systems in the United States.

Other valuable sources of data have been found in additional books on the subject and in articles appearing in popular educational magazines.

It might seem that this study of pension systems for public-school teachers in the United States should logically include a third purpose, namely, the formulation of a model pension system. However, to have done so would have extended the scope of the present study. Moreover, such a model system has already been outlined by Norton and Alltucker in their very excellent monograph entitled "Teachers' Retirement Allowances."

It was felt unnecessary to include in the chapters which follow any consideration of the social and economic justification of pensions for public-school teachers, for the reason that an enlightened public intelligence has to-day generally accepted the pension idea for various classes of workers; and only a feeble minority now voice any protest against the payment of pensions to public servants.

Chapter II

CLASSIFICATION AND ADMINISTRATION OF PUBLIC SCHOOL TEACHERS' PENSION SYSTEMS

Introduction.—Although pension systems for teachers have had but a brief history in the United States, they have already shown considerable variance in the nature of their organization. In view of this fact, it is necessary to classify the existing types of teachers' pension systems in the United States upon at least two bases—first, upon the basis of the extent of the system, i. e., whether it be local or state-wide; second, upon the basis of the degree of financial burden placed upon the teacher, i. e., whether the system be a so-called free system, a partially contributory or a wholly contributory system.

It is the purpose of the present chapter to show to what extent the policies and practices implied in the above classification prevail throughout the United States. To this will be added, in the case of certain local and of certain State systems, some account of their respective systems of administration.

Local and state-wide systems.—The first pension systems for public-school teachers in the United States were largely local,[1] for interest is more readily enlisted among small groups of people, and organization is consequently more easily effected. The interest aroused by these early local systems was responsible for the establishment of others, but as the pension idea gained acceptance, systems were extended over larger areas and became county or state-wide in their organization. The first State system made its appearance as early as 1896 (New Jersey).[2] Yet the movement toward state-wide systems did not gather momentum until well after the beginning of the present century.[3] Table 1 shows the extent to which local and state-wide systems have been established. It was possible to include in this table more than the 93 systems mentioned in Chapter I, page 2, for the reason that lists of established systems

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[1] See Appendix I, b, c, d, pp. 51, 51, and 54, respectively, for lists of pension systems, with the dates of their establishment.

[2] See Appendix I, b, p. 51.

[3] See Appendix I, c and d, pp. 51 and 54, respectively.

have been published by several different authorities, and this table is concerned not with pension provisions but with numbers of systems organized. The items in columns 1, 2, and 3 of this table indicate the number of systems established during the period.

TABLE 1.—*Growth of local and state-wide pension systems for public-school teachers in the United States*[1]

Period	Number established within period			Percentage analysis[2]		
	Local	State	Total	Local	State	Total
1894–1904	[3] 13	[3] 2	15	86.7	13.3	100
1905–1914	[4] 65	[4] 11	76	85.5	14.5	100
1915–1924	[5] 13	[5] 17	30	43.3	56.7	100
Total	91	30	121			

[1] See Appendix I, a, p. 51, for the list of publications from which the data presented in this table have been secured.
[2] Computed.
[3] See Appendix I, b, p. 51, for lists of systems established during this period, the dates of their establishment, and the publications in which they are listed.
[4] See Appendix I, c, p. 51, for lists of systems established during this period, the dates of their establishment, and the publications in which they are listed.
[5] See Appendix I, d, p. 54, for lists of systems established during this period, the dates of their establishment, and the publications in which they are listed.

Growth and extent of local systems.—The data given in Table 1 make clear that the establishment of local pension systems reached its peak before 1915. The percentage of local systems declines slightly in the second period and falls off sharply in the last 10 years. It should be pointed out that the number of local pension systems existing to-day is not equal to the number of local systems established. Many of the local systems have become inoperative or have been absorbed by the state-wide systems established at a later date. Consequently, the number of local systems to be found to-day is not 91, but only 48, according to the last report available.[4] Most of these local systems are to be found in large cities or counties. Seventeen of them appear in the large cities or counties of 10 States having state-wide retirement laws[5]; while 20 of them are located in cities of the first and second class in States having permissive State pension laws only.[5] Eleven of them are operative in States having no State law whatever with regard to teachers' pensions.[5]

The small local system has practically disappeared, and if present tendencies continue, it is doubtful if another local system will ever make its appearance, except in some State where the adoption of a state-wide system is too long delayed.[6]

[4] Norton, John K., and Alltucker, Margaret M., "Teachers' Retirement Allowances," pp. 82, 86.
[5] Ibid., p. 82.
[6] The last local system to be established (1924) is that of Kansas City, Mo. Missouri is a State which is without any State law relative to the establishment of teachers' retirement systems. See Norton, John K., and Alltucker, Margaret M., "Teachers' Retirement Allowances," p. 82. Also leaflet issued by board of directors of Kansas City describing system.

Growth and extent of state-wide systems.—From Table 1 it is evident that since 1904 state-wide systems have tended to constitute an increasingly larger percentage of the total number of systems established. State systems comprise more than half of the total number of teachers' pension systems organized in the last 10 years. Twenty-two States now have state-wide teacher retirement systems in operation.[7]

Thirty State systems are reported in Table 1 as established between 1894 and 1924. Several States have established more than one system,[8] and in two States the systems are not operative.[9] This accounts for the fact that the total number established exceeds the number now in effect.

In many States having no state-wide law whatever relative to teacher retirement, local systems have been set up. In fact, at the present writing only 6 States have no teachers' pension systems, either State or local, within their confines (Arkansas, Florida, New Mexico, Oklahoma, South Dakota, and Wyoming).[10]

The tendency to establish State rather than local systems, which has characterized the last few years of pension legislation, is an important trend in pension development, and it is probably merely a matter of time until every State will provide for its teachers' old age by suitable provisions effective throughout the entire State.

Administration of pension systems.—The administration of the two types of systems already described is next to be considered. Both local and State systems are usually administered by a special pension board, commission, or committee, called by various names, such as retirement board or board of trustees.[11]

To what extent teachers are represented on these boards, whether state-wide or local systems are more liberal in allowing teacher representation and teacher control of the governing bodies, and whether the years have brought any changes in these respects are the points

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[7] See Norton, John K., *and* Alltucker, Margaret M., "Teachers' Retirement Allowances," p. 82. The States are Arizona, California, Connecticut, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nevada, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, Wisconsin, and the District of Columbia.

[8] The States which have established more than one teachers' pension system are as follows: Maine, 1913, 1924; New York, 1911, 1921; New Jersey, 1896, 1903, 1919; Vermont, 1913, 1919; and Wisconsin, 1911, 1921.

The dates for the establishment of these systems and the publications in which they are listed are given in Appendix I, b, c, d, pp. 51 and 54.

[9] The system established in New Hampshire in 1915 is no longer in effect. This information was supplied by Mary R. Saltmarsh, registrar, State board of education, Concord, N. H. Idaho still has the law passed by the legislature in 1921 on its statute books, though it is not in use, as it has been declared unworkable by the supreme court. This information was given by Laura Butz, assistant State superintendent of public instruction of the State of Idaho.

[10] Norton, John K., *and* Alltucker, Margaret M., "Teachers' Retirement Allowances," p. 82.

[11] Furst, Clyde, *and* Kandel, I. L., "Pensions for Public School Teachers," pp. 20, 70.

considered under this subject. Tables 2 and 3 have been compiled in an effort to study this phase of the pension systems established for teachers in the United States. Data for Table 2 were available for only 90 of the 93 pension systems upon a study of which this thesis is based.

TABLE 2.—*Teacher representation in the administration of 90 local and State systems*[1]

Systems administered—	1894–1904				1905–1914				1915–1924				Total	
	Local[2]		State[2]		Local[3]		State[3]		Local[4]		State[4]		Local	State
	Number[5]	Percentage for period[6]	Number[5]	Percentage for period[6]	Number[5]	Percentage for period[6]	Number[5]	Percentage for period[6]	Number[5]	Percentage for period[6]	Number[5]	Percentage for period[6]	Number	Number
With teacher representation	[7] 8	88.9	[10] 1	50	[8] 29	74.3	[11] 5	45.5	[9] 9	69.2	[12] 10	62.5	46	16
With no teacher representation	[13] 1	11.1	[16] 1	50	[14] 10	25.7	[17] 6	54.5	[15] 4	30.8	[18] 6	37.5	15	13
Total	9	......	2	100	39	100	11	100	13	100	16	100	61	29

[1] See Appendix I, e, p. 54, for a discussion of the sources of information presented in this table.
[2] See Appendix I, f, p. 54, for detailed list of sources from which the data given in these columns were secured.
[3] See Appendix I, g, p. 55, for detailed list of sources from which the data given in these columns were secured.
[4] See Appendix I, [illegible], for detailed list of sources from which the data given in these columns were secured.
[5] Number of systems established in period.
[6] Computed.
[7] The local systems established in this period are: Chicago, Detroit, St. Louis, Buffalo, Providence, Charleston, Newport, Boston.
[8] The local systems established in this period are: Rochester, Indianapolis, Philadelphia, Baltimore, Cohoes, Harrisburg, Duluth, Milwaukee, Minneapolis, Salt Lake City, St. Paul, Westchester County, New Orleans, Wilkes-Barre, New Haven, New London, Portland, Wilmington, San Antonio, Allegany County, Baltimore County, Louisville, Peoria, Reading, Terre Haute, Bristol, Lexington, Newport, South Bend.
[9] The local systems established in this period are: Erie, Wheeling, New York City, Bellingham, Everett, Seattle, Spokane, Tacoma, Minneapolis.
[10] The State system established in this period is New Jersey (1896).
[11] The State systems established in this period are: Wisconsin, New York, Massachusetts, North Dakota, Vermont.
[12] The 10 State systems established in this period are: Indiana, Michigan, Minnesota, Connecticut, Pennsylvania, New Jersey, Vermont, Ohio, New York, Maine.
[13] The one local system established in this period is that of Syracuse.
[14] The 10 local systems are: Albany, Boston, Brookline, Yonkers, Denver, Mt. Vernon, Omaha, Canon City, Topeka, Columbus.
[15] The four local systems are: Chattanooga, Des Moines, Manchester, Kansas City.
[16] The one State system is that of New Jersey (1903).
[17] The six State systems are: Rhode Island, Maryland, Virginia, Arizona, California, Maine.
[18] The six State systems are: Illinois, Montana, Nevada, New Hampshire, District of Columbia, Wisconsin.

Table 2 presents the findings of a study of 90 systems, both local and State, with respect to the number of systems providing for teacher members on governing boards.[12] From this table it is evident that 62 of the 90 systems have been organized with the idea that teachers should be represented in the administration of the retirement system. Forty-six of the 61 local systems and 16 of the 29 State systems provide for teacher representation. From the percentage analysis given in Table 2, it is clear that the local systems

[12] Data were not available for 3 (New York City, Brooklyn, and Cincinnati) of the 93 systems upon a study of which this thesis is based.

are more liberal than State systems in this respect. However, the percentage of local systems providing for teacher representation decreases steadily during the three periods under consideration, falling from 88.9 per cent in 1894–1904 to 69.2 per cent in 1915–1924. The percentage of State systems with teacher representation, on the contrary, while decreasing slightly in the second period, 1905–1914, shows an increase in the last period.

Table 3 has been compiled from a study of the 62 local and State pension systems for teachers which make provision for teacher representation in the administration of the system.

TABLE 3.—*Extent of teacher representation in the administration of 62 local and State systems recognizing this principle*[1]

Number and percentage	1894–1904		1905–1914		1915–1924	
	Local[2]	State[2]	Local[3]	State[3]	Local[4]	State[4]
Average number of members of retirement boards with teacher representation	7.3	9	7.3	5.8	5.9	5.8
Average number of teacher members of these retirement boards	3.1	2	3.6	2.8	3.9	2.3
Average percentage of teacher representatives on these boards[5]	42.5	22.2	49.3	48.2	49.1	39.6

[1] See Appendix I, f, g, h, pp. 54, 55, and 57, respectively, for sources of the information presented in this table.
[2] See Appendix I, i, p. 59, for list of the local and State systems established during this period and included in this study, together with the number of board members and the number of teacher members.
[3] See Appendix I, j, p. 59, for list of the local and State systems established during this period and included in this study, together with the number of board members and the number of teacher members.
[4] See Appendix I, k, p. 60, for list of the local board and State systems established during this period and included in this study, together with the number of board members and the number of teacher members.
[5] Computed.

From Table 3 it is clear that local retirement systems for teachers have included more members on their governing board, on the average, than have the State systems. While the number of the members of these boards, in the case of State systems, has remained about the same during 30 years, the last 10 years show a decrease in the size of the boards in local systems and a corresponding decrease in teacher representation.

It is also evident that local systems have been characterized by a larger percentage of teacher representation on their administrative boards than have the State systems, though during the second period, 1905–1914, the percentage given by State systems closely approximates that given by local systems. During the last period, 1915–1924, the percentage of teacher representation on boards of control in State systems shows a decrease.

The data presented in Tables 2 and 3 show (1) that teachers have never had the major proportion of the control of the administration of their retirement systems; (2) that local retirement systems have been more inclined to grant teacher representation on boards of administration than have State systems; (3) that they have been more liberal in the extent of this teacher representation; and (4) that local systems have shown a tendency in the last few years to grant teacher representation less frequently and slightly less generously, while State systems have tended to grant teacher representation more often but to decrease the percentage of teacher representation on boards of control.

Pension systems from the standpoint of contribution.—We have surveyed briefly the pension systems established in the United States from the standpoint of their extent and type of administration. It remains to consider them from the standpoint of their usual classification as "free" or "contributory." By free systems we mean those systems toward whose funds the teacher makes no stated contribution whatever. Contributory systems may be classed as wholly contributory or partly contributory. In the wholly contributory systems the teachers contribute a definite amount to the funds and these funds are not augmented by public moneys. In the partly contributory systems the teacher contributes a portion of the necessary funds, while the public assumes the responsibility for the remainder. Whether they be local or state-wide in their application, we find these three general classes of pension systems throughout the United States. Any tendency of one form to develop in preference to the others, or any predominance of one system over the other, and the relations existing between these three forms of teachers' pension systems, are shown by Table 4.

TABLE 4.—*Free and contributory pension systems for public-school teachers in the United States*[1]

Period	Number established within period				Percentage analysis [11]			
	Free	Wholly contributory	Partly contributory	Total	Free	Wholly contributory	Partly contributory	Total
1894–1904	[2] 3	[5] 10	[8] 1	14	21.4	71.5	7.1	100
1905–1914	[3] 9	[6] 2	[9] 39	50	18	4	78	100
1915–1924	[4] 3	[7] 3	[10] 23	29	10.3	10.3	79.4	100
Total	15	15	63	93	[12] 16.1	[12] 16.1	[12] 67.8	100

[1] See Appendix I, f, g, h, pp. 54, 55, and 57, respectively, for sources of information presented in this table.
[2] The three free systems established during this period are: New York City, Charleston, New Jersey (1903).
[3] The nine free systems established during this period are: Rhode Island, Boston, Brookline, Maryland, Denver, Canon City, Arizona, Columbus, Maine.
[4] The three free systems established during this period are: Chattanooga, New Hampshire, Manchester.
[5] The 10 wholly contributory systems established during this period are: Brooklyn, Chicago, Detroit, St. Louis, Buffalo, Cincinnati, New Jersey (1896), Providence, Syracuse, Boston.
[6] The two wholly contributory systems established during this period are: San Antonio, Louisville.
[7] The three wholly contributory systems established during this period are: Michigan, Montana, Kansas City.
[8] Newport is the one partly contributory system established during this period.
[9] The 39 partly contributory systems established during this period are: Rochester, Albany, Indianapolis, Philadelphia, Baltimore, Cohoes, Harrisburg, Virginia, Yonkers, Duluth, Milwaukee, Minneapolis, Mount Vernon, Omaha, Salt Lake City, St. Paul, Westchester County, New Orleans, Wilkes-Barre, Wisconsin, New Haven, New London, New York State, Portland, Topeka, Wilmington, Allegany County, Baltimore County, California, Massachusetts, North Dakota, Peoria, Reading, Terre Haute, Vermont, Bristol, Lexington, Newport, South Bend.
[10] The 23 partly contributory systems established during this period are: Illinois, Indiana, Minnesota, Nevada, Erie, Wheeling, Connecticut, Des Moines, New York City, Pennsylvania, New Jersey, Vermont, Ohio, District of Columbia, Wisconsin, New York State, Maine, Minneapolis, Bellingham, Everett, Seattle, Spokane, Tacoma.
[11] Computed.
[12] The percentage of systems of this type established during the entire three periods, 1894–1924.

From data presented in Table 4, it is clear that the number of free systems has never been large. The tendency to establish free systems reached its peak early in the history of pension legislation. The percentage of this type of teachers' pension system shows a steady decline in the last two decades.

The number of wholly contributory systems has never been large. The early years of pension organization witnessed the establishment of the largest percentage of wholly contributory systems, but this percentage has never been approximated in the last 20 years. The ground lost during the second period, however, seems to have been partly regained during the last period.

The partly contributory type of teachers' pension system predominates throughout the later years of pension history, and the large percentage of this type of system appearing during the last two periods is significant.

Tendencies in organization and administration.—The study of teachers' pension systems, examined in the preparation of this chapter, reveals the following three tendencies in organization and administration:

1. An increasing tendency to establish State rather than local teachers' pension systems.
2. A tendency to retain teacher representation in the administration of such pension systems but to decrease its extent.
3. A tendency (developed during the last 20 years) to establish partly contributory rather than free or wholly contributory pension systems.

Criteria for evaluating any particular teacher pension system with respect to organization and administration.—The tendencies shown in the development of teachers' pension systems with respect to their organization and administration have been pointed out in the preceding pages. It is the purpose of the present study not only to discover the most important tendencies which have marked the evolution of teachers' pension systems, but to formulate criteria by which to evaluate any particular teacher pension system, in so far as it is possible to do so. The data presented in Chapter II would seem to justify the acceptance of the following standards as criteria by which to evaluate the organization and administration of a pension system.

1. A teachers' pension system should be state-wide.
2. It should be of the contributory type.
3. Teachers should have some degree of representation in the administration of their pension system.

Chapter III

FINANCING OF TEACHERS' PENSION SYSTEMS

Introduction.—The problem of how to estimate, secure, and maintain the funds necessary to pay retirement allowances is one of the most vital questions in the establishment of pension systems for teachers. The difficulty of providing sufficient sums to meet the liabilities as they accrue has been the rock upon which many a pension system has been wrecked. It is easy to understand why this has been so. The idea of teachers' pensions arose rather suddenly in the United States and spread very rapidly. This naturally led to the organization of systems that were the outcome of action which had not received the scientific consideration due a matter of such importance to teachers. There was an abundance of good will behind the establishment of these systems, but the preliminary financial investigation was in most instances entirely inadequate or mere guesswork. Time and experience have disclosed many financial fallacies in the early systems and furnished examples to be avoided in the organization of the later systems.[1]

In this chapter will be considered the sources of funds of various pension systems for teachers and the methods adopted of handling these funds. An effort will be made to discover any changes in these respects which may have developed since the beginning of teacher pension legislation in the United States.

Sources of funds.—An examination of the provisions of teachers' pension systems shows that the necessary funds are expected to be secured from one or more of three sources, viz, public funds (State or local), teachers' contributions, and other miscellaneous sources, such as absence deductions, gifts, and donations. The difference in the sources from which pension funds are derived has led to the following threefold classification of teachers' pension systems: (1) Free systems; (2) wholly contributory systems; and (3) partly contributory systems. The free systems draw their financial support largely from the public funds. The wholly contributory systems are supported by the teachers' assessments and such gifts and legacies as can be attracted for the purpose. The partly contributory systems are supported by both teachers' assessments and public funds, augmented in the majority of cases by gifts, absence deductions, legacies, etc. Table 5 shows what percentage of the 93 systems included in this study draw funds from one or more of these sources.

[1] Furst, Clyde, *and* Kandel, I. L., "Pensions for Public School Teachers," pp. 8, 10, 22–24.

TABLE 5.—*The support of teachers' pension systems*[1]

Classification	1894–1904		1905–1914		1915–1924		Total
	Number[2]	Per cent[3]	Number[2]	Per cent[3]	Number[2]	Per cent[3]	
I. *Free systems:*							
Supported by public funds alone	[4] 1	7.14	[5] 7	14	[6] 3	10.3	11
Supported by public funds, plus gifts, etc.	[7] 1	7.14	[8] 2	4			3
Supported by absence deductions, gifts, etc. (no public support)	[9] 1	7.14					1
II. *Wholly contributory systems:*							
Supported by teachers' assessments alone							
Supported by teachers' assessments, plus gifts, etc.	[10] 10	71.4	[11] 2	[illegible]	[12] 3	10.3	15
III. *Partly contributory systems:*							
Supported only by public funds and teachers' assessments			[13] 2	4	[14] 13	44.9	15
Supported by public funds and teachers' assessments, plus gifts, donations, etc.	[15] 1	7.14	[16] 37	74	[17] 10	34.5	48
Total	14	100	50	100	29	100	93

[1] See Appendix II, a, p. 61, for sources of the information presented in this table.
[2] Number of systems established in the period.
[3] Computed.
[4] New Jersey (1903).
[5] Rhode Island, Boston, Brookline, Maryland, Arizona, Columbus, Maine.
[6] Chattanooga, New Hampshire, Manchester.
[7] Charleston, S. C.
[8] Denver, Canon City.
[9] New York City.
[10] New Jersey (1896), Brooklyn, Chicago, Detroit, St. Louis, Buffalo, Cincinnati, Providence, Syracuse, Boston.
[11] San Antonio, Louisville.
[12] Michigan, Montana, Kansas City.
[13] Philadelphia, Massachusetts.
[14] Connecticut, Pennsylvania, New Jersey, District of Columbia, Wisconsin, New York State, Bellingham, Everett, Seattle, Spokane, Tacoma, Minneapolis, E
[15] Newport, R. I.
[16] Rochester, Albany, Indianapolis, Baltimore, Cohoes, Harrisburg, Virginia, Yonkers, Duluth, Milwaukee, Minnesota, Mount Vernon, Omaha, Salt Lake City, St. Paul, Westchester County, New Orleans, Wilkes-Barre, Wisconsin, New Haven, New London, New York State, Portland, Topeka, Wilmington, Allegany County, Baltimore County, California, North Dakota, Peoria, Reading, Terre Haute, Vermont, Bristol, Lexington, Newport, Ky., South Bend.
[17] Illinois, Indiana, Minnesota, Nevada, Wheeling, Des Moines, New York City, Vermont, Ohio, Maine.

A study of Table 5 reveals the following facts and tendencies: (1) The percentage of free systems has never been large and has declined in the last 10 years; (2) the largest percentage of systems of the wholly contributory type occurs in the early years of pension history; (3) the percentage of partly contributory systems increases tremendously with the second period, 1905–1914, and shows no diminution during the third period, 1915–1924, the percentages being as follows: 7.14; 78; 79.4.

From Table 5 it would seem that the authors of most pension systems must have been hopeful of receiving gifts, donations, and legacies to augment the necessary funds, since 67 of the 93 systems included in the present study specify the acceptability of this source of income from philanthropically inclined individuals. The percentages of these systems, however, decline during the three periods as follows: 92.8; 82; 44.8. Less than half of the pension systems established during the last 10 years make any provisions for this method of increasing funds.

Sources of funds provided by the public.—Public funds provide moneys for teachers' pension systems in 77 of the 93 systems studied in connection with this chapter. The funds available for this purpose vary in different localities. Hence, considerable variation is found in the sources from which the public draws the sums expended in support of teachers' pension systems. Table 6 shows to some extent these variations in the sources of the public funds used to support teachers' pension systems.

TABLE 6.—*Sources of funds provided by the public for the support of teachers' pension systems*[1]

[Based upon a study of 77 pension systems]

Types of public funds	1894–1904		1905–1914		1915–1924		Total
	Number[2]	Per cent[3]	Number[2]	Per cent[3]	Number[2]	Per cent[3]	
Moneys apportioned for maintenance of schools	[4] 2	66.6	[5] 13	24	[6] 5	17.8	20
County or State tuition funds			[7] 1	1.9	[8] 1	3.4	2
Interest on district funds and interest on investment of proceeds of sales of school lands			[9] 1	1.9			1
Appropriations by city (or State)	[10] 1	33.3	[11] 22	40.7	[12] 8	27.6	31
Tax levy			[13] 10	18.5	[14] 12	41.4	22
Percentage of excise money			[15] 5	9.2	[16] 1	3.4	6
Inheritance or transfer taxes			[17] 1	1.9			1
Surtax on incomes in excess of $3,000					[18] 1	3.4	1
Any revenues available			[19] 1	1.9			1
Sources of funds not specified					[20] 1	3.4	1
Total	3	100	[21] 54 (48)	100	[22] 29 (26)	100	[23] 86 (77)

[1] The sources of data for this table are given in Appendix II, a. p. 61.
[2] Number of systems included in study and established in this period.
[3] Computed.
[4] Charleston, New Jersey (1903).
[5] Milwaukee, Omaha, Salt Lake City, New Orleans, Wilkes-Barre, Wisconsin, Portland, Topeka, Wilmington, Arizona, Columbus, Lexington, Newport, Ky.
[6] Wheeling, Pennsylvania, New Jersey, New York State, Maine.
[7] North Dakota.
[8] Indiana.
[9] Peoria.
[10] Newport, R. I.
[11] Rochester, Philadelphia, Rhode Island, Baltimore, Boston, Brookline, Harrisburg, Maryland, Virginia, Westchester County, New Haven, New York State, Wilmington, Allegany County, Baltimore County, California, Maine, Massachusetts, Peoria, Reading, Vermont, Bristol.
[12] Indiana, New Hampshire, Erie, Connecticut, New York City, Pennsylvania, Vermont, District of Columbia.
[13] Indianapolis, Denver, Duluth, Minneapolis, St. Paul, Cañon City, Terre Haute, Lexington, Newport, South Bend.
[14] Illinois, Minnesota, Nevada, Des Moines, Ohio, Minneapolis, Bellingham, Everett, Seattle, Spokane, Tacoma.
[15] Albany, Cohoes, Yonkers, Mt. Vernon, New London.
[16] New York City.
[17] California.
[18] Wisconsin.
[19] Peoria.
[20] Manchester, N. H.
[21] Some of the systems have more than one source of funds provided by the public. Thus Wilmington, California, Lexington, and Newport secure funds from two sources, while Peoria secures them from three sources. The actual number of systems in this period is, therefore, 48.
[22] Indiana, New York City, and Pennsylvania secure funds from two sources. The number of systems in this period is 26.
[23] The total number of systems studied in which the public provides funds is 77. See explanation under 21 and 22 above.

Table 6 makes clear that, in the majority of cases, when teachers' pension systems are established in the United States, it is expected that the larger part of the funds to be provided by the public will be secured from the following sources: (1) Moneys allotted for the use of schools; (2) moneys specifically appropriated for the purpose; (3) tax levies. Such are the three main sources of the public's contribution. Other sources cited in Table 6 occur in few or single instances. Two systems, North Dakota and Indiana, make use of county or State tuition funds. Peoria alone makes use of the interest on district funds and interest on investment of proceeds of sales of school lands. Five cities in the State of New York—Albany, Cohoes, Yonkers, Mount Vernon, and New York City—and New London, Conn., use a percentage of excise moneys. One system, that of California, makes use of a percentage of inheritance or transfer taxes, while Wisconsin secures its funds for this purpose from a surtax on incomes in excess of $3,000.[1]

It is evident from Table 6 that the tendency to use money allotted for the maintenance of schools, for the purpose of providing funds for teachers' pension systems, declined throughout the three periods. Measures for appropriating the necessary funds were commonly provided for in the laws establishing teachers' pension systems in the early years of their history, but in the last 10 years, 1915–1924, there is a considerable decline in the use of appropriations to secure the funds contributed by the public. The raising of funds by tax levies, on the contrary, while seemingly not popular during the first two periods, shows an increase in late years, for the percentage of the number of systems securing public funds in this manner more than doubles in the last period and exceeds that of any other method of raising the necessary sums.

The teacher's contribution and other sources of funds.—The teacher's contribution will be found discussed more fully in the chapter which follows. The decrease in reliance upon such uncertain sources of funds as gifts, donations, legacies, etc., has already been pointed out (p. 11).

Methods of pension financing.—It has been found from the study thus far made in this chapter that the moneys for the support of teachers' retirement systems come from funds provided by teachers, by the public, or by both, and from certain other sources, such as legacies and gifts. It has been shown also that the public moneys used for pension funds are secured chiefly from funds allotted for school uses, from appropriations, and from taxes. It is to be regretted that the data which were available did not make possible a study of the amounts yielded by these methods of raising the

[1] See Table 6, p. 12.

public's contribution to teachers' pension systems, or any consideration of whether such amounts were sufficient to meet the liabilities, or what effect the possible inadequacy of the public funds might have had upon increasing the teacher's contribution.

It remains in this chapter to consider the plans adopted of handling these funds. Three distinct methods of administration have been used in the United States—the cash disbursement plan, the reserve plan, and the actuarial reserve plan.[3]

The cash disbursement plan.—This plan at the outset seemed simple and easy to administer. All moneys collected were credited to a single fund from which payments were made, as retirements were granted, so long as the cash held out.[4]

The reserve plan.—A more satisfactory method of financing a pension system is that known as the reserve plan. It provides for the gradual accumulation of a fund year by year to meet future liabilities. In some systems the reserve is the surplus set aside after the annual disbursements have been made. In other systems definite sums are set aside each year in the reserve fund.[5]

The actuarial reserve plan.—A more scientific reserve plan is the actuarial reserve plan. In this plan the increases in future pension payments are anticipated and taken care of before they are due. Each teacher is regarded as a fixed liability against the system, and the sums necessary to meet such liability are carefully calculated after actuarial investigation and computation. A reserve fund is then established and built up by setting aside the necessary amounts during the active years of the teacher's service.[6]

Data with regard to the method of pension financing were available for only 58 of the 93 systems studied in connection with this chapter. The plans of financing adopted by these systems are shown in Table 7.

Reference to Table 7 will show the following facts and tendencies with regard to the methods of managing pension funds: (1) In the 58 systems studied, the cash disbursement method of managing funds does not appear in the last period, 1915–1924; (2) the reserve plan, while predominating in the second period, 1905–1914, declines sharply in percentage in the last period, 1915–1924; (3) the percentage of systems adopting the actuarial reserve plan in the last 10 years, 1915–1924, shows a tremendous increase.

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[3] Furst, Clyde, and Kandel, I. L., Pensions for Public-school Teachers, pp. 8, 22–24. Studensky, Paul, Teachers' Pension Systems in the United States, pp. 100–104, 135–137, 165–167.

[4] Ibid.

[5] Ibid.

[6] Ibid.

TABLE 7.—*Management and administration of pension funds in 58 pension systems* [1]

Method of management	1894–1904		1905–1914		1915–1924		Total
	Number [2]	Per cent [3]	Number [2]	Per cent [3]	Number [2]	Per cent [3]	
I. Cash disbursement plan			[4] 1	2.9			1
Total				2.9			
II. Reserve plan:							
1. Provisions for investment of surplus after current annuities are paid			[5] 9	26.5	[6] 6	28.6	15
2. Provisions for permanent or sinking fund and a general fund	[7] 1	33.3	[8] 16	47.1	[9] 4	19	21
Total		33.3		73.6		47.6	
III. Acturial reserve plan:							
1. Partial reserve			[10] 1	2.9	[11] 2	9.5	3
2. Wholly reserve					[12] 9	42.9	9
Total				2.9		52.4	
IV. No provisions as to management of funds or left to administrative board	[13] 2	66.6	[14] 7	20.6			9
Grand total	3	100	34	100	21	100	58

[1] The sources of the data used in compiling this table are given in Appendix II, a, p. 61.
[2] Number of systems established in period.
[3] Computed.
[4] Peoria.
[5] Albany, Boston, Harrisburg, Yonkers, Omaha, Mount Vernon, Wilkes-Barre, Topeka, Reading.
[6] Minnesota, Bellingham, Everett, Seattle, Spokane, Tacoma.
[7] Boston.
[8] Indianapolis, Baltimore, Virginia, Duluth, Minneapolis, Salt Lake City, New Orleans, New Haven, Allegany County, Baltimore County, Louisville, California, Terre Haute, Lexington, Newport, Ky., South Bend.
[9] Michigan, Nevada, Wheeling, Des Moines.
[10] Massachusetts. Massachusetts is on a partial reserve basis because the State's portion of the pension paid to the teacher is not on an actuarial basis since no sinking fund is created to meet future pensions of the present teaching force.
[11] Connecticut, District of Columbia. These systems are on a partial reserve basis for the same reason that we find in the case of Massachusetts. See footnote 10, above.
[12] New York City, Pennsylvania, New Jersey, Vermont, Ohio, Wisconsin, New York State, Maine, Minneapolis.
[13] New Jersey (1896), Providence.
[14] Denver, Wilmington, San Antonio, Columbus, Ga., North Dakota, Bristol, Arizona.

More than half of the 21 systems established during this latter period, 1915–1924, for which data were available, organized their finances on an actuarial reserve basis. The systems established upon an actuarial reserve basis are: Massachusetts, Connecticut, District of Columbia, New York City, Pennsylvania, New Jersey, Vermont, Ohio, Wisconsin, New York State, Maine, and Minneapolis.[7] The high percentage of new pension systems which were organized upon an actuarial reserve basis in the last few years is full of significance. It indicates that the practice of establishing systems without reserves or with insufficient reserves is, in all probability, passing away. If this tendency continues, it is doubtful if any teachers' pension system will be established in the future without proper actuarial investigation and estimation of the funds needed to maintain it.

[7] See Appendix II, a, p. 6, for the sources of data with regard to these systems.

Actuarial investigation.—In the majority of teachers' pension systems operating upon an actuarial reserve basis, for which data were available, provisions are made for subsequent actuarial investigation of the funds. This is simply an additional protection for the safety of the funds, as subsequent adjustments doubtless tend to reduce errors. Table 8 shows the percentage of the 12 systems established upon an actuarial reserve basis (see Table 7, p. 15), which makes provision for such a means for reducing errors. It is clear from Table 8 that two-thirds of these 12 systems, namely, the systems of New York City, Pennsylvania, New Jersey, Vermont, Ohio, District of Columbia, New York State, and Maine, make provisions for subsequent actuarial investigation.

TABLE 8.—*Subsequent actuarial investigation in 12 systems established upon an actuarial basis*[1]

Groups	1905–1914		1915–1924		Total
	Number[2]	Per cent[3]	Number[2]	Per cent[3]	
I. Systems established providing for subsequent actuarial investigation			[4] 8	66.6	8
II. Systems established making no provisions for subsequent actuarial investigation	[5] 1	100	[6] 3	33.3	4
Total	1	100	11	100	12

[1] The sources for the data, with regard to those systems included in the study which this table represents, are given in the list in Appendix II, p. 61.
[2] Number of systems established during period.
[3] Computed.
[4] New York City, Pennsylvania, New Jersey, Vermont, Ohio, District of Columbia, New York State, Maine.
[5] Massachusetts.
[6] Connecticut, Wisconsin, Minneapolis.

Accrued liabilities.—One of the great problems to be met in pension financing is that of caring for accrued liabilities.[8] Accrued liabilities may be defined as the demands made upon the pension funds by those teachers whose period of service, after the establishment of the system, will be brief, and who can not contribute enough in the short time that remains to pay even a fraction of the cost of their pensions. In the earlier systems special funds to take care of these older members were not provided.[9] The accrued liabilities began to mature immediately and continued to increase each year, which led to the rapid exhaustion of funds.[10] In many recently created pension systems, plans of providing for accrued liabilities have been devised. Only those systems established upon an actuarial reserve basis, however, have attempted to make such provisions. Table 9 will show that 100 per cent of the systems included in this study and

[8] Fürst, Clyde, and Kandel, I. L., "Pensions for Public School Teachers," p. 8.
[9] Ibid., p. 9.
[10] Ibid., p. 9.

established upon an actuarial basis have attempted to solve this problem of meeting accrued liabilities.

TABLE 9.—*Provisions for meeting the problem of accrued liabilities in 12 systems established upon an actuarial basis*[1]

Groups	1905-1914		1915-1924		Total
	Number[2]	Per cent[3]	Number[2]	Per cent[3]	
I. Systems established making special provisions for meeting accrued liabilities	[4] 1	100	[5] 11	100	12
II. Systems established making no provisions for meeting accrued liabilities	0	....	0	....	0
Total	1	100	11	100	....

[1] The sources of data concerning all systems included in this study are given in Appendix II, a, p. 61.
[2] Number established during period.
[3] Computed.
[4] Massachusetts.
[5] Connecticut, New York City, Pennsylvania, New Jersey, Vermont, Ohio, District of Columbia, Wisconsin, New York State, Maine, Minneapolis.

Since the systems making special provisions for meeting accrued liabilities are those established upon an actuarial reserve basis, and since the systems founded upon this basis comprise 52.4 per cent of those studied in connection with methods of financing and established during the period 1915–1924 (see Table 7, p. 15), it is clear that 52.4 per cent of the systems inaugurated during the last 10 years and included in this study recognize the problem of accrued liabilities and make provision to meet it. It is a significant fact that the authors of pension bills have come gradually to see the necessity of providing for accrued liabilities instead of leaving the solution of the problem to chance.

Tendencies in pension financing.—The study of the teachers' pension systems examined in preparation of this chapter shows the following six tendencies in pension financing:

1. A rapidly increasing tendency to support pension systems by both public funds and teachers' contributions.
2. A tendency to make no provision for uncertain sources of funds, such as gifts and legacies.
3. An increasing tendency in the last 10 years, 1915–1924, to provide by taxation for the raising of the public funds to be devoted to the support of pension systems.
4. A marked tendency toward the actuarial reserve plan of financing.
5. A tendency, in those systems established upon an actuarial reserve basis, to make provision for subsequent actuarial investigation.
6. A tendency to meet the problem of accrued liabilities by special provisions.

Criteria for evaluating a teacher pension system with respect to pension financing.—These tendencies with respect to the financing of teachers' pension systems lead to the formulation of the following criteria for evaluating any particular teacher pension system:

1. The cost of a teachers' pension system should be borne by both teachers and public.

2. A teachers' pension system should be established upon an actuarial reserve plan of financing and should provide for subsequent actuarial investigation to insure the proper rates of contribution.

3. Special provisions should be made for meeting the problem of accrued liabilities.

Chapter IV

THE TEACHER'S CONTRIBUTION

Policies and Tendencies, 1894-1924

Introduction.—Perhaps no part of a teachers' pension system presents more difficulties than the question of the contribution which the teacher shall make, and certainly the systems established in the United States show no greater variations in any matter than in this. Whether the teacher's membership in the system shall be compulsory or optional; whether any distinction shall be made between teachers already in service at the time the system is established and new entrants; whether beginners shall be exempt from assessments until they have definitely allied themselves with the profession; on what basis the teacher shall be assessed and what method shall be used in determining the assessment; how the fund derived from teachers' assessments shall be managed—these are some of the many problems to be met in the establishment of a teachers' pension system requiring contributions from teachers. To learn how these problems have been met in the various pension systems and to discover any tendencies in this respect over a period of 30 years, 1894-1924, is the purpose of this chapter.

Optional versus compulsory membership.—In the establishment of those systems which are contributory on the part of the teachers, the question of whether membership and consequent assessments shall be optional or compulsory has been met in at least three ways. A few cities and States have disposed of this troublesome point by making membership optional both for those in service at the time of the organization of the system and for all new entrants thereafter. Other systems make membership compulsory for all teachers, both those in service and new entrants. In still others, membership is optional for teachers in service and compulsory for new entrants. Table 10 shows how the question of whether the teacher's membership shall be optional or compulsory has been settled in 77 of the contributory pension systems established in the United States.

TABLE 10.—*Optional versus compulsory membership in teachers' pension systems (based upon a study of 77 pension systems, State and local)*[1]

Membership	1894–1904		1905–1914		1915–1924		Total
	Number[2]	Per cent[3]	Number[2]	Per cent[3]	Number[2]	Per cent[3]	
Optional both for teachers in service and new entrants	[4] 2	18.2	[5] 7	17.5	[6] 2	7.7	11
Compulsory both for teachers in service and new entrants	[7] 5	45.4	[8] 18	45	[9] 6	23.1	29
Optional for teachers in service, compulsory for new entrants	[10] 4	36.4	[11] 15	37.5	[12] 18	69.2	37
Total	11	100	40	100	26	100	77

[1] See Appendix III, a, p. 66, for sources of the information presented in this table.
[2] Number of systems established in period.
[3] Computed.
[4] St. Louis, New Jersey (1896).
[5] Yonkers, Duluth, Minneapolis, Topeka, San Antonio, Terre Haute, South Bend.
[6] Vermont, Maine.
[7] Chicago, Detroit, Buffalo, Cincinnati, Syracuse.
[8] Indianapolis, Cohoes, Harrisburg, Virginia, Omaha, Salt Lake City, St. Paul, Wilkes-Barre, New Haven, New London, New York State, Wilmington, Allegany County, Louisville, Peoria, Reading, Lexington, Newport, Ky.
[9] Michigan, Des Moines, New York City, District of Columbia, Wisconsin, Minneapolis.
[10] Brooklyn, Providence, Newport, R. I., Boston.
[11] Rochester, Albany, Philadelphia, Baltimore, Milwaukee, Mount Vernon, Westchester County, New Orleans, Wisconsin, Portland, Oreg., Baltimore County, California, Massachusetts, North Dakota, Bristol.
[12] Illinois, Indiana, Minnesota, Montana, Nevada, Erie, Wheeling, Connecticut, Bellingham, Everett, Pennsylvania, Seattle, Spokane, Tacoma, New Jersey, Ohio, New York State, Kansas City.

From Table 10, it is evident that 48 of the 77 systems included in the study made membership optional with the teachers in service at the time of the establishment of the system, while only 29 made it compulsory. Sixty-six of the 77 systems made membership in the system compulsory for the new entrants, while only 11 allowed new entrants any choice in the matter. During the period of 30 years under consideration, two tendencies stand out clearly: (1) A tendency to make membership optional for teachers in service, (2) a tendency to make it compulsory for new entrants. In other words, the tendency, as shown by the percentage analysis, has been to grant teachers already in service their choice in the matter of membership, but to make it a condition of appointment in the case of all new entrants.

In some of the systems making membership optional with the teachers in service, time limits are granted within which the teacher may enter the system, in others no time limits are granted. Data concerning this point were available in the case of 41 of the 48 systems allowing teachers already in service to exercise their choice on the question of membership. To what extent time limits are granted to prior teachers with regard to their acceptance of the burdens and benefits of the retirement system is succinctly set forth in Table 11.

TABLE 11.—*Time limits for optional membership open to teachers already in service in 41 pension systems*[1]

	1894–1904		1905–1914		1915–1924		Total
	Number[2]	Per cent[3]	Number[2]	Per cent[3]	Number[2]	Per cent[3]	
I. Time limits:							
1. One year or less	[4] 2	66.6	[5] 8	44.5	[6] 10	50	20
2. Two years					[7] 2	10	2
3. Five years					[8] 1	5	1
Total		66.6		44.5		65	
II. No time limits	[9] 1	33.3	[10] 10	55.5	[11] 7	35	18
Grand total	3	100	18	100	20	100	41

[1] See Appendix III, a, p. 66, for sources of information presented in this table.
[2] Number of systems established in period.
[3] Computed.
[4] New Jersey (1896), Providence.
[5] Albany, Baltimore, Yonkers, Mount Vernon, Wisconsin, Topeka, North Dakota, Bristol.
[6] Montana, Nevada, Wheeling, Bellingham, Everett, Seattle, Spokane, Tacoma, New Jersey, Kansas City.
[7] Minnesota, Pennsylvania.
[8] Illinois.
[9] Boston.
[10] Duluth, Minneapolis, New Orleans, Portland, San Antonio, Baltimore County, California, Massachusetts, Terre Haute, South Bend.
[11] Indiana, Erie, Connecticut, Vermont, Ohio, New York State, Maine.

From Table 11 it is evident that in the higher percentage of systems established in the first and last periods, time limits are set for accepting membership, at the expiration of which limits prior teachers will not be received as members. The high percentage in the last period may be interpreted as an indication of a tendency to continue this practice. It is also evident from the table that, in the majority of cases, only a brief time is allowed teachers in service to reach a decision in this matter.

Exemption from membership.—As already shown in Table 10, the tendency, throughout the entire 30 years of teachers' pension history, has been to make membership compulsory for all new entrants. The research committee of the National Education Association, in order to remove the objections of young teachers, strongly urges that beginners be exempt from all participation in a pension system until such time as they have more definitely allied themselves with the teaching profession.[1] Of the 66 systems included in this study in which membership is compulsory for new entrants, the framers of only two recent systems, that of Wisconsin (1921)[2] and that of Min-

[1] Norton, John K., and Alltucker, Margaret M., "Teachers' Retirement Allowances," p. 60.

[2] Analysis of Wisconsin's State Retirement Law for the Public Schools, Normal Schools, and University. Prepared under direction of the Annuity Board, Madison, Wis. Pamphlet, p. 15, sec. 42.25.

neapolis (1924)[3] have been convinced of the wisdom of a measure of this sort and have exempted teachers under 25 years of age. In conclusion, it may be stated that up to the present time there has developed no well-defined tendency to exempt beginners from participation in the annuity plan.

Methods of assessing the teacher's contribution.—We have considered briefly the question of the teacher's membership in contributory pension systems. The assessments consequent upon membership in a pension plan give rise to many variations, both in the method of determining the yearly sum which the teacher shall pay into the pension funds and in the amount of the contribution. The methods used in fixing the teacher's assessment do, however, fall into two main groups. In the one group the assessment is a flat sum; in the other group it is a percentage of the salary. Table 12 shows the extent to which each of these two methods of determining teachers' payments to the pension funds have been employed in 77 systems throughout a period of 30 years.

TABLE 12.—*Methods of fixing the teacher's contribution to the pension funds*[a]

Method	1894–1904		1905–1914		1915–1924		Total
	Number[b]	Per cent[c]	Number[b]	Per cent[c]	Number[b]	Per cent[c]	
I. Contribution fixed as flat sum:							
1. Flat sum. No relation to age, service, or salary	[d] 1	9.1	[e] 3	7.5	[f] 4	14.8	8
2. Flat sum, but graduated according to length of service	....	....	[g] 8	20	[h] 8	29.6	16
Total	....	9.1	....	27.5	....	44.4	....
II. Contribution fixed as percentage of salary:							
1. Percentage of salary	[i] 10	90.9	[j] 18	45	[k] 9	33.3	37
2. Percentage of salary but graduated according to length of service	....	....	[l] 11	27.5	[m] 2	7.4	13
3. Such percentage of salary as will provide the annuity prescribed	....	....	....	....	[n] 4	14.8	4
Total	....	90.9	....	72.5	....	55.5	....
Grand total	11	100	40	100	[o] 27 (26)	100	[o] 78 (77)

[a] See Appendix III, a, p. 66, for sources of the information presented in this table. The names of the systems are given below.
[b] Number of systems included in this study which were established in period.
[c] Computed.
[d] Boston.
[e] Milwaukee, San Antonio, California.
[f] Montana, Nevada, Wheeling, Kansas City.
[g] Duluth, Minneapolis, Portland, Louisville, Peoria, Reading, Terre Haute, South Bend.
[h] Illinois, Indiana, Minnesota, Bellingham, Everett, Seattle, Spokane, Tacoma.
[i] Brooklyn, Chicago, Detroit, St. Louis, Buffalo, Cincinnati, New Jersey (1896), Providence, Syracuse, Newport.
[j] Rochester, Albany, Cohoes, Virginia, Yonkers, Mount Vernon, Omaha, Salt Lake City, St. Paul, Westchester County, New Orleans, Wilkes-Barre, New London, New York State, Topeka, Baltimore County, Massachusetts, Bristol.
[k] Erie, Connecticut, Des Moines, Vermont, Ohio, Wisconsin, New York State, Maine, Minneapolis.
[l] Indianapolis, Philadelphia, Baltimore, Harrisburg, Wisconsin, New Haven, Wilmington, Allegany County, North Dakota, Lexington, Newport.
[m] Michigan, Minnesota.
[n] New York City, Pennsylvania, New Jersey, District of Columbia.
[o] Minnesota has both the flat sum and percentage method. The percentage method is used in the case of those teachers whose salaries are above $1,500. The number of systems included in the study and established in the period 1915–1924, is, therefore, 26, and the total number of systems included in the study, 77.

[3] Resolutions for Amendment of the Articles of Incorporation of the Minneapolis Teachers' Retirement Fund Association. Pamphlet, p. 7, art. 7 (11).

From Table 12 it is clear that the fixing of the teacher's assessment as a percentage of salary has predominated throughout the three decades of teachers' pension history. Although this is still the favored method, there has been a steady decline in the number of systems employing it, as a reference to Table 12 will readily show. On the other hand, the policy of fixing the teacher's contribution as a flat sum increases steadily in popularity through the three decades.

In the first period, 1894–1904, no provisions appear for graduating the assessment according to length of service. In the second period, 1905–1914, 47.5 per cent of the systems studied so graduate the assessment; but in the third period, 1915–1924, this per cent falls to 37.

The appearance of a new method of computing the rates of contribution should be noted in the last period, 1915–1924—that of making the assessment such a percentage of salary as will provide the prescribed annuity.

From evidence presented in Table 12 the following conclusions may be reached: (1) Fixing the rate of contribution as a percentage of salary is still the favored method, though the percentage of systems in which this method is employed is declining; (2) the fixing of one rate for all teachers, regardless of years of service or salary, has met with favor in the majority of systems; (3) the new method of fixing rates—that of making the assessment such a percentage of salary as will provide the prescribed annuity, which has appeared in the last 10 years—is scarcely widespread enough to constitute a marked tendency.

The amount of the teacher's contribution.—That teachers themselves should provide a goodly portion of the funds intended for their protection and thus supplement the public moneys has come to be a generally accepted principle, judging by the fact that the majority of the pension systems established in each of the three decades studied have been contributory. (See Table 4.) A rather wide range is found, however, in the amount of the assessments which are imposed upon teachers participating in a pension plan.

In Tables 13 and 14 the amount of the teacher's contribution is shown. Table 13 shows the amount of the teacher's contribution when a flat sum is assessed against the teacher's salary. The systems included in this study are those listed in Table 12, under footnotes 4, 5, 6, 7, and 8. The minimum sum is the smallest assessment found in any system included in the study; the maximum, the largest assessment imposed by any system. The minimum and maximum are given merely to show the range in the amount of the assessments, and the average assessments of all systems included in this study are given in order to discover any increase in required payments during the three periods under consideration.

TABLE 13.—*Amount of annual contribution when assessed as a flat sum*[1]

[Based upon a study of 24 pension systems]

Period		Flat sum; no relation to age, service, or salary[2]	Flat sum fixed according to length of service[2]				
			First 5 years	Second 5 years	Third 5 years	Fourth 5 years	Thereafter
1894–1904	Minimum[3]						
	Maximum[3]						
	Average[4]	$18					
1905–1914	Minimum	9	$5	$9	$10	$15	$15
	Maximum	18	10	20	25	30	30
	Average[4]	12	9	12	18	21	24
1915–1924	Minimum	9	5	5	10	20	25
	Maximum	90	12	12	24	30	36
	Average[4]	43.66	10	10.4	20	24	33

[1] The systems included in this study are those listed in Table 12, under footnotes 4, 5, 6, 7, and 8. The sources of the data presented in this table, in connection with these systems, are given in Appendix III, a, p. 66.

[2] A complete list of these systems for each period, with the assessments required, will be found in Appendix III, b, p. 70.

[3] No minimum or maximum is given here for the reason that data were available for but one system, that of Boston, average $18.

[4] Computed.

Table 13 is valuable chiefly in giving an idea of the wide variations in the amounts which have been assessed under a flat-rate method. In the third decade, 1915–1924, the averages show some degree of increase over the averages of the second period, 1905–1914, which indicates a tendency in those systems established in late years to increase the teacher's assessment.

It is, of course, impossible to show the yearly sums a teacher pays when the assessment is fixed as a percentage of salary, owing to the wide variations in the salaries upon which the per cent is levied. Table 14, however, will show what have been the usual percentages demanded and will disclose any tendency to increase the rates during the three decades under consideration. No inclusion could be made in this table of those systems in which the assessment is such a percentage of salary as will secure the required annuity (see Table 12), for in these instances the percentage must be fixed by the retirement board and may vary from year to year.

It will be clear, from a reference to Table 14, that in systems where the assessment is a percentage of salary with no relation to service a steady increase is shown in the average amount of the assessment throughout the three decades studied. In systems that graduate the assessment according to length of service, this increase is not evident. It should be noted, however, that these latter systems comprise only 27.5 per cent of the systems established in the second period and included in this study and only 7.4 per cent of the systems established in the third period. (See Table 12.)

TABLE 14.—*Percentage of salary assessed as teacher's annual contribution to pension fund*

[Based upon a study of 50 pension systems][1]

Period		Teachers' assessment					
		Percentage of salary regardless of length of service [2]	Percentage of salary graduated according to length of service [2]				
			First 5 years	Second 5 years	Third 5 years	Fourth 5 years	Thereafter
1894–1904	Minimum	1	(3)	(3)	(3)	(3)	(3)
	Maximum	1	(3)	(3)	(3)	(3)	(3)
	Average [4]	1					
1905–1914	Minimum	1	1	1	1	1½	2
	Maximum	7	2	2	3	3	3
	Average [4]	1½	1 1/11	1 1/11	1 10/11	2	2⅛
1915–1924	Minimum	3	½	1	1	2	2
	Maximum	7	1½	1½	2	2	2
	Average [4]	4¼	1	1¼	1½	2	2

[1] The systems included in this study are those listed in Table 12, p. 21, under footnotes 9, 10, 11, 12, 13, and 14. The sources of the data presented in this table in connection with these particular systems are given in Appendix III, a, p. 66.

[2] A complete list of these systems for each period, with the required assessments, will be found in Appendix III, c, p. 70.

[3] No systems for which data were available in the study which this table represents were established during this period.

[4] Computed.

From the evidence presented in this and the preceding table, it is clear that there is a tendency shown in pension provisions to assess the teacher's salary more heavily than in the early days of pension history.

Limits and special requirements.—The subject of the teacher's contribution can not be left without some consideration of the limits and special requirements which are often imposed. Many of the systems requiring a percentage of salary as a contribution fix limits to the amount of such assessment. In a few systems provisions are made that no payments are required after a certain number of annual assessments. Likewise, many of the systems require that a teacher shall have contributed a definite amount before superannuation can take place, or shall have contributed for a definite number of years. How far pension provisions are concerned with these limits and special requirements is evident from the summaries given in Tables 15, 16, and 17.

Table 15 presents data with reference to the fixing of limits to a teacher's annual contribution when the assessment is a percentage of salary. Of the 54 systems fixing the assessment in this manner (see Table 12, p. 21), data were available with reference to limitations of assessments in the case of 48 systems. What percentage of these systems fix limits to the amount of the teacher's annual contribution is shown in this table.

TABLE 15.—*Limits to teacher's annual contribution assessed as percentage of salary*[1]

[Based upon a study of 48 pension systems]

	1894–1904		1905–1914		1915–1924		Total
	Number[2]	Per cent[3]	Number[2]	Per cent[3]	Number[2]	Per cent[3]	
I. Limits:							
1. Expressed as percentage of salary	[4] 1	25	[5] 2	6.9	[6] 2	12.5	5
2. Expressed as flat sum	[7] 1	25	[8] 18	62.1	{ [9] 7 [13] 6 }	43.7	{ 26 [13] 25
Total		50		69		56.2	
II. No limits	[10] 2	50	[11] 9	31	[12] 7	43.8	18
Grand total	4	100	29	1.0	{ 16 [13] 15 }	100	{ 49 [13] 48

[1] See Appendix III, a, p. 66, for sources of the information presented in this table. The names of the systems are given below.
[2] Number of systems included in this study and established in this period.
[3] Computed.
[4] Syracuse.
[5] Omaha, Topeka.
[6] Vermont, District of Columbia.
[7] Providence.
[8] Indianapolis, Philadelphia, Baltimore, Cohoes, Harrisburg, Salt Lake City, St. Paul, Westchester County, Wilkes-Barre, Wisconsin, New Haven, Wilmington, Allegany County, Massachusetts, North Dakota, Bristol, Lexington, Newport.
[9] Michigan, Minnesota, Erie, Connecticut, Vermont, Ohio, Maine.
[10] New Jersey (1896), Newport.
[11] Rochester, Albany, Virginia, Yonkers, Mount Vernon, New Orleans, New London, New York State, Baltimore County.
[12] Des Moines, New York City, Pennsylvania, New Jersey, Wisconsin, New York State, Minneapolis.
[13] Vermont expresses a limit both as a percentage of salary and as a flat sum. Hence, the total number of systems included in the third period is 15, and the entire number of systems studied in connection with this table, 48.

It is evident from the percentages shown in Table 15 that, in the majority of the systems adopting the percentage of salary method of determining the teacher's assessment, it was seen fit to limit the amount which the teacher should pay. A decided preference is shown for expressing this limit as a flat sum. A slight tendency is shown in the last 10 years to express limits in fewer instances than formerly.

The extent to which teachers are exempted from making contributions after a certain number of annual payments have been made is shown by Table 16. Data were available for 70 of the 77 systems included in the study made in Table 12. It is clear from Table 16 that only in very few systems have exemptions of this sort been made. The percentages of systems making these exemptions are so low and the increase during the last period is so slight that to exempt teachers from further assessments after a definite number of payments have been made can scarcely be called a tendency.

TABLE 16.—*Extent of provisions for exemptions from further contributions after a certain number of annual payments, based upon a study of 70 pension systems*[1]

Provisions for exemptions	1894–1904		1905–1914		1915–1924		Total
	Number[2]	Per cent[3]	Number[2]	Per cent[3]	Number[2]	Per cent[3]	
I. Exemptions:							
1. After 25 payments			[4] 1	2.5	[4] 2	7.7	3
2. After 30 payments			[5] 6	15	[7] 3	11.5	9
Total				17.5		19.2	
II. No exemptions	4	100	33	82.5	21	80.8	58
Grand total	4	100	40	100	26	100	70

[1] See Appendix III, a, p. 66, for the sources of information assembled in this table. The systems included in the study are those listed in Table 12, p. 21, with the following exceptions: Brooklyn, Chicago, Detroit, St. Louis, Buffalo, Cincinnati, Boston. Dates were not available for these seven systems.
[2] Number of systems included in this study which were established in this period.
[3] Computed.
[4] North Dakota.
[5] Illinois, Minnesota.
[6] Duluth, Minneapolis, Massachusetts, Reading, Terre Haute, South Bend.
[7] Connecticut, Vermont, Maine.

Many teachers' pension systems require that a teacher shall have contributed a definite amount before she is eligible for retirement privileges. Special requirements of this type assume many different forms such as having contributed (1) a definite sum; (2) a percentage of the salary the teacher was receiving for her services at the time of retirement; (3) an amount equal to the first annuity or to a fraction of it; (4) a certain number of payments. Table 17 presents in summary form these different requirements and the extent to which they have prevailed in the 30 years of teachers' pension experience. Tendencies in this respect are also shown. The table includes the results of the study of 70 of the 77 systems listed in Table 12, under footnotes 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14.

Table 17 shows that the prevalence of the special requirements listed therein decreased steadily during the three decades considered, until during the last decade, 1915–1924, only one-half of the 70 systems included in this study required any definite amount to have been contributed before a teacher can be eligible for superannuation. There is, then, a definitely marked tendency to abandon requirements of this nature as a condition for retirement.

TABLE 17.—*Pension systems requiring teachers to have paid a total contribution before retirement (based upon a study of 70 pension systems)*[1]

	1894–1904		1905–1914		1915–1924		Total
	Number[2]	Per cent[3]	Number[2]	Per cent[3]	Number[2]	Per cent[3]	
I. Special requirements:							
1. Definite sum	[4] 1	25	[5] 6	15	[6] 7	26.9	14
2. Percentage of salary received at time of retirement	[7] 2	50	[8] 4	10			6
3. Amount equal to first pension payment			[9] 9	22.5	[10] 4	15.4	13
4. Amount equal to one-half of first annuity			[11] 6	15			6
5. Amount equal to one-third of first annuity			[12] 2	5			2
6. Certain number of contributions	[13] 1	25	[14] 5	12.5	[15] 2	7.7	8
Total		100		80		50	
II. No requirements			[16] 8	20	[17] 13	50	21
Grand total	4	100	40	100	26	100	70

[1] See Appendix III, a, p. 66, for sources of the information assembled in this table. The systems included in the study are those listed in Table 12, p. 21, under footnotes 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14, with the following exceptions for 1894–1904: Brooklyn, Chicago, Detroit, St. Louis, Buffalo, Cincinnati, Newport.

[2] Number of systems included in this study and established in this period.

[3] Computed.

[4] Boston ($540).

[5] Milwaukee ($500), St. Paul ($625), Wisconsin ($600), Portland ($600), Wilmington ($400), San Antonio ($300).

[6] Wheeling ($600), Des Moines ($150), Bellingham ($720), Everett ($720), Seattle ($720), Spokane ($720) Tacoma ($720).

[7] New Jersey (1896, 20 per cent), Syracuse (20 per cent).

[8] Rochester (40 per cent), Albany (30 per cent), Cohoes (20 per cent), Virginia (30 per cent).

[9] Baltimore, New Orleans, New Haven, Allegany County, Baltimore County, Louisville, North Dakota, Lexington, Newport.

[10] Illinois, Indiana, Michigan, Minnesota.

[11] Duluth, Westchester County, New York State, Topeka, Terre Haute, South Bend.

[12] Indianapolis, Mount Vernon.

[13] Providence (5).

[14] Philadelphia (25), Harrisburg (25), Wilkes-Barre (30), California (30), Bristol (5).

[15] Montana (25), Nevada (30).

[16] Yonkers, Minneapolis, Omaha, Salt Lake City, New London, Massachusetts, Peoria, Reading.

[17] Erie, Connecticut, New York City, Pennsylvania, New Jersey, Vermont, Ohio, District of Columbia, Wisconsin, New York State, Maine, Kansas City, Minneapolis.

The management and administration of teachers' contributory funds.—The question of the management and administration of teachers' contributory funds is an important one. The pooling of contributions was a common feature of the early pension plans, with the result that contributions of younger members were used to pay the pensions of those who had retired.[4] With the development of the actuarial reserve plan of pension financing, however, there has appeared a new method of managing the teacher's contribution. In this, the teachers' deposit is considered a savings account, and all sums deposited in that account are held in trust for that teacher alone. The contributions accumulate with interest and constitute for each member an individual reserve from which her annuity is eventually paid. Data bearing upon the management of teachers' contributory funds were available for 55 of the 77 systems included

[4] Furst, Clyde, and Kandel, I. L., "Pensions for Public School Teachers," pp. 8, 22–24.

in Table 12. A percentage analysis of systems which make such provisions just cited is shown in Table 18.

TABLE 18.—*Pension systems creating individual accounts for teachers' contributions (based upon a study of 55 pension systems)*[1]

Systems	1894–1904		1905–1914		1915–1924		Total
	Number[2]	Per cent[3]	Number[2]	Per cent[3]	Number[2]	Per cent[3]	
I. Systems providing individual accounts for the accumulation of funds from which teacher's annuity will be paid	....	....	[4] 1	3.3	[5] 12	52.1	13
II. Systems not providing individual accounts for this purpose	[6] 2	100	[7] 29	96.6	[8] 11	47.9	42
Total	2	100	30	100	23	100	55

[1] See Appendix III, a, p. 66, for sources of the information assembled in this table. The systems included in the study are listed below under 4, 5, 6, 7, and 8.
[2] Number of systems included in this study and established in this period.
[3] Computed.
[4] Massachusetts.
[5] Connecticut, New York City, Pennsylvania, New Jersey, Vermont, Ohio, District of Columbia, Wisconsin, New York State, Maine, Kansas City, Minneapolis.
[6] New Jersey (1806), Providence.
[7] Albany, Indianapolis, Baltimore, Harrisburg, Virginia, Yonkers, Duluth, Minneapolis, Mount Vernon, Omaha, Salt Lake City, New Orleans, Wilkes-Barre, New Haven, Portland, Topeka, Wilmington, San Antonio, Allegany County, Baltimore County, California, North Dakota, Peoria, Reading, Terre Haute, Bristol, Lexington, Newport, South Bend.
[8] Illinois, Michigan, Minnesota, Nevada, Wheeling, Des Moines, Bellingham, Everett, Seattle, Spokane, Tacoma.

Table 18 shows that there has developed in recent years, among the systems studied, a distinct tendency to keep each teacher's contribution separate and distinct in order to build up the sum from which her annuity will be paid.

Summary of tendencies with respect to the teacher's contribution.—The present chapter may well close with a summary of the tendencies with respect to teachers' contributions to pension funds, already recorded in the preceding paragraphs.

1. A tendency to make membership in the pension system optional for those teachers in service at the time of the establishment of the system but compulsory for new entrants; ordinarily accompanied by fixing a brief time limit for the prior service teachers to exercise their choice.

2. A well-sustained tendency to make the teacher's assessment a fixed percentage of salary with no relation to length of service.

3. A tendency to increase the amounts assessed against the teacher's salary.

4. A tendency to abandon limits and special requirements with respect to the teacher's contribution.

5. A tendency to discontinue the policy of pooling teachers' contributions and to substitute therefor a policy of crediting to separate individual accounts the contributions of each teacher, from which annuities shall be paid.

Criteria for evaluating a teacher's pension system with respect to the teacher's contribution.—From the tendencies summarized in the preceding paragraph may be formulated criteria for evaluating a teacher pension system when the question of the teacher's contribution is under consideration.

1. Teachers in service at the time of the establishment of the system should be given a limited time in which to exercise their choice in the matter of membership in the system. Membership, however, should be compulsory for all new entrants.

2. A teacher should be assessed such a percentage of her salary as a careful actuarial investigation indicates will provide the desired annuity.

3. A teacher's assessment should be kept in an individual account and used only for the purchase of her own annuity.

Chapter V

BENEFITS OF TEACHERS' PENSION SYSTEMS

Introduction.—At the present time teachers' pension systems offer a variety of benefits—superannuation, disability, withdrawal, and refunds in case of death. Pension benefits, no doubt, will always furnish, to a great degree, the criteria upon which teachers will base their judgment as to whether a pension system can be called "good." If the benefits are generous, the system will find favor; if the benefits are slight, the system will fail to meet approval.

Pension benefits must be fairly large if they are to be satisfactory. They must be sufficiently large to furnish adequate subsistence in cases of disability or old-age retirement.[1] They must also be large enough to induce retirement.[2] It must be borne in mind that the relief of teachers from a dependent old age is not the only purpose of a pension system. It is just as necessary that the schools be enabled to rid themselves in a dignified and kindly manner of teachers whose services can not longer be effective because of advanced age.[3]

The purpose of the present chapter is threefold: (1) To study the various kinds of pension benefits; (2) to consider the conditions under which the various benefits are granted; (3) to discover any tendencies with regard to (1) and (2) during the three decades of teachers' pension history under consideration.

Superannuation benefits.—The superannuation benefit is the one with which the teacher is, naturally, most vitally concerned, for,

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[1] Furst, Clyde, and Kandel, I. L., "Pensions for Public School Teachers," p. 10.
[2] Norton, John K., and Alltucker, Margaret M., "Teachers' Retirement Allowances," p. 70.
[3] Ibid., p. 70.

from her standpoint, the pension system is designed for her protection when her services in the schoolroom are over. This benefit, therefore, may well be considered first.

The yearly amount of superannuation benefit.—Pension systems may well be divided into the following three classes or groups on the basis of three well-defined methods of determining the yearly amount of the superannuation benefit: Group I, including pension systems in which the annual grant is fixed as a flat sum; Group II, including systems in which the annual grant is fixed as a percentage of salary; Group III, including systems in which an annuity is purchased from the teacher's accumulated contributions and augmented by a pension from the city or State. Data bearing upon the question of benefits were available for all of the 93 teachers' pension systems included in the present study. However, it has seemed best to omit the system of Kansas City, Mo., from consideration at this point for the reason that in this recently established system the accumulations to the teacher's credit are not paid back as a yearly superannuation benefit but are paid to the teacher in a lump sum upon retirement.[4]

Table 19 shows for 37 pension systems included in Group I three different methods employed in determining the yearly flat sum granted. It shows also the maximum, minimum, and average annuity provided by the systems included in Group I, with the exception of Boston and Manchester. In these two last-named systems the annual amount is determined yearly by the board. From a consideration of the minimum and maximum sums, it will be possible to determine how widely the annuity varies among the systems included in Group I. The averages show the increase over a period of years. It was found convenient to include in Table 19 only the percentage analysis for the 37 systems during the three periods. A percentage analysis for the entire 92 systems is presented in Table 21.

It is clear from Table 19 that three methods have been employed in determining the superannuation benefit as a flat sum: (1) Under the first method the annual benefit is not graduated according to service; (2) under the second method the annual benefit is graduated according to years of service; (3) under the third method the amount of the benefit is determined each year by the board.

A consideration of the data presented for Group I in Table 19 shows further that prior to 1915 in nearly two-thirds of the systems (65.2 per cent) and since 1915 in considerably more than two-thirds of the systems (69.2 per cent), the benefit is not graduated accord-

[4] Rules Establishing a Teachers' Savings Fund and a Teachers' Retirement Fund, Kansas City, Mo. Leaflet, secs. 1–4.

ing to service. Table 19 also makes clear that when the benefit has been graduated according to service, it has yielded a larger amount.

TABLE 19.—*Yearly amount of superannuation benefit when fixed as a flat sum*[1] *(based upon a study of 37 pension systems)*[2]

Groups	1894-1904			1905-1914			1915-1924		
	Number[3]	Per cent[4]	Amount[5]	Number[3]	Per cent[4]	Amount[5]	Number[3]	Per cent[4]	Amount
I. Benefit a flat sum; not graduated according to service	......	......	......	[6] 15	65.2	Min. $200 Max. 900 Av. 449	[7] 9	69.2	Min. $360 Max. 600 Av. 489
II. Benefit a flat sum graduated according to service[12]	......	......	......	[8] 8	34.8	Min. 250 Max. 600 Av. 487	[9] 3	23.1	Min. 400 Max. 700 Av. 53
III. Benefit a sum determined yearly by board[13]	[10] 1	100	?	......	......	......	[11] 1	7.7	?
Total	1	100	......	23	100	......	13	100	......

[1] See Appendix IV, a, p. 72, for the sources of the information presented in this table.
[2] The systems are listed below under 6, 7, 8, 9, 10, and 11.
[3] The number of systems established in period and included in this study.
[4] Computed.
[5] The amounts are given with the names of the systems.
[6] These systems are: Maryland, $200; Denver, $450; Milwaukee, $400; Omaha, $900; St. Paul, $480; Canon City, $450; Portland, $500; Topeka, $500; Wilmington, $400; San Antonio, $360; Arizona, $600; California, $500; Columbus, $300; Peoria, $400; Reading, $300.
[7] These systems are: Montana, $600; Nevada, $500; Wheeling, $360; Des Moines, $360; Bellingham, $480; Everett, $480; Seattle, $480; Spokane, $480; Tacoma, $480.
[8] These systems are: Indianapolis, up to $600; Duluth, $333-$500, according to service; Minneapolis, $333-$500; Wisconsin, maximum, $450; Louisville, maximum, $400; Maine, $150-$250; Terre Haute, $300-$600; South Bend, $300-$600.
[9] These systems are: Illinois, maximum, $400; Indiana, $600-$700; Minnesota, $350-$500.
[10] Boston.
[11] Manchester.
[12] In computing these averages the largest amount paid according to years of service was taken. The averages represent, then, the largest benefit a teacher could secure under this method.
[13] The amount is not known.

In Group II the amount of the superannuation benefit is fixed as a percentage of salary. Assuming that teachers' salaries represent, to some degree, the cost of living in any community, this method of fixing benefits may be considered as an attempt on the part of authors of such pension systems to relate the pension benefit more closely to the amount necessary for subsistence in any locality. In so far as it does this, it is an improvement over the flat sum method of fixing the pension.

Forty-two of the 92 teachers' pension systems upon which the present study is based fall in Group II. These 42 systems show considerable variation in the choice of the percentage of salary upon which the pension is based. Table 20 shows (1) what percentages of salary have been provided as superannuation benefits by different pension authors; (2) to what extent these percentages have been adopted by the 42 systems under consideration; (3) the smallest pension paid by any system included in Group II, the largest pension paid by any system, and the average pension paid by all these systems in the three decades from 1894-1924. In computing the average pension paid by systems in this group, the maximum amount paid by each system was used. The average pension, then, represents the average highest amount which could be secured by a teacher as a yearly pension benefit.

TABLE 20.—*Yearly amount of superannuation benefit when fixed as a percentage of salary*[1] *(based upon a study of 42 pension systems)*[2]

Proportion of salary	1894-1904			1905-1914			1915-1924			Total
	Number[3]	Per cent[4]	Amount	Number[3]	Per cent[4]	Amount	Number[3]	Per cent[4]	Amount	
Group I. One-half of final salary.	[5] 10	76.9	Min. $250. Max. $1,200. Av. $675[4].	[6] 9	34.6	Min. $300. Max. $800. Av. $672[4].	0	....	....	19
Group II. One-half of average salary of last 5 yrs.	[7] 2	15.4	Min. .... Max. $600[16] Av.	[8] 13	50	Min. $400. Max. $800. Av. $575[4].	[9] 1	33.3	Min. .... Max. $500[17] Av.	16
Group III. Sixty per cent of average salary of last 5 yrs.	[10] 1	7.7	Min. .... Max. $800[17] Av.	0	....	....	[11] 1	33.3	Min. .... Max.[18] .... Av.	2
Group IV. Two-thirds of final salary.	0	....	....	0	....	....	[12] 1	33.3	Min. .... Max.[18] .... Av.	1
Group V. One-third of final salary.	0	....	....	[13] 1	3.8	Min. .... Max. $600[17] Av.	0	....	....	1
Group VI. One-fiftieth of average salary for last 5 yrs. times total yrs. of service.	0	....	....	[14] 1	3.8	Min. .... Max. $750[17] Av.	0	....	....	1
Group VII. Thirty per cent of average salary for last 5 yrs. plus 2 per cent for each yr. in excess of 25.	0	....	....	[15] 2	7.8	Min. $600. Max. $600. Av. $600.	0	....	....	2
Total	13	100	....	26	100	....	3	100	....	42

[1] See Appendix IV, a, p. 72, for the sources of the information presented in this table.
[2] The systems are listed below under 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15, together with the amounts of the benefit.
[3] Number of systems established in period and included in study.
[4] Computed.
[5] New York City, $1,000; Brooklyn, $1,200; Chicago, $600; Detroit, $400; Buffalo, $600; Cincinnati, $600; Providence, $600; Syracuse, $800; Charleston, $250; Newport, $600.
[6] Rochester, $800; Philadelphia, $400-$800; Brookline, $500; Cohoes, $500; Harrisburg, $300-$800; Yonkers, $800; Mount Vernon, $800; Wilkes-Barre, $350-$750; Bristol, $300.
[7] New Jersey, $250-$600; New Jersey (1903), no maximum.
[8] Albany, $800; Rhode Island, $500; Baltimore, $360-$600; Virginia, $500; Salt Lake City, $600; Westchester County, $600; New Orleans, $300-$600; New Haven, $400-$800; New London, no maximum; New York State, $600; Allegany County, $400; Baltimore County, $360-$600; Vermont, $500.
[9] Michigan, $300-$500.
[10] St. Louis, $800.
[11] New Hampshire, no maximum.
[12] Chattanooga, no maximum.
[13] Boston, $312-$600.
[14] North Dakota, $350-$750.
[15] Lexington, $600; Newport, $600.
[16] The figures here are for New Jersey (1896). The system of 1903 set no maximum. Hence, no average is listed here.
[17] Where but one system is found adopting a certain percentage of salary as a basis for a pension, the maximum pension receivable is given.
[18] No limits were set in this system. Hence, it is impossible to determine what the amount of pension would be, as it would vary with the individual teachers.

Table 20 makes clear that one-half of the teacher's salary has been taken as a standard for the superannuation benefit in the majority of pension systems in Group II. One-half of the final salary was chosen as the basis in 76.9 per cent of the systems of this group in the first period, 1894–1904. One-half of the average salary for the last five years of teaching was the basis chosen in the larger percentage of systems in the second period, 1905–1914. A greater or less amount than one-half the final or average salary was taken as a basis for the benefit in only a few cases. What percentage of the 92 systems included in the study have adopted this particular method of fixing the yearly retirement allowance through the three decades of pension history is shown in Table 21.

Tables 19 and 20 should be compared in order to learn, if possible, which method of fixing the superannuation benefit yields the larger retirement allowance. No comparison of average pensions yielded by the two methods can be made for the first decade, 1894–1904, for the reason that the flat-sum method was practically unused during that period. Nor can a comparison of average pension amounts be made for the third decade, 1915–1924, since the use of the percentage-of-salary method declines in use during that period. A comparison of average pensions paid under the two methods can, however, be made for the second period, 1905–1914, and reference to the two tables will show that the pensions were higher during this decade when fixed as a percentage of salary.

An entirely new type of pension system arose in 1913 with the establishment of the Massachusetts system.[a] Systems of this type operate upon an actuarial reserve plan of financing. The distinctive feature of this newer type is that the retiring allowance consists of two definitely separate sums, one an annuity purchased from the teacher's accumulated contributions and the other a pension from the city or State. Systems of this type comprise Group III of the groups into which the 92 pension systems included in this study were divided on the basis of the three different methods employed to determine the yearly amount of the superannuation benefit.[b] In order to facilitate comparison and thus discover tendencies as to the prevalence of any of these three methods, it seemed best to bring together the data for these three groups. This is done in Table 21.

It is clear from Table 21 that the flat-sum method increased in popularity during the second decade, 1905–1914, and slightly during the third decade, 1915–1924, though at no time did a majority of the 92 systems employ this method. The percentage-of-salary method, while in general use in the first decade, 1894–1904, declined rapidly and steadily throughout the remaining two periods. The third and new method, that of purchasing whatever annuity is possible from the accumulated contributions of the teacher and augmenting it by a pension provided from city or State funds, made its appearance in the second decade with the establishment of the Massachusetts system in 1913. The use of this method increased in percentage to a greater

[a] Furst, Clyde, and Kandel I. L., "Pensions for Public School Teachers," pp. 27, 28.
[b] See above, p. 32.

degree than any other method in the third period, 1915–1924. In view of the fact that (1) the percentage-of-salary method declined steadily in use through the three decades; (2) the flat-sum method showed practically no increase in use since 1914; and (3) the combined annuity and pension method has shown a greater percentage of increase in the last 10 years, the conclusion would appear to be justified that the tendency to use this latter method is strongly marked.

TABLE 21.—*Methods of fixing the amount of the yearly superannuation benefit*[1] *(based upon a study of 92 pension systems)*[2]

Methods	1894–1904		1905–1914		1915–1924		Total
	Number[3]	Per cent[4]	Number[3]	Per cent[4]	Number[3]	Per cent[4]	
I. Flat sum	[5] 1	7.1	[6] 23	46	[7] 13	46.4	37
II. A percentage of salary	[8] 13	92.9	[9] 26	52	[10] 3	10.7	42
III. The purchase of an annuity from the teacher's contributions plus a pension from city or State			[11] 1	2	[12] 12	42.9	13
Total	14	100	50	100	28	100	92

[1] See Appendix IV, a, p. 72, for the sources of the information presented in this table.
[2] These systems are listed below in footnotes 5, 6, 7, 8, 9, 10, 11, and 12.
[3] Number of systems established in period and included in study.
[4] Computed.
[5] Boston.
[6] Maryland, Denver, Milwaukee, Omaha, St. Paul, Canon City, Portland, Topeka, Wilmington, San Antonio, Arizona, California, Peoria, Reading, Columbus, Indianapolis, Duluth, Minneapolis, Wisconsin, Louisville, Maine, Terre Haute, South Bend.
[7] Montana, Nevada, Wheeling, Des Moines, Bellingham, Everett, Seattle, Spokane, Tacoma, Illinois, Indiana, Minnesota, Manchester.
[8] New York City, Brooklyn, Chicago, Detroit, Buffalo, Cincinnati, Providence, Syracuse, Charleston, Newport, New Jersey (1896), New Jersey (1903), St. Louis.
[9] Rochester, Philadelphia, Brookline, Cohoes, Harrisburg, Yonkers, Mount Vernon, Wilkes-Barre, Bristol, Albany, Rhode Island, Baltimore, Virginia, Salt Lake City, Westchester County, New Orleans, New Haven, New London, New York State, Allegany County, Baltimore County, Vermont, Boston, North Dakota, Lexington, Newport.
[10] Michigan, New Hampshire, Chattanooga.
[11] Massachusetts.
[12] Erie, Connecticut, Vermont, Ohio, Maine, District of Columbia, New York City, New York State, Pennsylvania, New Jersey, Wisconsin, Minneapolis.

In connection with this combined annuity and pension method of determining the teacher's superannuation allowance, some consideration should be given to the amount of the benefit which it yields, in order that the pension allowances of the three types of systems may be compared. It is impossible to show exactly what amounts will be yielded by the teacher's accumulated contributions in systems adopting this plan of determining retirement allowances, without knowing the salary, the rate of contribution, the number of contributions, and the mortality tables used. However, Norton and Alltucker have attempted to make such an estimate on the basis of a contribution of 5 per cent of a $1,200 salary which increases by $100 yearly until the maximum salary of $2,000 is reached.[7] After 30

[7] Norton, John K., and Alltucker, Margaret M., "Teachers' Retirement Allowances," p. 73.

years of service, the annuity purchasable from the teacher's accumulated contributions is $384. If the State or city is contributing an amount approximately similar, the combined annuity and pension is equal to $779. After 35 years of service, this combined sum will equal $1,208.

The 13 systems adopting the combined annuity and pension plan of superannuation employ no less than eight distinct methods of determining the pension to be paid by State or city, as follows:[3]

1. A sum equal to the annuity which the teacher purchases from her contributions. (Four systems, Massachusetts, Connecticut, Erie, Maine.)

2. Such a pension as the State's accumulations will purchase. (Two systems, Minneapolis and Wisconsin. In these systems the State's contribution is more than that of the teacher.)

3. Whatever sum can be purchased from accumulated contributions of State, plus such an additional sum as will make the combined annuity and pension equal to one-half of the average annual salary in the active service of the State. (One system, Vermont.)

4. A pension from the State equal to one one-hundred-and-sixtieth of the average salary for the last 10 years for each year of service. (One system, Pennsylvania.)

5. A pension of 25 per cent of the average salary for last 10 years. (Two systems, New York City, New York State.)

6. A State pension of one one-hundred-and-fortieth of the average salary for last five years for each year of service. (One system, New Jersey.)

7. A pension equal to the annuity plus an additional pension to equal 1⅓ per cent of the average salary for last 10 years multiplied by years of prior service. (One system, Ohio.)

8. Ten dollars for each year of service. (One system, District of Columbia.)

These are efforts to make the pension equal to the teacher's annuity or to make the combined annuity and pension bear some relation to her average salary over a period of years.

In 11 of these 13 systems (Massachusetts, Connecticut, Pennsylvania, New Jersey, Vermont, Ohio, Wisconsin, New York City, New York State, Maine, and Minneapolis), we find the annuitant has her choice of options as to whether she will accept a life annuity or a lesser sum with the privilege of having, after her death, the annuity continued to a beneficiary or the unused portion of her accumulated contributions paid to her heirs or to her estate.[3] This shows a tendency to introduce as much flexibility as possible in

[3] The sources of the data presented here will be found assembled in Appendix IV, p. 72.

paying out the accumulations standing to the credit of a pensioner at the time of retirement.

Limits to the amount of superannuation benefit.—In a large number of teachers' pension systems it has been customary to make provisions for safeguarding the pension funds against undue demands. Some systems make provisions for protecting the teacher against unduly small benefits. These provisions take the form of maximum and minimum limits to the amounts which may be paid for superannuation. Our consideration of the question of the amount of the retirement allowance may well conclude with Table 22 which shows the extent to which such limits have been provided.

TABLE 22.—*Extent of policy of providing maximum and minimum limits to retirement allowances* [1]

Policy with regard to limits	1894–1904		1905–1914		1915–1924		Total
	Number [2]	Per cent [3]	Number [2]	Per cent [3]	Number [2]	Per cent [3]	
I. Limits:							
Maximum limits only	[4] 11	78.6	[5] 22	44	[6] 2	7.1	35
Minimum limits only					[7] 4	14.3	4
Both maximum and minimum limits	[8] 1	7.1	[9] 11	22	[10] 1	3.6	13
Total per cent		85.7		66		25	
II No limits	[11] 2	14.3	[12] 17	34	[13] 21	75	40
Grand total	14	100	50	100	28	100	92

[1] See Appendix IV, a, p. 72, for the sources of the information presented in this table.
[2] Number of systems established in period and included in study.
[3] Computed.
[4] New York City, $1,000; Brooklyn, $1,200; Chicago, $600; Detroit, $400; St. Louis, $800; Buffalo, $600; Cincinnati, $600; Providence, $600; Syracuse, $800; Charleston, $250; Newport, $600.
[5] Rochester, $800; Albany, $600; Indianapolis, $600; Rhode Island, $500; Brookline, $500; Cohoes, $500; Virginia, $600; Yonkers, $800; Denver, $50 per month; Mount Vernon, $800; Salt Lake City, $600; Westchester County, $600; Wisconsin, $450; Canon City, $50 per month; New York State, $600; Louisville, $400; Columbus, $300; Peoria, $400; Vermont, $500; Bristol, $300; Lexington, $600; Newport, $600.
[6] Illinois, $400; Manchester, one-half of last salary.
[7] New Jersey, $400; Ohio, $300; District of Columbia, $480; New York State, $400.
[8] New Jersey (1896), $250–$600.
[9] Philadelphia, $400–$800; Baltimore, $300–$600; Boston, $312–$600; Harrisburg, $300–$800; New Orleans, $300–$600; Wilkes-Barre, $350–$750; New Haven, $400–$800; Allegany County, $200–$400; Baltimore County, $350–$600; Maine, $150–$250; North Dakota, $350–$750.
[10] Michigan, $300–$500.
[11] Boston, New Jersey (1903).
[12] Maryland, Duluth, Milwaukee, Minneapolis, Omaha, St. Paul, New London, Portland, Topeka, Wilmington, San Antonio, Arizona, California, Massachusetts, Reading, Terre Haute, South Bend.
[13] Chattanooga, Indiana, Minnesota, Montana, Nevada, New Hampshire, Erie, Wheeling, Connecticut, Des Moines, New York City, Bellingham, Everett, Pennsylvania, Seattle, Spokane, Tacoma, Vermont, Wisconsin, Maine, Minneapolis.

Table 22 shows the following facts with regard to the extent to which teachers' pension systems have undertaken to establish maximum and minimum limits to retirement allowances: (1) The percentage of systems establishing either maximum or minimum limits or both declined steadily during the three decades from 1894–1924; (2) an increasing percentage of systems through the three decades, 1894–1924, set no limits, and in the last period, 1915–1924, 75 per cent of the systems disregard limits entirely. It is unnecessary to call further attention to the increasing tendency of pension systems to disregard both minimum and maximum limits to the amount of the retirement allowances.

SUMMARY

Before taking up the subject of the conditions of age or service upon which superannuation benefits are commonly granted and before considering other benefits which are characteristic of teachers' pension systems, it is well to give in summary form the conclusions and tendencies with regard to the superannuation benefits which have been discussed in the preceding pages.

1. Teachers' pension systems established in late years show a tendency to make the retirement allowance consist of two sums, an annuity purchased from the teacher's accumulated contributions and a pension from city or State.

2. This method of providing the retirement allowance produces larger amounts, according to estimates, than any of the other methods used.

3. There is a tendency in recent years to allow the teacher her choice of options with respect to the manner in which the retirement allowance is paid.

4. There is a tendency to discard maximum and minimum limits to the amount which can be paid as a retirement allowance.

Conditions of retirement.—The conditions of age or service which are usually imposed before superannuation can take place are next to be considered. It has been found that some pension systems retire teachers upon a service basis only; other systems retire them upon both a service and age basis; still others retire them upon either a service or age basis; while, in a very few instances, teachers are retired upon the basis of age alone. Table 23 presents the findings with respect to these conditions of retirement.

Table 23 shows to what extent the 92 systems studied have provided for retiring teachers upon a service basis. By adding the percentages included under Bases I and II, we find that (1) in the first decade, 1894–1904, 92.8 per cent of the systems studied required a service basis for retirement; (2) in the second decade, 1905–1914, 92.1 per cent required such a basis; and (3) in the third decade, 1915–1924, 72.4 per cent still required this basis for retirement.

Table 23 also shows to what extent age has been used as a retirement basis. The retirement of teachers upon an age basis alone exists only in the case of two recently established systems, Pennsylvania and New Jersey. The policy of retiring teachers upon a combined service and age basis shows a marked tendency to increase during the three decades. It should be noted, however, that this basis has never been in use to the extent of the service basis alone. Allowing the teacher her choice of the basis upon which she will retire has never existed in a large percentage of systems, though it shows some increase in the last decade, 1915–1924.

TABLE 23.—*Service and age as bases for superannuation*[1] *(based upon a study of 92 pension systems*[2]*)*

Basis	1894–1904			1905–1914			1915–1924			Total
	Number[3]	Per cent[4]	Requirements	Number[3]	Per cent[4]	Requirements	Number[3]	Per cent[4]	Requirements	
I. Service only	[5] 12	85.7	....	[6] 35	68.6	....	[7] 12	41.4	....	59
Average years required[4]										
Men	....	....	29.3	....	....	28.8	....	....	29.5	....
Women	....	....	25.8	....	....	28.2	....	....	29.5	....
In city or State[4]	....	....	15	....	....	15	....	....	17.7	....
II. Both service and age	[8] 1	7.1	....	[9] 12 (11)	23.5	....	[10] 9 (8)	31	....	20
Average years required[4]	....	....	30	....	....	28	....	....	29.2	....
In city or State[4]	....	....	([16])	....	....	20.4	....	....	15.7	....
Average age required[4]—										
Men	....	....	60	....	....	59.8	....	....	58.5	....
Women	....	....	55	....	....	58.3	....	....	58	....
III. Either service or age	[11] 1	7.1	....	[12] 4	7.9	....	[13] 4	13.8	....	9
Average years required[4]	....	....	35	....	....	31	....	....	33.7	....
In city or State[4]	....	....	25	....	....	15	....	....	20	....
Average age required[4]	....	....	70	....	....	62.5	....	....	62.5	....
IV. Age only	....	....	....	....	....	....	[14] 2	6.9	....	2
Average age required[4]	....	....	....	....	....	....	....	....	62	....
V. No requirements as to age or service	....	....	....	....	....	....	[15] 2	6.9	....	2
Total	14	100	....	[9] 51 (50)	100	....	[10] 29 (28)	100	....	92

[1] See Appendix IV, a, p. 72, for the sources of the information presented in this table.
[2] The complete list of systems with their service or age requirements will be found arranged according to periods in Appendix IV, b, p. 76.
[3] Number established in period and included in this study.
[4] Computed.
[5] New York City, Chicago, Detroit, St. Louis, Buffalo, Cincinnati, New Jersey (1896), Providence, Syracuse, Charleston, Newport, Boston.
[6] Rochester, Albany, Indianapolis, Baltimore, Cohoes, Yonkers, Duluth, Milwaukee, Minneapolis, Mount Vernon, Omaha, St. Paul, Westchester County, New Orleans, Wilkes-Barre, Wisconsin, New York State, Portland, Topeka, Wilmington, Allegany County, Arizona, Baltimore County, Louisville, California, Columbus, North Dakota, Peoria, Reading, Terre Haute, Vermont, Bristol, Lexington, Newport, South Bend.
[7] Indiana, Michigan, Minnesota, Montana, Nevada, Bellingham, Everett, Seattle, Spokane, Tacoma, Manchester, New York State.
[8] Brooklyn.
[9] Rhode Island, Brookline, Harrisburg, Maryland, Virginia, Denver, Salt Lake City, Canon City, New Haven, Wilmington, San Antonio, Maine. Wilmington retires teachers on either one of two bases, service only or both service and age. Hence, the number of systems established in this period is 11, as Wilmington was counted under footnote 6.
[10] Chattanooga, Illinois, New Hampshire, Erie, Des Moines, Vermont, District of Columbia, New York State, Maine. New York State retires teachers either on the basis of service only or on the basis of both service and age. Hence, the number of systems in this period is 8, as New York State was counted under footnote 7.
[11] New Jersey (1903).
[12] Philadelphia, Boston, New London, Massachusetts.
[13] Wheeling, Connecticut, New York City, Ohio.
[14] Pennsylvania, New Jersey.
[15] Wisconsin, Minneapolis. These two systems require age 50 to be reached before the State or city pension will be paid the teacher. The teacher may retire at any time, however, and draw her annuity.
[16] No data available.

The outstanding conclusion to be deduced from the facts just presented is that the retirement of teachers upon a service basis has been and still is the usual basis upon which retirement takes place.

The average number of total years of service required for superannuation in each of the three decades, the average number of years of service required in city or State, and the average age required could not be shown within the limits of Table 23, except in the case of each one of the four bases. Therefore, in Table 24 the data with regard to the number of total required years of service, the number of years of service required in city or State, and the age required have been reassembled in order to show these averages for each decade and in order to trace any tendencies with respect to these requirements.

TABLE 24.—*Basis for superannuation—Requirements as to total years of service, years of service in city or State, and age*[1]

Requirements	1894–1904[3]	1905–1914[3]	1915–1924[3]
Average total years of service required:[2]			
Men	28.9	29.3	30.2
Women	26.8	28.5	30.2
Average years of service required in city or State[2]	17	17.7	17.4
Average age required:[2]			
Men	65	60.5	60
Women	57.5	59.3	59.7

[1] Based upon data used in compiling Table 23.
[2] Computed.
[3] The complete list of systems, with their service or age requirements, will be found arranged according to periods in Appendix IV, b, p. 76.

The requirements presented in Table 24 may be conveniently discussed under three headings: (1) The average total number of years of service required; (2) the average number of years of service required in city or State; (3) the average age requirement.

With reference to the average total years of service required, Table 24 shows that (1) the average total years of service required for superannuation increased steadily through the three decades of teachers' pension history, 1894–1924, and in the last decade reached a level slightly above 30 years; (2) the distinction between the sexes, as to services required, gradually diminished and no longer exists.

With reference to the average number of years of service required in city or State (i. e., how many of the total number required must have been spent in serving the State or city from which the pension is received), Table 24 makes clear that an average of 17 years or slightly more has been and still is the standard.

With reference to the average age required for superannuation, Table 24 shows that (1) the differences between the ages required for men and women, while considerable in the first decade, 1894–1904, tend to disappear through the remaining two decades, 1905–1924; and (2) the average age required for retirement has gradually been approximating 60 years through the three decades.

The conclusions deducible from Tables 23 and 24 may be summarized as follows: (1) The majority of teachers' pension systems now tend to retire teachers, regardless of sex, upon a basis of 30 years of service, more than half of which must have been rendered within the political corporation (city or State) providing the pension; (2) the age of 60, regardless of sex, is usually taken as the standard in systems which retire teachers on an age basis.

Adequacy of retirement allowances.—The adequacy or inadequacy of a retirement allowance is a subject of great importance to all teachers anticipating future retirement. Therefore, some discussion, at this point, of the adequacy of retirement allowances granted by pension systems would be highly desirable. However, to treat this subject in a satisfactory manner would necessitate an exhaustive study of such questions as teachers' salaries, standard minimum wages, and average costs of living. Such a study would well form the basis of an extensive monograph, and can not, therefore, be included within the limits of the present study.

The preceding pages have discussed the superannuation benefits offered by teachers' pension systems, the amounts provided, and the bases, service or age, upon which they are generally granted. The more important tendencies with respect to the granting of these benefits have also been pointed out. The remainder of the present chapter will be devoted to a consideration of two minor, but nevertheless important, classes of benefits, commonly known as disability and withdrawal benefits.

Disability benefits.—Tables 25, 26, and 27 present the findings of the present study with regard to disability benefits granted by teachers' pension systems. Table 25 is based upon a study of 85 of the 92 systems included in the study presented by this chapter. Data were not available for the systems of New York City, Chicago, Detroit, St. Louis, Buffalo, Cincinnati, Brooklyn—seven early systems, all established during the first decade, 1894–1904. It was found impracticable to attempt to give the amount of the disability benefit, as in nearly every instance this sum is left indefinite.

It is clear that within the group of 85 pension systems included in Table 25, the percentage which grants disability benefits increased steadily throughout the three decades, from 1894–1924. Furthermore, of the pension systems established in the last 10 years, 92.8 per cent have included disability benefits in their provisions. The methods used in determining the disability allowances vary, but the form of allowance most widely employed is the fractional allowance of the full pension according to years of service. It is also evident from Table 25 that the disability allowance can seldom be equal to a full pension.

TABLE 25.—*Extent of disability benefits granted by teachers' pension systems and methods of computing them, based upon a study of 85 pension systems*[1]

Benefits and method of computation	1894–1904		1905–1914		1915–1924		Total
	Number[2]	Per cent[3]	Number[2]	Per cent[3]	Number[2]	Per cent[3]	
I. Disability benefits:							
Methods of fixing amount—							
1. Same basis as annuity	[4]3	42.8	[5]6	11.5	[6]6	21.5	15
2. Proportional allowance of full pension according to years of service			[7]30 [9](28)	57.8	[8]11	39.3	39
3. Determined by board	[10]1	14.3	[11]6	11.5			7
4. Flat sum graduated according to service					[12]1	3.5	1
5. 20 per cent of average salary for last 10 years					[13]1	3.5	1
6. Such annuity as can be purchased from teacher's contributions plus additional sum from city or State					[14]7	25	7
Total per cent		57.1		80.8		92.8	
II. No disability benefits	[15]3	42.8	[16]10	19.2	[17]2	7.2	15
Grand total	7	100	[9]52 (50)	100	28	100	85

[1] See Appendix IV, a, p. 72, for the sources of the data presented in this table.
[2] Number established in period and included in this study.
[3] Computed.
[4] Providence, Newport, New Jersey (1903).
[5] Virginia, New London, San Antonio, Massachusetts, North Dakota, Bristol.
[6] Illinois, Erie, Wheeling, Connecticut, District of Columbia, Minneapolis.
[7] Albany, Indianapolis, Philadelphia, Baltimore, Boston, Cohoes, Harrisburg, Milwaukee, Mount Vernon, Omaha, Salt Lake City, St. Paul, Westchester County, New Orleans, Wilkes-Barre, Wisconsin, New Haven, Portland, New York State, Topeka, Wilmington, San Antonio, Allegany County, Baltimore County, Louisville, California, Peoria, Reading, Lexington, Newport.
[8] Michigan, Minnesota, Montana, Nevada, New Hampshire, Des Moines, Bellingham, Everett, Seattle, Spokane, Tacoma.
[9] Two systems, San Antonio and Milwaukee, grant disability benefits in two distinct ways. Hence, the number here is 28.
[10] Boston.
[11] Denver, Duluth, Milwaukee, Minneapolis, Canon City, Vermont.
[12] Indiana.
[13] New York City.
[14] Pennsylvania, New Jersey, Vermont, Ohio, Wisconsin, New York State, Maine.
[15] New Jersey (1896), Syracuse, Charleston.
[16] Rochester, Rhode Island, Brookline, Maryland, Yonkers, Arizona, Columbus, Maine, Terre Haute, South Bend.
[17] Chattanooga, Manchester.

Conditions under which disability benefits are granted.—Certain service or age conditions must be met before disability benefits are granted. Table 26 shows (1) the extent to which service conditions are imposed for 70 systems granting disability benefits; (2) the average years of service required; and (3) in the case of those pension systems requiring a definite term of service in the pensioning city or State, the extent of this latter requirement.

A study of the data presented in Table 26 will lead to at least four important conclusions with respect to the requirements of service or age as a basis for the granting of disability benefits: (1) Service conditions are imposed in practically all the 70 systems offering disability benefits; (2) a tendency to reduce the average number of years of service required appeared in the last decade, 1915–1924; (3) in the majority of systems (see footnotes 13 and 14 of Table 26) a certain amount of service was required to be rendered in the pensioning city or State, and this required service decreased in amount in the last 10 years; (4) requirements as to age have seldom been found.

TABLE 26.—*Basis for disability benefits in 70 pension systems* [1]

Basis	1894–1904			1905–1914			1915–1924			Total
	Number [2]	Per cent [3]	Requirements	Number [2]	Per cent [3]	Requirements	Number [2]	Per cent [3]	Requirements	
I. Service requirements	[4] 4 / [11] (3)	80		[5] 39	97.5		[6] 24	88.8		66
Average total years of service required [3]			14.2			15			12.3	
In State or city [3]						[13] 12.7			[14] 10.3	
II. Age requirements	[7] 1	20					[8] 2 / [12] (1)	7.4		2
Average age required [3]			70						50	
Total per cent		100			97.5			96.2		
III. No service or age requirements				[9] 1	2.5		[10] 1	3.8		2
Grand total	4	100		40	100		26	100		70

[1] See Appendix IV, a, p. 72, for the sources of the information presented in this table.
[2] Number of systems established in period and included in study.
[3] Computed.
[4] Providence, 10 years; Newport, 10 years; Boston, 2 years; New Jersey (1903), 35 years.
[5] Albany, 20 years; Indianapolis, 15; Philadelphia, 5; Baltimore, 20; Boston, 10; Cohoes, 20, 15 in city; Harrisburg, 5; Virginia, 20; Denver, 10 in city; Duluth, 2; Milwaukee, 15; Minneapolis, 2; Mount Vernon, 20, 10 in city; Omaha, 25, 20 in city; Salt Lake City, 20, 15 in city; St. Paul, 5; Westchester Couny, 15, 6 in county; New Orleans, 5 in city; Topeka, 25, 15 in city; Wilmington, 20, 15 in city; San Antonio, 30, 15 in city; Allegany County, 20; Baltimore County, 20; Wilkes-Barre, 10 in city; Wisconsin, 18; Canon City, 10 in city; New Haven, 15, 10 in city; New London, 25, 15 in city; New York State, 15, 9 in State; Portland, 20, 10 in city; Louisville, 20 in city; California, 15 in State; Massachusetts, 20 in State; North Dakota, 15 in State; Peoria, 15 in city; Reading, 10 in city; Bristol, 10; Lexington, 15 in State, 10 in city; Newport, 15 in State, 10 in city.
[6] Illinois, 15, 5 in State; Indiana, 25; Michigan, 15 in State; Minnesota, 15, 10 in State; Montana, 15; Nevada, 15 in State; Erie, 15; Wheeling, 20 in city; Des Moines, 10, 10 in city; New York City, 10 in city; Bellingham, 10, 8 in city; Spokane, 10, 8 in city; Tacoma, 10, 8 in city; New Jersey, 10 in State; Vermont, 6 in State; Ohio, 10; District of Columbia, 15 in State; Wisconsin, 5 in State; New York State, 15 in State; Maine, 6 in State; Minneapolis, 5 in city.
[7] New Jersey (1903).
[8] Connecticut, District of Columbia.
[9] Vermont. Discretionary with board.
[10] New Hampshire.
[11] New Jersey (1903) imposed both a service and age basis.
[12] District of Columbia imposed both service and age conditions.
[13] Twenty-four of the 39 systems in thisdecade required service in city or State.
[14] Nineteen of the 24 systems established in this decade required service in city or State.

Many systems require that disability must be proved by a medical examination before an allowance will be approved. Such a provision was undoubtedly an attempt to safeguard the pension funds against teachers who might be inclined to take unjust advantage of a benefit of this kind. To what extent the practice of requiring a medical examination has prevailed is shown in Table 27.

TABLE 27.—*Status of medical examinations in 70 pension systems as a requirement for granting disability benefits* [1]

Class	1894–1904		1905–1914		1915–1924		Total
	Number [2]	Per cent [3]	Number [2]	Per cent [3]	Number [2]	Per cent [3]	
I. Medical examination required	[4] 2	50	[5] 17	42.5	[6] 10	38.4	29
II. No medical examination required	[7] 2	50	[8] 23	57.5	[9] 16	61.5	41
Total	4	100	40	100	26	100	70

[1] See Appendix IV, a, p. 72, for the sources of the information presented in this table.
[2] Number of systems established in period and included in study.
[3] Computed.
[4] Newport, Boston.
[5] Indianapolis, Baltimore, Virginia, Milwaukee, St. Paul, New Orleans, Wilkes-Barre, New Haven, Wilmington, Allegany County, Baltimore County, Louisville, Massachusetts, North Dakota, Peoria, Lexington, Newport.
[6] Illinois, Indiana, Des Moines, New York City, Pennsylvania, New Jersey, Vermont, Ohio, New York State, Maine.
[7] Providence, New Jersey (1903).
[8] Albany, Philadelphia, Boston, Cohoes, Harrisburg, Denver, Duluth, Minneapolis, Mount Vernon, Omaha, Salt Lake City, Westchester County, Topeka, San Antonio, Wisconsin, Canon City, New London, New York State, Portland, California, Vermont, Reading, Bristol.
[9] Michigan, Minnesota, Montana, Nevada, Erie, Wheeling, Bellingham, Everett, Spokane, Seattle, Tacoma, District of Columbia, Wisconsin, Minneapolis, Connecticut, New Hampshire.

From Table 27 it is evident that the percentage of systems requiring a medical examination before a disability allowance is granted declined steadily through the three decades, 1894–1924, and that the majority of systems established in the last 10 years and providing disability benefits made no requirements of this sort.

The data regarding disability benefits, which have been presented in Tables 25, 26, and 27 reveal the following tendencies:

1. An increasing tendency to provide disability benefits.
2. A tendency to make the amount of the disability benefit less than that of a full pension.
3. A tendency to grant disability benefits upon a decreasing number of years of total service and upon a decreasing number of years of service in the pensioning city or State.
4. A tendency to discard the requirement of medical examination before disability retirement can take place.

Withdrawal benefits.—The principal object of teachers' pension systems in the United States is, undoubtedly, to provide for the retirement of the superannuated and the disabled. However, the contingencies of resignation, dismissal, and death before retirement can not be entirely disregarded. To what extent the pension systems included in this study provide for these contingencies may now be considered.

Data with respect to withdrawal benefits were available for 70 of the contributory systems included in this study. It was found that 52 of the 70 systems, or 74.3 per cent, sanction the return of all or a portion of the teacher's contribution in the event of withdrawal from service for causes other than death. The extent of these refunds is indicated in Table 28.

TABLE 28.—*Extent to which pension systems allow refunds in case of withdrawal from service for causes other than death, based upon a study of 70 pension systems* [1]

Class	1894–1904		1905–1914		1915–1924		Total
	Number [2]	Per cent [3]	Number [2]	Per cent [3]	Number [2]	Per cent [3]	
I. Amount of teacher's contribution refunded:							
1. Total contributions with interest	[4] 1	25	[5] 3	6.5	[6] 8	32	12
2. Total contributions with interest plus total contributions of State after 6 years of service					[7] 2	8	2
3. Total contributions with interest plus pension from deposits of State after age 50					[8] 2	8	2
4. Total contributions without interest			[9] 14	30.4	[10] 7	28	21
5. One-half of total contributions with interest	[11] 2	50	[12] 8 [13] (4)	17.4			4
6. One-half of total contributions without interest			[14] 5 [15] (4)	10.9	[16] 3	12	7
7. Three-fourths of total contribution without interest			[17] 2	4.4			2
Total per cent		75		69.6		88	
II. No refunds	[18] 1	25	[19] 14	30.4	[20] 3	12	18
Grand total	4	100	46 [21] (41)	100	25	100	70

[1] See Appendix IV, a, p. 72, for the sources of the information presented in this table.
[2] Number of systems established in period and included in study.
[3] Computed.
[4] Syracuse.
[5] Topeka, Peoria, Massachusetts.
[6] Erie, Connecticut, New York City, Pennsylvania, New Jersey, Ohio, District of Columbia, New York State.
[7] Vermont, Maine.
[8] Wisconsin, Minneapolis.
[9] Rochester, Philadelphia, Cohoes, Yonkers, Duluth, Minneapolis, Mount Vernon, Westchester County, New Orleans, Wilkes-Barre, New Haven, Portland, Terre Haute, South Bend.
[10] Indiana, Wheeling, Bellingham, Everett, Seattle, Spokane, Tacoma.
[11] New Jersey (1896), Boston.
[12] Indianapolis, Baltimore, Duluth, Milwaukee, Minneapolis, Topeka, Louisville, Peoria.
[13] Duluth, Minneapolis, Topeka, and Peoria will pay this amount only in case of resignation. Hence, the number here is 4, since these systems were included in footnotes 5 and 9 above.
[14] New Orleans, Wisconsin, Allegany County, Baltimore County, North Dakota.
[15] New Orleans will pay this amount in case of resignation. Hence, the number here is 4, since New Orleans was counted under footnote [illegible] above.
[16] Illinois, Michigan, Minnesota.
[17] Lexington, Newport.
[18] Providence.
[19] Albany, Harrisburg, Virginia, Omaha, Salt Lake City, St. Paul, New London, New York State, Wilmington, San Antonio, California, Reading, Vermont, Bristol.
[20] Montana, Nevada, Des Moines.
[21] See footnotes 13 and 15 above.

The data assembled in Table 28 disclose the fact that (1) the majority of systems in any of the three decades have granted refunds in the case of withdrawal from service before retirement; that (2) the percentage of systems allowing refunds of this kind increased in the last decade, 1915–1924. Table 28 reveals further that an increasing percentage of systems refund the total accumulated contributions of the teacher, while four systems established in the last decade, 1915–1924, return the State's deposits as well under certain conditions.

Refunds in case death occurs before retirement.—It was found that only 37 of the 70 systems included in the study provided for a refund of the teacher's contribution in the event of death occurring before retirement. Table 29 shows in succinct form the amount of the teacher's contribution which is refunded to her beneficiary or to her estate in the event of death taking place before retirement.

TABLE 29.—*Extent to which pension systems allow refunds in case death takes place before retirement, based upon a study of 70 pension systems*[1]

Class	1894–1904		1905–1914		1915–1924		Total
	Number[2]	Per cent[3]	Number[2]	Per cent[3]	Number[2]	Per cent[3]	
I. Refunds in case of death:							
1. Total contributions with interest			[4] 2	4.9	[5] 9	36	11
2. Total contributions with interest plus State's deposits after 6 years					[6] 2	8	2
3. Total contributions with interest plus city's deposits					[7] 1	4	1
4. Total contributions without interest			[8] 2	4.9	[9] 1	4	3
5. One-half of total contributions with interest			[10] 2	4.9	[11] 1	4	3
6. One-half of total contributions without interest			[12] 10	24.7			10
7. Three-fourths of total contributions without interest			[13] 2	4.9			2
8. One-half of difference between total contributions and amount paid out as disability benefit					[14] 5	20	5
Total				44		76	
II. No refunds	[15] 4	100	[16] 23	56	[17] 6	24	33
Grand total	4	100	41	100	25	100	70

[1] See Appendix IV, a, p. 72, for the sources of the information presented in this table.
[2] Number of systems established in period and included in study.
[3] Computed.
[4] Salt Lake City, Massachusetts.
[5] Erie, Connecticut, New York City, Pennsylvania, New Jersey, Ohio, District of Columbia, Wisconsin, New York State.
[6] Vermont, Maine.
[7] Minneapolis.
[8] Terre Haute, South Bend.
[9] Wheeling.
[10] Milwaukee, Louisville.
[11] Minnesota.
[12] Indianapolis, Baltimore, Duluth, Minneapolis, New Orleans, Wisconsin, Portland, Topeka, Allegany County, Baltimore County.
[13] Lexington, Newport.
[14] Bellingham, Everett, Seattle, Spokane, Tacoma.
[15] Syracuse, New Jersey (1896), Boston, Providence.
[16] Peoria, Rochester, Philadelphia, Cohoes, Yonkers, Mount Vernon, Westchester County, Wilkes-Barre, New Haven, North Dakota, Albany, Harrisburg, Virginia, Omaha, St. Paul, New London, New York State, Wilmington, San Antonio, California, Reading, Vermont, Bristol.
[17] Indiana, Illinois, Michigan, Montana, Nevada, Des Moines.

The growth in the tendency to grant refunds in the event that death occurs before retirement is evident from Table 29. The percentage of systems making refunds of this nature increases greatly during the last two decades, 1905–1924. However, a comparison of Tables 28 and 29 will show that throughout the three decades of teachers' pension history fewer systems provided for granting refunds in the case of death than in the case of withdrawal from service. Since a very small percentage of systems refund the teacher's total contributions with interest, as Tables 28 and 29, Class I, 1, 2, clearly show, it is evident that the refund is not so generous as it should be, either in the event of withdrawal from service, or in the event of death occurring before retirement. However, the percentage of systems returning the accumulated contributions of the teacher, in the event of withdrawal from service or of death before retirement, increases in the last decade, 1915–1924.

Summary of tendencies with respect to the benefits of teachers' pension systems.—Tables 28 and 29 conclude the treatment of the benefits granted by teachers' pension systems. In this chapter, the various kinds of pension benefits provided and the conditions upon which they are granted have been studied. It has seemed well to close the present chapter with a summary of the tendencies with respect to these benefits, which have thus far been discovered.

The four most important tendencies which have been revealed are:

1. A tendency to increase the amount of the retirement allowance and to provide for two distinct sums, an annuity and a pension, payable according to the option the teacher selects.

2. A tendency to retire teachers, regardless of sex, upon a basis of 30 years of service, a portion of which must have been rendered within the city or State.

3. An increasing tendency to provide disability benefits and a tendency to lessen the amount of service required for these benefits, together with a tendency to discard the requirement of a medical examination.

4. A tendency to grant refunds, in case of withdrawal from service or in case of death before retirement, more extensively and more generously than in the early years of pension history.

Criteria for evaluating a teacher pension system with regard to the benefits offered.—The practices adopted in the early years of pension history with regard to the nature of the benefits offered by teachers' pension systems have been pointed out in the preceding pages of this chapter. Those practices which have been retained and those which have appeared in later years have been shown. Attention has been called to the tendencies in these practices. These tendencies lead to the following standards with respect to the retirement of teachers:

1. Superannuation should be made, regardless of sex, upon a service basis of not less than 30 years, a portion of which may be required to have been rendered in city or State.

2. The retirement allowances should be ample and should consist of two distinct sums, an annuity purchased from the accumulated contributions of the teacher and a pension from the city or State, payable according to the option which the teacher selects.

3. A teachers' pension system should provide a disability benefit of lesser amount than a full retirement allowance, based upon a reasonable amount of service.

4. Full refunds, with interest, of the teacher's contributions should be made in case of withdrawal from service, and in the event of death before retirement, such accumulated contributions should be paid to her estate.

Chapter VI

CONCLUSION

Summary of Tendencies and Criteria

Preceding chapters of this study have traced the tendencies in the development of teachers' pension systems in the United States over a period of 30 years, from 1894 to 1924. Policies and practices which have been or are being discarded have been pointed out in these chapters. As a result of these changes and tendencies, criteria by which to evaluate any particular teacher-pension system have been determined. These tendencies and criteria have been given at the close of each chapter, but it has been felt that the present study should not be concluded without a summary of these tendencies and criteria.

The tendencies which have been presented and discussed throughout this study are recapitulated below.

SUMMARY OF TENDENCIES

1. Development of state-wide teachers' pension systems.
2. Retention of teacher representation in the administration of pension systems but a decrease in its extent.
3. Establishment of partly contributory rather than free or wholly contributory pension systems.
4. Support of teachers' pension systems by both public and private funds.
5. Disappearance of such uncertain sources of funds as gifts and legacies.
6. Provision for raising by taxation the funds required to meet the public's obligations to the system.
7. Adoption of the actuarial reserve plan of financing.
8. Provision for subsequent actuarial investigation.
9. Adoption of special provisions for meeting the problem of accrued liabilities.
10. Optional membership in the pension system for those teachers in service at the time of the establishment of the system, accompanied by a time limit for the exercising of their choice.

11. Compulsory membership in the pension system for new entrants.

12. Increase in the amount of the assessment against the teacher's salary.

13. Assessment of a fixed percentage of teacher's salary with no relation to length of service.

14. Abandonment of limits and special requirements with respect to the teacher's contribution.

15. Discontinuance of the policy of pooling teachers' contributions and the substitution therefor of a policy of crediting to separate individual accounts the contributions of each teacher, from which funds annuities shall be paid.

16. Increase in the amount of the retirement allowance and provision for two distinct sums, an annuity purchased from the teacher's contributions and a pension from city or State, payable according to the option selected by the teacher.

17. Retirement of teachers, regardless of sex, upon a basis of 30 years of service, a portion of which must have been rendered within the pensioning city or State.

18. Provision for disability benefits upon a decreased service requirement and without the requirement of a medical examination.

19. Granting of more generous and more extensive refunds.

One of the most effective forms in which to present criteria for evaluating any particular teacher-pension system is that of the question. This is the form adopted here. The extent to which affirmative answers can be given to the questions which follow will show to what extent any particular pension system may be judged to accord with present-day tendencies in the development of teachers' pension systems in the United States.

SUMMARY OF CRITERIA

1. Is the pension system state-wide in its organization?
2. Does it allow teachers a voice in its administration?
3. Does it place the burden of its support upon both teachers and public?
4. Is its plan of pension financing sound? Has it been established upon an actuarial reserve basis, and does it provide for subsequent actuarial investigation?
5. Has it made special provisions for meeting the problem of paying retirement allowances to those teachers already in service at the time of its establishment?
6. Does it allow teachers in service at the time of its organization their choice in the matter of membership?
7. Does it make membership compulsory for all new entrants?

8. Does it assess such a percentage of the teacher's salary as will provide an adequate annuity after actuarial investigation and computation?

9. Does it provide for an individual account for each teacher's accumulated contributions, and are these accumulated sums regarded as the teacher's own property to be used only for the purchase of an annuity for her support when superannuation or disability occurs?

10. Will such accumulated assessments be returned to a teacher upon withdrawal from service or returned to her estate in the event of death occurring before retirement takes place?

11. Is retirement made, regardless of sex, upon a basis of not less than 30 years of service, and is a portion of this service required to have been rendered in city or State?

12. Is the retirement allowance ample for subsistence, and does it consist of a sum purchased from the accumulated contributions of the teacher and a pension from the public funds of city or State?

13. Is the annuitant given her choice of options as to whether she will accept a life annuity or a lesser sum with the privilege of having the annuity continued to a beneficiary after her death or the unused portion of her accumulated contributions paid to her heirs or to her estate?

14. Does the pension system make suitable provision for disability benefits?

Appendix I

(NOTE.—This appendix presents the sources of data upon which are based Tables 1, 2, 3, and 4 of the text proper of Chapter II. It also includes, in some instances, lists of systems as classified in these tables.)

(*a*) Data for Table 1 were taken from the following publications:

Allen, Elizabeth A. Teachers' pensions—the story of a women's campaign. Review of reviews, 15: 700–11, June, 1897.

Furst, Clyde, *and* Kandel, I. L. Pensions for public-school teachers. Carnegie foundation for the advancement of teaching. Bulletin, 1918, no. 12.

Norton, John K., *and* Alltucker, Margaret M. Teachers' retirement allowances. Research bulletin of the National education association, vol. 2, no. 3. Washington, D. C., May, 1924.

Studensky, Paul. Teachers' pension systems in the United States. New York, D. Appleton & Co., 1920.

(*b*) The local and State systems established during this period, 1894–1904, are listed as follows:

LOCAL

(1894) New York City.
(1895) Brooklyn, N. Y.; Chicago, Ill.; Detroit, Mich.; San Francisco, Calif.; St. Louis, Mo.
(1896) Buffalo, N. Y.; Cincinnati, Ohio.
(1897) Providence, R. I.; Syracuse, N. Y.
(1898) Charleston, S. C.; Newport, R. I.
(1900) Boston, Mass.

STATE

(1896) New Jersey (teachers' retirement fund).
(1903) New Jersey (teachers' pension fund).

Of the systems listed above the following were reported, with the date of their establishment, in the Review of reviews, vol. 15, no. 6, June, 1897, p. 71: New York City, Brooklyn, Chicago, Detroit, San Francisco, St. Louis, Buffalo, Cincinnati, New Jersey (1896).

The following systems were reported, with the date of their establishment, in Bulletin, 1918, no. 12, of the Carnegie foundation for the advancement of teaching, pp. 56–69: Chicago, Detroit, St. Louis, Buffalo, New Jersey (1896), Providence, Syracuse, Newport, Boston, New Jersey (1903).

The following systems were reported, with the date of their establishment, by Paul Studensky, in his Teachers' pension systems in the United States, p. 31: New York City, Chicago, Detroit, San Francisco, Buffalo, Cincinnati, New Jersey (1896), Providence, Syracuse, Charleston, Newport, Boston.

(*c*) The local and State systems established during this period 1905–1914 were as follows:

LOCAL

(1905) Rochester, N. Y.; Youngstown, Ohio.

(1906) Cleveland, Ohio; Troy, N. Y.

(1907) Albany, N. Y.; Indianapolis, Ind.; Philadelphia, Pa.; Springfield, Ohio.

(1908) Baltimore, Md.; Boston, Mass.; Brookline, Mass.; Cohoes, N. Y.; Hamilton, Ohio; Harrisburg, Pa.; Yonkers, N. Y.

(1909) Columbus, Ohio; Denver, Colo.; Duluth, Minn.; Milwaukee, Wis.; Minneapolis, Minn.; Mount Vernon, N. Y.; Omaha, Nebr.; Salt Lake City, Utah; St. Paul, Minn.; Westchester County, N. Y.

(1910) Atlanta, Ga.; New Orleans, La.; Toledo, Ohio; Sandusky, Ohio; Wilkes-Barre, Pa.

(1911) Canon City, Colo.; Dayton, Ohio; New Haven, Conn.; New London, Conn.; Portland, Oreg.; Tiffin, Ohio; Topeka, Kans.; Scranton, Pa.; Wilmington, Del.; San Antonio, Tex.

(1912) Allegany County, Md.; Baltimore County, Md.; Louisville, Ky.; Norwood, Ohio; Pittsburgh, Pa.

(1913) Altoona, Pa.; Bellefontaine, Ohio; Canton, Ohio; Chillicothe, Ohio; Chester, Pa.; Columbus, Ga.; Norwalk, Ohio; Peoria, Ill.; Piqua, Ohio; Reading, Pa.; Terre Haute, Ind.

(1914) Bristol, R. I.; Fremont, Ohio; Lakewood, Ohio; Lancaster, Pa.; Lexington, Ky.; Massillon, Ohio; Newport, Ky.; South Bend, Ind.; Zanesville, Ohio.

STATE

(1907) Rhode Island.

(1908) Maryland, Virginia.

(1911) New York, Wisconsin.

(1912) Arizona.

(1913) California, Maine, Massachusetts, North Dakota, Vermont.

Of the systems listed above, the following were reported with the date of their establishment in Bulletin, 1918, no. 12, of the Carnegie foundation for the advancement of teaching, pages 56–69:

LOCAL

(The arrangement here is alphabetical instead of chronological.)

Albany, N. Y.
Allegany County, Md.
Baltimore, Md.
Baltimore County, Md.
Boston, Mass.
Cleveland, Ohio.
Cohoes, N. Y.
Columbus, Ohio.
Dayton, Ohio.
Denver, Colo.
Duluth, Minn.
Hamilton, Ohio.
Harrisburg, Pa.
Indianapolis, Ind.
Milwaukee, Wis.
Louisville, Ky.
Minneapolis, Minn.
Mount Vernon, N. Y.
New London, Conn.
New Haven, Conn.
New Orleans, La.
Omaha, Nebr.
Peoria, Ill.
Philadelphia, Pa.
Portland, Oreg.
Rochester, N. Y.
Salt Lake City, Utah.
Scranton, Pa.
Springfield, Ohio.
St. Paul, Minn.
Terre Haute, Ind.
Tiffin, Ohio.
Toledo, Ohio.
Topeka, Kans.
Westchester County, N. Y.
Wilmington, Del.

STATE

Arizona.
California.
Maine.
Maryland.
Massachusetts.
New York.
North Dakota.
Rhode Island.
Vermont.
Virginia.
Wisconsin.

The following systems were reported, with the date of their establishment, by Paul Studensky, in his Teachers' pension systems in the United States, page 31. The arrangement is alphabetical instead of chronological.

LOCAL

Albany, N. Y.
Allegany County, Md.
Altoona, Pa.
Atlanta, Ga.
Baltimore, Md.
Baltimore County, Md.
Bellefontaine, Ohio.
Bristol, R. I.
Brookline, Mass.
Canton, Ohio.
Chester, Pa.
Chillicothe, Ohio.
Cleveland, Ohio.
Cohoes, N. Y.
Columbus, Ohio.
Columbus, Ga.
Dayton, Ohio.
Denver, Colo.
Duluth, Minn.
Fremont, Ohio.
Hamilton, Ohio.
Harrisburg, Pa.
Indianapolis, Ind.
Lakewood, Ohio.
Lancaster, Pa.
Louisville, Ky.
Massillon, Ohio.
Milwaukee, Wis.
Minneapolis, Minn.
Mount Vernon, N. Y.
New Haven, Conn.
New London, Conn.
New Orleans, La.
Norwalk, Ohio.
Norwood, Ohio.
Omaha, Nebr.
Peoria, Ill.
Piqua, Ohio.
Pittsburgh, Pa.
Portland, Oreg.
Philadelphia, Pa.
Rochester, N. Y.
Reading, Pa.
Salt Lake City, Utah.
Sandusky, Ohio.
Scranton, Pa.
South Bend, Ind.
Springfield, Ohio.
St. Paul, Minn.
Terre Haute, Ind.
Tiffin, Ohio.
Toledo, Ohio.
Topeka, Kans.
Troy, N. Y.
Westchester County, N. Y.
Wilkes-Barre, Pa.
Wilmington, Del.
Yonkers, N. Y.
Youngstown, Ohio.
Zanesville, Ohio.

STATE

Arizona.
California.
Maine.
Massachusetts.
New York.
North Dakota.
Rhode Island.
Vermont.
Virginia.
Wisconsin.

(*d*) The local and State systems established during this period 1915–1924 are listed below:

LOCAL

(1915) Chattanooga, Tenn.
(1916) Erie, Pa.; Wheeling, W. Va.
(1917) Des Moines, Iowa; New York City; Tacoma, Wash.; Bellingham, Everett, Seattle, Spokane, Wash.
(1921) Manchester, N. H.
(1924) Minneapolis, Minn.
(1924) Kansas City, Mo.

STATE

(1915) Illinois, Indiana, Michigan, Minnesota, Montana, Nevada, New Hampshire.
(1917) Connecticut, Pennsylvania.
(1919) New Jersey, Vermont.
(1920) Ohio.
(1921) District of Columbia, Idaho, Wisconsin, New York.
(1924) Maine.

Of the systems listed for this period, 1915–1924, the following were reported, with the date of their establishment, in Bulletin, 1918, no. 12, of the Carnegie foundation for the advancement of teaching, pages 56–69: Local—Chattanooga, Tenn.; Erie, Pa.; Wheeling, W. Va.; State—Connecticut, Illinois, Indiana, Michigan, Minnesota, Montana, Nevada, New Hampshire, Pennsylvania.

The following systems were reported, with the date of their establishment, by Paul Studensky, in his Teachers' pension systems in the United States, page 31: Local—Erie, Pa.; State—Connecticut, Illinois, Indiana, Michigan, Minnesota, Montana, Nevada, New Hampshire, Pennsylvania.

The data for the establishment of the remaining systems were secured from sources listed under *f*, *g*, and *h* of this appendix.

(*e*) The sources from which the information compiled in Tables 2, 3, and 4 of Chapter II was taken include pamphlets issued by school boards or retirement-fund boards, State laws, and the tabular statements of such authorities as Clyde Furst and I. L. Kandel, in Bulletin, 1918, no. 12, of the Carnegie foundation for the advancement of teaching, pages 56–69. The sources of data for the systems established during the three periods are given in detail below, under *f*, *g*, and *h*.

(*f*) Data were available for 9 of the 13 local systems established during this period, 1894–1904, and for the 2 State systems. (See Appendix I, *b*, p. 51, for list of these systems.) The four local systems for which data were not available are: New York City, Brooklyn, San Francisco, and Cincinnati. In compiling Tables 2, 3, and 4, where copies of the systems could not be consulted, reliance was placed upon the tabular statement of teachers' pension systems published by the Carnegie foundation for the advancement of teaching, in its bulletin, 1918, no. 12, pages 56–69. This was done in the case of the following systems: St. Louis, Mo.; Buffalo, N. Y.; Syracuse, N. Y.; Charleston, S. C.; Newport, R. I. Information concerning the other systems included in this period was taken from the following publications:

(1895) *Chicago.* Abbe, Mary M., recording secretary. Booklet of information concerning the Chicago teachers' pension law. Printed by order of the board of trustees of the public-school teachers' pension and retirement fund of the city of Chicago, July 25, 1923, p. 7.

(1895) *Detroit.* A typewritten copy of the constitution of the teachers' retirement fund, furnished by George E. Parker, secretary Retirement fund board, Detroit, Mich.

(1896) *New Jersey.* Teachers' retirement fund, 1896, and teachers' pension fund, 1903. Typewritten copy of New Jersey laws, 1896, chapter 32. Furnished by John P. Dullard, State librarian, Trenton, N. J. Also, report of the Pension and retirement funds commission, State of New Jersey. February, 1918, pp. 11–12, ch. 4.

(1897) *Providence.* Condon, Randall J. The public-school teachers' retirement fund in the city of Providence. Extract from the report for the year 1909–10.

(1900) *Boston.* Pensions for teachers and members of the supervising staff in the Boston public schools. Secretary's circular, no. 6. 1920–21, Boston printing department, 1920.

(*g*) Data were available for 50 of the 76 systems established during the second period, 1905–1914—39 of the 65 local systems and the entire 11 State systems. (*See* Appendix I, *c*, p. 51, for list of these systems.) The 26 local systems for which data could not be secured are as follows: Youngstown, Ohio; Cleveland, Ohio; Troy, N. Y.; Springfield, Ohio; Hamilton, Ohio; Columbus, Ohio; Atlanta, Ga.; Toledo, Ohio; Sandusky, Ohio; Dayton, Ohio; Tiffin, Ohio; Scranton, Pa.; Norwood, Ohio; Pittsburgh, Pa.; Altoona, Pa.; Bellefontaine, Ohio; Canton, Ohio; Chillicothe, Ohio; Chester, Pa.; Norwalk, Ohio; Piqua, Ohio; Fremont, Ohio; Lakewood, Ohio; Lancaster, Pa.; Massillon, Ohio; Zanesville, Ohio.

In the case of 12 systems, the data assembled by Clyde Furst and I. L. Kandel, in Bulletin, 1918, no. 12, of the Carnegie foundation for the advancement of teaching, pp. 56–69, were used. These systems are as follows: Rochester, N. Y.; Philadelphia, Pa.; Cohoes, N. Y.; Maryland; Milwaukee, Wis.; St. Paul, Minn.; Westchester County, N. Y.; Wisconsin; New London, Conn.; New York State; Maine; Vermont.

Information concerning the remaining 38 systems included in this period was secured from the following sources:

(1907) *Albany.* Pages 330–333 cut from bound volume of minutes of the board of education for 1907–1908, and containing a copy of the teachers' retirement law. Furnished by the superintendent of schools, Albany, N. Y., pp. 330, 331, secs. 2, 3.

—— *Indianapolis, Ind.* Teachers' pension and disability law enacted by the General assembly of the State of Indiana, March, 1907. Pamphlet, pp. 3–5, secs. 1–3.

—— *Rhode Island.* Typewritten copy of chapter 1468, an act providing for the pensioning of school teachers in this State. Passed April 23, 1907. Furnished by Walter E. Ranger, commissioner of education, State of Rhode Island. Secs. 1–4.

(1908) *Baltimore, Md.* Teachers' retirement bill as passed by the Maryland legislature, 1908. Pamphlet, pp. 1–5, secs. 102A–102H.

—— *Boston, Mass.* Pensions for teachers and members of the supervising staff in the Boston public schools. Secretary's circular, no. 6, 1920–21, pp. 6–8.

—— *Brookline, Mass.* Typewritten copy of chapter 498, acts of 1908. Furnished by the superintendent of schools, Brookline, Mass. Secs. 1–4.

(1908) *Harrisburg, Pa.* Teachers' retirement fund, Harrisburg school district. Retirement fund plan and by-laws of retirement board. Harrisburg, Pa., 1908. Pamphlet, pp. 3–5, art. 1, secs. 1–4, and art. 2, secs. 1, 2. Also, pp. 7, 8, art. 5, secs. 1–3.

—— *Virginia.* Pensions for retired school teachers. State board of education bulletin, vol. 3, no. 1, June, 1920, p. 2, sec. 787, sec. 790.

—— *Yonkers, N. Y.* Typewritten copy of Article IX, sections 18 and 19, second-class cities law and supplemental charter of the city of Yonkers. Furnished by L. L. Hodge, superintendent of schools. Sec. 18.

(1909) *Denver, Colo.* Teachers' retirement fund law. Typewritten copy furnished by Mary C. C. Bradford, State superintendent of schools.

—— *Duluth, Minn.* Duluth teachers' retirement fund association. Pamphlet, p. 5, art. 1; p. 5, art 2; pp. 8, 9, art. 5.

—— *Minneapolis, Minn.* Articles of incorporation and by-laws. Minneapolis teachers' retirement fund association. Pamphlet, pp. 5–8, arts. 1–5.

—— *Mount Vernon, N. Y.* Teachers' retirement fund association. Typewritten copy furnished by W. H. Holmes, superintendent of schools.

—— *Omaha, Nebr.* Teachers' retirement fund law. Typewritten copy furnished by superintendent of schools. Sec. 1.

—— *Salt Lake City, Utah.* Laws governing public-school teachers' retirement association. Pamphlet, pp. 1–3, secs. 4750–4756.

(1910) *New Orleans, La.* Act no. 116, creating the board of trustees of the teachers' retirement fund, as amended by act 263 of 1914 and by act 17 of 1918. Pamphlet, pp. 1–6, secs. 1–4, and pp. 7–9, sec. 7.

—— *Wilkes-Barre, Pa.* Teachers' retirement fund, Wilkes-Barre school district, retirement fund plan and by-laws of retirement board. Pamphlet, pp. 1–4, arts. 1, 2.

(1911) *Canon City, Colo.* Teachers' retirement fund provisions. Typewritten copy furnished by O. B. Drake, superintendent of schools.

—— *New Haven, Conn.* Tenure of office act, teachers' retirement fund act, New Haven public schools. Pamphlet, pp. 66, 67, secs. 1–4.

—— *Portland, Oreg.* Enabling act, articles of incorporation and by-laws, teachers' retirement fund association of school district number 1, Multnomah County, Oreg. Pamphlet, p. 9, arts. 1, 2; p. 14, art. 2.

—— *Topeka, Kans.* Pamphlet containing copy of Senate bill no. 397, an act to provide for a retirement fund for public-school teachers in cities of the first class, sec. 1.

—— *Wilmington, Del.* An act providing for a retirement fund for public-school teachers. Rules and by-laws of the board of retirement. Pamphlet, pp. 3–5, secs. 1, 2.

—— *San Antonio, Tex.* Constitution and by-laws of the teachers' retirement association and of the teachers' mutual benefit association of the San Antonio public schools. Pamphlet, pp. 3, 4, arts. 1–6.

(1912) *Allegany County, Md.* Law, teachers' retirement and relief fund of Allegany County as passed by the legislature of 1912 and amended by the legislature of 1924. Pamphlet, pp. 1–4, secs. 1–7.

—— *Arizona.* Session laws of Arizona, 1912, chapter 95. Typewritten copy furnished by Sidney P. Osborn, secretary of Arizona. Sec. 1.

—— *Baltimore County, Md.* The law relating to the teachers' retirement fund of Baltimore County. Extract from the public local laws of Baltimore County of the edition of 1916 as compiled by T. Scott

Offutt, known as Offutt's Code, with amendments passed by General assembly of Maryland, sessions 1922–1924. Pamphlet, pp. 1, 2, sec. 585, and p. 5, sec. 591.

(1912) *Louisville, Ky.* The teachers' annuity, Louisville public-school teachers, Louisville, Ky. Pamphlet.

(1913) *California.* Compilation of laws dealing with the California teachers' retirement salary as amended by the legislature of 1925. Pamphlet, p. 3, sec. 1, and p. 5, sec. 7.

—— *Columbus, Ga.* Excerpt from the laws of the Columbus public schools, act of General assembly of Georgia, 1913. Typewritten copy furnished by Roland B. Daniel, superintendent of schools, Columbus, Ga. Sec. 1, 26A.

—— *Massachusetts.* Acts and resolves passed by the General court of Massachusetts in the year 1913, together with the constitution, the messages of the governor, etc., p. 939, ch. 832, sec. 2, and pp. 940–942, ch. 832, secs. 4, 5.

—— *North Dakota.* Teachers' insurance and retirement fund, session laws of 1913, chapter 251. Pamphlet, pp. 3–7, secs. 1–10.

—— *Peoria, Ill.* Rules and regulations of the board of management of the public-school teachers' pension and retirement fund of the city of Peoria, Ill. Adopted October 30, 1913. Pamphlet, pp. 13, 14, secs. 2, 3.

—— *Reading, Pa.* Rules and regulations, teachers' retirement fund, school district of the city of Reading, Pa. Pamphlet, pp. 1, 2, arts. 1, 2.

—— *Terre Haute, Ind.* Teachers' retirement fund law and by-laws for the public-school teachers of Terre Haute, Ind. Issued by the board of commissioners of the teachers' retirement fund. Vocational press print. Pamphlet, p. 3, sec. 1, and p. 5, sec. 3.

(1914) *Bristol, R. I.* Public laws passed at the January session of the Rhode Island Legislature, 1904, chapter 1183. Typewritten copy furnished by William C. Hobbs, superintendent of schools, Bristol, R. I. secs. 1, 2.

—— *Lexington, Ky.* Lexington teachers' insurance and annuity law by act of legislature, 1914, for cities of second class, State of Kentucky. Pamphlet, secs. 520, 521.

—— *Newport, Ky.* Teachers' insurance and annuity bill. By-laws and regulations adopted by the board of insurance and annuity, Newport, Ky. Pamphlet, pp. 1–4, sec. 117.

—— *South Bend, Ind.* House bill no. 347, introduced in the house of representatives, January 24, 1913, approved March 5, 1913. Pamphlet, p. 3, sec. 1, and p. 5, sec. 3.

(*h*) Data were available for all 30 of the systems established during this period, 1915–1924—13 local systems and 17 State systems. (See Appendix I, *d*, for list of these systems.) However, the system of the State of Idaho is not included in this study, since its system has never been put in operation, and this thesis is concerned only with those systems that have existed in fact as well as in name.

The data assembled by Clyde Furst and I. L. Kandel, in Bulletin, 1918, no. 12, of the Carnegie foundation for the advancement of teaching, pp. 56–69, were used in the case of five systems: Chattanooga, Tenn.; Indiana; Montana; New Hampshire, and Erie, Pa.

Information concerning the remaining 24 systems included in this period was secured from the following sources:

(1915) *Illinois.* Handbook, Illinois State teachers' pension and retirement fund law. Issued by the board of trustees, 1920. p. 5, secs. 1, 2, and p. 8, sec. 13.

—— *Michigan.* Ninth annual report of the Michigan teachers' retirement fund board for the year ending September 30, 1925. Contains a copy of the Michigan teachers' retirement fund law, act 174 of the public acts of 1915. p. 25, sec. 1, and p. 29, sec. 13.

—— *Minnesota.* Department of education, laws of 1915, Minnesota, chapter 199, establishing a State teachers' retirement fund. Pamphlet, pp. 1, 2, sec. 2, and pp. 3, 4, sec. 4.

—— *Nevada.* The school code, 1917. Compiled and issued by superintendent of public instruction, April, 1917. p. 148, sec. 1, and p. 149, sec.

(1916) *Wheeling, W. Va.* Rules and regulations of the teachers' retirement pension fund of the independent school district of Wheeling, W. Va. Wheeling, West Virginia Printing Co., 1917. Pamphlet, pp. 5, 6, secs. 1–5.

(1917) *Connecticut.* Public acts passed by the General Assembly of the State of Connecticut in the year 1917, chapter 411. Published by the State, Hartford, Conn. New Haven, Conn., Press of S. Z. Field. pp. 2581–2583, secs. 1–5.

—— *Des Moines, Iowa.* Teachers' pensions, Rule XIX–A. Board of education. Des Moines, Iowa, Press of the Washington Irving Junior High School. Pamphlet, secs. 1, 7.

—— *New York City.* The teachers' retirement law, section 1092 of the Greater New York charter, as amended by chapter 303 of the laws of 1917. Leaflet, sec. 1092, C. E.

—— *Bellingham, Wash.* Excerpts from Washington State manual of teachers' retirement fund, sections 408 to 433L. Pamphlet, secs. 408, 410, 417, 433a.

—— *Everett, Wash.* *Ibid.*

—— *Pennsylvania.* State school employees' retirement law and explanatory statement. Harrisburg, Pa., The Telegraph press, 1926. Pamphlet, p. 18, secs. 1, 2, and p. 19, sec. 4.

—— *Seattle, Wash.* Teachers' retirement fund law, chapter 163, session laws of 1917. Issued by Seattle school district No. 1, King County, Wash. Pamphlet, pp. 3, 4, secs. 2, 3, and p. 8, sec. 10, and p. 19, sec. 26.

—— *Spokane, Wash.* Excerpts from Washington State manual on teachers' retirement fund, section 408 to 433L. Pamphlet, secs. 408, 410, 417, 433a.

—— *Tacoma, Wash.* Teachers' retirement fund law, chapter 163. Session laws of 1917. Issued by Tacoma school district no. 10, Pierce County, Wash. Tacoma, Wash., Johnson-Cox co., makers. Pamphlet, pp. 3, 4, secs. 2, 3, and p. 8, sec. 10, and p. 18, sec. 26.

(1919) *New Jersey.* Acts of the one hundred and forty-third legislature of the State of New Jersey and seventy-fifth under the new constitution. Chapter 80 (e). Trenton, N. J., MacCrellish and Quigley co., State printers. p. 161, sec. 248, pp. 173–176, sec. 253, and p. 180, sec. 255.

—— *Vermont.* Acts and resolves passed by the General assembly of the State of Vermont at the twenty-fifth biennial session, 1919, p. 67, sec. 2, p. 68, sec. 5, and pp. 69, 70, sec. 8.

(1920) *Ohio.* General code of the State of Ohio, revised to 1921, Code no. 7896. Containing all laws of a general nature in force Jan. 1, 1921, with annotations from decisions of all Ohio courts and the Federal courts, p. 1765, secs. 2–4, and pp. 1770, 1771, secs. 43, 44.

(1921) *Manchester, N. H.* Typewritten copy of act authorizing the city of Manchester to provide pensions for school teachers, secs. 1, 3.

—— *District of Columbia.* An act for the retirement of public-school teachers in the District of Columbia. Leaflet, p. 1, sec. 1, p. 3, sec. 15, and p. 4, sec. 16.

—— *Wisconsin.* Analysis of Wisconsin's State retirement law for the public schools, normal schools, and university. Prepared under direction of the Annuity board, Madison, Wis. Pamphlet, pp. 13, 14, secs. 42.21–42.23, p. 21, sec. 42.40, and p. 25, 42.45.

—— *New York State.* Teachers' retirement board, Education law, State teachers' retirement fund for public-school teachers. Pamphlet, p. 4, sec. 1101, p. 5, sec. 1103, pp. 16–19, secs. 1109-f–1109-g.

(1924) *Maine.* Teachers' retirement fund. Augusta, Me. State department of education, 1925. Pamphlet, p. 7, sec. 2, p. 9, sec. 5, p. 10, sec. 8.

—— *Kansas City, Mo.* Rules establishing a teachers' savings fund and a Teachers' retirement fund. Leaflet.

—— *Minneapolis, Minn.* Teachers' retirement fund association, annual report, 1924. Minneapolis, Minn., 102 South Fourth street. Pamphlet, pp. 4, 5, art. 5, and pp. 7–9, art. 7.

(*i*) Following is a list of the systems studied for the period, 1894–1904, with the number of board members and the number of teacher members:

	Number of board members	Number of teacher members
LOCAL SYSTEMS		
Detroit, Mich	7	3
St. Louis, Mo	9	5
Buffalo, N. Y	5	2
Providence, R. I	9	3
Charleston, S. C	3	1
Newport, R. I	7	3
Local systems—Con.		
Boston, Mass	11	6
STATE SYSTEMS		
New Jersey	9	2

(*j*) Following is a list of the systems studied for the period, 1905–1914, with the number of board members and the number of teacher members:

	Number of board members	Number of teacher members
LOCAL SYSTEMS		
Indianapolis, Ind	7	2
Rochester, N. Y		2
Philadelphia, Pa	5	2
Baltimore, Md	7	3
Cohoes, N. Y	7	5
Harrisburg, Pa	5	2
Duluth, Minn	9	5
Milwaukee, Wis	9	4
Minneapolis, Minn	9	5
Salt Lake City, Utah	7	3
St. Paul, Minn	11	6
Westchester County, N. Y	5	1
New Orleans, La	9	5
Wilkes-Barre, Pa	7	3
New Haven, Conn	5	1
New London, Conn	5	2
Portland, Oreg	11	6
Wilmington, Del	7	3
San Antonio, Tex	9	9
Local systems—Con.		
Allegany County, Md	5	3
Baltimore County, Md	9	5
Louisville, Ky	7	4
Peoria, Ill	9	6
Reading, Pa	7	3
Terre Haute, Ind	5	2
Bristol, Conn	9	3
Lexington, Ky	7	4
Newport, Ky	7	4
South Bend, Ind	5	2
STATE SYSTEMS		
Wisconsin	5	3
New York	5	3
Massachusetts	7	3
North Dakota	5	3
Vermont	7	3

(*k*). Following is a list of the systems studied for the period, 1915–1924, with the number of board members and the number of teacher members:

	Number of board members	Number of teacher members		Number of board members	Number of teacher members
LOCAL SYSTEMS			STATE SYSTEMS		
Erie, Pa.	5	2	Illinois	5	3
Wheeling, W. Va.	7	2	Indiana	5	2
New York City	7	2	Michigan	6	1
Bellingham, Wash.	5	3	Minnesota	5	3
Everett, Wash.	5	3	Connecticut	5	2
Seattle, Wash.	5	3	Pennsylvania	7	3
Spokane, Wash.	6	3	New Jersey	7	2
Tacoma, Wash.	5	3	Vermont	5	2
Minneapolis, Minn.	9	5	Ohio	5	2
			New York	7	3
			Maine	7	2

Appendix II

(NOTE.—This appendix presents the sources of data upon which are based Tables 5, 6, 7, 8, and 9 of the text proper of Chapter III.)

(a)

(1895) *Chicago.* Abbe, Mary M., Recording secretary. Booklet of information concerning the Chicago teachers' pension law. Printed by order of the board of trustees of the public-school teachers' pension and retirement fund of the city of Chicago, July 25, 1923, pp. 7–8.

(1896) *New Jersey.* Teachers' retirement fund. Typewritten copy of New Jersey laws, 1896, chapter 32. Furnished by John P. Dullard, State librarian, Trenton, N. J. sec. 5.

(1897) *Providence, R. I.* Condon, Randall J. The public-school teachers' retirement fund in the city of Providence. Extract from the report for the year 1909–10, pp. 2–4.

(1900) *Boston, Mass.* Pensions for teachers and members of the supervising staff in the Boston public schools. Secretary's circular, no. 6, 1920–21. Boston printing department, 1920, pp. 3–4.

(1907) *Albany, N. Y.* Pages 330–333 cut from bound volume of minutes of the board of education for 1907–8, and containing a copy of the teachers' retirement law. Furnished by the superintendent of schools, Albany, N. Y. p. 330, secs. 3, 4.

—— *Indianapolis, Ind.* Teachers' pension and disability law enacted by the General assembly of the State of Indiana, March, 1907. Pamphlet, pp. 5–7, secs. 3–5.

—— *Rhode Island.* Typewritten copy of chapter 1468, an act providing for the pensioning of school-teachers in this State. Passed April 23, 1907. Furnished by Walter E. Ranger, commissioner of education, State of Rhode Island. sec. 3.

(1908) *Baltimore, Md.* Teachers' retirement bill as passed by the Maryland legislature. 1908. Pamphlet, p. 2, sec. 102C, p. 4, sec. 102G, and p. 7, sec. 102M.

—— *Boston, Mass.* Pensions for teachers and members of the supervising staff in the Boston public schools. Secretary's circular, no. 6, 1920–21. Boston printing department, 1920, pp. 6–8.

—— *Brookline, Mass.* Typewritten copy of chapter 498, acts of 1908. Furnished by superintendent of schools, Brookline, Mass. sec. 1.

—— *Harrisburg, Pa.* Teachers' retirement fund, Harrisburg school district. Retirement fund plan and by-laws of retirement board. Harrisburg, Pa., 1908. Pamphlet, pp. 4, 5, art. 2, secs. 1, 2.

—— *Virginia.* Pensions for retired school teachers. State board of education bulletin, vol. 3, no. 1, June, 1920, pp. 2, 3, secs. 789–793.

(1908) *Yonkers, N. Y.* Typewritten copy of article IX, sections 18 and 19, second-class cities law and supplemental charter of the city of Yonkers. Furnished by L. L. Hodge, superintendent of schools. sec. 18.

(1909) *Denver, Colo.* Teachers' retirement fund law. Typewritten copy furnished by Mary C. C. Bradford, State superintendent of schools.

——— *Duluth, Minn.* Duluth teachers' retirement fund association. Duluth, Minn., Huntley printing company. Pamphlet, pp. 2, 3, secs. 6, 7, p. 5, art. 2, and p. 10, art. 6.

——— *Minneapolis, Minn.* Articles of incorporation and by-laws, Minneapolis teachers' retirement fund association. Minneapolis, Minn. Pamphlet, pp. 4, 5, secs. 6, 7, p. 6, art. 2, and p. 8, art. 6.

——— *Mt. Vernon, N. Y.* Teachers' retirement fund association. Typewritten copy furnished by W. H. Holmes, superintendent of schools.

——— *Omaha, Nebr.* Teachers' retirement fund law. Typewritten copy furnished by superintendent of schools. secs. 1, 2.

——— *Salt Lake City, Utah.* Laws governing public-school teachers' retirement association. Salt Lake City, Utah. Pamphlet, p. 3, secs. 4756, 4758, and p. 4, sec. 4759.

(1910) *New Orleans, La.* Act no. 116, creating the board of trustees of the teachers' retirement fund, as amended by act 263 of 1914 and by act 17 of 1918. Pamphlet, p. 4, sec. 3, p. 7, sec. 7, and p. 12, sec. 13.

——— *Wilkes-Barre, Pa.* Teachers' retirement fund, Wilkes-Barre school district, retirement fund plan and by-laws of retirement board. Wilkes-Barre, Pa., 1911. Pamphlet, pp. 3, art. 2.

(1911) *Canon City, Colo.* Teachers' retirement fund provisions. Typewritten copy furnished by O. B. Drake, superintendent of schools.

——— *New Haven, Conn.* Tenure of office act, teachers' retirement fund act, New Haven public schools. Pamphlet, pp. 64, 65, secs. 1–3.

——— *Portland, Oreg.* Enabling act, articles of incorporation and by-laws, teachers' retirement fund association of school district number 1, Multnomah County, Oreg. Pamphlet, p. 6, secs. 7, 8, and pp. 19–25, arts. 5, 6.

——— *Topeka, Kans.* Senate bill no. 397, an act to provide for a retirement fund for public-school teachers in cities of the first class. Pamphlet, secs. 1, 2.

——— *Wilmington, Del.* An act providing for a retirement fund for public-school teachers. Rules and by-laws of the board of retirement. Wilmington, Del., Chas. L. Story co., print, 1911. Pamphlet, pp. 3–6, secs. 1–2.

——— *San Antonio, Tex.* Constitution and by-laws of the teachers' retirement association and of the teachers' mutual benefit association of the San Antonio public schools. Pamphlet, p. 3, art. 6, p. 4, sec. 1, and p. 7, secs. 1–10.

(1912) *Allegany County, Md.* Law, teachers' retirement and relief fund of Allegany County as passed by the legislature of 1912 and amended by the legislature of 1924. Pamphlet, p. 2, sec. 3, p. 3, sec. 7, and p. 6, sec. 13.

——— *Arizona.* Session laws of Arizona, 1912, chapter 95. Typewritten copy furnished by Sidney P. Osborn, secretary of Arizona.

——— *Baltimore County, Md.* The law relating to the teachers' retirement fund of Baltimore County. Extract from the Public local laws of Baltimore County of the edition of 1916 as compiled by T. Scott

Offutt, known as Offutt's code, with amendments passed by General assembly of Maryland, sessions 1922–1924. Pamphlet, p. 3, secs. 587, 588, p. 5, sec. 591, and p. 9, sec. 597.

(1912) *Louisville, Ky.* The teachers' annuity, Louisville public-school teachers. Louisville, Ky. Pamphlet.

(1913) *California.* Compilation of laws dealing with the California teachers' retirement salary as amended by the legislature of 1925. Issued by the public-school teachers' retirement salary fund board, January, 1926. Sacramento, Calif., State printing office, John E. King, State printer. Pamphlet, p. 3, secs. 1, 3, and p. 4, sec. 4.

—— *Columbus, Ga.* Typewritten copy of excerpt from the Laws of the Columbus public schools, act of General assembly of Georgia, 1913. Furnished by Roland B. Daniel, superintendent of schools, Columbus, Ga. sec. 26A.

—— *Massachusetts.* Acts and resolves passed by the General court of Massachusetts in the year 1913, together with the constitution, the messages of the governor, etc. Chapter 832. Boston, Wright & Potter printing co., State printers, 18 Post Office square. pp. 941–944, secs. 5, 6, and p. 946, sec. 11.

—— *North Dakota.* Teachers' insurance and retirement fund, session laws of 1913, chapter 251. Issued by the board of trustees. Devils Lake, N. Dak., Journal publishing co., State printers, 1913. Pamphlet, p. 5, sec. 7, p. 6, sec. 10, pp. 11–12, secs. 21, 22, and p. 15, sec. 31.

—— *Peoria, Ill.* Rules and regulations of the board of management of the public-school teachers' pension and retirement fund of the city of Peoria, Ill. Adopted October 30, 1913. Peoria, Ill., Poffenbarger printing co. Pamphlet, pp. 14–16, secs. 3–5, pp. 19, 20, secs. 13, 14.

—— *Reading, Pa.* Rules and regulations, teachers' retirement fund. School district of the city of Reading, Pa. Pamphlet, pp. 2, 3, art. 2.

—— *Terre Haute, Ind.* Teachers' retirement fund law and by-laws for the public-school teachers of Terre Haute, Ind. Issued by the board of commissioners of the teachers' retirement fund. Terre Haute, Ind., Vocational press print. Pamphlet, pp. 4–7, secs. 2–5.

(1914) *Bristol, R. I.* Typewritten copy of public laws, passed at the January session of the Rhode Island legislature, 1904, chapter 1183. Furnished by William C. Hobbs, superintendent of schools, Bristol, R. I. secs. 1, 2, 6, 7.

—— *Lexington, Ky.* Lexington teachers' insurance and annuity law by act of legislature, 1914, for cities of second class, State of Kentucky. Pamphlet, secs. 520, 521.

—— *Newport, Ky.* Teachers' insurance and annuity bill. By-laws and regulations adopted by the board of insurance and annuity, Newport, Ky. Pamphlet, pp. 1–3, sec. 117.

—— *South Bend, Ind.* House bill no. 347, introduced in the House of representatives, January 24, 1913, approved March 5, 1913. Pamphlet, pp. 4–7, secs. 2–5.

(1915) *Illinois.* State teachers' pension and retirement fund law. Issued by the board of trustees, compiled and arranged by R. O. Clarida, secretary, January, 1920. Hand-book, p. 7, sec. 9, p. 8, secs. 12, 13, p. 11, secs. 23, 24, and p. 14, sec. 29.

—— *Michigan.* Ninth annual report of the Michigan teachers' retirement fund board for the year ending September 30, 1925. Contains a copy of the Michigan teachers' retirement fund law, act 174 of the public acts of 1915, pp. 25–30, secs. 3, 4, 6, 13.

(1915) *Minnesota.* Department of education. Laws of 1915, chapter 199, establishing a State teachers' retirement fund. Pamphlet, pp. 1, 2, sec. 2, and pp. 3, 4, sec. 4.

——— *Nevada.* School code. 1917. Compiled and issued by superintendent of public instruction, April, 1917. An act to provide for the payment of retirement salaries to public-school teachers of this State, p. 148, secs. 1–4, and p. 149, sec. 7.

(1916) *Wheeling, W. Va.* Rules and regulations of the teachers' retirement pension fund of the independent school district of Wheeling, W. Va. Wheeling, W. Va., West Virginia printing co., 1917. Pamphlet, p. 3, secs. 2, 3, 4.

(1917) *Connecticut.* Public acts passed by the General assembly of the State of Connecticut in the year 1917, chapter 411. Published by the State, Hartford, Conn. New Haven, Conn., press of S. Z. Field. pp. 2581–2584, secs. 4, 5, 6, and p. 2586, sec. 10.

——— *Des Moines, Iowa.* Teachers' pensions, rule XIX–A. Board of education Des Moines, Iowa, press of the Washington Irving junior high school. Pamphlet, secs. 5, 7, 8, 9.

——— *New York City.* The teachers' retirement law, section 1092 of the Greater New York charter, as amended by chapter 303 of the laws of 1917. Leaflet, ch. 303, secs. C7, 8, E1–5, F1–7.

——— *Bellingham, Wash.* Excerpts from Washington State manual on teachers' retirement fund, section 408–433L. Pamphlet, secs. 417, 420, 421, 433a.

——— *Everett, Wash. Ibid.*

——— *Pennsylvania.* State School Employes' retirement law and explanatory statement. Harrisburg, Pa., The Telegraph press, 1926. Pamphlet, pp. 18–21, secs. 3, 4, p. 21, sec. 6, and p. 24, sec. 8.

——— *Seattle, Wash.* Teachers' retirement fund law, chapter 163, session laws of 1917. Issued by Seattle school district no. 1, King County, Wash. Pamphlet, p. 8, sec. 10, p. 11, secs. 13, 14, and p. 19, sec. 26.

——— *Spokane, Wash.* Excerpts from Washington State manual on teachers' retirement fund, section 408–433L. Spokane schools. Pamphlet, secs. 417, 420, 421, 433a.

——— *Tacoma, Wash.* Teachers' retirement fund law, chapter 163, session laws of 1917. Issued by Tacoma school district no. 10, Pierce county, Wash. Tacoma, Wash., Johnson-Cox co., makers. Pamphlet, p. 8, sec. 10, p. 11, secs. 13, 14, and p. 18, sec. 26.

(1919) *New Jersey.* Acts of the one hundred and forty-third legislature of the State of New Jersey and seventy-fifth under the new constitution, chapter 80 (e). Trenton, N. J., MacCrellish and Quigley co., State printers. Pp. 161–164, secs. 248, 249, and pp. 173–180, secs. 252, 253, 254.

——— *Vermont.* Acts and resolves passed by the General assembly of the State of Vermont at the twenty-fifth biennial session, 1919, chapter 87. Montpelier, Vt., printed by Capital city press. Pp. 69, 70, secs. 7, 8, 9, p. 71, sec. 13, pp. 73, 74, secs. 18, 19.

(1920) *Ohio.* General code of the State of Ohio, revised to 1921, Code no. 7896. Containing all laws of a general nature in force Jan. 1, 1921, with annotations from decisions of all Ohio courts and the Federal courts. Cleveland, Ohio, The Baldwin law publishing co. P. 1766, secs. 13, 16, p. 1767, secs. 19, 20, pp. 1770, 1771, secs. 43, 44, 45, 46, 47, 48, and pp. 1172, 1173, secs. 55, 56, 57.

(1921) *Manchester, N. H.* Typewritten copy of act authorizing the city of Manchester to provide pensions for school teachers. secs. 3, 4.

—— *District of Columbia.* An act for the retirement of public-school teachers in the District of Columbia. Leaflet, p. 1, secs. 1, 2, p. 2, sec. 7, and p. 3, secs. 15, 16.

—— *Wisconsin.* Analysis of Wisconsin's State retirement law for the public schools, normal schools, and university. Prepared under the direction of the Annuity board, Madison, Wis. Pamphlet, pp. 17–19, secs. 42.32, 42.33, 42.34, p. 22, sec. 42.41, p. 25, secs. 42.45, 42.46, and p. 30, sec. 42.51, and p. 33, sec. (20.251).

—— *New York State.* Teachers' retirement board, Education law, State teachers' retirement fund for public-school teachers. Pamphlet, pp. 8–10, secs. 1106, 1107, pp. 16–20, secs. 1109–f, 1109–g, 1109–h, 1109–i, and p. 21, sec. 1109–k.

(1924) *Maine.* State department of education. Teachers' retirement fund. Augusta, Maine, 1925. Pamphlet, pp. 10–11, secs. 7, 8, 9, p. 11, sec. 12, and pp. 14–15, secs. 17, 18, 19.

—— *Kansas City, Mo.* Rules establishing a teachers' savings fund and a teachers' retirement fund. Leaflet.

—— *Minneapolis, Minn.* Resolutions for amendment of the articles of incorporation of the Minneapolis teachers' retirement fund association. Pamphlet, pp. 4–9, arts. 5, 6, 7, 8, and pp. 11–15, arts. 10, 11.

Below are listed the systems for which the data were taken from Teachers' pensions—The story of a women's campaign, by Elizabeth A. Allen, in Review of reviews, 15: 700–711, June, 1897.

(1894) New York City, N. Y.
(1895) Brooklyn, N. Y.
(1895) Detroit, Mich.
(1895) St. Louis, Mo.
(1896) Buffalo, N. Y.
(1896) Cincinnati, Ohio.

Below are listed the systems for which the data were taken from Pensions for public-school teachers, by Clyde Furst and I. L. Kandel, Bulletin, 1918, no. 12, of the Carnegie foundation for the advancement of teaching, pp. 56–69.

(1897) Syracuse, N. Y.
(1898) Charleston, S. C.
(1898) Newport, R. I.
(1903) New Jersey.
(1905) Rochester, N. Y.
(1907) Philadelphia, Pa.
(1908) Cohoes, N. Y.
(1908) Maryland.
(1909) Milwaukee, Wis.
(1909) St. Paul, Minn.
(1909) Westchester County, N. Y.
(1911) Wisconsin.
(1911) New London, Conn.
(1911) New York State.
(1913) Maine.
(1913) Vermont.
(1915) Chattanooga, Tenn.
(1915) Indiana.
(1915) Montana.
(1915) New Hampshire.
(1916) Erie, Pa.

Appendix III

(NOTE.—This appendix presents the sources of data upon which Tables 10, 11, 12, 13, 14, 15, 16, 17, and 18, which are given on pages 19 to 28 of Chapter IV, are based. In connection with Table 13, page 23, and Table 14, page 24, it contains lists of systems as classified in these tables.)

(a)

(1895) *Chicago.* Abbe, Mary M., recording secretary. Booklet of information concerning the Chicago teachers' pension law. Printed by order of the board of trustees of the public-school teachers' pension and retirement fund of the city of Chicago, July 25, 1923, p. 7.

(1896) *New Jersey.* Teachers' retirement fund. Typewritten copy of New Jersey laws, 1896, chapter 32. Furnished by John P. Dullard, State librarian, Trenton, N. J. Secs. 3, 5(1), 7.

(1897) *Providence, R. I.* Condon, Randall J. The public-school teachers' retirement fund in the city of Providence. Extract from the report for the year 1909–1910, p. 3, sec. 1(2), and p. 4, sec. 4.

(1900) *Boston, Mass.* Pensions for teachers and members of the supervising staff in the Boston public schools. Secretary's circular, no. 6, 1920–21. Boston printing department, 1920, pp. 3–6.

(1907) *Albany, N. Y.* Pages 330–333 cut from bound volume of minutes of the board of education for 1907–1908, and containing a copy of the teachers' retirement law. Furnished by the superintendent of schools, Albany, N. Y. P. 330, sec. 3(1), p. 331, sec. 5, and p. 332, sec. 7.

——— *Indianapolis, Ind.* Teachers' pension and disability law enacted by the General Assembly of the State of Indiana, March, 1907. Pamphlet, p. 5, sec. 3(2), p. 7, sec. 6(3).

(1908) *Baltimore, Md.* Teachers' retirement bill as passed by the Maryland legislature, 1908. Pamphlet, pp. 3–5, secs. 102D, 102E, 102F, 102G(1), and p. 6, sec. 102J.

——— *Harrisburg, Pa.* Teachers' retirement fund, Harrisburg school district. Retirement-fund plan and by-laws of retirement board. Harrisburg, Pa., 1908. Pamphlet, pp. 3–5, art. 1(2), art. 2(1), and p. 6, art. 4(1).

——— *Virginia.* Pensions for retired school teachers. State board of education bulletin, vol. 3, no. 1, June, 1920, p. 2, secs. 789, 790.

——— *Yonkers, N. Y.* Typewritten copy of article 9, sections 18 and 19, Second-class cities law and supplemental charter of the city of Yonkers. Furnished by L. L. Hodge, superintendent of schools, sec. 18.

(1909) *Duluth, Minn.* Duluth teachers' retirement fund association. Duluth, Huntley Printing Co. P. 6, art. 4, and p. 10, art. 7.

——— *Minneapolis, Minn.* Articles of incorporation and by-laws, teachers' retirement fund association. Pamphlet, p. 6, art. 4, and pp. 9–10, art. 7.

(1909) *Mt. Vernon, N. Y.* Teachers' retirement fund association. Typewritten copy furnished by W. H. Holmes, superintendent of schools. Sec. 229t.

—— *Omaha, Nebr.* Teachers' retirement fund law. Typewritten copy furnished by superintendent of schools. Secs. 1, 7.

—— *Salt Lake City, Utah.* Laws governing public-school teachers' retirement association, Salt Lake City, Utah. Pamphlet, pp. 3–4, secs. 4757, 4758.

(1910) *New Orleans, La.* Act no. 116, creating the board of trustees of the teachers' retirement fund, as amended by act 263 of 1914 and by act 17 of 1918. Pamphlet, pp. 6–9, secs. 5–7, and p. 10–11, sec. 10.

—— *Wilkes-Barre, Pa.* Teachers' retirement fund, Wilkes-Barre school district, retirement fund plan and by-laws of retirement board. Wilkes-Barre, Pa., 1911. Pamphlet, pp. 3, 4, art. 4, secs. 1, 2, p. 7, art. 4, secs. 1, 2, and p. 8, art. 5.

(1911) *New Haven, Conn.* Tenure of office act, teachers' retirement fund act, New Haven public schools. Pamphlet, p. 66, sec. 1, and p. 70, sec. 7.

—— *Portland, Oreg.* Enabling act, articles of incorporation and by-laws, teachers' retirement fund association of school district number 1, Multnomah county, Oreg. Pamphlet, pp. 19–23, art. 5, and pp. 25–27, art. 7.

—— *Topeka, Kans.* Senate bill no. 397, An act to provide for a retirement fund for public-school teachers in cities of the first class. Pamphlet, secs. 1, 3, 6, 8.

—— *Wilmington, Del.* An act providing for a retirement fund for public-school teachers. Rules and by-laws of the board of retirement. Wilmington, Del., Chas. L. Story co. print, 1911. Pamphlet, pp. 5, 6, sec. 2, and pp. 7, 8, sec. 4.

—— *San Antonio, Tex.* Constitution and by-laws of the teachers' retirement association and of the teachers' mutual benefit association of the San Antonio public schools. Pamphlet, p. 4, art. 8, and p. 4, sec. 1.

(1912) *Allegany County, Md.* Law, Teachers' retirement and relief fund of Allegany County as passed by the legislature of 1912 and amended by the legislature of 1924. Pamphlet, pp. 3–5, secs. 4, 5, 6, 7, 10.

—— *Baltimore County, Md.* The law relating to the teachers' retirement fund of Baltimore County. Extract from the public local laws of Baltimore county of the edition of 1916 as compiled by T. Scott Offutt, known as Offutt's code, with amendments passed by General Assembly of Maryland, sessions 1922–1924. Pamphlet, pp. 4, 5, secs. 588–591, and p. 8, sec. 594.

—— *Louisville, Ky.* The teachers' annuity, Louisville public-school teachers, Louisville, Ky. Pamphlet.

(1913) *California.* Compilation of laws dealing with the California teachers' retirement salary as amended by the legislature of 1925. Issued by the Public-school teachers' retirement salary fund board, January, 1926. Pamphlet, pp. 4, 5, ch. 694, secs. 5, 6, and pp. 10, 11, secs. 17, 18.

—— *Massachusetts.* Acts and resolves passed by the General court of Massachusetts in the year 1913, together with the constitution, the messages of the governor, etc. Chapter 832. Boston, Wright & Potter printing co., State printers, 18 Post office square, p. 939, ch. 832, sec. 3, and pp. 941, 942, ch. 832, secs. 5, 6.

(1913) *North Dakota.* Teachers' insurance and retirement fund-session laws of 1913, chapter 251. Pamphlet, pp. 6, 7, ch. 251, secs. 10, 11, 12.

—— *Peoria, Ill.* Rules and regulations of the Board of management of the public-school teachers' pension and retirement fund of the city of Peoria, Ill., adopted October 30, 1912. Peoria, Ill., Poffenbarger printing co. Pamphlet, pp. 15, 16, sec. 5, and p. 19, sec. 11.

—— *Reading, Pa.* Rules and regulations, teachers' retirement fund. School district of the city of Reading, Pa. Pamphlet, pp. 2, 3, secs. 2, 3, 4, 7.

—— *Terre Haute, Ind.* Teachers' retirement fund law and by-laws for the public-school teachers of Terre Haute, Ind. Issued by the Board of commissioners of the Teachers' retirement fund. Vocational press print. Pamphlet, pp. 5, 6, sec. 3.

(1914) *Bristol, R. I.* Typewritten copy of public laws, passed at the January session of the Rhode Island legislature, 1904, chapter 1183. Furnished by William C. Hobbs, superintendent of schools, Bristol, R. I., ch. 1183, secs. 1, 4.

—— *Lexington, Ky.* Lexington teachers' insurance and annuity law by act of legislature, 1914, for cities of second class, State of Kentucky. Pamphlet, secs. 521(3), 523(4).

—— *Newport, Ky.* Teachers' insurance and annuity bill. By-laws and regulations adopted by the Board of insurance and annuity, Newport, Ky. Pamphlet, pp. 2, 3, sec. 117, and p. 7, sec. 118.

(1915) *Illinois.* Hand-book, Illinois State teachers' pension and retirement fund law. Issued by the Board of trustees, 1920. pp. 8, 9, secs. 13, 14, 15.

—— *Michigan.* Ninth annual report of the Michigan teachers' retirement fund board for the year ending September 30, 1925. Contains a copy of the Michigan teachers' retirement fund law, act 174 of the public acts of 1915, pp. 26, 27, sec. 6, and p. 28, sec. 9.

—— *Minnesota.* Department of education. Laws of 1915, Minnesota, chapter 199, establishing a State teachers' retirement fund. Pamphlet, pp. 1, 2, ch. 199, sec. 2, and p. 5, ch. 199, sec. 8.

—— *Nevada.* School code, 1917. Compiled and issued by Superintendent of public instruction, April, 1917. An act to provide for the payment of retirement salaries to public-school teachers of this State. pp. 148, 149, secs. 4, 5, and p. 151, secs. 15, 16.

(1916) *Wheeling, W. Va.* Rules and regulations of the Teachers' retirement pension fund of the Independent school district of Wheeling, W. Va. Wheeling, W. Va., West Virginia printing co., 1917. Pamphlet pp. 5, 6, sec. 3, and p. 8, sec. 11.

(1917) *Connecticut.* Public acts passed by the General assembly of the State of Connecticut in the year 1917, chapter 411. Published by the State, Hartford, Conn. New Haven, Conn., press of S. Z. Field. p. 2581, ch. 411, sec. 3, and pp. 2582, 2583, ch. 411, sec. 5.

—— *Des Moines, Iowa.* Board of education. Teachers' pensions. Rule XIX–A. Des Moines, press of the Washington Irving junior high school. Pamphlet, secs. 5, 8, b.

—— *New York City.* Teachers' retirement law, section 1092 of the Greater New York charter, as amended by chapter 303 of the laws of 1917. Leaflet, ch. 303, sec. 1092 B, F(5).

—— *Bellingham, Wash.* Excerpts from Washington State manual on teachers' retirement fund. Pamphlet, secs. 414–418.

—— *Everett, Wash.* *Ibid.*

(1917) *Pennsylvania.* State school employes' retirement law and explanatory statement. Harrisburg, Pa., The Telegraph press, 1926. Pamphlet, p. 18, sec. 3, p. 23, sec. 7, and pp. 25, 26, sec. 8.

—— *Seattle, Wash.* Teachers' retirement fund law, chapter 163, session laws of 1917. Issued by Seattle school district no. 1, King county, Wash. Pamphlet, pp. 6–8, secs. 7–10.

—— *Spokane, Wash.* Excerpts from Washington State manual on teachers' retirement fund, section 408–433L. Spokane schools. Pamphlet, secs. 414–418.

—— *Tacoma, Wash.* Teachers' retirement fund law, chapter 163, session laws of 1917. Issued by Tacoma school district no. 10, Pierce county, Washington. Tacoma, Wash., Johnson-Cox co., makers. Pamphlet, pp. 6–9, secs. 7–10.

(1919) *New Jersey.* Acts of the one hundred and forty-third legislature of the State of New Jersey and seventy-fifth under the new constitution, chapter 89 (e). Trenton, N. J., MacCrellish & Quigley co., State printers. pp. 161–163, sec. 249, pp. 173, 174, sec. 253, and pp. 177–179, sec. 254.

—— *Vermont.* Acts and resolves passed by the General assembly of the State of Vermont at the twenty-fifth biennial session, 1919, chapter 57. Montpelier, Vt., printed by Capital city press. p. 68, ch. 57, secs. 3, 4, and pp. 69, 70, ch. 57, secs. 8, 9.

(1920) *Ohio.* General code of the State of Ohio, revised to 1921, Code No. 7896. Containing all laws of a general nature in force Jan. 1, 1921, with annotations from decisions of all Ohio courts and the Federal courts. Cleveland, Ohio, The Baldwin law publishing co. p. 1767, secs. 19, 22, and p. 1770, sec. 43.

(1921) *District of Columbia.* An act for the retirement of public-school teachers in the District of Columbia. Leaflet, p. 1, secs. 1, 2, and p. 3, secs. 11, 12.

—— *Wisconsin.* Analysis of Wisconsin's State retirement law for the public schools, normal schools, and university. Prepared under direction of the Annuity board, Madison, Wis. Pamphlet, p. 12, sec. 42.20, p. 15, sec. 42.25, pp. 19, 20, sec. 42.35, pp. 21, 22, sec. 42.40, and p. 23, sec. 42.42.

—— *New York State.* New York State teachers retirement board, education law, State teachers' retirement fund for public-school teachers. Pamphlet, pp. 4, 5, sec. 1102, p. 9, sec. 1107(4), and p. 16, sec. 1109–f.

(1924) *Maine.* State department of education, teachers' retirement fund. Augusta, Maine, 1925. Pamphlet, p. 8, ch. 209, sec. 3, pp. 10, 11, secs. 8, 9.

—— *Kansas City, Mo.* Rules establishing a teachers' savings fund and a teachers' retirement fund. Leaflet, secs. 2, 7.

—— *Minneapolis, Minn.* Resolutions for amendment of the articles of incorporation of the Minneapolis teachers' retirement fund association. Pamphlet, p. 3, art. 4, p. 7, art. 7, and pp. 7, 8, art. 8.

Below are listed the systems for which the data were taken from Teachers' pensions—the story of a women's campaign, by Elizabeth A. Allen, Review of reviews, 15: 700–11, June, 1897.

(1895) Brooklyn, N. Y.
(1895) Detroit, Mich.
(1895) St. Louis, Mo.
(1896) Buffalo, N. Y.
(1896) Cincinnati, Ohio.

Below are listed the systems for which the data were taken from Pensions for public-school teachers, by Clyde Furst and I. L. Kandel. Bulletin, 1918, no. 12, of the Carnegie foundation for the advancement of teaching, pp. 56-69.

(1897) Syracuse, N. Y.
(1898) Newport, R. I.
(1905) Rochester, N. Y.
(1907) Philadelphia, Pa.
(1908) Cohoes, N. Y.
(1909) Milwaukee, Wis.
(1909) St. Paul, Minn.
(1909) Westchester County, N. Y.
(1911) Wisconsin.
(1911) New London, Conn.
(1911) New York State.
(1915) Indiana.
(1915) Montana.
(1916) Erie, Pa.

(b) Below is given a list of the systems studied in connection with Table 13, page 23, with the amounts of the teacher's assessment.

Flat sum.—No relation to age, service, or salary

(1894–1904) Boston, $18.
(1905–1914) Milwaukee, $2 per month; San Antonio, $9; California, $12.
(1915–1924) Montana, $12; Nevada, $9; Wheeling, $20; Kansas City, $90.

Flat sum fixed according to length of service

1894-1904; 1905-1914	First 5 years	Second 5 years	Third 5 years	Fourth 5 years	There-after
Duluth	$10	$20	$25	$25	$25
Minneapolis	10	20	25	25	25
Portland	10	10	20	20	30
Louisville	10	10	10	20	20
Peoria	5	10	15	30	30
Reading	9	9	15	15	15
Terre Haute	10	10	20	20	25
South Bend	10	10	20	20	25
1915-1924					
Illinois	5	5	10	30	36
Indiana	10	10	10	20	20
Minnesota	5	10	20	20	30
Bellingham	12	12	24	24	36
Everett	12	12	24	24	36
Seattle	12	12	24	24	36
Spokane	12	12	24	24	36
Tacoma	12	12	24	24	36

(c) Below is given a list of the systems studied in connection with Table 14, page 24, with the teacher's assessment when expressed as a percentage of salary.

Rates fixed as percentage of salary

(1894–1904) Brooklyn, 1 per cent; Chicago, 1 per cent; Detroit, 1 per cent; St. Louis, 1 per cent; Buffalo, 1 per cent; Cincinnati, 1 per cent; New Jersey (1896), 1 per cent; Providence, 1 per cent; Syracuse, 1 per cent; Newport, 1 per cent.

(1905–1914) Rochester, 2 per cent; Albany, 1 per cent; Cohoes, 1 per cent; Virginia, 1 per cent; Yonkers, 1 per cent; Mt. Vernon, 1 per cent; Omaha, 1 per cent; Salt Lake City, 1 per cent; St. Paul, 1 per cent; Westchester County, 1 per cent; New Orleans, 1 per cent; Wilkes-Barre, 1 per cent; New London, 1 per cent; New York State, 1 per cent; Topeka, 1 per cent; Baltimore Count, 2 per cent; Massachusetts, 3 to 7 per cent; Bristol, 1 per cent.

(1915–1924) Erie, 3 to 7 per cent; Connecticut, 5 per cent; Des Moines, 1 per cent; Ohio, 4 per cent; Wisconsin, 5 per cent; New York State, 4 per cent; Maine, 5 per cent; Minneapolis, 5 per cent.

Rates fixed as percentage of salary graduated according to length of service

1894–1904; 1905–1914	First 5 years	Second 5 years	Third 5 years	Fourth 5 years	Thereafter
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Indianapolis	1	1	1	2	2
Philadelphia	1	1	2	2	2
Baltimore	1	1	1½	1½	2
Harrisburg	2	2	3	3	3
Wisconsin	1	1	2	2	2
New Haven	1	1	2	2	2
Wilmington	1	1	2	2	3
Allegany County	1	1	1½	1½	2
North Dakota	1	1	2	2	2
Lexington	1	1	2	2	2
Newport, Ky	1	1	2	2	2
1915–1924					
Michigan	½	1	1	2	2
Minnesota	1½	1½	2	2	2

Appendix IV

(NOTE.—This appendix presents the sources of data upon which are based Tables 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, and 29 of the text proper of Chapter V. In connection with Table 23 it contains a list of systems with service and age requirements.)

(*a*)

(1896) *New Jersey.* Teachers' retirement fund. Typewritten copy of New Jersey laws, 1896, chapter 32. Furnished by John P. Dullard, State librarian, Trenton, N. J. secs. 3, 4.

(1897) *Providence, R. I.* Condon, Randall J. The public-school teachers' retirement fund in the city of Providence. Extract from the report for the year 1909–1910, p. 4, secs. 4, 5.

(1900) *Boston, Mass.* Pensions for teachers and members of the supervising staff in the Boston public schools. Secretary's circular, no. 6, 1920–21. Boston printing department, 1920, p. 4.

(1907) *Albany, N. Y.* Pages 330–333 cut from bound volume of minutes of the Board of education for 1907–1908, and containing a copy of the teachers' retirement law. Furnished by the superintendent of schools, Albany, N. Y. p. 331, sec. 5.

——— *Indianapolis, Ind.* Teachers' pension and disability law enacted by the General assembly of the State of Indiana, March, 1907. Pamphlet, pp. 7, 8, secs. 6, 7, 8, and p. 10, sec. 12.

——— *Rhode Island.* Typewritten copy of chapter 1468, an act providing for the pensioning of school-teachers in this State. Passed April 23, 1907. Furnished by Walter E. Ranger, commissioner of education, State of Rhode Island. sec. 1.

(1908) *Baltimore, Md.* Teachers' retirement bill as passed by the Maryland legislature, 1908. Pamphlet, p. 5, sec. 104H, 102[illegible] p. 6, sec. 102K, and pp. 7, 8, secs. 1020, 102P.

——— *Boston, Mass.* Pensions for teachers and members of the supervising staff in the Boston public schools. Secretary's circular, no. 6, 1920–21. Boston printing department, 1920. pp. 6, 7, 8.

——— *Brookline, Mass.* Typewritten copy of chapter 498, acts of 1908. Furnished by superintendent of schools, Brookline, Mass. sec. 2.

——— *Harrisburg, Pa.* Teachers' retirement fund, Harrisburg school district. Retirement fund plan and by-laws of retirement board, Harrisburg, Pa., 1908. Pamphlet, p. 5, art. 3, secs. 1, 2.

——— *Virginia.* Pensions for retired school-teachers. State board of education bulletin, vol. 3, no. 1, June, 1920, p. 2, secs. 787, 788, p. 3, sec. 794, and p. 5, sec. 801.

(1908) *Yonkers, N. Y.* Typewritten copy of Article IX, sections 18 and 19, second-class cities law and supplemental charter of the city of Yonkers. Furnished by L. L. Hodge, superintendent of schools. Art 9, sec. 19.

(1909) *Denver, Colo.* Teachers' retirement fund law. Typewritten copy furnished by Mary C. C. Bradford, State superintendent of schools.

—— *Duluth, Minn.* Duluth teachers' retirement-fund association. Duluth, Minn., Huntley printing co. Pamphlet, p. 12, art. 8.

—— *Minneapolis, Minn.* Articles of incorporation and by-laws, Minneapolis teachers' retirement fund association, Minneapolis, Minn. Pamphlet, p. 10–13, art. 8.

—— *Omaha, Nebr.* Teachers' retirement fund law. Typewritten copy furnished by superintendent of schools. Secs. 3, 4, 5, 6.

—— *Salt Lake City, Utah.* Laws governing public-school teachers' retirement association, Salt Lake City, Utah. Pamphlet, p. 5, sec. 4760, and p. 7, sec. 4762.

(1910) *New Orleans, La.* Act no. 116, creating the board of trustees of the teachers' retirement fund, as amended by act 263 of 1912 and by act 17 of 1918. Pamphlet, p. 9, secs. 8, 9, p. 11, sec. 11, and pp. 13, 14, secs. 15, 16.

—— *Wilkes-Barre, Pa.* Teachers' retirement fund, Wilkes-Barre school district, retirement fund plan and by-laws of retirement board. Wilkes-Barre, Pa., 1911. Pamphlet, p. 5, art. 3, secs. 1–7, and p. 8, art. 4, sec. 6.

(1911) *Canon City, Colo.* Teachers' retirement fund provisions. Typewritten copy furnished by O. B. Drake, superintendent of schools.

—— *New Haven, Conn.* Tenure of office act, Teachers' retirement fund act, New Haven public schools. Pamphlet, pp. 68–70, secs. 5–9.

—— *Portland, Oreg.* Enabling act, articles of incorporation and by-laws, Teachers' retirement fund association of school district No. 1, Multnomah county, Oreg. Pamphlet, pp. 20–23, art. 5, secs. 2–8.

—— *Topeka, Kans.* Senate bill no. 397. An act to provide for a retirement fund for public-school teachers in cities of the first class. Pamphlet, secs. 3, 4, 5.

—— *Wilmington, Del.* An act providing for a retirement fund for public-school teachers. Rules and by-laws of the board of retirement. Wilmington, Del., Chas. L. Story co., print, 1911. Pamphlet, pp. 6–8, secs. 3, 4.

—— *San Antonio, Tex.* Constitution and by-laws of the teachers' retirement association and of the teachers' mutual benefit association of the San Antonio public schools. Pamphlet, p. 4, secs. 2, 3.

(1912) *Allegany County, Md.* Law. Teachers' retirement and relief fund of Allegany county as passed by the legislature of 1912 and amended by the legislature of 1924. Pamphlet, pp. 4–6, secs. 8–12, and pp. 6, 7, secs. 15, 16.

—— *Arizona.* Session laws of Arizona, 1912, chapter 95. Typewritten copy furnished by Sidney P. Osborn, Secretary of Arizona. sec. 1.

—— *Baltimore County, Md.* The law relating to the teachers' retirement fund of Baltimore county. Extract from the Public local laws of Baltimore county of the edition of 1916 as compiled by T. Scott Offutt, known as Offutt's code, with amendments passed by General assembly of Maryland, sessions 1922–1924. Pamphlet, p. 7, secs. 592, 593, pp. 8, 9, sec. 595, and p. 10, secs. 599, 600.

—— *Louisville, Ky.* The teachers' annuity, Louisville public-school teachers, high school. Pamphlet, secs. 2, 3.

(1913) *California.* Compilation of laws dealing with the California teachers' retirement salary as amended by the legislature of 1925. Issued by the Public-school teachers' retirement salary fund board, January, 1926. Sacramento, California State printing office, John E. King, State printer. Pamphlet, pp. 7–9, secs. 13, 14.

(1913) *Columbus, Ga.* Typewritten copy of excerpt from the laws of the Columbus public schools, act of General assembly of Georgia, 1913. Furnished by Roland B. Daniel, Superintendent of schools, Columbus, Ga. sec. 26A.

—— *Massachusetts.* Acts and resolves passed by the General court of Massachusetts in the year 1913, together with the constitution, the messages of the governor, etc. chapter 832. Boston, Wright & Potter Printing co., State printers, 18 Post Office square. pp. 942–944, secs. 6, 7.

—— *North Dakota.* State of North Dakota, Teachers' insurance and retirement fund, session laws of 1913, chapter 251. Issued by the board of trustees. Devils Lake, N. D., Journal publishing co., State printers, 1913. Pamphlet, pp. 12, 13, sec. 24, and p. 14, secs. 27, 28.

—— *Peoria, Ill.* Rules and regulations of the board of management of the public-school teachers' pension and retirement fund of the city of Peoria, Ill. Adopted October 30, 1913. Peoria, Ill., Poffenbarger printing co. Pamphlet, pp. 16–17, secs. 6, 7, 8, and pp. 18, 19, sec. 10.

—— *Reading, Pa.* Rules and regulations, Teachers' retirement fund, school district of the city of Reading, Pa. Pamphlet, p. 3, art. 3, secs. 1–4.

—— *Terre Haute, Ind.* Teachers' retirement fund law and by-laws for the public-school teachers of Terre Haute, Ind. Issued by the board of commissioners of the teachers' retirement fund. Vocational press print. Pamphlet, pp. 8, 9, secs. 6, 7, 8.

—— *Vermont.* Pages 291–294 cut from bound volume of Vermont general laws, 1917, and containing a copy of chapter 56, pensions and teachers' retirement fund, pp. 291–293, secs. 1218, 1219, 1226.

(1914) *Bristol, R. I.* Typewritten copy of public laws, passed at the January session of the Rhode Island legislature, 1904, chapter 1183. Furnished by William C. Hobbs, superintendent of schools, Bristol, R. I. secs. 4, 5.

—— *Lexington, Ky.* Lexington teachers' insurance and annuity law by act of legislature, 1914, for cities of second class, State of Kentucky. Pamphlet, secs. 521, 522, 523.

—— *Newport, Ky.* Teachers' insurance and annuity bill. By-laws and regulations adopted by the board of insurance and annuity, Newport, Ky. Pamphlet, pp. 4–7, sec. 118.

—— *South Bend, Ind.* House bill no. 347, introduced in the House of representatives, January 24, 1913, approved March 5, 1913. Pamphlet, pp. 4–7, secs. 2–5.

(1915) *Illinois.* State teachers' pension and retirement fund law. Issued by the board of trustees, compiled and arranged by R. O. Clarida, secretary, January, 1920. Hand-Book, pp. 11–13, secs. 25, 26, 27.

—— *Michigan.* Ninth annual report of the Michigan teachers' retirement fund board for the year ending September 30, 1925. Contains a copy of the Michigan teachers' retirement fund law, act 174 of the public acts of 1915, pp. 27–29, secs. 8, 10.

—— *Minnesota.* Department of education. Laws of 1915, chapter 199, establishing a State teachers' retirement fund. Pamphlet, pp. 5, 6, secs. 9, 10.

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(1894) New York City, N. Y.
(1895) Brooklyn, N. Y.
(1895) Chicago, Ill.
(1895) Detroit, Mich.
(1895) St. Louis, Mo.
(1896) Buffalo, N. Y.
(1896) Cincinnati, Ohio.

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(1897) Syracuse, N. Y.
(1898) Charleston, S. C.
(1898) Newport, R. I.
(1903) New Jersey, N. J.
(1905) Rochester, N. Y.
(1907) Philadelphia, Pa.
(1908) Cohoes, N. Y.
(1908) Maryland.
(1909) Milwaukee, Wis.
(1909) Mount Vernon, N. Y.
(1909) St. Paul, Minn.
(1909) Westchester County, N. Y.
(1911) Wisconsin.
(1911) New London, Conn.
(1911) New York State.
(1913) Maine.
(1915) Chattanooga, Tenn.
(1915) Indiana.
(1915) Montana.
(1915) New Hampshire.
(1916) Erie, Pa.

(*b*) Below are given the service and age requirements for the 92 pension systems included in the study which Tables 23 and 24 represent. The systems are arranged by periods, according to bases given in Table 23:

Name of system	Years of service required		Years of service in city or State	Age required	
	Men	Women		Men	Women
1894–1904					
New York City	35	30			
Chicago	25	20			
Detroit	25	25			
St. Louis	30	25			
Buffalo	30	25			
Cincinnati	20	20			
New Jersey (1896)	20	20			
Providence	35	30	20		
Syracuse	35	30	15		
Charleston	25	25			
Newport	30	30	15		
Boston	30	30	10		
Brooklyn	30	30		60	55
New Jersey (1903)	35	35	25	70	70

Name of system	Years of service required		Years of service in city or State	Age required	
	Men	Women		Men	Women
1905–1914					
Rochester	35	30	15		
Albany	30	30			
Indianapolis	25	25	20		
Baltimore	40	40	20		
Cohoes	30	30	15		
Yonkers	30	25	15		
Duluth	20	20			
Milwaukee	25	25	15		
Minneapolis	20	20			
Mount Vernon	30	25	15		
Omaha	35	35	20		
St. Paul	25	25	15		
Westchester County	25	25	10		
New Orleans	40	40	10		
Wilkes-Barre	30	30	20		
Wisconsin	25	25	18		
New York State	25	25	15		
Portland	30	30	10		
Topeka	30	30	15		
Wilmington	35	35	20		
Allegany County	40	40	20		
Arizona	25	25	25		
Baltimore County	35	35	20		
Louisville	30	30	30		
California	30	30	15		
Columbus	30	30	25		
North Dakota	25	25	18		
Peoria	25	25			
Reading	30	30	20		
Terre Haute	20	20	8		
Vermont	30	30	20		
Bristol	35	30	20		
Lexington	25	25	20		
Newport	25	25	20		
South Bend	20	20	8		
Rhode Island	35	35	25	60	60
Brookline	25	25	25	60	60
Harrisburg	30	30	20	60	60
Maryland	25	25	25	60	60
Virginia	30	30	30	58	50
Denver	25	25	15	60	55
Salt Lake City	30	30	15	60	60
Canon City	25	25	15	60	55
New Haven	30	30	20	65	65
Wilmington	30	30		60	60
San Antonio	20	20	15	55	55
Maine	25	25	20	60	60
Philadelphia	30	30	20	60	60
Boston	30	30	10	65	65
New London	35	35	15	65	65
Massachusetts	30	30		60	60
1915–1924					
Indiana	35	35	23		
Michigan	30	30	15		
Minnesota	20	20	15		
Montana	25	25	15		
Nevada	30	30	15		
Bellingham	30	30	15		
Everett	30	30	15		
Seattle	30	30	15		
Spokane	30	30	15		
Tacoma	30	30	15		
Manchester	30	30	30		
New York State	35	35	25		
Pennsylvania				62	62
New Jersey				62	62
Chattanooga	30	30		60	60
Illinois	25	25	15	50	50
New Hampshire	30	30	15	60	55
Erie	30	30		60	60
Des Moines	35	35	15	55	55
Vermont	30	30	20	60	60
District of Columbia			10	62	62
New York State	25	25	15	60	60
Maine	30	30	20	60	60
Wheeling	30	30	20	65	65
Connecticut	35	35	35	60	60
New York City	35	35	[illegible]	65	65
Ohio	30	30		60	60
Wisconsin	None.	None.		None for annuity.	

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