

L. ROOM
LIBRARY
MICH.

NOV 1 1930

VOL. VIII, NO. 5

NOVEMBER, 1930

Research Bulletin

OF THE

National Education Association

Current Issues in Teacher Retirement

PUBLISHED BY THE RESEARCH DIVISION
OF THE NATIONAL EDUCATION ASSOCIATION

1201 SIXTEENTH STREET NORTHWEST, WASHINGTON, D. C.

Entered as second-class matter February 10, 1923, at the Post Office at Washington, D. C., under Act of August 24, 1912. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized February 10, 1923.

Research Bulletin of the National Education Association

Published five times each year in January, March, May, September, and November by the Research Division of the National Education Association of the United States.

President, WILLIS A. SUTTON

Secretary, J. W. CRABTREE

The payment of the \$5 membership fee of the National Education Association entitles one to receive the Research Bulletin, the Journal, the Annual Volume of Addresses and Proceedings, and certain other publications of the National Education Association for one year. One dollar of each \$5 membership fee is for a year's subscription to the Research Bulletin. The Research Bulletin may be subscribed for separately at a subscription price of \$1 per year. Copies may be purchased for 25 cents, and in quantities at a reduced rate. Those entitled to receive the Research Bulletin regularly are asked to report at once any change of address, giving old as well as new address.

Entered as second-class matter February 10, 1923, at the Post Office at Washington, D. C., under Act of August 24, 1912. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized February 10, 1923.

Director of Research: John K. Norton Associate Director: Margaret Alltucker Norton

Assistant Directors: Frank W. Hubbard, William G. Carr, Richard R. Foster

Executive and Editorial Offices - - 1201 Sixteenth Street N. W., Washington, D. C.

How to Secure Additional Copies

Additional copies of this issue of the Research Bulletin may be obtained at the following prices, postpaid if remittance accompanies order:

Single copies of this issue 25¢
2 to 9 copies—10% reduction
10 to 99 copies—25% reduction
100 or more copies—33 1/3% reduction.

Orders for Research Bulletins not accompanied by remittance are subject to transportation charges. Make checks payable to National Education Association.

Subscriptions to Research Bulletins

The Research Bulletin may be received regularly through a special subscription at \$1 per year. Many of the early issues of the Research Bulletin are already out of print. The special subscription at \$1 per year offers an opportunity to maintain a complete file of future Research Bulletins.

Reproduction of Material in Research Bulletins

Electro-mat-slide service: The National Education Association maintains a special service to aid those reproducing material appearing in its publications. Send orders or requests for further information to the Division of Publications.

Tables, charts, and any other material appearing in Research Bulletins may be reproduced for the advancement of education. No authority other than this notice is needed previous to such reproduction. For further information on this subject or others affecting the work of the Division, address the Research Division, National Education Association, 1201 Sixteenth Street N. W., Washington, D. C.

CONTENTS

	Page
Foreword.....	224
The General Nature of a Retirement System and How It Works.....	225
Fundamental Principles of a Teacher Retirement System.....	226
State and Local Retirement Systems Now In Effect.....	230
Present Status of Teacher Retirement Legislation.....	231
Studies In Progress on Teacher Retirement Systems.....	233
A Retirement Plan for Staffs of State Education Associations.....	234
Teacher Retirement Issues in Theory and Practice.....	235
Selected Special Bibliography.....	268
Where to Write Concerning Details of State and Local Retirement Systems..	271
Recent Selected References on Teacher Retirement and Related Topics.....	273

TABLES

Principal Source of Teacher Retirement Funds (Table 1).....	236
Provision Regarding Teacher's Deposit in Retirement Fund (Table 2).....	238
Provision Regarding State's Payments to Retirement Fund (Table 3).....	238
Form of Teacher's Deposit in Retirement Fund (Table 4).....	240
Form of State's Payment to Retirement Fund (Table 5).....	242
Membership in Teacher Retirement Systems (Table 6).....	246
Amount of Deposit Withdrawable by Teacher Who Leaves System Prior to Regular Retirement (Table 7).....	247
Amount of Deposit Returnable Upon Teacher's Death Prior to Regular Retirement (Table 8).....	248
Conditions for Optional Superannuation Retirement (Table 9).....	249
Compulsory Retirement Age (Table 10).....	250
Retirement Allowances Provided by State-wide Teacher Retirement Systems (Table 11).....	251
Disability Allowances (Table 12).....	255
Conditions for Disability Retirement (Table 13).....	258
Medical Examinations Required for Award or Continued Receipt of Disa- bility Allowance (Table 14).....	259
Extent of Disability (Table 15).....	259
Circumstances Under Which Disability Allowance May be Discontinued or Reduced (Table 16).....	260
Options Offered Teachers at Retirement (Table 17).....	261
Agency In Charge of Administration (Table 18).....	263
Periodic Actuarial Investigations (Table 19).....	266

FOREWORD

FEW ELEMENTS in the program of the National Education Association have contributed more to "elevate the character and advance the interest of the profession of teaching and to promote the cause of popular education in the United States" than its continuous study and campaign for sound teacher retirement systems. In pointing out that the dignified retirement of aged or disabled workers is an essential factor in an effective school system, the Association has taken a position which is coming to be increasingly recognized both by industry and by the various branches of public service.

How to secure and maintain an effective retirement system raises problems of the first order of difficulty. In the solution of these problems many professions must cooperate. The actuary who establishes the retirement system on a sure financial basis, the lawyer who prepares the statutes creating the system, and the administrator who guides its operation from day to day and from year to year are each important. But more important than any of these are the teachers themselves. If the teachers in a state understand the real nature of a retirement system and fully recognize its great importance in the total educational program, it is ultimately certain to succeed.

For years the Committee on Retirement Allowances of the National Education Association has kept in intimate touch with the problems of teacher retirement throughout the Nation. It has issued, in cooperation with the Research Division, a series of reports centering around this problem. The 1930 report, here reprinted as an issue of the Research Bulletin, contains an analysis of sixteen crucial issues in teacher retirement. The teaching profession in the states which already have teacher retirement systems, as well as in those states which are working toward the establishment of such systems, will find the material presented in this bulletin of fundamental importance. The fact that teacher retirement legislation will be considered by more than thirty states in 1930-31 makes its publication at this time particularly useful.

J. W. CRABTREE, *Secretary,*
National Education Association.

The General Nature of a Retirement System and How It Works ¹

A teachers' retirement system may be described as a business-like plan whereby the schools are enabled to retire teachers who can no longer render their best service because of advanced age or physical disability, and to provide them with an income for life. For better understanding of the practical workings of such a plan, the following description is given of a teacher retirement system established on a scientific basis.

In such a teacher retirement system the state and the teacher are contracting parties. According to rates agreed upon, after scientific investigation of the composition of the teaching staff, and after decision on the kind and value of the benefits to be received, the teacher makes a regular contribution to a fund sometimes known as the annuity savings fund. These contributions, made during the period of the teacher's service, are credited to the individual teacher with interest. At the time of retirement the sum of these contributions, plus the interest accumulated thereon, is used to purchase an annuity based on standard mortality tables. This annuity makes up approximately one-half the total retirement allowance received. Furthermore, the teacher's contributions, with the interest thereon, are subject to refund in case of the teacher's death, resignation, or withdrawal from the teaching profession prior to the time of retirement.

To make up its share of the retirement allowance, the state concurrently during the teacher's period of service makes appropriations to a reserve fund sufficient to finance at the teacher's retirement a pension equal to the annuity purchased by the teacher's accumulated contributions.

The total retirement allowance, composed of the annuity and pension described above, is available in the form in which the teacher desires to receive it, upon the fulfillment of certain minimum age or service conditions, or both, at which time retirement is optional. A compulsory age of retirement may be set up. Provision is also made for the retirement of teachers who become disabled prior to the age for regular retirement and who have been in service for a reasonable period.

To render a system of retiring allowances effective, membership is required of all teachers newly employed. Upon the establishment of a system of retirement allowances, teachers already in service are given the choice of joining the retirement system, this choice to be exercised within a reasonably short period. The state assumes the cost of making up amounts due such teachers for service prior to the establishment of the retirement system. If the retirement system inaugurated replaces an older plan, financial provision is also made to guarantee the full amount of allowances promised under that plan.

The administration of a teacher retirement system is controlled by a board representing the interests of the public and the teacher, and whose personnel is carefully prescribed by the retirement act. This board oversees the financing and granting of retirement allowances, looks after the reserves accumulated, and takes the steps required to maintain the system on a sound actuarial basis; for instance, the making of changes in amounts or rates shown to be necessary by the periodic actuarial investigations of the fund.

¹This brief statement of the general nature and method of operation of teacher retirement systems was prepared by the Committee on Retirement Allowances of the National Education Association, in cooperation with the National Council of Teachers Retirement Systems.

RETIREMENT funds have done more to improve the quality of teaching and to make it a profession than any other one thing. Retirement funds make it possible for teachers whose efficiency has been lowered by the ills of age and by a lack of touch with modern methods to step aside for those with more vigor and better acquaintance with the best of modern educational thought. Greist, O. H. National Council of Teachers' Retirement Systems. *Proceedings of the Seventh Annual Meeting*. Atlantic City, N. J., February 24, 1930. p. 6.

Fundamental Principles of a Teacher Retirement System¹

I. Membership Required of New Teachers; Optional for Those in Service

Membership should be compulsory for teachers entering the service after the enactment of the retirement law; optional for teachers already in service.

A retirement system is primarily an efficiency measure. It reduces to a minimum the probability that teachers rendered inefficient by old age will continue in service. The benefit thus accruing to the children is likely to be partly lost if membership is optional.

Early entrance into the retirement system is desirable for a number of reasons: (1) It tends to stabilize the profession and to give the teacher a professional attitude. The enactment of a retirement system, in itself recognizes that teaching offers a permanent career rather than a transient occupation; (2) If the teacher begins his deposits at an early age, a lower rate of deduction from salary will provide as large or a larger retirement allowance. The funds have a longer period over which to accumulate, and the effect of compound interest is increased. The fact that the percent of salary deducted is increased if entrance is delayed, acts as a greater deterrent to entrance each year joining is postponed; (3) Young people are likely to look upon old age as too remote to require early provision, and consequently unduly delay becoming members; (4) Membership under a retirement system early establishes a habit of thrift; (5) Teachers already in service, by becoming members, guarantee that all teachers can be retired upon reaching old age; (6) If the teacher leaves service before age of retirement, the deposits made by him are returned in the form of cash, and he has had a lesson in wise thrift; (7) Even if the turnover of membership in the retirement system is high, the effect is to increase the ease with which an adequate reserve is built up.

Some objections have been offered against requiring immediate entrance of new teachers. Although there are arguments to support this attitude, the weight of the evidence is against it.

Teachers already in service should have option as to whether they will become members of a new retirement system, this option to be exercised within a reasonably short period.² It would probably be desirable to require all teachers to become members, including those already in service if it were not for the fact that those in service, not understanding the purposes and advantages of a retirement system, are likely to oppose the enactment if membership is made compulsory for them. It has been the experience that when proper information is issued practically all the teachers already in service enter the retirement system.

II. Guaranties to Both Teacher and Public

Retirement ages and rules should be defined and administered so as to retain teachers during efficient service and provide for their retirement when old age or disability makes satisfactory service no longer possible. The retirement allowance should be sufficient to enable the retiring teacher to live in reasonable comfort, thereby removing the temptation to remain in the classroom beyond the period of efficient service.

Both the teacher and the public should be assured certain definite results. Every teacher should be assured the certainty of a retirement allowance. Furthermore, the amount of this allowance must be adequate, so that the retired teacher can maintain a respectable standard of living.

The public should have the guarantee that its Board of Education may retire teachers incapable of effective service due to advanced age or disability. When an adequate retire-

¹ This statement of principles is the result of revisions and extensions of those originally published in the May, 1924, *Research Bulletin of the National Education Association*, pages 69 to 73. Revisions have appeared in the *Research Bulletins* for May, 1926, and May, 1928. Principle XV in this issue of the Bulletin is a combination of principles XV and XVI of the 1928 report. Other statements of principles for teacher retirement systems may be found in the following references:

Almack, John C., and Lang, Albert R. *Problems of the Teaching Profession*. Houghton Mifflin Co., Boston, Mass., 1925. Chap. XIV, p. 269.

Cubberley, Ellwood P. *State School Administration*. Houghton Mifflin Co., Boston, Mass., 1927. Chap. XXIV, p. 661-2.

Housman, Ida E. "A Preparatory Program for Retirement Legislation." *Educational Review* 73: 284-6; May, 1927.

Palmer, Nida P. *Pension Systems for Public School Teachers*. U. S. Department of the Interior, Bureau of Education, Bulletin, 1927, No. 23. Government Printing Office, Washington, D. C. p. 48-9.

² It has been suggested that the retirement act should make teachers already in service members of the retirement system unless they file a specific request for exemption.

ment allowance is provided for, the Board is in a position to maintain the efficiency of its school system.

Some advocate the stating of an age at which retirement is automatic and beyond which no teacher can remain in service. The general effect of such a provision is probably to increase the efficiency of the schools.

In the last analysis, the benefits of a teachers' retirement system should accrue primarily to the boys and girls attending our public schools. They are the ones who suffer most when teachers are retained in service after old age has impaired their effectiveness.

III. Costs Shared by Teachers and Public

The sums deposited by the teachers and by the public during the period of service should be approximately equal.

The cost of a retirement system should be met jointly by the teachers and by the public. The majority of recently enacted scientific laws embody this principle. The cost of benefits received should be distributed approximately equally between the public and the teachers.

IV. Amount of Deposits and Payments Stated

The deposit by the teacher and the payment by the public should be stated by the organic act creating a retirement system, subject to adjustment in accordance with future actuarial investigation.

The deposits to be made by the teacher and by the public should be definitely stated in the organic act and should continue as stated until changed by the retirement board on the basis of actuarial investigation. Too often in the past definite contributions to be paid by the teacher have been provided for, but the amount of the public's payment has been uncertain and indefinite. All future retirement laws should state definitely the method whereby the amounts to be deposited by the teachers and the payments by the public are to be determined. If this is done the exact amount of the fund which is being built up is known, it can be depended upon, and expenditures can be planned accordingly.

V. Deposits of Teacher and Payments by State Concurrent with Service

The teacher's contributions and the state's payments to the retirement fund should be made regularly and concurrently during the teacher's period of service.

It is important that provision be made for regular deposits on the part of the teacher and for regular payments by the public concurrently with the time the teacher is in service. The reason difficulty is being met today in adopting sound retirement legislation in some states is that the old, unsound retirement systems have not adequately provided for this in the past. As a result, many of these systems are so far behind, that is, have such large accrued liabilities, that a legislature hesitates to vote the sums necessary to bring payments up to date. If the payments to the reserve fund by the state are not made concurrently with the teacher's service, the amount later to be paid will be greatly increased due to loss of the interest which the payments would have earned if made concurrently with service.¹

It should always be insisted when a new plan is adopted that it contain a provision requiring regular payments by the state into the reserve fund which is the basis of the part of the teacher's retirement allowance provided by the state.

The state should live up to the requirements of the law that it makes for the retirement of its teachers, just as it requires the teachers to live up to this law, and just as it requires banks, insurance companies, and similar institutions to live up to the law concerning the reserves they must carry.

VI. Individual Accounts Kept

The retirement board should open an account with each individual teacher. Sums deposited in that account by the teacher should be held in trust for that teacher.

Under no circumstances should the funds deposited by one teacher be used to pay the annuities of another teacher. Each individual must be assured that his annuity contract is an inviolable contract between solvent parties. He can be given absolute assurance of this only when he knows his deposits are set aside in a trust fund for him.

¹ The interest earnings of the state's payments are considerably larger than the actual state appropriations in the case of most sound retirement systems.

VII Retirement System on a Reserve Basis

An adequate and actuarially sound reserve fund should be created to guarantee that the necessary money to pay the benefits promised will be on hand at the time of retirement.

A retirement system on the reserve basis is insolvent and unsound which does not carry in its reserve funds the amounts which careful actuarial calculation has determined are necessary to guarantee all the benefits promised by the plan.

VIII. Periodic Actuarial Investigations

Periodic actuarial investigations should be made of every retirement system to insure its financial soundness.

The amounts to be paid into the reserve funds in order to guarantee the benefits promised and other features of a sound retirement system are based upon careful actuarial calculations. These calculations, based upon past experience and detailed facts concerning the retirement system, constitute the best estimate as to what amounts and rates should be fixed. From time to time it may be necessary to revise these estimates if the financial soundness of the retirement system is to be preserved. These revisions involve what are usually comparatively small changes in the amounts and rates paid in connection with the retirement system. No changes in rates should be permitted unless based upon an actuarial evaluation. When this evaluation has been made, however, such changes as the findings recommend should be put into effect at once.

IX. Disability Provided For

A retirement allowance should be provided for disabled teachers after a reasonable period of service.

The retirement system should protect against disability by providing for the immediate retirement of disabled teachers. This feature of the retirement plan should go into effect for all teachers after they have been members for a reasonable period of years. When proper physical standards are enforced at time of entrance to the profession, the cost of providing protection against disability is a comparatively small percent of the total cost of a retirement system.

X. Teachers' Accumulated Deposits Returnable in Case of Withdrawal From Service or Death Prior to Retirement

Teachers leaving the service before the regular retirement age should retain rights to all moneys accumulated in their accounts. Teachers' accumulated deposits should be returnable upon withdrawal from teaching service, or death prior to retirement.

Each teacher's deposit should be considered his personal property the moment it has been deposited and should be at his disposal, together with interest accumulations, at any time he withdraws from teaching service. In other words, his deposit should be considered a savings account until the amount is transferred into the retirement fund at the time of retirement upon an annuity.

In case of death, the teacher's deposits, together with interest accumulated, should be payable either to designated beneficiary, or to his estate. The teacher's deposits should be looked upon as a trust fund which belongs to the teacher, and as a means whereby every teacher is able to build up an estate. Under no circumstances should a teacher forfeit his rights in this trust fund.

XI. Choice of Options Offered upon Retirement

The teacher should have the opportunity to elect the manner in which he will receive the benefits represented by the accumulated value of his deposits and the state's payments.

At the time of retirement, the teacher should be given choices as to the type of retirement allowance which he is to receive as a result of his deposits and the payments of the state to his credit. The teacher should be able to choose a straight life annuity or an assured annuity of a certain number of equal payments. If he chooses the former, he automatically gives up all claim to any unused portion of his trust fund at time of death. If he chooses an assured annuity of a certain number of payments, he automatically directs that the residue of his trust fund be paid to his estate upon death. Other options of equivalent value may properly be provided.

XII. Credit Should be Allowed for Past Service

Upon the adoption of a retirement plan, teachers should be given credit for their service prior to the establishment of the system. Funds for this purpose should be provided by the public.

When a retirement system is adopted, teachers should be given credit for past service. It is as important to the state that these teachers be retired upon superannuation as that teachers entering the profession under the new system be retired when old age has lowered their efficiency. Therefore, at the time the retirement system is adopted provision should be made from public funds for a credit to each teacher similar to that which would have existed had the new system been in operation during the entire period of the teacher's service.

The act creating the new system should provide a definite income or other assets for this purpose. The provision of such assets is extremely important, whether for the purpose of meeting obligations created under an old system as described in Section XIII, or for the purpose of providing for the retirement of superannuated teachers in a community which previously has not had a retirement plan in effect. If such a separate fund is not provided for as an integral part of the new system, it will be unsound at the outset.

XIII. Rights Under Previous Retirement Systems Safeguarded

The public should guarantee active teachers all the benefits which they had a reasonable right to expect under the old system. It should guarantee teachers retired under a previous system the allowance promised at the time of their retirement.

Teacher retirement systems are already in effect in many places. Many of these systems are unsound. They should be replaced by new systems that are in accord with sound principles. When such replacements are proposed, the promises made the active teachers under the old system should be given careful consideration. Teachers already retired under the old system should be guaranteed at least the full annuity promised them at the time of retirement.

Money for these purposes should be provided from the funds of the old system, and if these are inadequate, from public funds by the creation of a sinking fund. In no case

should the teachers enrolling in the new retirement system be called upon to finance the obligations created by the old. The promise made by the public under the old system should be paid for by the public. It would be unfair to set up a plan whereby a teacher cooperating with the state in building a retirement fund to guarantee his retirement at superannuation should in addition be required to pay for the promises made by the state to a former generation of teachers.

Whereas, the total cost of paying the retirement allowances promised under a former system may be considerable, the appropriation required in any one year will probably be comparatively small when met through a sinking fund or reserve arrangement.

XIV. Reciprocal Relations Between States

Provision should be made for cooperative or reciprocal relations between the retirement systems of the different states.

It should be possible for a teacher to render service in any state of the United States or its territories without being penalized by a reduced retirement allowance due to change of service from one jurisdiction to another. Complete application of this principle must await the enactment of sound retirement systems in all states. Those states with unsound systems or which have no retirement systems at all cannot be included in any reciprocal arrangements worked out between the states. Every sound retirement system, however, should provide for cooperation with other sound systems in effect, and should look forward to the time when all states will have such systems.

XV. Retirement Board in Control

The administration of the retirement system should be in the hands of a retirement board whose make-up is carefully prescribed in the retirement law, and which represents both the public and the teachers.

The control of a retirement system should be vested in a retirement board, whose make-up is carefully prescribed by the retirement law. As both the public and the teachers are interested in seeing that the affairs of the retirement system are conducted with the greatest possible efficiency, both parties should be adequately represented on the retirement board. The method of appointment or selection should be such as to secure a high type of personnel.

State and Local Retirement Systems Now in Effect

The following is a list of state and local teacher retirement systems now in effect. Information concerning the plans listed, or names and addresses of persons connected with their administration, may be secured from the Research Division of the National Education Association.

State teacher retirement laws are in effect in the following states:

Arizona	Montana
California	Nevada
Connecticut	New Jersey
District of Columbia	New York ²
Illinois	North Dakota
Indiana	Ohio
Maine	Pennsylvania
Maryland ¹	Rhode Island
Massachusetts	Vermont
Michigan	Virginia
Minnesota	Washington
	Wisconsin

An act to create a teachers' retirement system for Kentucky, passed by the 1928 legislature in that state, has not yet been put into operation. In connection with the above list, it should be added that retirement systems affecting teachers are also in effect in Alaska, Hawaii, the Panama Canal Zone, the Philippine Islands, and Porto Rico.

Where state teacher retirement laws are in effect, the following cities have local teacher retirement systems independent of state systems:

San Francisco, Calif. ³	St. Paul, Minn.
New Haven, Conn.	New York, N. Y.
Chicago, Ill.	Bristol, R. I. ⁴
Peoria, Ill.	Newport, R. I. ⁴
Terre Haute, Ind.	Providence, R. I. ⁴
Baltimore, Md.	Everett, Wash.
Boston, Mass.	Seattle, Wash.
Detroit, Mich.	Spokane, Wash.
Duluth, Minn.	Tacoma, Wash.
Minneapolis, Minn.	Milwaukee, Wis.

State teacher retirement laws of limited application are in effect in the following communities:

Delaware	Wilmington
Georgia	Atlanta
	Lexington
Kentucky	Louisville
	Newport
Louisiana	New Orleans
Nebraska	Omaha

No state law establishing teacher retirement system is in effect in the following states:⁴

Alabama	New Mexico
Arkansas	North Carolina
Colorado	Oklahoma
Florida	Oregon
Idaho	South Carolina
Iowa	South Dakota
Kansas	Tennessee
Mississippi	Texas
Missouri	Utah
New Hampshire	West Virginia
	Wyoming

Local teacher retirement systems have been set up by the following local communities in the states listed:

Alabama	Montgomery City
Colorado	Colorado Springs
	Denver
	Greeley
	Pueblo (Dist. No. 1)
Georgia	Augusta
	Macon
Iowa	Cedar Rapids
	Davenport
	Des Moines
	Sioux City
Kansas	Atchison
	Leavenworth
	Parsons
	Topeka
New Hampshire	Concord
	Nashua
Oregon	Portland
Tennessee	Chattanooga
	Knox County
	Memphis
	Nashville
Texas	San Antonio
Utah	Salt Lake City
West Virginia	Parkersburg
	Wheeling

¹ The retirement law of this state does not include teachers in the city of Baltimore, which city maintains an independent employees' retirement system of which teachers are members.

² The retirement law of this state does not include teachers in New York City, which city maintains an independent teacher retirement system.

³ Teachers also enrolled in state system.

⁴ A number of these states have permissive state laws authorizing local communities to establish teacher retirement systems.

Present Status of Teacher Retirement Legislation

Since July 1, 1929, the time of the last report, there has been very little teacher retirement legislation. The absence of legislation is due to the fact that few state legislatures have met. It does not mean a corresponding lack of activity. Efforts are being made to establish new systems, as well as to modify and reorganize certain existing systems so that they will be in accord with accepted fundamental principles. Teacher retirement measures were introduced in at least five state legislatures in 1930. According to present reports, bills are to be under consideration in a large number of legislatures during 1931. The following summary of proposed or recently enacted legislation gives data secured principally through correspondence with state superintendents, secretaries of state education associations, and chairmen of retirement committees. For convenience all the material is presented under state headings.

Alabama. A committee of the State Education Association has been working on a retirement plan for Alabama. The city of *Birmingham* also has a retirement plan under consideration.

California. The governor has appointed a commission of nine to make a general survey of California schools to determine needed legislation. Among the projects listed for study is retirement. The California Education Association has had a committee on retirement which has just made its report, presenting a set of principles, conclusions, and recommendations for a retirement and annuity system for teachers.

Colorado. A bill to establish a state-wide retirement system for Colorado teachers was before the 1929 state legislature. Although not enacted, the measure aroused considerable interest. Further developments in this field, however, await outcome of investigation on more adequate sources of revenue for teacher retirement and other school purposes.

District of Columbia. Legislation has been pending in Congress to grant benefits to teachers whose service years were completed before 1920, the date when the retirement law became effective.

Florida. Teachers of this state have a retirement plan under discussion.

Iowa. The School Board of *Davenport* was empowered to operate a pension system under the state law as amended in 1929 to permit cities of 25,100 or more population to establish retirement systems. Details of a plan are now being worked out, so that the system will be ready for operation by September, 1930.

Kansas. A retirement committee has been studying the problem in Kansas. In *Wichita* the local board of education and teachers' association are considering a tentative plan of retiring allowances for teachers in that city.

Massachusetts. Senate Bill 307 was passed by the 1930 legislature. This act provides that any deficiency in the annuity fund shall be made good by the Commonwealth, and places said fund under supervision of the Commissioner of Insurance. Four bills, affecting the City of *Boston* retirement system, which applied to the Boston teachers, were presented: House No. 445, providing for retirement immediately upon receipt of application; House No. 560, relative to minimum superannuation allowances; House No. 680, relative to pensions for persons who have been employees less than fifteen years; and House No. 681, relative to accelerating the payment of pensions and annuities. All of these were defeated.

Michigan. Persons interested in retirement allowances for Michigan teachers hope to present a proposed measure to the 1931 legislature. At that session, a Committee appointed in 1929 is to make recommendations concerning the advisability of an actuarially sound retirement system for Michigan.

Minnesota. Efforts are being made to introduce a bill during the 1931 legislative session for a complete revision of the present "teachers' insurance and retirement fund." This bill will be practically the same as the one introduced in the 1929 session, with the possible exceptions that contributions by the teachers may be based on the percent-of-salary plan rather than a flat-rate plan, and that a clause to cover county superintendents and assistants as members of the system may be added.

Montana. A committee of the Montana Education Association is trying to arouse teachers and public to the need for adequate retirement legislation.

Nevada. A bill to revise the existing state teacher retirement law is in preparation for presentation at the 1931 legislature.

New Hampshire. At the October meeting of the State Teachers Association a committee was appointed to have charge of the retirement movement in New Hampshire, and to prepare a new bill for presentation at the 1931 legislature.

New Jersey. A resolution was adopted by the 1930 legislature providing for the creation of a commission to study the problems of municipal, county, and state pensions and public agencies for the relief of dependency, and making an appropriation therefor. The commission, which has been appointed, is to report its findings to the legislature in 1931.

New York. Five of the educational bills introduced relate to teacher retirement in New York City. The bills provide as follows: Senate Bill No. 82, "allowance of non-teaching experience as service in related subjects for salary and retirement purposes of teaching staff of education board;" Senate Bill No. 83, "retirement of certain teachers after 30 years of service;" Senate Bill No. 84, "validating certificates heretofore issued by board of examiners of education board and teachers' retirement board, allowing non-teaching experience as service or prior service for salary and retirement purposes;" Senate Bill No. 85, "extending definition of 'present teacher' for retirement purposes;" and Senate Bill No. 225, "defining average salary

under certain conditions in teachers' retirement fund." All these bills have been referred to the pension committee.

Utah. A bill providing for a state-wide teacher retirement system has been before the last two legislative sessions and will be presented again at the next meeting of the legislature.

Virginia. A bill to establish an adequate teachers' retirement system was introduced in the recent Virginia legislative session. The bill passed the House of Delegates, but was not reported out of the Senate Finance Committee. A bill, "providing for a commission of five to be appointed, two from the Senate and three from the House, to make a study of the question of providing a teachers' retirement system and report to the next General Assembly" (1932), passed both houses of the legislature.

Washington. Following the actuarial investigation which has just been completed, the Washington Education Association plans to present a bill to the next legislature (1931) to improve the existing law.

Wisconsin. On September 12, 1929, a bill creating a state annuity and investment board and the office of director of investigations, and making an appropriation therefor was approved. Changes, proposed for the teacher retirement system, are not of a fundamental nature, but are of the administrative type. The state law affecting the teachers' annuity and retirement fund in *Milwaukee* was also altered in 1929.

Wyoming. A committee of the State Teachers Association has been working on a teacher retirement bill for presentation at the 1931 legislature.

Studies in Progress on Teacher Retirement Systems

Among the agencies interested in the problems involved in the retirement of public school teachers are the various state and local education associations, the Retirement Committee of the National Education Association, the National Council of Teachers' Retirement Systems, and the Research Division of the National Education Association. The Research Division has worked in cooperation with these groups in its studies on retirement. The work of the state education associations in this field has been mentioned elsewhere in this report.¹ A compilation of research in this and other fields completed and under way by these associations has been published recently by the Research Division.²

The Research Division itself during the past year has had in progress four major studies on the operation of teacher retirement systems. The first of these, entitled "Teacher Retirement Issues in Theory and Practice," discusses sixteen issues in teacher retirement, presenting statements pro and con, and a summary of present practice with respect to each issue. The results of this study have been completed and are presented in summary form elsewhere in this report.

Second, a study of teacher retirement systems in operation is being conducted at the request, and with the cooperation, of the National Council of Teachers' Retirement Systems. This study will show the membership, income, and expenditures of certain state, territorial, and city teacher retirement systems. It should reveal important data bearing on the actual operation of these systems which have not hitherto been generally available. It will also present data to compare the average active salary of teachers in certain states and cities with their average retirement salary. The nationwide need for such a study has long been obvious. The Retirement Committee of the National Education Association and similar groups

have repeatedly urged its necessity. The findings, when they become available, should be valuable not only to the retirement systems at present in operation but also to states contemplating the inauguration of a retirement system.

A third investigation in the field of teacher retirement is a study of the status of the retired teacher. This study seeks to reveal on a nationwide basis the general financial status of teachers who have been retired from active service by state and city teacher retirement systems. In this study, also, the Research Division is working in cooperation with the National Council of Teachers' Retirement Systems.

A fourth special study of the Research Division has to do with the contrasting values of flat-rate and percent-of-salary retirement systems. There are few other issues of greater importance and complexity in teacher retirement legislation. The study now under way will compare some of the effects of the two types of systems and will summarize present practice and the arguments advanced for and against each of the two types. This study will be published as one of the *Studies in State Educational Administration*.

The fact that nearly all state legislatures will meet in 1931 and that retirement will be one of the outstanding school issues in a considerable proportion of these legislatures indicates the particularly urgent need of research in this field at the present time. State and local education associations should continue their active interest in investigations in this field. The attitude of helpful cooperation displayed by existing retirement systems both informally and through the participation of their officials in the National Council of Teachers' Retirement Systems should continue in order that the best experience of each state may become available to all.

¹ See pages 231-232.

² "Research Completed and Under Way by Certain State Agencies." *Studies in State Educational Administration*, No. 4; March, 1930. Research Division, National Education Association, Washington, D. C., p. 7-8

A Retirement Plan for Staffs of State Education Associations

In December, 1927, the National Education Association put into effect a retirement plan for the headquarters staff of the Association. This plan has clearly demonstrated its value, both as an efficiency and a welfare measure. The fact that this plan was devised and put into effect at least partly grew out of a suggestion made by the Association's Retirement Committee at the 1926 meeting of the Association held in Philadelphia.

The success of the retirement system of the National Education Association led to the suggestion that this plan should be extended to cover the staffs of state education associations. A method was worked out about a year ago whereby this could be done. Several of the state associations are, at the present time, engaged in enrolling their employees in the plan. Among these are Pennsylvania, Michigan, Massachusetts, and others.

Progress in the direction of extending the retirement system to cover the employees of a majority of the state associations has necessarily been slow. The difficulties of explaining a retirement system to forty-eight different governing bodies is obvious. The matter of expense is

also involved in each state. One of the factors which has delayed progress was the fact that, although some state associations are heartily in favor of the plan in principle, still they have hesitated to put into effect a retirement plan for the association staff previous to the establishment of such a system for the teachers in the state. This should not be a reason for delay. A state association could not discover a better means of convincing both teachers and the public of the desirability of a sound retirement system than by putting such a system into effect to cover its staff. A state association could point to such a plan as clear evidence of the sincerity of its belief in the soundness of retirement principles.

Before the completion of the present calendar year, it is anticipated that the retirement plan for the staffs of state education associations will be in operation. Twenty or more of the members of state association staffs will be enrolled. Other associations are on the verge of taking favorable action. Action in this direction is strongly urged by the Committee on the part of all state associations as rapidly as conditions permit.

IN GENERAL, then, a sound teachers' retirement system would raise the whole tone of the teaching profession by automatically removing from the profession all those teachers who have become less effective through age or disability; by encouraging a higher type of young people to enter the profession; by encouraging young men and women of exceptional ability to stay in the profession; and by making it possible for every teacher in the system to do better work because he is free from the worries of his economic future. It is my candid judgment that a sound teachers' retirement fund law, embodying a joint-contributory retirement system, established on the actuarial reserve plan, would more than pay the state for its cost through a general improvement of the entire teaching force. Pearce, Webster H. "For Efficiency and Economy." *Michigan Education Journal*. September, 1930. p. 10.

Teacher Retirement Issues in Theory and Practice

The following section presents theory and practice as they relate to sixteen selected issues affecting teacher retirement. These problems, considered of special importance by the Committee on Retirement Allowances, cover most of the questions involved in the "Fundamental Principles of a Teacher Retirement System," presented in another part of this report. Each issue is stated in question form so as to bring out the essential point clearly and briefly.

After each question, under the head of "Theory," there is presented a summary of pertinent opinions pro and con expressed by those who have written on this phase of teacher retirement. Limitations of space made it necessary to summarize these opinions in the form of brief dogmatic statements. Amplification of the opinions summarized may be obtained by consulting the references cited in the selected bibliography on pages 268 to 270.

Use of Reference Material

The series of numbers listed at the ends of subsequent paragraphs of this section and the occasional numbers in parentheses in the body of the discussion refer to the numbered bibliography on pages 268 to 270. Each numbered reference consists of two parts. The first number in italics refers to the publication in the bibliography on pages 268 to 270 bearing the same number. The second number in ordinary type, and separated from the first by a colon, is a page reference. To illustrate: The reference *31:9* cited below in connection with the first issue should be read: "page 9 of the reference numbered *31* in the bibliography." Turning to the bibliography on page 269 one finds that reference *31* is a bulletin of the Carnegie Foundation entitled "The Social Philosophy of Pensions." On page 9 of this reference will be found an amplification of the theory that ultimately the cost of a retirement system is absorbed in the salary scale. Other references are to be similarly interpreted.

It should be clearly held in mind in consulting the subsequent statements of theory on the sixteen issues that the attempt is to reflect the various opinions of representative writers on teacher retirement giving, so far as space permits, all viewpoints on each issue and somewhat in proportion to their frequency of ex-

pression in the literature. It is obvious, therefore, that the material of this section should not be quoted as the official attitude of the Retirement Committee of the National Education Association, except in the cases where the opinion of this Committee is specifically cited.

The material presented in relation to each problem under the head "Practice" is derived from a careful analysis of twenty-four state and territorial teacher retirement laws. The tabular material is based either upon an analysis of these laws or upon correspondence furnished by the retirement secretaries of the systems concerned. Definite citations to the acts concerned will be found in section two of the special bibliography, pages 269 to 270. These laws should be consulted for amplification of the data presented in the tabulations for the various states. Space does not permit reproduction of the correspondence with the secretaries of retirement systems and other officials upon which is based a portion of the material relating to practice.

In case more detailed information is desired concerning the material of this section, communication should be addressed to the Research Division of the National Education Association.

Discussion of Issue One

Shall both the teacher and public contribute to the retirement fund?

Theory. On this first problem arguments turn largely on whether the cost of retiring allowances should be borne by teachers or by public separately or by both parties on some joint basis. Some writers conclude that so far as the ultimate incidence of the financial burden is concerned it makes little difference whether the system is non-contributory, wholly contributory or jointly contributory, since payments made by an employer are in time absorbed in the salary scale. (*31:9*.)

Teacher retirement systems financed entirely from public funds are favored by some on the grounds of simplicity of organization and ease of administration. On the other hand, objections have been raised to such systems on the grounds that they place too great a tax burden on the state, certain desirable features of a retirement system are lost, teachers have little or no control over the system, and that

pension payments are placed in the undesirable light of a gratuity. (4: 5; 6: 123-4; 9: 5; 19: 68, 71, 96; 29: 50, 119-20.)

Some argue for retirement systems financed entirely from teachers' deposits since teachers thereby have larger control of the fund, and can more adequately protect their interests. The plan is protected from undue criticism in time of financial stress, while the independence and morale of the teachers is better preserved. However, some contend that under such a plan a heavy financial burden falls on the individual, and benefits accrue to the employer at sole expense of the employee. In addition, such a system works hardship on teachers with long service records at the time the system became effective. (19: 92, 93, 430; 29: 49, 118-19.)

TABLE 1.—PRINCIPAL SOURCE OF TEACHER RETIREMENT FUNDS

States	Source of Funds ¹		
	State and teacher	State only	Teacher only
1	2	3	4
1. Arizona.....		x	
2. California.....	x		
3. Connecticut.....	x		
4. Dist. of Col.....	x		
5. Hawaii.....	x		
6. Illinois.....	x		
7. Indiana.....	x		
8. Maine ²	x		
9. Maryland.....	x		
10. Massachusetts.....	x		
11. Michigan.....			x
12. Minnesota.....	x		
13. Montana.....			x ³
14. Nevada.....	x		
15. New Jersey.....	x		
16. New York.....	x		
17. North Dakota.....	x		
18. Ohio.....	x		
19. Pennsylvania.....	x		
20. Rhode Island.....		x	
21. Vermont.....	x		
22. Virginia.....	x		
23. Washington.....			x ⁴
24. Wisconsin.....	x		
Total.....	19	2	3

¹ In some cases funds may be augmented by gifts, bequests, etc.

² Has also non-contributory teachers' pension system, supported by state alone.

³ The law provides that the public school teachers' permanent fund shall consist in part of "appropriations made by the state legislature from time to time to carry into effect the purposes of this act." However, data on hand show that the system does not receive support from public funds.

⁴ The law provides that in addition to teachers' deposits, the state teachers' retirement fund shall consist also of contributions "from such other source as may be provided by law." However, data on hand show that the system does not receive support from public funds.

The plan of having costs borne by both teachers and public in some cooperative arrangement is usually favored on the basis that:

1. It provides for joint contributions to a plan that is to benefit both parties.
2. It makes possible more adequate benefits.
3. It simplifies the problem of providing for teachers with prior-service records.
4. It builds up a feeling of cooperation between employer and employee.
5. It eliminates the demoralizing influences of a straight pension plan.
6. It provides the important element of contractual security.

(1: 266, 269; 2: 267; 4: 6; 5: 22; 7: 123; 12: 661; 18: 21; 19: 95, 96, 431; 23: 48; 28: 17; 29: 121, 122.)

Practice. Reference to Table 1, "Principal Source of Teacher Retirement Funds," shows that practice follows the trend of theory in favor of retirement systems supported by both state and teachers. Out of twenty-four state-wide teacher retirement systems operating in 1930, nineteen are joint-contributory systems, that is, supported jointly by payments from the state and by deposits by the teachers; two are free pension systems supported by the state; while three are supported by teachers' deposits only.

Discussion of Issue Two

Shall public funds be used to pay for prior-service benefits?

Theory. Upon the inauguration of a retirement system there is a group of teachers who have already given varying periods of service, and who will be eligible for regular retirement immediately or within a relatively short period. The problem of retiring such teachers is one of the most difficult in retirement legislation.

Writers have pointed out that this problem must be faced for three reasons. First, the effectiveness of a retirement system requires provision for present teachers as well as new entrants. It is as important to the state that teachers with prior service be retired upon superannuation as that new teachers be retired when old age has lowered their efficiency. Second, the teachers cannot assume the entire cost of providing for their retirement. Present employees have a shorter time in which to accumulate adequate reserves, and receive little assistance from interest. Third, a retirement

system which does not make special provision for meeting prior-service obligations will rest on an insecure financial basis if special funds are not provided to finance the retirement of members with prior service. (4: 9; 19: 443; 21: 156.)

The total amount necessary to liquidate a state's obligation for prior-service is usually sufficiently large so that it is necessary to spread the cost over a number of years. Various methods have been suggested for meeting this obligation. (7: 147; 15: 15; 19: 359-61; 29: 122, 128-9.)

Annual appropriations may be made to pay the prior-service pensions due each year, no reserves being thus set up. The disadvantage of this procedure is that the load is unevenly distributed, and reaches its peak several years later. Under a second plan, prior-service obligations may be paid for by annual appropriations, and additional amounts set up at the same time as a partial reserve against future increase in payments. By this method the cost may be distributed evenly over a considerable number of years, until the obligation is largely fulfilled. (17: 156; 19: 361.) The deficiency may be discharged by means of equal annual instalments over the period selected. The advantage of this method is that each year's taxes carry the same load and interest reduces the total of appropriations necessary. As a variation of this plan, the contributions toward discharging the accrued liability may be a fixed percentage of payroll. With payroll increases contributions increase correspondingly. The obligation may be thus discharged in a shorter time. (29: 129.)

Practice. The absence of funds to meet prior-service obligations has led in a number of instances to insolvency. Thirteen states now make certain extra payments to their retirement funds on account of teachers with previous service. These states are: Connecticut, District of Columbia, Hawaii, Indiana, Maine, Maryland, Massachusetts, New Jersey, New York, Ohio, Pennsylvania, Vermont, and Wisconsin. Reference to Table 11 will show that with one exception the amounts to be received by teachers for prior-service are fixed with more or less definiteness.

In seven states the general practice seems to be to allow the teacher, in addition to the pension due for service subsequent to estab-

lishment of the retirement system, a fraction of his final salary multiplied by the number of years of prior-service credited to him. (District of Columbia, Hawaii, Maryland, New Jersey, New York, Ohio, and Pennsylvania.) In certain other states the practice varies somewhat. For details in this connection, see Table 11.

Columns 3 and 5 of Table 5, "Form of State's Payment to Retirement Fund," show the nature of the payments made toward prior-service benefits. Seven states make an annual payment of a percent of the payroll to provide the prior-service benefits promised. These states are District of Columbia, Hawaii, Maryland, New Jersey, New York, Ohio, and Pennsylvania. However, the acts are often indefinite concerning the amount and frequency of payments to be made for this purpose.

In order that a retirement system may be financially sound as it effects the payment of allowances based on service prior to the inauguration of the system, it is necessary that the provisions for such payments should be definitely provided in terms of an exact estimate of the obligations involved. Whether the provisions now in practice cited above are adequate or not is outside the scope of this section. This could be determined only on the basis of study of the situation in each state.

Discussion of Issue Three

Shall the method of determining the total amounts to be deposited in the retirement fund by teachers, and the payments to be made by the public be fixed by law?

Theory. A statement concerning the above problem appears in the following principle, developed by the Committee on Retirement Allowances of the National Education Association:

The deposit by the teacher and the payment by the public should be stated by the organic act creating a retirement system, subject to adjustment in accordance with future actuarial investigation.

The deposits to be made by the teacher and by the public should be definitely stated in the organic act and should continue as stated until changed by the retirement board on the basis of actuarial investigation. Too often in the past definite contributions to be paid by the teacher have been provided for, but the amount of the public's payment has been uncertain and indefinite. All future retirement laws should state definitely the method whereby the amount to be deposited by the teachers and the payments by the public are to be determined. If this is done the exact amount of the fund which is being

built up is known, it can be depended upon, and expenditures can be planned accordingly. (21: 154.)

Some writers on the problem would have the retirement act name a specific table of mortality, and also the rate of interest on accumulations. On the contrary, it has been recommended that contributions be determined by a description of the method of ascertaining the amount, and not by tables and figures quoted in the law, which do not adjust automatically as conditions change.

Practice. Analysis of practice on this point shows that with two or three exceptions the retirement acts describe more or less definitely the amounts to be deposited by teachers in the retirement fund or the payments required from public funds. Table 2, "Provision Regarding Teacher's Deposit in Retirement Fund," shows the extent to which the state-wide teacher retirement systems specify the amounts to be deposited by the teachers, or describe the method by which the amount of such deposits are to

TABLE 2.—PROVISION REGARDING TEACHER'S DEPOSIT IN RETIREMENT FUND

States ¹	Teacher's deposit		
	Amount stated ²	Method of determining amount described	Provision indefinite
1	2	3	4
1. California.....	x		
2. Connecticut.....	x		
3. Dist. of Col.....		x ³	
4. Hawaii.....		x	
5. Illinois.....	x		
6. Indiana.....	x		
7. Maine ⁴	x		
8. Maryland.....		x	
9. Massachusetts.....			x ⁴
10. Michigan.....	x		
11. Minnesota.....	x		
12. Montana.....	x		
13. Nevada.....	x		
14. New Jersey.....		x	
15. New York.....	x		
16. North Dakota.....	x		
17. Ohio.....	x		
18. Pennsylvania.....		x	
19. Vermont.....			x ⁴
20. Virginia.....	x		
21. Washington.....	x		
22. Wisconsin.....	x		
Total.....	13	5	2

¹ Arizona and Rhode Island, paying pensions without cost to teachers, omitted.

² In a number of systems these amounts are subject to change, on experience of system.

³ Joint-contributory system.

⁴ Rate to be fixed by board. Minimum and maximum rate of deposit specified.

⁵ Rate to be fixed by board. Maximum rate of deposit specified.

be calculated. Data on the actual deposits called for are included in the discussion of Issue Four. In fifteen of the twenty-two systems considered, the amount to be deposited by the teacher is stated in the retirement act, although generally subject to change on the basis of the experience of the system. In five others, at least, the amount must be such as to provide benefits of a certain value.

It is more difficult to present the situation in regard to a state's payments to the retirement fund. It should be especially noted that data included in the table are based on statements of the retirement laws, whereas actual practice may vary somewhat. The actual form of the state's payment or basis of its calculation will be described in connection with Issue Five.

From Table 3, "Provision Regarding State's Payments to Retirement Fund," it appears that

TABLE 3.—PROVISION REGARDING STATE'S PAYMENTS TO RETIREMENT FUND

States ¹	State's payment		
	Amount stated ²	Method of determining amount described	Provision indefinite
1	2	3	4
1. Arizona.....	x ³		
2. California.....	x ³		
3. Connecticut.....			x
4. Dist. of Col.....		x	
5. Hawaii.....	x		
6. Illinois.....	x		
7. Indiana.....		x	
8. Maine ⁴		x ⁵	
9. Maryland.....	x		
10. Massachusetts.....			x
11. Minnesota.....	x		
12. Nevada.....	x		
13. New Jersey.....		x ⁷	
14. New York.....		x ⁷	
15. North Dakota.....	x		
16. Ohio.....	x		
17. Pennsylvania.....		x ⁷	
18. Rhode Island.....		x ⁸	
19. Vermont.....		x	
20. Virginia.....			x
21. Wisconsin.....	x ⁹		
Total.....	10	8	3

¹ The teacher retirement systems operating in Michigan, Montana, and Washington do not receive support from public funds.

² In a number of systems these amounts are subject to change, on experience of system.

³ Amount of pension to be granted.

⁴ Joint-contributory system. Has also non-contributory system paying flat pensions to teachers.

⁵ Contemplates in addition certain state appropriations, but makes no definite provision for them.

⁶ To equal members' deposits; teachers deposit 5 percent of salary.

⁷ Part of total payment, however, represents certain percentage of liability.

⁸ Amount of annual payment varies with teacher's deposit and service.

over two-thirds of the systems concerned make relatively definite provision for receipt of public funds. From the fact that in some states the teacher retirement systems receive no support from public funds, because the retirement acts have not clearly provided for such income, definite statutory provision regarding these amounts seems desirable.

Study of the retirement acts shows that with two exceptions (Indiana and Maine) the mortality, service, or other tables are left to the decision of the board in control, under actuarial advice. In three states (Hawaii, Maryland, and Pennsylvania) the act includes a state guarantee.

Discussion of Issue Four

Shall the teacher's deposit be expressed as a percentage of salary?

Theory. Teachers' deposits to retirement funds generally take one of two forms: (1) A flat sum, or (2) a percentage of salary. These deposits are sometimes graded on the basis of factors such as age or service.

It has been suggested that a plan requiring flat-sum deposits has certain points in its favor. Some consider that it makes for simplicity and security, readjustment of rates not being called for. (5: 90.) On the contrary, it has been pointed out that under such a system the deposit is often too small to provide an adequate allowance. Also that a flat-rate plan is not sufficiently flexible to meet changing economic conditions. (28: 19-20.)

Among the advantages of a percentage-of-salary plan, it is suggested that: (1) the deposit is automatically adjusted to increases of salary, (2) the employer's contributions bear a constant ratio to payroll, and (3) the allowance reflects length of service. (5: 90; 28: 21.)

Among objections to the plan of fixing deposits in relation to salary are that: (1) Adjustments in rates of contribution are necessary from time to time, (2) the administration of the system is more complicated. (6: 124; 19: 128, 144-5.)

Reference to the discussion under Issue 11, "Shall the superannuation retirement allowance bear a relation to the teacher's salary during active service," will give data on these two methods of fixing a teacher's deposit, from the standpoint of benefits to be received.

Practice. Table 4 shows the form of the teacher's deposits to the retirement funds.

In six states calling for a deposit representing a percentage of salary, without variation for other factors, the percentages stated are:

State	Percentage of salary
Connecticut.....	5% per annum
Maine.....	5%
Wisconsin.....	5%
New York.....	4%
Ohio.....	4%
Virginia.....	1%

The flat-sum deposits not graded according to age or service are \$12 per annum in California and Nevada. In Montana teachers are to deposit \$1 for each month, not to exceed nine, for which compensation was received.

In Michigan the deposits are as follows:

Length of service	Percentage of salary
5 years or less.....	1% per annum
Over 5 but less than 15 years.....	2%
15 years or more.....	3%

In North Dakota the teacher deposits 1% per annum for each of the first ten years, and 2% for each successive year up to close of a total period of 25 years of service.

Where the flat sum deposits are graded according to service, the three states provide as follows:

Illinois:

Length of service	Deposit
10 years or less.....	\$5 per annum
Over 10 years but not over 15.....	\$10
Over 15 years up to close of 25-year period.....	\$30

Minnesota:

Length of service	Deposit
First 5 years.....	\$5 per annum
Second 5 years.....	\$10
Next 10 years.....	\$20
Next 5 years, up to close of 25-year period.....	\$30

Washington:

Length of service	Deposit
First 10 years.....	\$12 per annum
Over 10 years but not more than 20.....	\$24
Over 20, until deposits total \$720.....	\$36

Additional data in connection with required deposits will be found under the discussion of conditions for retirement in Issue Nine. A number of states require a certain total amount to be deposited before a teacher may become eligible to retirement benefits.

Discussion of Issue Five

Shall state funds be regularly accumulated with reference to cost of benefits promised?

Theory. There are in general two plans followed in financing a system of retirement allowances for teachers, the cash disbursement and actuarial reserve plan. Under the former, no provision is made ahead of time to meet the

cost of retirement allowances promised. Benefits are appropriated for at the time they come due. Under the latter plan, calculations are made ahead of time as to the costs involved, and deposits and payments adjusted so as to provide the reserves required to pay for the future benefits, when due.

Literature dealing with teacher retirement usually favors the reserve plan, that is the building up by regular payments over a period of years of a reserve sufficient to provide benefits promised. It is pointed out that only by this method can members of a retirement system be assured that their allowances will be available at time of retirement, or that allowances once granted will be continued. By

TABLE 4.—FORM OF TEACHER'S DEPOSIT IN RETIREMENT FUND

States ¹	Teacher's Deposit							
	Percentage of salary	Fiat amount	Percentage of salary graded according to service	Fiat amount graded according to service	Fiat amount graded according to age at entering service	Percentage of salary determined by benefits promised	Indefinite amount determined by benefits promised	Indefinite percentage of salary
1	2	3	4	5	6	7	8	9
1. California.....		x						
2. Connecticut.....	x ²							
3. District of Columbia.....							x ⁴	
4. Hawaii.....						x		
5. Illinois.....				x				
6. Indiana.....					x			
7. Maine ³	x ¹⁰							
8. Maryland.....						x		
9. Massachusetts.....								x ⁵
10. Michigan.....			x					
11. Minnesota.....				x ⁶				
12. Montana.....		x						
13. Nevada.....		x						
14. New Jersey.....						x		
15. New York.....	x							
16. North Dakota.....			x					
17. Ohio.....	x ⁷							
18. Pennsylvania.....						x ⁸		
19. Vermont.....								x ⁹
20. Virginia.....	x							
21. Washington.....				x				
22. Wisconsin.....	x							
Total.....	6	3	2	3	1	4	1	2

¹ Arizona and Rhode Island, paying pensions without cost to teachers, omitted.

² Joint-contributory system.

³ Unless total sum of deposits would amount to more than \$100 or less than \$25 per school year; in this case, fiat deposit of \$100 or \$25 accordingly.

⁴ Not to exceed 8 percent of annual salary.

⁵ Law specifies minimum and maximum of 3 and 7 percent respectively. If total sum of assessments would amount to more than \$100 or less than \$35 for full school year, assessment at rate of \$100 or \$35 accordingly. Rate of assessment now in effect, 3% of salary.

⁶ Deposits on percentage basis if teacher's regular annual salary is \$1500 or more; not to be less than assessment on flat rate: 1.5 percent per annum, not to exceed \$20 a year for first ten years of service, and 2 percent per annum, not to exceed \$40 a year, for each successive year of service.

⁷ Salaries over \$2,000 not considered.

⁸ Employee may elect rate of 5 percent under given conditions. Not to pay less than \$16 or over \$100 in one year.

⁹ Rate or method of determination not specifically described. Rate of assessment now in effect 5% of salary with minimum of \$16, maximum \$100 a year.

¹⁰ Not to pay less than \$20 or more than \$100 a year.

taking advantage of interest accumulations the gross appropriations required may be reduced one-half as compared with the cash disbursement plan. (1: 269; 4: 8; 6: 132, 133, 134; 7: 145; 12: 661; 19: 334-5; 21: 155.)

Arguments against the actuarial reserve method of financing retirement systems are that it is complicated, expensive, and provides opportunity for loss through bad investment, dishonesty in administration, or political manipulation. (19: 336, 436.)

Practice. Table 5, "Form of State's Payment to Retirement Fund," illustrates the methods used by states to provide their share of the income for the teacher retirement funds. The data contained in this table are largely based on provisions of the retirement acts, but supplemented with information from other sources.

In general, the states make regular payments to the established teacher retirement funds. Although retirement acts effective in Connecticut, Massachusetts, and Virginia would make it appear that receipt of state funds is not definitely provided for, reports for these states show that public funds have been set aside regularly for payment of retiring allowances to teachers.

In a number of states, the amount of payments does not have any apparent relation to the amounts that must be later disbursed to fulfill the promises of the system. The source of income from public funds for retirement purposes has in some cases been fixed without guarantee that any deficiencies arising will be made up.

In the case of seven states (District of Columbia, Hawaii, Maryland, New Jersey, New York, Ohio, and Pennsylvania) the annual payments take, in general, the form of a percentage of payroll, so calculated and divided as to provide payments in relation to the needs of the members of the system. The aggregate payments in any one year must be adequate to meet pension payments due in the current year. The rates of payments are fixed on an actuarial basis.

Analysis of the retirement acts shows that in three states (Minnesota, North Dakota, and Virginia) provision is made for possible reduction of benefits, in case the funds are insufficient to meet the demands. In New York,

Massachusetts, and Ohio any deficiency is made up by increased payment from the state.

Discussion of Issue Six

Shall membership in the retirement system be compulsory for new teachers, and optional for those in service at date of enactment?

Theory. A number of retirement systems have made membership for teachers optional. Those in favor of this arrangement feel that compulsory features amount to confiscation of salary and infringement of individual rights. On the other hand, it has been felt that optional membership permits delay in joining the system until possibly too late, and does not permit a stable financial policy. (29: 154, 155.) A number of writers have pointed out the possibility of exempting beginning teachers from membership until they reach a certain age or have given a certain period of service. (7: 141-2; 12: 561; 18: 23; 22: 98; 28: 20.)

Compulsory membership for all teachers has been tried. This is thought to simplify financing the fund, and make the system more effective. (29: 157.)

The more general practice, however, is to make membership compulsory for newly employed teachers but to allow those already in service an option as to membership. Teacher retirement literature stresses the importance of requiring membership of new teachers in order that full effectiveness for the system may be guaranteed. Compulsion is fully justified in the case of new teachers if membership is one of the conditions of employment. Although the importance of early entrance into the system is advocated on a number of grounds, writers generally recommend that teachers already in service should have option as to whether they will become members of a new system. It is agreed, however, that this option should be exercised within a reasonably short period. When this is done, teachers have time to make a reasoned decision and at the same time an early estimate of the state's future obligations is possible. (4: 48-9; 14: 284; 21: 153; 24: 76-7; 27: 9.)

Practice. The practice seems to reflect the foregoing theory, with some trend toward compulsory membership for all teachers, including those already in service when the retirement system became effective.

TABLE 5.—FORM OF STATE'S PAYMENT TO RETIREMENT FUND

State's payments				
States ¹	Fund receiving payments ²	Amount paid ³	When paid ⁴	Relation of payment to requirement of teaching staff ⁵
1. Arizona.....	No special fund created...	Retired teachers granted pension of \$600. Payments made from General Fund and appropriation for State Board of Education, authorized in General Appropriation Bill.	Annually. Pension granted. Paid in monthly installments.	See Column 3.
2. California.....	Public school teachers' permanent fund. ²	Five percent of taxes collected under inheritance or transfer tax laws of the state. Public school teachers' permanent fund annually to increase \$10,000. Fund also to receive appropriations from legislature.	Annually..... From time to time.....	Appropriations "to carry into effect the purposes of this act."
3. Connecticut.....	Pension fund.....	"Such amounts as shall be appropriated by the general assembly." . . .	From time to time ³	Appropriations based on estimates submitted by retirement board for the payment of teachers' pensions.
4. District of Columbia.	Reserve fund.....	Amounts appropriated to form two contributions of a level percentage of the payroll of all participants.	Annually.....	A level percentage appropriated to be adequate to cover the liability normally accrued; and a further level percentage to liquidate in approximately 30 years after July 1, 1926, (date amendatory act became effective) the accrued liability of that date. Rates calculated on an actuarial basis.
5. Hawaii.....	Pension accumulation fund.	a. Uniform, constant percentage of earnable compensation of average new entrant. Rate at present equals 3.04%. b. Rate per centum of total annual compensation of all members. To be at least 3% greater than in preceding year. Rate at present equals 2.94%.	Annually..... Annually.....	a. To provide any death benefit or pension payable to average new entrant. Rate determined by actuary after each valuation, on basis of regular interest, and tables adopted by board of trustees. b. To be equivalent to 4% of total pension and death benefit liability on account of all members and beneficiaries, not dischargeable by payment under a., column 3.
6. Illinois.....	Illinois state teachers' pension and retirement fund. ²	Amount set aside from common school fund. To equal 1/10 of one mill upon each dollar of assessed valuation of all taxable property of state, exclusive of cities and school districts not included under provisions of retirement act.	Annually.....	Aggregate payment to be sufficient, when combined with amount in fund, to provide pensions and other benefits payable during current year. Rates fixed on basis of liabilities of retirement system, as shown by actuarial valuations.
7. Indiana.....	Pension reserve account..	Proceeds from tax levy.....	Annually..... Biennially.....	Amount to be sufficient to meet all demands made upon the fund. Tax levy to be sufficient to cover estimated liability of state for current year. Based on actuarial investigation. Surplus of pension reserve account and fund built up by teachers' deposits to be equal or greater than aggregate of accrued liabilities incurred by service of all contributors and beneficiaries of fund.

TABLE 5.—FORM OF STATE'S PAYMENT TO RETIREMENT FUND—Continued

TABLE 5.—FORM OF STATE'S PAYMENT TO RETIREMENT FUND—Continued

States ¹	State's payments				Relation of payment to requirement of teaching staff
	Fund receiving payments 2	Amount paid 3	When paid 4	5	
8. Maine..... a. Joint-contributory system.	Annuity fund ²	Amount deducted from state school fund equal to members' deposits. Not to exceed \$35,000 in any one year.	Annually.....		Payments in column 3 not otherwise expended are set aside and administered as a reserve fund to meet accrued liabilities for retirement and disability allowances.
b. Non-contributory system.	School pension fund.....	Appropriation from school and mill funds.....	Annually.....		To pay annual pension of amounts ranging from \$275 to \$500 on basis of experience.
9. Maryland.....	Pension accumulation fund.	a. Uniform, constant percentage of earnable compensation of average new entrant. At present date this equals 2.86%. b. Rate per centum of total annual compensation of all members. To be at least 3% greater than in preceding year. At present date the rate equals 3.83%.	Annually.....		a. To provide for payment of any death benefit or pension payable average new entrant. Based on regular interest, and tables adopted by board of trustees. b. To be equivalent to 4% of total pension and death benefit liability on account of all members and beneficiaries not discharged by payment under a, column 3.
10. Massachusetts.....	Pension fund.....	"Such amount as shall be appropriated by the general court. . . ."	From time to time ³		Aggregate payment to be sufficient, when combined with amount in fund, to provide pensions and other benefits payable during current year. Rates fixed on basis of liabilities of retirement system, as shown by actuarial valuation.
11. Minnesota.....	Teachers' insurance and retirement fund. ²	Proceeds from tax of 1/20 of one mill on all taxable property in that part of state subject to provisions of act.	Annually.....		Appropriations based on estimates submitted by retirement board, for payment of teachers' pensions.
12. Nevada.....	Public school teachers' permanent fund. ²	Proceeds from an ad valorem tax of 5 mills on the hundred dollars of all taxable property in the state.	Annually.....		
13. New Jersey.....	a. Pension accumulation fund. b. Pension fund.....	Amount paid from school apportionment fund represents constant ratio of earnable salary of new entrants. At present date payment equals 2.76% of payroll. 1. Amount paid from school apportionment fund represents percentage of total compensation of all present-entrants for service during preceding school year. Equals average percentage rate of payment which aggregate payment of state to pension accumulation fund bears to pay-roll of new-entrants. At present date payment equals 2.76%. 2. Amount paid from school apportionment fund represents percentage rate of total compensation of all members. To be at least 3% greater than preceding annual payment. At present date payment equals 4.29%.	Annually..... Annually.....		To provide upon retirement reserve for disability or superannuation pensions allowed by statute. Necessary portion certified by board of trustees, based on regular interest, and tables adopted by board. 1. To provide part of reserve for payment of pensions to present-entrants. 2. To be equivalent to 4% of total liability of pension fund not dischargeable by funds in hand or future contributions under a, column 3.

TABLE 5.—FORM OF STATE'S PAYMENT TO RETIREMENT FUND—Continued

States ¹	State's payments			
	Fund receiving payments 2	Amount paid 3	When paid 4	Relation of payment to requirement of teaching staff 5
13. New Jersey (Cont.)				Aggregate payments to be sufficient when combined with amount in the fund, to provide pensions payable during current year. Amount certified by board of trustees.
14. New York.....	Pension fund. accumulation fund.	a. Uniform, constant percentage of earnable compensation of average new entrant. At present date this equals 2.67%. b. Rate per centum of total compensation of all contributors in preceding school year. To be at least 3% greater than preceding annual payment. At present date payment equals 2.63%.	Annually..... Annually.....	a. To provide pension reserve for average new entrant, upon retirement. Based on regular interest, and tables adopted by retirement board. b. To be equivalent to 4% of total pension liability on account of all contributors and beneficiaries, not dischargeable by payment under a., column 3. Aggregate payment to be sufficient, when combined with amounts in pension accumulation fund, to provide pensions payable during current year. Payments fixed on basis of liabilities of retirement systems, as shown by actuarial valuations.
15. North Dakota.....	Teachers' insurance and retirement fund. ²	Sum set aside from county tuition fund equal to ten cents for each child of school age.	Annually.....	
16. Ohio.....	Employer's accumulation fund.	a. Uniform, constant percentage of earnable compensation of average new entrant. At present date this equals 1.82%. b. Rate per centum on basis of payroll used in computing deposits during the previous school year. At present this equals 1.75%.	Annually..... Annually.....	a. To provide total amount of pension reserve for average new entrant, upon retirement. Based on regular interest, and tables adopted by retirement board. b. To equal reserve value of disability and superannuation pensions for prior service granted during preceding school year. Aggregate payments to be sufficient, when combined with amounts in employers' accumulation fund, to provide pensions payable during current year. Rates fixed on basis of liabilities of retirement system, certified by retirement board after actuarial valuation.

TABLE 5.—FORM OF STATE'S PAYMENT TO RETIREMENT FUND—Continued

States ¹	State's payments				Relation of payment to requirement of teaching staff
	Fund receiving payments 2	Amount paid 3	When paid 4	5	
17. Pennsylvania.....	a. Contingent reserve fund.	Percentage payment based on age and sex of employee.	Semi-annually.....	To provide state annuity reserve required for state annuity payable to new entrants upon disability or superannuation retirement. Payment, certified by retirement board, based on regular interest and adopted tables.	
	b. State annuity reserve fund number two.	1. Amount equal percentage of total compensation paid all contributors during preceding school year. Payment to be at least 3% greater than second preceding payment. 2. Amount equal to percentage of total compensation paid all contributors for service in preceding school year. Total accrued liability payment at present 4%.	Semi-annually.....	1. To provide reserve equal to present value of state annuity payments due on account of present employees then retired, or to be retired.	
			Semi-annually.....	2. Payment to be sufficient when combined with amount in fund, to provide pensions payable during current half-year to present employees, then retired or to be retired.	
18. Rhode Island.....	No special fund created...	State makes appropriations.....	Not specified by law	To provide annual pension equal to $\frac{1}{2}$ average contractual salary during last five years.	
19. Vermont.....	Annuity funds.....	Such amounts as may be appropriated by the general assembly. No payment for one member to exceed \$100 in any one year. Maximum appropriation for any one year \$25,000.	From time to time. See column 5.	Appropriations to be sufficient to credit member annually with a sum equal to his contribution, and to provide the additional arbitrary allowance promised. Appropriations determined on basis of estimates submitted by retirement board.	
20. Virginia.....	Retired teachers' fund ² ...	"Such sums as may be appropriated for the benefit of the retired teachers' fund."	Not specified by law		
21. Wisconsin.....	General fund of state treasury, set apart for retirement deposit fund	Proceeds from surtax on incomes over \$3,000.	Annually.....	To provide percentage of teacher's deposit, based on salary and length of service. Salary over \$3,000 disregarded. Increased \$25 if teachers received compensation for service in fiscal year for not less than school year.	

¹ Teacher retirement systems operating in Michigan, Montana, and Washington do not receive support from public funds.² Receives also amounts deposited by teachers.³ Data on hand show annual state appropriations.

Table 6 presents data on membership in teacher retirement systems. In twenty-one systems membership is compulsory for new teachers. In three of these systems at least some leeway is given beginning teachers by having the compulsory membership feature effective only after a brief period, 6 months in Hawaii, 6 years in Maine, and in Wisconsin not until the teacher reaches age 25. The retirement system of Maine was optional for all teachers, until an enactment of 1929 made membership in the joint-contributory system compulsory for all teachers with six years of state service who began teaching after this system went into

effect, and were thereby rendered ineligible for benefits under the non-contributory retirement system, also operative in the state. In one system membership is optional for new teachers.

In five systems the membership is compulsory for present teachers, as well as for new entrants. Teachers in this group, however, are usually given an opportunity to secure exemption. Certain conditions are at the same time established regulating the time in which members may be admitted and receive prior-service credit.

In the seventeen systems allowing present teachers optional membership, the laws vary

TABLE 6.—MEMBERSHIP IN TEACHER RETIREMENT SYSTEMS

States ¹	Membership			
	Compulsory		Optional	
	New teachers	Present teachers	New teachers	Present teachers
1	2	3	4	5
1. California.....	x ²			x
2. Connecticut.....	x			x ³
3. District of Columbia.....	x	x		
4. Hawaii.....	x ⁴	x ⁵		
5. Illinois.....	x			x ⁷
6. Indiana.....	x			x ⁸
7. Maine ⁹	x ⁹			x
8. Maryland.....	x	x ¹⁰		
9. Massachusetts.....	x			x ¹¹
10. Michigan.....	x			x ⁷
11. Minnesota.....	x			x ¹²
12. Montana.....	x			x ¹²
13. Nevada.....	x			x ¹²
14. New Jersey.....	x			x ¹³
15. New York.....	x			x
16. North Dakota.....	x			x ¹²
17. Ohio.....	x ¹⁴	x ¹⁵		x ¹²
18. Pennsylvania.....	x			x
19. Vermont.....			x	x
20. Virginia.....	x			x
21. Washington.....	x ¹⁷			x ¹⁶
22. Wisconsin.....	x ¹⁸	x ¹⁸		
Total.....	21	5	1	17

¹ Pension systems of Arizona and Rhode Island omitted.

² Joint-contributory system.

³ Teachers who claimed exemption and later desire benefits must make certain payments to fund; also applicant offering service outside state and subsequent to January 1, 1914.

⁴ Date set governing application for membership. (Latest date set is June 30, 1931.) Teachers may elect membership thereafter by making certain payments to fund.

⁵ After 6 months of service. Previous to this may join on application.

⁶ Except those notifying board of desire not to become members. May elect membership later, but to receive prior-service credit must join system by January 1, 1927.

⁷ Membership may be elected at any time.

⁸ Latest date set for election to membership, October 31, 1928.

⁹ If have six years of state service.

¹⁰ Unless within 30 days teacher files election not to become member, and waives benefits. Teachers making later application must be admitted within one year following establishment to receive prior-service credit.

¹¹ Members of previous teachers' retirement association required to join. Other present teachers may apply for membership anytime before age 70, and join system by making certain payments to fund.

¹² Date set governing application for membership.

¹³ Membership may be elected after date set for application, but teacher receives limited allowance for prior-service.

¹⁴ After September 1, 1920. (System established August 8, 1919.)

¹⁵ Except those requesting exemption. Privilege of requesting exemption limited to teachers in service September 1, 1920. These teachers lose prior-service credit.

¹⁶ If application for membership not made by date set, teacher not to be admitted.

¹⁷ After May 1, 1924. (System effective June 7, 1923.)

¹⁸ At age 25.

considerably on the time allowed for exercise of this option. Under a few, membership may be elected at practically any time, prior to close of service; in a large number a date is set after which the teacher either loses retirement privileges entirely, or may receive but limited credit for prior service.

Discussion of Issue Seven

If teachers withdraw from membership prior to the regular retirement age, may they withdraw the sum of their deposits, with interest?

Theory. Authorities appear to be generally agreed that the sum of the teacher's deposits should be available in some form in case a teacher leaves service prior to regular superannuation retirement. It is pointed out that the teacher's deposits should be considered a savings account until the amount is transferred into the retirement fund at the time of retirement upon an annuity. (1: 269; 6: 125; 11: 53; 12: 662; 13: 111; 18: 22; 19: 221-9; 21: 155; 27: 9; 28: 18.)

Some arguments have been advanced against withdrawal of deposits. It has been stated that such a provision tends to encourage resignation as a means of obtaining funds to meet temporary financial stringencies.

Practice. Analysis of Table 7 shows that in practice a teacher's deposits are generally considered to be personal property, and are returnable upon withdrawal from membership in the retirement system, by resignation or dismissal, prior to regular superannuation retirement.

In the case of thirteen retirement systems, a teacher's deposits are available in full following resignation or dismissal, and may be refunded in a lump sum or in instalments. A number of the states provide that a teacher may elect the return of deposits in the form of an annuity. In six cases, a part of the deposits is returnable. This is usually one-half the amount deposited, without interest. In three states the teacher cannot withdraw any part of his deposits upon leaving the system prior to retirement.

Discussion of Issue Eight

If teachers die while in service shall the sum of their deposits, with interest, be payable to their heirs or estate?

Theory. As in the case of withdrawal from service upon resignation or dismissal prior to retirement, writers generally agree that the sum

of a deceased teacher's deposits, with interest, should be payable to his heirs. The deposits are considered a fund which belongs to the teacher, and a means whereby every teacher may build up an estate. (6: 125; 12: 662; 14: 285; 19: 259; 21: 155; 23: 49.)

Some objections to the return of deposits have been offered in event of a teacher's death. (19: 235.)

Practice. A study of some seventy state and local teacher retirement systems over the period 1894-1924 reveals a growing tendency to grant refunds, in case of withdrawal from service or death before retirement. (23: 46.)

TABLE 7.—AMOUNT OF DEPOSIT WITHDRAWABLE BY TEACHER WHO LEAVES SYSTEM PRIOR TO REGULAR RETIREMENT

Retirement system ¹	Amount of deposit withdrawable ²		
	All	Part	None
1	2	3	4
1. California.....			x
2. Connecticut.....	x		
3. Dist. of Col.....	x		
4. Hawaii.....	x		
5. Illinois.....		x ⁵	
6. Indiana.....		x ⁴	
7. Maine.....	x		
8. Maryland.....	x		
9. Massachusetts.....	x		
10. Michigan.....		x ⁵	
11. Minnesota.....		x ⁶	
12. Montana.....			x
13. Nevada.....		x ⁷	
14. New Jersey.....	x		
15. New York.....	x		
16. North Dakota.....		x ⁸	
17. Ohio.....	x ⁹		
18. Pennsylvania.....	x		
19. Vermont.....	x ¹⁰		
20. Virginia.....			x
21. Washington.....	x ¹¹		
22. Wisconsin.....	x		
Total.....	13	6	3

¹ This table does not consider non-contributory systems, since under such systems the teachers make no deposits.

² Interest accrued thereon included, unless otherwise noted.

³ One-half of amount deposited, without interest. Application must be made within six months after withdrawal and teacher in service not over 15 years.

⁴ A fractional part up to 10 years of service; all after 10 years of service.

⁵ One-half of amount deposited, without interest. Application must be made within four months after withdrawal.

⁶ One-half of amount deposited, without interest.

⁷ Teacher's deposits in excess of \$60 (that is, deposits for 5 years, at \$12 a year), without interest.

⁸ One-half of teacher's deposits, without interest. Application must be made within eighteen months after withdrawal.

⁹ If not paid to depositor or legal representative within 10 years after withdrawal, deposits may be forfeited to retirement system.

¹⁰ Interest not withdrawable if period of membership in system amounted to 6 years or more.

¹¹ Without interest. Available upon teacher's dismissal.

Table 8 shows that thirteen of twenty-two state-wide teacher retirement systems provide for payment to estate or beneficiary of the sum of a deceased teacher's deposits, with interest accumulation. Seven of the twenty-two systems make no provision for such payment. Two make a partial return of the teacher's deposits.

Discussion of Issue Nine

Shall the teacher be required to fulfill certain minimum age or service conditions before he may qualify for regular retirement benefits?

Theory. In order to render a retirement system effective, and to avoid difficulties that might otherwise arise, it has been considered advisable to set up certain minimum conditions for receipt of retirement benefits. (21: 153-4; 29: 42.)

Qualifications for retirement usually relate to the applicant's age or length of service. Some states require a minimum deposit previous to retirement.

TABLE 8.—AMOUNT OF DEPOSIT RETURNABLE UPON TEACHER'S DEATH PRIOR TO REGULAR RETIREMENT

States ¹	Amount of deposit returnable ²		
	All	Part	None
1	2	3	4
1. California.....			x
2. Connecticut.....	x		
3. Dist. of Col.....	x		
4. Hawaii.....	x		
5. Illinois.....			x
6. Indiana.....	x ⁴		
7. Maine.....	x		
8. Maryland.....	x		
9. Massachusetts.....	x		
10. Michigan.....			x
11. Minnesota.....		x ⁵	
12. Montana.....			x
13. Nevada.....			x
14. New Jersey.....	x		
15. New York.....	x		
16. North Dakota.....			x
17. Ohio.....	x		
18. Pennsylvania.....	x		
19. Vermont.....	x ⁶		
20. Virginia.....			x
21. Washington.....		x ⁷	
22. Wisconsin.....	x		
Total.....	13	* 2	7

¹ Arizona and Rhode Island, paying pensions with out cost to teachers, omitted.

² Interest included, unless otherwise noted.

³ Joint-contributory system.

⁴ Application must be made within three years following teacher's death.

⁵ One-half of amount contributed.

⁶ Interest not withdrawable if period of membership in system amounted to six years or more.

⁷ One-half the difference between amount contributed and sum of any disability benefits paid.

Retirement on the basis of service has been advocated in order that teachers should not be required to continue in service beyond the time of full efficiency. (12: 662; 23: 49; 28: 19.) However, most writers are opposed to retirement on the sole basis of length of service, as not representing a reliable indication of superannuation. (4: 11-12, 21; 6: 95-6; 10: viii; 29: 57-8.)

Age is advocated as a workable basis for determining superannuation and as a means of retaining most persons in service during efficiency. (4: 11; 6: 125; 11: 53; 19: 115-20, 396-400; 28: 18; 29: 58.)

Practice. Table 9 shows the nature of the conditions for optional retirement under state-wide teacher retirement systems.

All the systems require certain minimum conditions to be fulfilled before a teacher may qualify for retirement. The conditions most frequently set up refer to age or term of service. A combination of the two is used in several states.

The age for optional retirement most commonly set up is 60, but ranges from 50 to 65. Vermont and Virginia set different ages for men and women.

The aggregate service commonly required for eligibility to retirement benefits is 30 years, but ranges from 10 to 40 years. From one-half to two-thirds of this must be rendered in the state granting retirement and in some cases the entire service must be in the state. A certain period of state service is often required immediately preceding retirement. In some cases prior service may be counted, the teacher usually being required to make up deposits due for such service.

Eight states (California, Connecticut, Illinois, Montana, Nevada, North Dakota, Virginia, and Washington) require certain minimum payments to the fund. These amounts may be paid upon retirement, if not paid during the period of service.

Discussion of Issue Ten

Shall an age for compulsory superannuation retirement be fixed?

Theory. In order to insure the effectiveness of a retirement system, some retirement laws specify an age beyond which teachers are not to remain in service. The statement of a compulsory retirement age is generally recognized

as an efficiency measure. (19: 394-5; 21: 154; 29: 63.) The argument most frequently raised against the practice of fixing a compulsory retirement age is that in exceptional cases it causes retirement of experienced employees whose competency is apparent. (19: 396; 25: 84.)

The principal problem in this connection has to do with the age limit to be established. Seventy has been suggested as a desirable age

for compulsory retirement. (12: 662; 26: 128; 28: 18-9.)

Practice. Table 10 shows that nine of the twenty-four retirement acts specify an age beyond which teachers generally may not remain in service. These states are: Connecticut, District of Columbia, Hawaii, Maryland, Massachusetts, New Jersey, New York, Ohio, and Pennsylvania. The age specified is uniformly seventy.

TABLE 9.—CONDITIONS FOR OPTIONAL SUPERANNUATION RETIREMENT

States	Conditions				
	Years of service			Minimum age	Amount of deposits
	Total number required	Amount of total to be in state	State service to immediately precede retirement		
1	2	3	4	5	6
1. Arizona.....	30	15		60	
2. California.....	30 ¹	15	10		\$12 per annum for 30 years
3. Connecticut.....	20 ²	20		60	5% of salary for 5 years
4. District of Columbia.....				62 ³	
5. Hawaii.....				60	
6. Illinois.....	25 ⁴	15		Not under 50	Sum of \$400
7. Indiana.....	40 ⁵	30		60	
8. Maine ⁶	30	20	7	60	
9. Maryland.....				60	
10. Massachusetts.....				60	
11. Michigan.....	30 ⁸	15	5	60	
12. Minnesota.....	20 ⁹	15	5		
13. Montana.....	30 ¹⁰	15	10	55	Sum of \$600
14. Nevada.....	30	15	10		\$12 per annum for 30 years
15. New Jersey.....	11			62	
16. New York.....	25	25		60 ¹¹	
17. North Dakota.....	25	18	5		Equal to annuity to which entitled for first year
18. Ohio.....				60 ¹²	
19. Pennsylvania.....	10			62	
20. Rhode Island.....	35	25	15		
21. Vermont.....	30	20	5	60 ¹⁴	
22. Virginia.....	30	30		50 ¹⁵	30% of average annual salary for last 5 years, less total deposits.
23. Washington.....	30	15			Sum of \$720
24. Wisconsin.....				16	

¹ Must make up deposits at 5% interest for years of outside service claimed. May receive credit for service in teachers colleges, certain state schools, southern branch of University of California, and war-time service in United States military and naval forces. Must apply within 2 years of last month of service, unless absent 2 years or more on duly granted leave; in such case, may apply at any time during leave.

² Or without age requirement, 35 years, 20 in state, including last 5 years.

³ Or at age 45, if continuously employed in District public schools for 10 years immediately preceding retirement.

⁴ By making up deposits due, may receive credit for prior service. Under such condition may count one year of professional preparation in state normal school, reputable college, or university, or time in service of United States during Spanish-American or late war.

⁵ For 25 years of service may receive proportionate sum. Credit for outside service not to exceed 10 years, or $\frac{1}{4}$ of service necessary before any benefits are payable. All prior service credited, but teacher must make up deposits due, at 4% interest. Teacher may also retain status in retirement fund during leave of absence one year in seven, if deposits due fund are made.

⁶ Joint-contributory system. Benefits of non-contributory system available to teachers age 60 with 25, 30, or 35 years of experience.

⁷ Present teachers, for whom there is no age requirement, must have given 15 years of state service, five to immediately precede retirement. Pension for these teachers increased to what it would have been had retirement taken place at age 60 with 30 years of service. Periods of leave of absence or sickness are not counted in 5 years immediately preceding retirement, but, on approval of board, not considered as breaking continuity of service.

⁸ Teacher, age 60, may receive smaller allowance on 25 years of service, 15 in state, including last 5 years.

⁹ One year of the 20 may have been on leave of absence for study. Prior service may be credited if teacher makes up deposits due for such period.

¹⁰ Period of leave of absence not counted in period of service.

¹¹ Present teachers may retire upon 35 years of service, 25 in state, regardless of age.

¹² These conditions apply to new entrants. Present teachers age 60 may retire on 25 years of total service. Any teacher may retire on 35 years of service, regardless of age.

¹³ New entrants with less than five years of service not eligible for retirement. Teachers with 36 years of service may retire at any age. Outside service may be counted as prior service, if teacher makes up deposits due for such period.

¹⁴ For women; 65 for men.

¹⁵ For women; 58 for men.

¹⁶ Annuity from state's payments available only when teacher attains age 50. Teachers claiming prior service must have total service of 25 years, and have reached age 50.

Discussion of Issue Eleven

Shall the superannuation retirement allowance bear a relation to the teacher's salary during active service?

Theory. The determination of the retirement allowance is a complex problem which cannot be settled arbitrarily. Final decision depends on the nature of the deposits and payments made, and the degree of effectiveness desired in the system.

Under one plan a flat sum is paid to all retiring members. It has been argued that such a plan has the merit of simplicity, and if properly set up in the beginning, does not call for adjustment in rates of contributions.

On the opposing side are statements to the effect that the flat rate plan:

1. Does not reflect changes in the purchasing power of the dollar.
2. Is inequitable to teachers in the higher salary levels.
3. Will not offer a sufficient inducement for higher-paid members to retire, and hence blocks the lines of promotion.

4. Renders teaching unattractive to persons considering a professional career. (19: 125-6, 403; 29: 65.)

Under the other retirement plan, the allowance is proportional to the salary. The principal arguments advanced in favor of this plan are:

1. It is more equitable to different classes of employees.
2. It gives higher-paid members a greater incentive to retire, thus keeping open the paths

of promotion. This is a double advantage to the lower-paid teachers: first, it opens the way for promotion sooner than would otherwise be the case; and second, it tends to protect the teachers from the direction and supervision of those whose efficiency has been lowered by advancing age.

3. It automatically adjusts to changes in salaries or living costs. (5: 90; 19: 126-7, 140-1.)

Against relating the amount of the retirement allowance to salary, these objections have been raised:

1. Minor adjustment in rates of contribution are necessary from time to time.
2. The administration of the system is more complicated.
3. It introduces a fluctuating element into the system. (6: 124; 19: 128-37, 146-7.)

Practice. As shown by Table 11, flat benefits, independent of salary, are provided in seven states—Arizona, California, Illinois, Minnesota, Montana, Nevada, and Washington. In Arizona this is a pension paid entirely from the state. In the other states the respective amounts paid by the state and the teacher are not definitely described.

With these exceptions, the general practice is to provide an annuity from the accumulated deposits of the teacher, and a pension from the accumulated payments of the state. The teacher's contributions are deposited in the retirement fund and accumulated at interest until time of retirement, when used to purchase an annuity. The pension in a number of cases represents a fraction of the average annual salary over the five or ten years preceding retirement.

TABLE 10.—COMPULSORY RETIREMENT AGE

States	Compulsory retirement age	Related provisions
1	2	3
1. Connecticut.....	70	Teacher may be retained if employing committee so requests in writing.
2. District of Columbia.....	70	Unless two-thirds of Board of Education would have teacher retained for good of the service.
3. Hawaii.....	70	Teacher retired forthwith or on first day of calendar month next succeeding that in which such age was attained.
4. Maryland.....	70	Teacher may remain to end of school year following date such age was attained, upon approval of State Board of Education.
5. Massachusetts.....	70	Teacher retired at end of school year in which such age was attained. If reached age 70 in July, August, or September, to be then retired.
6. New Jersey.....	70	Teacher retired forthwith, or at such time within a year thereafter as considered advisable.
7. New York.....	70	Not automatic, but if teacher or employer requests retirement. Teacher to be retired of date specified, or such other time within thirty days thereafter as found advisable.
8. Ohio.....	70	Consent of employer to be secured in each case. Teacher to be retired at end of school year in which such age was attained.
9. Pennsylvania.....	70	Teacher to be retired forthwith, or at end of school year in which such age was attained.

TABLE 11.—RETIREMENT ALLOWANCES PROVIDED BY STATE-WIDE TEACHER RETIREMENT SYSTEMS

States	Flat benefit	Annual allowances paid different groups of teachers			
		Allowance composed of combined annuity and pension			To teachers in service prior to enactment of law
		Annuity from teacher's deposits	Pension from state's payments	To teachers appointed after enactment of law	
1	2	3	4	5	
1. Arizona	\$600 ¹				
2. California	500				
3. Connecticut		Annuity purchased by sum of deposits with regular interest.	Pension equal to annuity secured by teacher's deposits.		Pension in addition to that in column 4. Sum of two pensions must amount to that due had teacher paid 30 assessments on average yearly wage for 5 years preceding retirement, with 3% interest. Payments from state with annuity must amount to \$350 in case of teachers with 20 years of service.
4. District of Columbia		Annuity equal to 1% of average annual salary during 10 years immediately preceding retirement, for each year of service after June 30, 1926. ²	\$15 for each year of current service, not to exceed 40 years.		A sum equal to 1% of average annual salary during 10 years immediately preceding retirement for each year of service prior to July 1, 1926, ³ not to exceed 40 years. With amounts in columns 3 and 4 forms combined annuity.
5. Hawaii		Annuity representing actuarial equivalent of sum of deposits, with interest.	Pension equal to 1/140 of average annual salary during last 10 years of service, multiplied by number of years of service since teacher last became a member.		Pension in addition to that in column 4, equal to 1/70 of average annual salary during last 10 years of service, multiplied by number of years of service certified on prior-service certificate.
6. Illinois	\$400 ⁴				State pays 4/7 of allowance due had all accrued liabilities been met.
7. Indiana		Annuity purchased by teacher's accumulated savings.	State provides 4/7 of \$700 annuity		Teachers with prior service covered by non-contributory retirement system. Teachers with 35 years of experience are granted \$500, with 30 years \$375, and 25 years \$275.
8. Maine		Annuity purchased by teacher's deposits and state's payments, with interest. . . .			Pension in addition to that in column 4, equal to 1/70 of average annual salary during last 10 years of service, multiplied by number of years of service certified on prior-service certificate.
9. Maryland		Annuity representing actuarial equivalent of sum of deposits, with regular interest.	Pension equal to 1/140 of average annual salary during last 10 years of service, multiplied by number of years of service since teacher last became a member.		Pension in addition to that in column 4. Sum of two pensions must equal amount due had teacher retired at age 60 with 30 years of service, an extra amount given for service in excess of 30. Minimum annual pension, plus amount from annuity fund, to equal \$400. Maximum pension 1/2 average salary.
10. Massachusetts		Annuity purchased by sum of deposits, with interest. Maximum annuity at age 60, \$650.	Amount equal to annuity secured by teacher's deposits. Maximum pension 1/3 average salary for last 5 years preceding retirement.		

TABLE 11.—RETIREMENT ALLOWANCES PROVIDED BY STATE-WIDE TEACHER RETIREMENT SYSTEMS—Continued

Annual allowances paid different groups of teachers				
States	Allowance composed of combined annuity and pension			
	Flat benefit	Annuity from teacher's deposits	Pension from state's payments	
			To teachers appointed after enactment of law	To teachers in service prior to enactment of law
1	2	3	4	5
11. Michigan.....	.....	Teachers age 60 with 30 years of service receive annuity equal to one-half teacher's average annual salary during last 5 years of service, not to exceed \$500, or be less than \$300. Teachers age 60 with 25 years of service receive annuity in proportion to one due for 30 years as teacher's service is to 30.		
12. Minnesota.....	Allowance according to years of service, as follows: 20 yrs. of serv. \$350 21 " " " 380 22 " " " 410 23 " " " 440 24 " " " 470 25 " " " 500			
13. Montana.....	\$600 ^a			
14. Nevada.....	\$600			
15. New Jersey.....	.....	Annuity representing actuarial equivalent of sum of deposits, with regular interest.	Pension equal to 1/140 of average annual salary over last 5 years preceding retirement, multiplied by number of years of total service.	Pension equal to 1/140 of average annual salary over last 5 years preceding retirement, multiplied by number of years of service since teacher became a member; also a pension equal to 1/70 of such average annual salary, multiplied by number of years of service certified on his prior-service certificate. Total allowance granted person age 62 with 20 years of service, not to be less than \$400.
16. New York.....	.....	Annuity representing actuarial equivalent of sum of deposits with regular interest.	Pension equal to 1/4 of average annual salary during 5 years of service immediately preceding retirement. If total service is less than 25 years, a pension of 1/100 of such salary multiplied by number of years of total service.	Pension in addition to that in column 4, equal to 1/140 of average annual salary during 5 years of service immediately preceding retirement, multiplied by number of years of total service certified on prior-service certificate. Teachers with 25 years of state service to receive total allowance of not less than \$400.
17. North Dakota.....	.....	Annuity equal to 1/50 of annual salary during last 5 years of service, multiplied by number of years of service, Not to exceed \$750 in any one year, or be less than \$350.		

TABLE 11.—RETIREMENT ALLOWANCES PROVIDED BY STATE-WIDE TEACHER RETIREMENT SYSTEMS—Continued

States	Annual allowances paid different groups of teachers				
	Fiat benefit	Allowance composed of combined annuity and pension			
		Annuity from teacher's deposits	Pension from state's payments	To teachers appointed after enactment of law	To teachers in service prior to enactment of law
1	2	3	4	5	6
18. Ohio.....		Annuity having reserve equal to sum of deposits with regular interest.	Pension equivalent to amount in column 3.		Pension in addition to that in column 4, equal to 1 1/3% of average final salary, not over \$2,000, during 10 years immediately preceding retirement, multiplied by number of years of service certified on prior-service certificate. Teachers with 36 years service receive at least \$300.
19. Pennsylvania.....		Annuity representing actuarial equivalent of sum of deposits, with regular interest.	Receives 1/160 of average annual salary during 10 years immediately preceding retirement, for each year of service.		Annuity in addition to that in column 4, equal to 1/160 of average annual salary for 10 years immediately preceding retirement, for each year of prior-service, as certified on certificate.
20. Rhode Island.....			Pension equal to one-half average contractual salary during last 5 years before retirement. Not to exceed \$700 or be less than \$500.		
21. Vermont.....		Annuity purchased by teacher's deposits and state's payments, with interest. . . .			Annuity as in columns 3-4, plus additional arbitrary amount fixed by board. Total not over 1/2 average annual salary for entire period of service. Present members joining association at age 45 or over receive not less than \$200.
22. Virginia.....		Sum equal to 1/2 of average annual salary during last 5 years of service, not to exceed \$400. If such salary equalled \$1,000, may be granted \$500.			
23. Washington.....	\$480 ¹	Annuity purchased by accumulated deposits, with interest.			Pension as in column 4, plus additional amount for prior-service, calculated as if payments had accumulated over such period.
24. Wisconsin.....					

¹ Pension from state funds.

² Date amendatory law became effective.

³ \$16 for each year of service; aggregate of 25 years required for age retirement. \$16 a maximum.

⁴ Benefit from teachers' deposits. Teacher retirement systems in these states receive no support from public funds.

(See Hawaii, Maryland, New Jersey, New York, North Dakota, and Pennsylvania.) In others it is to be equal to the annuity purchased by the teacher, as for example, in Connecticut, Massachusetts, and Ohio. In some states the amounts paid by teachers and state are combined to provide an annuity of approximately one-half the average annual salary during the last five years of service. In a number of states, in addition to describing the amount of the superannuation allowance, the law provides that retiring teachers shall not receive less than a prescribed minimum amount. This is to assure teachers with prior-service records an adequate allowance.

Discussion of Issue Twelve

Shall protection against disability be provided?

Theory. It has been found desirable to provide for teachers disabled prior to the time of regular retirement. This is considered necessary to school efficiency. (4: 13; 12: 662; 19: 172, 174; 21: 155; 23: 49; 28: 18; 29: 78.)

When proper physical standards are enforced at the time of entrance to the profession, the cost of providing protection against disability represents a comparatively small percent of the total cost of a retirement system. (21: 155.) Having the state and individual teacher share the expense of disability provision is suggested as the most practical and satisfactory plan. (10: 35.) The scaling of disability benefits below superannuation allowances is emphasized as a necessary safeguard. (29: 81.)

Practice. Table 12 shows the nature of the disability benefits provided by state-wide teacher retirement laws. According to Table 12, the practice among the more recently established systems is to provide disabled teachers with: (1) An annuity representing the actuarial equivalent of the teacher's accumulated deposits, and (2) A pension from the state to bring the total disability allowance up to an amount proportional to length of service, but not to exceed the allowance provided for regular superannuation retirement. (See for example, provisions for Maryland and New Jersey.)

In a number of states, the amounts secured respectively from the teacher's deposits or state's payments are not clearly distinguished. The disability allowance represents a fraction

of the regular superannuation retirement allowance.

Minimum disability allowances are as follows: Vermont \$200, New Jersey \$300, North Dakota \$350, and Rhode Island \$500, or from 25 to 30 percent of salary, as in Hawaii, Maryland, New Jersey, Ohio, and Pennsylvania. Maximum limits established in the form of flat sums are: \$400 in Illinois and Virginia, (may be \$500 in Virginia in certain cases), and \$750 in North Dakota. In other states the maximum disability allowance is expressed as a fraction of (1) the rate due had retirement occurred at a later age (Hawaii, Maryland, New Jersey, New York, Ohio, Pennsylvania); (2) the average annual salary during the entire period of service (Maine, Vermont); (3) the salary during year in which disability occurred (Indiana).

Discussion of Issue Thirteen

Shall a teacher be required to give a certain period of service and to fulfill certain other conditions before he may qualify for disability retirement?

Theory. After having established the advisability of providing for disabled teachers, it is necessary to determine the conditions that should be set up to safeguard the granting of such a benefit. These conditions are usually in the nature of a minimum period of service to be rendered, and proof of disability by medical examination.

Some writers would have a minimum period of service required, before a disability allowance may be granted. This recognizes that the early years are in the nature of an apprenticeship. (6: 126; 7: 142-3; 12: 662; 14: 285; 21: 155; 28: 18.) On the contrary, the practicality of such a requirement has been questioned, as the interests of efficiency require immediate retirement of the disabled. (19: 189.)

The proper safeguarding of disability benefits is a serious practical difficulty. The granting of a disability allowance should be preceded by a reliable examination of the applicant, and followed by periodic re-examinations, to test continuance of disability. (8: 143; 10: 37; 19: 401; 29: 78-9.)

Practice. Applicants for disability benefits from the state-wide teacher retirement systems listed in Table 13 are required to have given a certain period of service, most often 10 or 15

TABLE 12.—DISABILITY ALLOWANCES

States	Benefits			Total allowance, in some cases made up of combined annuity and pension
	Annuity from teacher's deposit	Annual pension from state		
1	2	3	4	
1. Arizona ¹.....	.....	\$600 ²	.....	Same fraction of the maximum retirement salary of \$500 as the teacher's service is of 30 years.
2. California.....	.....	.....	.....	See columns 2 and 3.
3. Connecticut.....	Annuity purchased by teacher's accumulated deposits. ⁴	Pension equal to 1/30 of that payable had retirement occurred at age 60, multiplied by years of service. ³	.....	See columns 2 and 3.
4. District of Columbia.....	Annuity equal to 1 percent of teacher's average salary during 10 years immediately preceding retirement, for each year of current service, not to exceed 40, with minimum credit of 20 years allowed.	One percent of average annual salary during 10 years immediately preceding retirement for each year of teacher's whole term of service prior to July 1, 1926, not to exceed 40 years. Also, \$15 for each year of current service, not to exceed 40, with minimum credit of 20 years allowed.	.....	See columns 2 and 3.
5. Hawaii.....	.....	.....	.....	.....
a. Ordinary disability.....	Annuity representing actuarial equivalent of teacher's accumulated deposits. ⁴	Pension to provide, when combined with annuity, amount in column 4.	.....	Ninety percent of 1/70 of average annual salary during last 10 years of service, multiplied by number of years of service allowable. Not less than 3/4 of such average salary unless this 3/4 exceeds 9/10 of the rate of allowance due had retirement occurred at age 60; if so, teacher receives 9/10 of rate of such allowance.
b. Accidental disability during performance of duty.....	Annuity representing actuarial equivalent of teacher's accumulated deposits. ⁴	Pension amounting to 66 2/3 percent of average annual salary during last 10 years of service.	.....	.....
6. Illinois.....	See column 4.	See column 4.	.....	Annuity of \$16 for each year of service, not to exceed \$400 in any one year. ²
7. Indiana.....	See column 4.	See column 4.	.....	\$500; not to exceed 5/8 of salary received during year in which disability occurred.
8. Maine ¹	See column 4.	See column 4.	.....	Annuity based on accumulated sum of teacher's deposits and state's payments, with additional allowance from state considered equitable, and limited by earning capacity in other occupations. Total not to exceed half of average annual salary during entire period of service.
9. Maryland.....	Annuity representing actuarial equivalent of teacher's accumulated deposits. ⁴	Pension to provide, when combined with annuity, amount in column 4.	.....	Ninety percent of 1/70 of average annual salary during last ten years of service, multiplied by number of years of service creditable. To provide at least 3/4 of average annual salary over this period. Not to exceed 90 percent of 1/70 of such salary, multiplied by number of years creditable had retirement occurred at age 60.
10. Massachusetts.....	Annuity representing sum of teacher's deposits. ¹	Pension for each year of service equal to 1/30 of that due had teacher retired at 60, having paid 30 annual assessments. Minimum pension 1/30 of \$250 for each year of service.	.....	Total allowance not to exceed amount due had teacher continued in service to age 60, having paid annual assessments for five years immediately preceding retirement.
11. Michigan.....	Annuity of as many thirtieths of full annuity due for 30 years of service as teacher has years of state service.	.....	.....	.....

TABLE 12.—DISABILITY ALLOWANCES—Continued

States	Benefits		
	Annuity from teacher's deposit 2	Annual pension from state 3	Total allowance, in some cases made up of combined annuity and pension 4
12. Minnesota.....	See column 4.	See column 4.	As many twentieths of full annuity due for 20 years of service as term of total service bears to 20 years.
13. Montana.....	To bear same proportion to \$600 as teacher's period of service bears to 30 years.		
14. Nevada.....	See column 4.	See column 4.	To bear same proportion to \$600 as teacher's period of service bears to 30 years.
15. New Jersey.....	Annuity representing actuarial equivalent of teacher's accumulated deposits. ⁴ Teachers in service when retirement system became effective received in addition actuarial equivalent of deposits with- drawn and paid to Teachers' Pension Fund prior to Sept. 1, 1919, and not otherwise received.	Pension to provide, when combined with annuity, amount in column 4.	One-seventieth of average annual salary for last five years of service multiplied by number of years of total service. Not less than \$300 or 30 percent of such average salary. Not to exceed 9/10 of rate of allowance due had retirement occurred at age 62.
16. New York.....	Annuity representing actuarial equivalent of teacher's accumulated deposits. ⁴	Pension equal to 1/5 of average annual salary over five years immediately preceding retirement. Not to exceed 4/5 of rate of pension due had retirement occurred at age 70. Teachers in service when retirement law became effective, receive further pension amounting to 1/140 of average annual salary over five years immediately preceding retirement, multiplied by number of years of total service certified on prior-service certificate.	See columns 2 and 3.
17. North Dakota.....			One-fiftieth of annual salary during last five years of service, multiplied by whole number of years of service. Not to exceed \$750 or be less than \$350 in any one year. ³
18. Ohio.....	Annuity with reserve equal to amount of teacher's accumulated deposits. ⁴	Pension to provide, when combined with annuity, amount in column 4.	One and one-fifth percent of average annual salary (not over \$2,000) during ten years immediately preceding retirement, multiplied by number of years of total service. Not to be less than 30 percent of such average salary or exceed 9/10 of rate percent of such average salary due had retirement occurred at age 60.
19. Pennsylvania.....	Annuity representing actuarial equivalent of teacher's accumulated deposits. ⁴	To equal, when combined with annuity from teacher's deposits, amount in column 4.	One-ninetieth of average annual salary during ten years immediately preceding retirement, multiplied by number of years of service. Not to be less than 30 percent of such average salary or exceed 8/9 of rate of allowance due had retirement occurred at age 62.
20. Rhode Island ¹		Pension in same proportion to one-half average salary during last five years preceding retirement, as teacher's period of service is to 35 years. Not to be less than \$500.	

TABLE 12.—DISABILITY ALLOWANCES—Continued

States	Benefits		
	Annuity from teacher's deposit	Annual pension from state	Total allowance, in some cases made up of combined annuity and pension
1	2	3	4
21. Vermont.....	See column 4.....	See column 4.....	Annuity representing accumulated sum ¹ of teacher's deposits and state's payment, with additional arbitrary amount from state considered equitable by retirement board and limited by earning capacity in other occupations. Not to exceed $\frac{1}{2}$ average annual salary during entire period of service, or be less than \$200.
22. Virginia.....	See column 4.....	See column 4.....	One-half average annual salary during last five years of service. Not to exceed \$400 unless such average annual salary amounted to \$1,000, in which case allowance may be \$500.
23. Washington.....	Annuity of such part of \$480 as teacher's period of service is of 30 years. Payable for only 2 years.		
a. Teacher with 10 years' service.			
b. Teacher with 20 years' service.	Annuity as above, payable while disability exists.		
24. Wisconsin.....	Teacher receives his accumulated deposits. ⁴	Annuity purchased by state's payments, ⁴ and further annuity of \$25 per month in case of total disability before age 50.	See columns 2 and 3.

¹ Non-contributory system.

² Same sum granted upon superannuation retirement.

³ No disability pension to exceed that payable upon retirement for other than disability.

⁴ Includes accumulated interest.

⁵ Joint-contributory system. An enactment of 1929 effecting the non-contributory teacher retirement system provided that teachers age 50, who are totally disabled and without other means of support, upon complying with conditions of the law may be granted pensions.

years. In general, this service must have been rendered in the state wherein the applicant was teaching at the time the disability occurred. A number of states require the teacher to be under a certain age, generally the minimum age for superannuation retirement. Eight states require the teacher to have made certain deposits to the credit of the retirement fund.

Fourteen of the twenty-four states included in Table 13 require the applicant definitely to establish his claim through medical examination. In this connection see Table 14. Practically all of the retirement acts concerned call for some sort of proof of disability upon application for allowance, although a medical ex-

amination may not be specified. Most of the retirement acts make disability pertain to school service. See Table 15 for data on this aspect.

Table 16 gives further data, regarding circumstances under which disability allowances may be discontinued, or reduced.

Discussion of Issue Fourteen

Shall the retiring teacher be given an option as to the manner in which part or all of the retirement allowance shall be paid?

Theory. Considerations of flexibility suggest the desirability of providing for different forms of optional settlement. Further, since a retirement system is a form of savings, it

TABLE 13.—CONDITIONS FOR DISABILITY RETIREMENT

States	Conditions			
	Years of service		Age limitation	Sum of deposits
	Total number required	Amount of total to be in state		
1	2	3	4	5
1. Arizona.....	20	All		
2. California ¹	15	All ²		
3. Connecticut.....	10	All	Under age 60	\$12 per annum for 30 years.
4. District of Columbia.....	15 ³ 4	All		5% of salary for 5 years.
5. Hawaii.....	10 ⁵	All		
6. Illinois ⁶	15	9		Sum of \$400
7. Indiana.....	10	All		
8. Maine ⁷	6	All		
9. Maryland.....	5			
10. Massachusetts.....	20	All ⁸	Under age 60	
11. Michigan.....	15	All		Equal to 100% of annuity for 1 year.
12. Minnesota.....	15	10		
13. Montana.....	15	All		Sum of \$600.
14. Nevada ⁹	15	All		\$12 per annum for 30 years.
15. New Jersey.....	10	All	Under age 62	
16. New York.....	20 ¹⁰	10 ¹¹		
17. North Dakota.....	15	All		Equal to annuity to which entitled for first year.
18. Ohio.....	10	All ¹²		
19. Pennsylvania.....	10	All	Under age 62	
20. Rhode Island.....	20	All		
21. Vermont.....	6	All		
22. Virginia.....	20 ¹³	All		
23. Washington.....	10 ¹⁴	8		
24. Wisconsin.....	5 ¹⁵	All	Under age 50	Teacher must have made deposits for not less than a school year over five fiscal years.

¹ Teacher must apply within 2 years of last month of service, unless absent 2 years or more on duly-granted leave; in such case, may apply at any time during such leave.

² Including last ten immediately preceding retirement, which, however, may be broken under certain conditions.

³ Continuous employment. Disability not due to vicious habits.

⁴ If disabled teacher has 10 years of continuous service immediately prior to retirement, may be granted allowance at age 45.

⁵ No service requirement if disability occurred as result of accident during performance of duty, through no negligence on part of employee or teacher.

⁶ Applicant must not be in receipt of teacher's annuity from any other public school teachers' pension and retirement fund.

⁷ Joint-contributory system.

⁸ Last five to be consecutive.

⁹ Teacher must apply within 2 years of last month of service or of approval of the Act.

¹⁰ For present teachers; otherwise 15 years of total state service.

¹¹ Last ten.

¹² A member each of ten years of service subsequent to 1920.

¹³ "And who has maintained a good record."

¹⁴ To include not less than 80 months of service. Or total of 20 years, 12 in state, to receive benefit throughout life.

Disability allowance not due until member incapacitated three consecutive school months.

¹⁵ Five years a member of retirement association. Disability must have continued 60 days.

TABLE 14.—MEDICAL EXAMINATIONS REQUIRED FOR AWARD OR CONTINUED RECEIPT OF DISABILITY ALLOWANCE

States	Examinations required	
	On application for allowance	For continued receipt of allowance
1	2	3
1. Arizona.....	x	
2. California.....		x ¹
3. Connecticut.....	x	
4. Dist. of Col.....	x	
5. Hawaii.....	x	x ²
6. Illinois.....	x	
7. Indiana.....	x	
8. Maine ³	x	x ⁴
9. Maryland.....	x	x ⁵
10. Massachusetts.....	x	x ⁶
11. Michigan.....		
12. Minnesota.....		
13. Montana.....	x	
14. Nevada.....	x	
15. New Jersey.....	x	x ¹⁰
16. New York.....	x	x ¹¹
17. North Dakota.....	x	
18. Ohio.....	x	x ¹²
19. Pennsylvania.....	x	x ¹³
20. Rhode Island.....		
21. Vermont.....	x	x ¹⁴
22. Virginia.....	x	x ¹⁵
23. Washington.....	x	
24. Wisconsin.....	x	x ¹⁶
Total.....	14	10

¹ Annually, for five years, and subsequently, as may be required, unless board exempts teacher from examination.

² Board may require examination once each year during first five years following disability retirement, and once in every three year period thereafter, while member is under age 60.

³ Board has authority to require medical examination in adjustment of disability claims.

⁴ Allowance not to continue if examination shows removal of disability.

⁵ Joint-contributory system.

⁶ Annually.

⁷ If board requests examination, at intervals of not less than 1 year; teacher under age 60.

⁸ State board of education may require medical examination.

⁹ In judging applications for retirement salaries, legal proof of all necessary facts required.

¹⁰ Board may require examination once each year during first five years following disability retirement, and once in every three year period thereafter; teacher under age 62.

¹¹ Board may require examination once each year during first five years following disability retirement.

¹² Teacher considered on leave of absence during first five years, and retains membership in system. If under age 60, to be examined once each year during this period.

¹³ Board may require examination once each year, if teacher under age 62.

¹⁴ State board of education examines into and determines eligibility of applicants for pensions.

¹⁵ Retirement board determines how long allowance shall continue.

¹⁶ Applicant must show satisfactory evidence of disability. State Board of Health or State Board of Education may order special medical examination.

¹⁷ At intervals not exceeding three years, or at any time new examination may be required.

¹⁸ Applicant must prove disability to satisfaction of board.

¹⁹ Applicant must furnish due proof of disability.

²⁰ At any time, not more than once a year, board may require satisfactory proof of continuance of disability.

seems desirable that beneficiaries be permitted to exercise option in settlement of their retirement benefits. (4: 12-13; 6: 125-6; 12: 662; 19: 85, 274-8; 21: 155-6; 23: 49.) One writer suggests that options may result in selection against the system, and thereby increase cost. (19: 276.)

Under existing forms of settlement, the teacher may elect: (1) To receive a straight life annuity; (2) To provide his beneficiary with a retirement allowance, or (3) To have any contributions remaining to his credit returned to the beneficiary in a lump sum. In case the third method of payment is elected, the beneficiary must seek advice on investment of the amount. There is thus the problem of reinvestment. However, the amount due may be too small to purchase a substantial annuity. In this case lump sum payments may be preferable. The main principle seems to be to preserve flexibility and permit the employee to determine within reasonable limits how the benefits should be applied. (19: 377-8; 30: 14.)

TABLE 15.—EXTENT OF DISABILITY

States	Extent of incapacity
1	2
1. Arizona.....	Duties as teacher.
2. California.....	Further school service.
3. Connecticut.....	Satisfactory service as teacher.
4. Dist. of Col.....	Efficient service as teacher.
5. Hawaii.....	Further performance of duty ¹ .
6. Illinois.....	Teaching.
7. Indiana.....	— ²
8. Maine ³	Teaching ⁴ .
9. Maryland.....	Further performance of duty ¹ .
10. Massachusetts.....	Satisfactory service as teacher.
11. Michigan.....	Teaching ⁵ .
12. Minnesota.....	— ⁶
13. Montana.....	Further service.
14. Nevada.....	Further school service.
15. New Jersey.....	Performance of duty.
16. New York.....	Performance of duty.
17. North Dakota.....	— ⁷
18. Ohio.....	Performance of duty.
19. Pennsylvania.....	Performance of duty.
20. Rhode Island.....	— ⁸
21. Vermont.....	Teaching ⁴ .
22. Virginia.....	Efficient service as teacher.
23. Washington.....	Service in the public schools.
24. Wisconsin.....	Any occupation or work for compensation of financial value ⁹ .

¹ Incapacity likely to be permanent.

² Extent of disability not specified.

³ Joint-contributory system.

⁴ Totally and permanently disabled.

⁵ Considered deserving of annuity by board.

⁶ Mentally or physically incapacitated. Occupational limitations not specified.

⁷ Permanently disabled. Occupational limitations not specified.

⁸ Wholly and presumably permanently unable to engage in such work.

Practice. Table 17 explains conditions governing options offered, funds involved, and persons privileged to exercise the options, for the twelve retirement systems offering optional forms of settlement.

Discussion of Issue Fifteen

Shall the make-up of the controlling board be prescribed so that both teacher and public are represented upon it?

Theory. The management of a retirement fund may be entrusted to an already existing authority, or to a board especially appointed for the purpose. While the state board of education or similar agency may serve as a retirement board, the authorities concerned may not be able to give the management of the fund the attention required. (29: 157.)

Some writers on the administration of teacher retirement systems recommend the creation of a special board to oversee the affairs of the systems, while others would entrust this

function to the state board of education. (24: 77; 20: 219; 12: 661.) Representation of both teacher and public* on the controlling board is called for when a special board administers the system. (1: 269; 6: 123; 19: 341; 20: 219; 28: 16-17; 29: 158.)

The problem of fixing the number and distribution of members of the retirement board is affected by considerations of administrative efficiency, as well as by the need of providing adequate representation of interests. Seven has been suggested as a satisfactory number. (See 10: 20; 24: 77.)

In connection with the make-up of the board, it has been recommended that the representatives of the teachers should be elected at large by and from the members of the system for periods of a length sufficient to give them familiarity with the problems handled. (See 10: 20; 24: 77.) Related departments of the state should also be represented on the board. (1: 269; 24: 77.)

TABLE 16.—CIRCUMSTANCES UNDER WHICH DISABILITY ALLOWANCE MAY BE DISCONTINUED OR REDUCED

States	Condition of beneficiary as shown by re-examination	Allowance discontinued or reduced
1	2	3
1. Connecticut.....	Disability no longer exists.	Allowance to cease.
2. Hawaii.....	Beneficiary able to engage in gainful occupation paying more than difference between allowance and average final compensation.	Pension reduced to amount which together with annuity and amount earnable, shall equal average final compensation.
3. Indiana.....	Disability removed.	Pension to cease.
4. Maine ¹	Beneficiary able to return to teaching.	Allowance to cease.
5. Maryland.....	Beneficiary able to engage in gainful occupation paying more than difference between allowance and average final compensation.	Pension reduced to amount which together with annuity and amount earnable, shall equal average final compensation.
6. Massachusetts....	Disability preventing satisfactory service as a teacher no longer exists.	Allowance to cease.
7. New Jersey.....	Beneficiary not totally incapacitated physically or mentally for performance of duty, or engaged or able to engage in gainful occupation.	Allowance reduced to amount which added to amount then earnable, shall not exceed average salary.
8. New York.....	Beneficiary engaged or able to engage in gainful occupation paying more than the difference between allowance and final average salary.	Pension reduced to amount which, together with annuity and amount earnable, shall equal final average salary.
9. Ohio.....	Beneficiary physically and mentally capable of resuming service similar to that from which retired.	Beneficiary restored to previous position and salary, or position and salary similar thereto, at first day of next succeeding school year.
10. Pennsylvania....	Beneficiary no longer physically or mentally incapacitated for further performance of duty; or beneficiary able to engage in gainful occupation.	State annuity discontinued; or reduced to amount not over that by which the beneficiary's last year's salary exceeds present earning capacity.
11. Virginia.....	Beneficiary no longer incapable of rendering efficient service as a teacher.	Pension to cease.
12. Wisconsin.....	Total disability not continued or member able to engage in any occupation for remuneration or profit.	Annuity to cease.

¹ Joint-contributory system.

TABLE 17.—OPTIONS OFFERED TEACHERS AT RETIREMENT

States	Persons offered options			Funds involved		Form of options					
	Regular annuitants	Disability annuitants (or members)	All annuitants (or members)	Teacher's deposits only	Both teacher's deposits and state's payments	Optional settlement for survivors					
						Unpaid balance returnable in		Joint survivorship annuity		Some other equivalent benefits	
						Lump sum ⁷	Annuity	As annuitant elects	Annuity continued in full	Part of annuity ⁸ continued	
1	2	3	4	5	6	7	8	9	10	11	12
1. Connecticut.....			x	x ¹		x			x		x
2. District of Columbia.....			x	x ¹		x			x		x
3. Hawaii ²			x		x						
4. Maine ³	x	x			x		x				
5. Maryland ³						x					
6. Massachusetts.....	x			x		x			x		x
7. New Jersey.....			x		x ⁴	x			x		x
8. New York ⁵			x		x ⁴	x			x		x
9. Ohio.....			x		x ⁴				x		x
10. Pennsylvania.....			x		x ⁴	x			x		x
11. Vermont.....	x	x			x		x				
12. Wisconsin.....	x	x			x	x ⁹		x	x ¹⁰	x	

¹ No part of remaining deposits, with interest, payable to estate unless annuitant elected such option prior to retirement. Act specifies simply "annuitant."

² No optional selection effective if beneficiary dies within 30 days after retirement. Beneficiary considered active member at time of death.

³ One-half, except in District of Columbia, in which case a "part" only is specified.

⁴ Joint-contributory system.

⁵ Balance paid to estate or beneficiary.

⁶ Annuity, pension, or retirement allowance.

⁷ No optional election effective if a member dies within 30 days after applying for allowance.

⁸ Any benefit.

⁹ In a number of installments during a time certain, or in a single sum.

¹⁰ Additional payments of annuity until 180 monthly payments have been made.

1 No part of remaining deposits, with interest, payable to estate unless annuitant elected such option prior to retirement. Act specifies simply "annuitant."
2 No optional selection effective if beneficiary dies within 30 days after retirement.
3 One-half, except in District of Columbia, in which case a "part," only is specified.
4 Joint-contributory system.
5 Balance paid to estate or beneficiary.
6 Annuity, pension, or retirement allowance.
7 No optional election effective if a member dies within 30 days after applying for allowance.
8 Any benefit.
9 In a number of installments during a time certain, or in a single sum.
10 Additional payments of annuity until 180 monthly payments have been made.

Practice. In five states (Arizona, California, Nevada, Rhode Island, and Virginia) the state board of education oversees the affairs of the retirement system. In the District of Columbia the Commissioners of the District administer the system. (See Table 18.)

The total number of members on the special retirement boards ranges from three to seven, the most frequent number being five. With one exception (Indiana), these boards include, by definite statutory prescription, representatives of the public. The educational interests of the state are usually represented by the chief state school official.

In general, the retirement boards include representatives of the teacher members of the system. (In Indiana the act states that the board shall not include more than two such members.) While these members are sometimes appointed by the governor, they are more often elected by the body of teachers. They serve from two to six years.

Eight of the retirement boards include from one to five members at large. In six cases these are appointed by the governor for a term of one to six years. In two cases they are chosen by other members of the board, for from one to three years.

Among the members at large, in the case of Hawaii and New York, there is an officer of a bank, who is not a governmental employee. In Wisconsin such members are to be persons who have had experience in making investments.

Discussion of Issue Sixteen

Shall a periodic actuarial investigation of the retirement system be provided?

Theory. The desirability of provision for periodic actuarial investigations is generally recognized. Such a practice is a means of guaranteeing the financial soundness of a retirement fund.

The amounts paid into the reserve funds in order to guarantee the benefits promised are based upon careful actuarial calculations. These calculations constitute the best prediction as to what amounts and rates should be fixed. From time to time it may be necessary to revise these estimates if the financial soundness of the retirement system is to be preserved. (21: 155; see also 3: 12-13; 10: 43; 14: 286; 19: 353, 355, 437; 23: 48.)

Practice. Of the twenty-four state-wide teacher retirement systems studied, eleven make provision for a periodic actuarial investigation. Table 19 gives information concerning these eleven states.

Table 19 shows that the retirement acts usually provide for an actuarial investigation shortly following the inauguration of the system (within about three years), and within five-year periods thereafter. The boards are required or authorized to employ actuarial advice, and to keep records in such form as to make possible reliable investigations of the experience of the system. In Pennsylvania the board is to appoint an actuary. In New York and Ohio the law calls for the investigation to be made by a "competent actuary familiar with retirement systems."

ECONOMICALLY, no school system of a large city is completely effective, unless there is a sound and satisfactory method of retiring aged teachers with the consequent freedom from anxiety. Only a sound and satisfactory retirement fund can prevent either the dismissal of aged teachers without resources, or the sacrifice of the best interests of the schools in order to continue the employment of teachers who are not capable. Waney, Anne R. "Reasons for a Teacher Retirement Fund." *School and Community* December, 1928. p. 606.

TABLE 18.—AGENCY IN CHARGE OF ADMINISTRATION

Personnel of retirement boards																
Agency in control		State officials				Teacher representatives				Members at large				Status		
States	State board of education	Retirement board	Title of board	Total number of members	Number	Office held	Number	How chosen		Term (number of years)	Number	How chosen			Term (number of years)	
								Appointed by governor	Elected by teachers			Appointed by governor	By other members of board			
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Arizona.....		x														
2. California.....		x ¹														
3. Connecticut.....			x	Teachers' retirement board.	5	3	1. Insurance commissioner. 2. Bank commissioner. 3. Secretary of state board of education.	2		x	4					
4. Hawaii.....			x	Board of trustees.	5	2	1. Treasurer of the Territory. 2. Auditor of the Territory.	1		x	2	2	x		4	Not employees within meaning of act. One to be a responsible officer in bank authorized to do business within Territory, or person with similar experience.
5. Illinois.....			x	Board of trustees.	5	2	1. Supt. of public instruction. 2. State treasurer.	3	x		3					
6. Indiana.....			x	Board of trustees.	5							5 ²	x		4	
7. Maine ³			x	Teachers' retirement board.	7	5	1. State supt. of public schools. 2. State treasurer. 3. Attorney general. 4. Bank commissioner. 5. Insurance commissioner.	2		x	2					
8. Maryland.....			x	Board of trustees.	5	3	1. State supt. of education. 2. State comptroller. 3. State treasurer.	2		x	4					
9. Massachusetts.....			x	Teachers' retirement board.	3	1	Commissioner of education.	1		x	3	1		x	1	
10. Michigan.....			x	Teachers' retirement fund board.	6	1	Supt. of public instruction.	1 ¹	x		5	4	x		5	

TABLE 18.—AGENCY IN CHARGE OF ADMINISTRATION—Continued

Personnel of retirement boards														
States	Agency in control	State officials				Teacher representatives				Members at large				
		Title of board	Total number of members	Office held	Number	How chosen		Term (number of years)	Number	How chosen			Term (number of years)	Status
						Appointed by governor	Elected by teachers			Appointed by governor	By other members of board			
1		4	5	7	8									
11. Minnesota.....		Board of trustees..	5	1. State supt. of education.. 2. State auditor. 3. Commissioner of insurance.	2			x	2					16
12. Montana.....		Public school teachers retirement salary fund board.	5	1. Supt. of public instruction. 2. State treasurer. 3. Attorney general.	2	x			2					
13. Nevada.....														
14. New Jersey.....	x	Board of trustees..	7	1. Commissioner of education. 2. State treasurer.	3 ⁶			x	3	2	x		3	Not a teacher or state officer.
15. New York.....		Retirement board..	7	Two administrative officers of state school system appointed by commissioner of education. Also state comptroller or one member appointed by him.	3			x	3	17			3	Executive officer of a bank authorized to do business in state. Not to be an employee of state.
16. North Dakota....		Board of trustees..	5	1. State supt. of public instruction. 2. State treasurer.	3 ⁸	x			3					
17. Ohio.....		Retirement board.	5	1. Supt. of public instruction. 2. State auditor. 3. Attorney general.	2			x	2					
18. Pennsylvania....		Public school employees' retirement board.	7	1. Supt. of public instruction. 2. State treasurer.	3			x	3	2	x	x	1	Not an officer or employee of state.
19. Rhode Island....	x													
20. Vermont.....		Teachers' retirement board.	5	1. Commissioner of education. 2. State treasurer. 3. Commissioner of banking and insurance.	2			x	2					

TABLE 18.—AGENCY IN CHARGE OF ADMINISTRATION—Continued

States		Agency in control		Personnel of retirement boards											
				State officials			Teacher representatives			Members at large					
				Title of board	Total number of members	Number	Office held	How chosen		Term (number of years)	Number	How chosen		Term (number of years)	Status
Appointed by governor	Elected by teachers	Appointed by governor	By other members of board												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
21. Virginia.....	x														
22. Washington.....		x	Board of trustees..	5	2	1. State supt. of public instruction. 2. State insurance commissioner.	3 ^b			3					
23. Wisconsin.....		x	State annuity and investment board.	5	1	State supt. of public instruction.	1 ¹⁰	x ¹¹		6	x ¹¹			6	Persons who are familiar with or who have had experience in making investments.

¹ State department of finance invests permanent fund.

² Five persons appointed by governor, for term of four years.

³ In case of non-contributory act, state superintendent of public schools formulates rules and regulations for carrying out provisions.

⁴ At least one to be woman teacher in public schools.

⁵ May appoint assistant commissioner to serve in his stead.

⁶ Must be residents of and employed in certain counties.

⁷ Elected by Board of Regents of University of State of New York.

⁸ One to be a woman. One may be retired member.

⁹ Chosen by state board of education. At least one to be a classroom teacher.

¹⁰ Teacher, superintendent, or principal connected with school system of state.

¹¹ With advice and approval of senate.

¹ State department of finance invests permanent fund.² Five persons appointed by governor, for term of four years. Not to include more than two teachers.³ In case of non-contributory act, state superintendent of public schools formulates rules and regulations for carrying out provisions.⁴ At least one to be woman teacher in public schools.⁵ May appoint assistant commissioner to serve in his stead.⁶ Must be residents of and employed in certain counties.⁷ Elected by Board of Regents of University of State of New York.⁸ One to be a woman. One may be retired member.⁹ Chosen by state board of education. At least one to be a classroom teacher.¹⁰ Teacher, superintendent, or principal connected with school system of state.¹¹ With advice and approval of senate.

TABLE 19.—PERIODIC ACTUARIAL INVESTIGATIONS

States	Periodic actuarial investigation			Related provisions
	When required	Nature of investigation, when specified		
1. District of Columbia	Annually, following passage of act...	Actuarial valuation of retirement fund and its operation, showing financial condition. Commissioners of District to have this made.		Commissioners to prepare and keep needful tables, records, and accounts for carrying out provisions. Records shall include data on mortality experience of public school teachers in District, rate of withdrawal, and any other information on such service of value for future valuations and adjustments of retirement plan.
2. Hawaii	In 1929 and at least once in each 5-year period thereafter.	Actuary shall make actuarial investigation of mortality, service, and compensation experience of the members and beneficiaries of system, and valuation of assets and liabilities of funds. On basis of subsequent adoption of tables and rates resulting from such investigation and valuation, shall make annual valuation of assets and liabilities of funds created.		Board shall engage such actuarial service as shall be required to transact business of system. Shall keep in convenient form data necessary for actuarial valuation of funds and checking experience of system. Actuary serves as technical adviser of board.
3. Indiana	At end of first year of operation, and biennially thereafter for a period of 10 years, and every 4 years thereafter.	Board shall provide for actuarial investigation		
4. Maine	Retirement board shall have system thoroughly examined annually by state auditor, and once in every 3 years (often if deemed necessary) by a competent actuary or actuaries. May call in actuary for consultation at any time.			Board to adopt or modify tables or rates and maintain complete system of records and accounting. This must be done under competent actuarial advice.
5. Maryland	In 1930 ^a and at least once in each 5-year period thereafter.	Actuary shall make an actuarial investigation into the mortality, service, and compensation experience of the members and beneficiaries of the retirement system, and valuation of assets and liabilities of funds. On basis of subsequent adoption of tables and rates resulting from such investigation and valuation, shall make annual valuation of assets and liabilities of funds created.		Board shall engage such actuarial service as shall be required to transact business of retirement system. Shall keep in convenient form data necessary for actuarial valuation of funds and checking experience of system. Shall designate actuary for its technical adviser.
6. New Jersey	In 1921, 1924 ^a and once in every 5-year period thereafter.	Actuary shall make an actuarial investigation of mortality, service, and compensation experience of members and beneficiaries of retirement system and valuation of assets and liabilities of funds.		Board shall engage such actuarial service as may be necessary to transact business of retirement system. Actuary shall recommend and board keep in convenient form data necessary for actuarial valuation of various funds of the retirement system.
7. New York	At such times as retirement board may consider it necessary, and at least once within first 3 years of operation and each 5-year period thereafter.	Competent actuary familiar with retirement systems to prepare report showing complete valuation of present and prospective assets and liabilities of funds, with exception of expense fund. Shall investigate mortality and service experience of members of retirement system, reporting fully on conditions, as advisable for information of board.		Board shall have power to secure services of such technical employees as may be necessary to transact business of the retirement system. Shall collect and keep in convenient form data necessary to preparation of required mortality and service tables, and compilation of information required for actuarial valuation of assets and liabilities of funds.
8. Ohio	At such times as retirement board may consider it necessary, and at least once within first three years of operation and each 5-year period thereafter.	Competent actuary familiar with retirement systems to prepare report showing complete valuation of present and prospective assets and liabilities of funds created with exception of guarantee fund ^a and expense fund. Shall investigate mortality and service experience of members of system, reporting fully on conditions, as advisable for information of board.		Board shall have power to secure service of such technical employees as may be necessary to transact business of the retirement system. Shall collect and keep in convenient form data necessary to preparation of required mortality and service tables, and compilation of information required for actuarial valuation of assets and liabilities of various funds.

TABLE 19.—PERIODIC ACTUARIAL INVESTIGATIONS—Continued

States	Periodic actuarial investigation			Related provisions
	When required	Nature of investigation when specified		
1	2	3	4	
9. Pennsylvania	In 1921, 1924 ¹ , and every fifth year thereafter.	Actuary shall make an actuarial investigation of mortality and service experience of contributors and beneficiaries of system, and valuation of funds created.		Board shall appoint an actuary. Shall keep in convenient form data necessary to actuarial valuation of funds created.
10. Vermont	Once in every three years, and oftener if considered necessary.	System to be thoroughly examined by a competent actuary or actuaries. Board may call in actuary for consultation at any time.		Board shall establish complete system of records and accounting, under competent actuarial advice.
11. Wisconsin	July 1, 1921,—1923,—1926 ² , and triennially thereafter.	Annuity board shall make such investigations of mortality, disability, service, and compensation experience of the several funds as shall be necessary.		Annuity board shall employ such actuarial service as may be necessary.

¹ System effective January 1, 1926.

² Joint-contributory system.

³ System effective August 1, 1927.

⁴ System effective September 1, 1919.

⁵ Created to meet special requirements and to facilitate crediting of uniform interest. Income, interest, and dividends on deposits and investments credited to this fund, with gifts, bequests, transfer of unclaimed portions of teachers' deposits, surplus funds, and moneys not otherwise disposed of.

⁶ System effective July 1, 1919.

⁷ System effective July 7, 1921.

Selected Special Bibliography

1. Literature

Below are listed the references on teacher retirement systems which have been used in developing the preceding discussions of theory as it relates to the sixteen issues.

1. ALMACK, JOHN C., AND LANG, ALBERT R. *Problems of the Teaching Profession*. Houghton Mifflin Company, Boston. 1925. Chapter 14, "Teachers' Pensions," p. 255-72.
 2. BRIGHAM, HAROLD F. "Pensions for Librarians." *Library Journal* 51: 267; March 15, 1926.
 3. BUCK, GEORGE B. "Actuarial Problems Incident to the Organization and Management of Teachers' Retirement Systems." National Council of Teachers' Retirement Systems. *Proceedings*. Boston, Mass. February 27-29, 1928. p. 11-15.
- CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING, 522 Fifth Avenue, New York, New York. See references 4, 5, 6, 7, 8, 9, 10, and 31 below.
- 4.—, FURST, CLYDE, AND KANDEL, I. L. *Pensions for Public School Teachers*. Bulletin 12, 1918. 85 p.
 - 5.—, *Fifteenth Annual Report of the President and of the Treasurer*. 1920. p. 87-100.
 - 6.—, *Seventeenth Annual Report of the President and of the Treasurer*. 1922. p. 121-43.
 - 7.—, *Nineteenth Annual Report of the President and of the Treasurer*. 1924. p. 137-57.
 - 8.—, *Twentieth Annual Report of the President and of the Treasurer*. 1925. p. 143. Referring to discussion of "The Administration of Teachers' Disability Benefits," by Donald Du Shane at meeting of National Council of Teachers' Retirement Systems, February 25, 1925.
 - 9.—, FURST, CLYDE, MATTOCKS, RAYMOND L., AND SAVAGE, HOWARD J. *Retiring Allowances for Officers and Teachers in Virginia Public Schools*. Bulletin 17, 1926. 70 p.
 - 10.—, SAVAGE, HOWARD J., AND COGSWELL, EDMUND S. *A Retirement Plan for Colorado Public Schools*. Bulletin 22, 1928. 72 p.
 11. CLARK, F. B., SANDELL, MARY, AND JAMES, W. A. "Report on a Proposed Teachers' Retirement System for Texas." *Texas Outlook* 10: 52-4; January, 1926.
 12. CUBBERLEY, ELLWOOD P. *State School Administration*. Houghton Mifflin Company, Boston. 1927. "Pensions for Teachers," p. 658-62.
 13. FLEMING, S. E. "Sources of Support of the New Retirement Plan." *Washington Education Journal* 8: 111-12; December, 1928.
 14. HOUSMAN, IDA E. "A Preparatory Program for Retirement Legislation." *Educational Review* 73: 284-7; May, 1927.
 15. KERSHNER, W. E. "How to Meet Liability for Prior Service." National Council of Teachers' Retirement Systems. *Proceedings*. Dallas, Texas. February 23-24, 1927. p. 13-16.
 16. LANTMAN, E. G. "Advantages and Disadvantages of Options in Retirement Systems." National Council of Teachers' Retirement Systems. *Proceedings*. Cleveland, Ohio. February 25-27, 1929. p. 12-13.
 17. MCCAHAN, DAVID. *State Insurance in the United States*. University of Pennsylvania Press, Philadelphia. 1929. Chapter 10, "Pension Funds," p. 137-75.
 18. MELIN, LILLIAN. "The Retirement Fund." *National League of Teachers' Associations Bulletin* 12: 21-3; April, 1929.
 19. MERIAM, LEWIS. *Principles Governing the Retirement of Public Employees*. D. Appleton and Company, New York City. 1918. 477 p.
- NATIONAL EDUCATION ASSOCIATION, 1201 Sixteenth Street, Northwest, Washington, D. C. See references 20, 21, and 22 below.
- 20.—, PYRTLE, E. RUTH. "Report of the Committee on Retirement Allowances." *Proceedings* 67: 217-27; July, 1929.
 - 21.—, *Research Bulletin of the National Education Association*. "The Advance of the Teacher Retirement Movement." 6:149-204; May, 1928.
 - 22.—, *Research Bulletin of the National Education Association*. "Efficient Teaching and Retirement Legislation." 4:91-162; May, 1926.
 23. PALMER, NIDA PEARL. *Pension Systems for Public School Teachers*. U. S. Department of the Interior, Bureau of Education. Bulletin, 1927, No. 23. Government Printing Office, Washington, D. C. 90 p.
 24. PROSSER, CHARLES A., AND HAMILTON, W. I. *The Teacher and Old Age*. Houghton Mifflin Company, Boston. 1913. 140 p.
 25. "Retirement for Age." *School and Society* 22: 84; July 18, 1925.
 26. "The Retiring Age." *Journal of Education* 108: 128; August 27, 1928.
 27. ROCH, JENNIE. "What is a Teachers' Retirement Fund?" *Journal of the Louisiana Teachers' Association* 6: 9-10; April, 1929.
 28. SHAW, ALBERT M. "Retirement Allowances." *National League of Teachers' Associations Bulletin* 12: 15-21; April, 1929.
 29. STUDENSKY, PAUL. *Teachers' Pension Systems in the United States*. D. Appleton and Company. New York City. 1920. 460 p.
 30. WOOD, JOHN A. 3d. "Discussion of Mr. E. G. Lantman's Paper on 'Advantages and Disadvantages of Options in a Retirement System.'" National Council of Teachers' Retirement Systems. *Proceedings*. Cleveland, Ohio. February 25-27, 1929. p. 13-15.

31. PRITCHETT, HENRY S. *The Social Philosophy of Pensions With a Review of Existing Pension Systems for Professional Groups*. Bulletin No. 25. Carnegie Foundation for the Advancement of Teaching, New York City. 1930. p. 3-16, 33-44.

2. Laws

In the following sources may be found the text of the state laws that form the basis for the discussion in this section of teacher retirement practice as it relates to the sixteen issues.

1. STATE OF ARIZONA. *School Laws of Arizona*. Article 6, par. 1046. "Retirement of Teachers; method; pension." Office of Superintendent of Public Instruction. p. 14-15. Phoenix, Arizona. 1929.
2. STATE OF CALIFORNIA. *School Code—1929*. Division V, Part IV, "Retirement of Teachers." Chapters I-VI. p. 284-300. Sacramento, California. 1929.
3. STATE OF CONNECTICUT. "Laws relating to schools." *Connecticut School Document* No. 5—1922. Chapter XVI, Sections 223-36, p. 89-99. Hartford, Connecticut; *Connecticut Schools* 6: 8, 11, 15; July-August, 1925. Chapters 142, 214, and 376; *Connecticut Schools* 8: 10-11, 13; July and August, 1927. Chapters 223 and 259; *House Bill No. 511*, Chapter 183, Sections 1-4. Office of Teachers' Retirement Board, Hartford, Connecticut. 12 p. 1929.
4. DISTRICT OF COLUMBIA. *Compilation of Laws Affecting the Public Schools of the District of Columbia 1804 to 1929*. Title 27, "Retirement System for Teachers." See "Teachers' Retirement Law of 1920 Amended," Sections 1-20. p. 241-45. Government Printing Office, Washington, D. C. 1929.
5. TERRITORY OF HAWAII. *Laws Relating to the Employees' Retirement System of the Territory of Hawaii*. Employees' Retirement System of the Territory of Hawaii. Publication No. 4, May 26, 1927, Act 55, Sessions Laws of 1925, Acts 31, 108, 223, Session Laws of 1927. Honolulu, T. H. 31 p.
6. STATE OF ILLINOIS. *The School Law*. "An Act in relation to an Illinois State Teachers' Pension and Retirement Fund." *Circular No. 225*, Sections 210a, 1-36, p. 95-6, 160-8. Springfield, Illinois. 1928.
7. STATE OF INDIANA. *Laws of Indiana Relating to the Public School System*. Chapter 29, "Teachers' Pensions," Sections 1027-44, p. 426-57. Indianapolis, Indiana. 1927. *School Laws. A Supplement to the School Laws of Indiana, 1927 Edition*. Acts 1929. Sections 199-200. p. 75. Indianapolis, Indiana. September, 1929.
8. STATE OF MAINE, DEPARTMENT OF PUBLIC INSTRUCTION. *Laws of Maine Relating to Public Schools*. "An Act to Establish a Teachers' Retirement System." Chapter 209, P. L. 1923, Sections 1-22, p. 103-11, Augusta, Maine, 1925; Chapter 136, enacted in 1929. For text of non-contributory act see: "Teachers' Pensions," Sections 169-77, p. 71-3; *Legislation Relating to Public Schools, 83rd Legislature*. Chapter 41, "An Act relating to Teachers' Pensions." Sections 169-71, p. 1-2, Augusta, Maine, 1927; Chapters 127, and 143, enacted in 1929.
9. STATE OF MARYLAND. *Public School Laws*. Chapter 8-A, 1927. Chapter 344, Section 92-105, p. 65-88. State Board of Education, Baltimore, Maryland. June, 1927.
10. COMMONWEALTH OF MASSACHUSETTS. *General Laws Relating to Education*. Bulletin of the Department of Education, 1927, No. 4. Chapter 32, Sections 6-19, 32-3, 35, 37-8, 42-5, 91-2; p. 48-57. Boston, Mass. Chapter 365, Sections 1-7, Acts of 1929. Senate Bill 307. Sections 1-4. Office of Teachers' Retirement Board. Boston, Mass. 4 p. March, 1930.
11. STATE OF MICHIGAN. *Michigan Teachers' Retirement Fund Law*. Act 5 of the Public Acts of 1929. Sections 1-15. Leaflet. Teachers' Retirement Fund Board. Lansing, Mich. 4 p.
12. STATE OF MINNESOTA. *Laws of Minnesota Relating to the Public School System, Including the State Teachers College and the University of Minnesota*. "State Teachers' Insurance and Retirement Fund." Sections 412-26. p. 109-15. Prepared under direction of Attorney General and Commissioner of Education. St. Paul, Minnesota, 1927; *Educational Laws of General Interest Passed by the 1929 Legislature. Supplement to the 1927 Edition of the School Laws*. Chapter 163-H. F. No. 127. "Teachers' Insurance and Retirement Fund." p. 10-11. State Department of Education. St. Paul, Minnesota. 1929.
13. STATE OF MONTANA. *School Laws*. Chapter 88, "Teachers' Retirement Salary Fund." Sections 1113-32, p. 65-70. Compiled at office of Superintendent of Public Instruction, Helena, Montana. May, 1929.
14. STATE OF NEVADA. *The School Code—1927*, as amended. "Retirement Salaries for Teachers." Sections 1-19, p. 147-52. Compiled and issued by Superintendent of Public Instruction, Carson City, Nevada. August, 1927.
15. STATE OF NEW JERSEY. *The School Laws—1928*. Article XXVIII, "Teachers Pension and Annuity Fund." Section 536-55, p. 299-339. Trenton, New Jersey. 1928.
16. STATE OF NEW YORK. *Education Law*. Article 43-b. (Added by L. 1920, ch. 503, as amended to July 1, 1928.) "State Teachers' Retirement Fund for Public School Teachers." Sections 1100-1109q. 26 p. Pamphlet issued by New York State Teachers' Retirement Board, Albany, New York. 1928.

17. STATE OF NORTH DAKOTA. *General School Laws*. "Teachers' Insurance and Retirement Fund," Sections 1495-1528, p. 135-41. Department of Public Instruction, Bismarck, North Dakota. 1927.
18. STATE OF OHIO. *State Teachers Retirement System of Ohio Law*. Pamphlet issued by Teachers' Retirement Fund Board. Columbus, Ohio. 1925. 35 p.
19. COMMONWEALTH OF PENNSYLVANIA. *The School Law*. Article LVI. "Teachers' Retirement System." Sections 5601-19. p. 253-74. Department of Public Instruction, Harrisburg, Pennsylvania. 1929.
20. STATE OF RHODE ISLAND. *Laws Relating to Education in Force December Thirty-First, 1923*. Chapter 72. "Of the Pensioning of School Teachers in this State." Sections 1-5, p. 23-4. Public Education Service, Providence, R. I., 1924; *Laws Relating to Education, Supplement II, Acts of 1926*. Chapter 776, "An Act in Amendment of Sections 1 and 5 of Chapter 72 of the General Laws, Entitled 'Of the Pensioning of School Teachers in this State.'" p. 2-3. Public Education Service, Providence, R. I., 1926.
21. STATE OF VERMONT. *General Laws of 1918 Relating to the Department of Education with Amendments to 1929*. Chapter 56. "Pensions and Teachers' Retirement Fund." No. 57, Acts of 1919; Sections 1-25, p. 21-28; No. 35, Acts of 1929. "Annuities for Teachers Retired before Passage of this Act." Sections 1-4, p. 28. Published by authority, 1929. Montpelier, Vermont.
22. STATE OF VIRGINIA. *Virginia School Laws*. Bulletin Vol. X, June, 1928. Supplement No. 3. "Pensions for Retired School Teachers." Sections 787-805, p. 45-50. State Board of Education, Richmond, Virginia, 1928.
23. STATE OF WASHINGTON. *1923 Code of Public Instruction, Annotated*. Article XII—Teachers—State Retirement Fund. Sections 322-44, p. 124-33. Department of Education, Olympia, Washington, 1923.
24. STATE OF WISCONSIN. *Laws Relating to Common Schools*. Chapter 42. "Teachers' Retirement Act." Sections 42, 20-42, 54, p. 509-16; Chapter 20, "Appropriations, Salaries." Section 20, 30, p. 248-49. Published under direction of State Superintendent, Madison, Wis., 1928. Chapter 491, Laws of 1929. Sections 1-5. Published by Department of State. 1929.

SOUND TEACHER retirement legislation can entail no hardship upon any teacher. Joining a retirement system means no personal sacrifice, even though a teacher may not continue in the profession until the age of normal retirement. On the other hand, the failure of a small group of teachers to support retirement legislation may make such legislation difficult or impossible of enactment and result in harm both to teachers and children. Every teacher should give his support to the enactment of a sound teacher retirement system, if for no other reason than his interest in the advancement of the profession. Pyrtle, E. Ruth. "Efficient Teaching and a Retirement System." *School and Society*, November, 1928. p. 591-2.

Where to Write Concerning Details of State and Local Retirement Systems

This section is included for those who desire more information than could be given in this report as to the administration and financing of, and procedure followed in securing legislation for, teacher retirement systems. The

following directories give the name and address of persons to whom correspondence should be sent to secure information concerning state and local teacher retirement systems.

DIRECTORY OF STATE TEACHER RETIREMENT SYSTEMS OF LIMITED APPLICATION AND OF LOCAL RETIREMENT SYSTEMS

State	City or County	Person to whom correspondence should be addressed relative to retirement systems	Address
Alabama.....	Montgomery.....	W. R. Harrison, Superintendent of Schools.....	Montgomery, Ala.
California.....	San Francisco.....	Ralph R. Nelson, Secretary-Actuary, San Francisco City Employees' Retirement System.....	Room 215, City Hall, San Francisco, Calif.
Colorado.....	Colorado Springs.....	H. M. Corning, Superintendent of Schools.....	Colorado Springs, Colo.
	Denver.....	R. A. Puffer, Assistant to the Superintendent of Schools.....	Denver, Colo.
	Greeley.....	I. E. Stutsman, Superintendent of Schools.....	Greeley, Colo.
	Pueblo.....	James H. Risley, Superintendent of Schools.....	Pueblo, Colo.
	(District No. 1)		
Connecticut.....	New Haven.....	Robert B. Hall, Secretary, Retirement Fund Board.....	City Hall, New Haven, Conn.
Delaware.....	Wilmington.....	Miss A. Mary Cornell.....	1806 Van Buren Street, Wilmington, Del.
Georgia.....	Atlanta.....	R. R. Ritchie, Assistant Superintendent in Charge of Business Affairs.....	Atlanta, Ga.
	Augusta.....	B. Graham West, City Comptroller.....	City Hall, Atlanta, Ga.
	Macon.....	S. D. Copeland, Assistant Superintendent of Schools.....	Augusta, Ga.
		Walter P. Jones, Superintendent of Schools.....	Macon, Ga.
Illinois.....	Chicago.....	Miss Mary Abbe, Recording Secretary, Retirement Fund Board.....	Room 1502, 188 West Randolph Street, Chicago, Ill.
	Teachers' Pension Law.....	William J. Bogan, Superintendent of Schools.....	460 S. State Street, Chicago, Ill.
	Compulsory and Voluntary Retirement Law.....		
	Peoria.....	Miss Catherine C. Quinn, Financial Secretary, Retirement Fund Board.....	602 N. Madison Avenue, Peoria, Ill.
Indiana.....	Terre Haute.....	Miss Nellie Failing.....	1900 N. 13th Street, Terre Haute, Ind.
Iowa.....	Cedar Rapids.....	Arthur Deamer, Superintendent of Schools.....	Cedar Rapids, Iowa.
	Davenport.....	Frank L. Smart, Superintendent of Schools.....	Davenport, Iowa.
	Des Moines.....	Miss Edith W. Cushing, Secretary, Teacher Retirement System.....	Des Moines, Iowa.
Kansas.....	Sioux City.....	M. G. Clark, Superintendent of Schools.....	Sioux City, Iowa.
	Atchison.....	William D. Wolfe, Superintendent of Schools.....	Atchison, Kans.
	Leavenworth.....	Ira J. Bright, Superintendent of Schools.....	Leavenworth, Kans.
	Parsons.....	Rees H. Hughes, Superintendent of Schools.....	Parsons, Kans.
	Topeka.....	H. L. Armstrong, Business Manager, City Public Schools.....	Topeka, Kans.
Kentucky.....	Lexington.....	Miss Mary A. Walby, Secretary, Board of Insurance and Annuity.....	119 E. Maxwell Street, Lexington, Ky.
	Louisville.....	Miss Carrie R. Gross, Secretary, Trustees of Annuity Fund.....	742 S. 22nd Street, Louisville, Ky.
	Newport.....	Miss Dora Cumming.....	711 Monroe Street, Newport, Ky.
Louisiana.....	New Orleans.....	A. J. Tete, Secretary-Treasurer, Board of Trustees, Teachers' Retirement Fund.....	Municipal Building, New Orleans, La.
Maryland.....	Baltimore.....	Sherwood R. Murphy, Secretary, Employees Retirement System.....	City Hall, Baltimore, Md.
Massachusetts.....	Boston.....	William D. Kenney, Executive Office, Boston Retirement Board.....	Room 65, Boston City Hall, Boston, Mass.
	Contributory System.....	Miss Ellen M. Cronin, Secretary, Boston School Committee.....	15 Beacon Street, Boston, Mass.
	Non contributory System.....		
Michigan.....	Detroit.....	Edward M. Lane, Secretary, Teachers' Retirement Fund Board.....	1354 Broadway, Detroit, Mich.
Minnesota.....	Duluth.....	Carl Loining, Secretary, Duluth Teachers' Retirement Fund Association.....	Board of Education, Administration Building, Duluth, Minn.
	Minneapolis.....	Philip E. Carson, Secretary, Minneapolis Teachers' Retirement Fund Board.....	742 Metropolitan Bank Building, Minneapolis, Minn.
	St. Paul.....	Miss Florence Rood, Secretary, Retirement Fund Board.....	372 St. Peter Street, St. Paul, Minn.
Nebraska.....	Omaha.....	Miss Mary E. Bird, Secretary, Board of Education.....	603 City Hall, Omaha, Nebr.
New Hampshire.....	Concord.....	Leigh S. Hall, President, Board of Education.....	Concord, N. H.
	Nashua.....	C. H. Noyes, Superintendent of Schools.....	Nashua, N. H.
New York.....	New York City.....	Louis Taylor, Secretary, Teachers' Retirement Board, Teachers' Retirement System of the City of New York.....	Municipal Building, New York, N. Y.

DIRECTORY OF STATE TEACHER RETIREMENT SYSTEMS OF LIMITED APPLICATION AND OF LOCAL RETIREMENT SYSTEMS—Continued

State	City or County	Person to whom correspondence should be addressed relative to retirement systems	Address
Oregon.....	Portland.....	C. A. Rice, Superintendent of Schools.....	Portland, Ore.
Rhode Island.....	Bristol.....	E. S. Mapes, Superintendent of Schools.....	Bristol, R. I.
	Newport.....	Miss Barbara C. Taylor, Secretary, Teachers' Retirement Fund.....	9 Pleasant Street, Newport, R. I.
	Providence.....	Walter H. Merriss, City Auditor.....	City Hall, Providence, R. I.
Tennessee.....	Chattanooga.....	J. E. Walker, County Superintendent of Schools.....	Chattanooga, Tenn.
	Knox County.....	W. W. Morris, County Superintendent of Schools.....	Knoxville, Tenn.
	Nashville.....	J. J. Keyes, Acting Superintendent of Schools.....	Nashville, Tenn.
Texas.....	San Antonio.....	C. A. Arnold, Secretary-Treasurer, Pension Society.....	1005 Noland Street, San Antonio, Texas.
Utah.....	Salt Lake City.....	George King, Secretary, Retirement Fund Board.....	311 City and County Building, Salt Lake City, Utah.
Washington.....	Everett.....	Miss Beatrice Robinson.....	Apt. C, Marlborough, Everett, Wash.
	Seattle.....	K. J. Knutson.....	239 Central Building, Seattle, Wash.
	Spokane.....	Miss Clara L. Jahnke.....	1930 Eighth Street, Spokane, Wash.
	Tacoma.....	John O. Peterson, Secretary, Tacoma Teachers' Retirement Fund.....	Central School Building, Tacoma, Wash.
West Virginia.....	Parkersburg.....	H. W. Piggett, Superintendent-elect of Schools.....	Parkersburg, W. Va.
	Wheeling.....	C. A. Danford, Secretary, Teachers' Retirement Pension Fund.....	Administration Building, 2125 Chapline Street, Wheeling, W. Va.
Wisconsin.....	Milwaukee.....	Miss Rose Snell, Clerk, Public School Teachers' Annuity and Retirement Fund.....	School Administration Building, 10th & Highland, Milwaukee, Wis.

DIRECTORY OF STATE AND TERRITORIAL TEACHER RETIREMENT SYSTEM

State or Territory	Person to whom correspondence should be addressed relative to teacher retirement	Address
Alaska.....	Leo W. Breuer, Commissioner of Education.....	Territory of Alaska, Juneau, Alaska.
Arizona.....	C. O. Case, State Superintendent of Public Instruction.....	Phoenix, Ariz.
California.....	Miss Marion H. Ketcham, Assistant Secretary, Public School Teachers' Retirement Salary Fund Board.....	Care State Department of Education, Box 615, Sacramento, Calif.
Connecticut.....	Miss Dorothy M. Shanley, Secretary, Teachers' Retirement Board.....	State Capitol, Hartford, Conn.
Dist. of Columbia.....	Maj. Raymond O. Wilmarth, Assistant Superintendent of Schools.....	Franklin Administration Building, 13th and K Streets, N. W., Washington, D. C.
Hawaii.....	Henry P. O'Sullivan, Secretary, Employees' Retirement System of the Territory of Hawaii.....	Room 2, Second Floor, National Guard Armory, Honolulu, Hawaii.
Illinois.....	R. O. Clarida, Secretary, Teachers' Retirement Fund Board.....	Centennial Building, Springfield, Ill.
Indiana.....	O. H. Greist, Executive Secretary, Teachers' Retirement Fund Board.....	224 State House, Indianapolis, Ind.
Maine.....	Bertram E. Packard, State Commissioner of Education.....	Augusta, Me.
Maryland.....	Edward E. Roderick, Deputy Commissioner of Education.....	State House, Augusta, Maine.
Massachusetts.....	Miss Margaret Barkley, Secretary, Teachers' Retirement System of Maryland.....	2002 Lexington Building, Baltimore, Md.
Michigan.....	Clayton L. Lent, Secretary, Teachers' Retirement Board.....	State House, Boston, Mass.
Minnesota.....	Mrs. Georgiana Larabee, Secretary, Michigan Teachers' Retirement Fund Board.....	Michigan Education Association Building, Lansing, Mich.
Montana.....	H. E. White, Secretary, Teachers' Insurance and Retirement Fund.....	St. Paul, Minn.
Nevada.....	Owen D. Speer, Chairman of Committee, Superintendent of Schools.....	Deer Lodge, Mont.
New Jersey.....	Mrs. C. H. Luke, Executive Secretary, Public School Teachers' Retirement Salary Fund Board.....	Carson City, Nev.
New York.....	John A. Wood, 3d, Secretary, Teachers' Pension and Annuity Fund.....	P. O. Box, 840, Trenton, N. J.
North Dakota.....	E. G. Lantman, Secretary, Teachers' Retirement Fund Board.....	Standard Building, Albany, N. Y.
Ohio.....	P. S. Berg, Secretary, Teachers' Insurance and Retirement Fund.....	Dickinson, N. D.
Pennsylvania.....	W. E. Kershner, Secretary, Teachers' Retirement Fund Board.....	Ohio State Savings Building, 85 E. Gay Street, Columbus, Ohio.
Philippine Islands.....	H. H. Balish, Secretary, School Employees' Retirement Board.....	South Office Building, Harrisburg, Pa.
Porto Rico.....	Luther B. Bewley, Director of Education.....	Manila, P. I.
Rhode Island.....	Dr. Jose Padin, Commissioner of Education.....	San Juan, Porto Rico.
Vermont.....	Walter E. Raney, Commissioner of Education.....	119 State House, Providence, R. I.
Virginia.....	Clarence H. Dempsey, Commissioner of Education.....	State House, Montpelier, Vt.
Washington.....	Miss Charlotte M. Lowe, Secretary.....	State House, Montpelier, Vt.
Wisconsin.....	Harry Foster, Pension Clerk, Department of Education.....	Richmond, Va.
	Mrs. Elva Edwards Cole, Secretary, State Teachers' Retirement Fund.....	Box 748, Olympia, Wash.
	R. E. Loveland, Secretary, Teachers' Retirement Fund Board.....	State Capitol, Madison, Wis.
	A. N. Trather, Director of Investments, Teachers' Retirement Fund.....	State Capitol, Madison, Wis.

Recent Selected References on Teacher Retirement and Related Topics

The following references deal with teacher retirement provisions, the general problem of pension and retirement plans, and financial security in old age. They are taken from professional and lay magazines, publications of organizations interested in retirement allowances for teachers or other employed groups, and books dealing with the subject in whole or in part. This list of references does not represent a complete bibliography on teacher retirement allowances. It includes only the most pertinent and available material published since that reported on pages 195-201 of the May, 1928, *Research Bulletin of the National Education Association*. The references are arranged in the following order: Teacher Retirement Allowances, General Theory and Development, Pensions for Industrial Workers, Public Service Retirement Systems, and Pensions for Other Employed Groups.

Teacher Retirement Allowances

1. CALIFORNIA PUBLIC SCHOOL TEACHERS' RETIREMENT SALARY COMMISSION. (Alexander R. Heron, Chairman.) *Report*. California State Printing Office, Sacramento, Calif. 1929. 64 p.
Status of teacher retirement legislation in California. Presents general policies of Retirement Salary Commission. Includes minority report.
2. Carnegie Foundation for the Advancement of Teaching. *Twenty-Third Annual Report of the President and of the Treasurer, 1929*. The Foundation, 522 Fifth Avenue. New York. p. 73-100.
Reports on municipal pension studies, industrial retirement plans, and pension publications. Reviews also teacher retirement in the various states.
3. Carnegie Foundation for the Advancement of Teaching. *Twenty-Fourth Annual Report of the President and of the Treasurer, 1929*. The Foundation, 522 Fifth Avenue, New York. p. 35-77, 123-36.
Part III concerns the social philosophy of pensions, including a review of existing pension systems for professional groups. Part V deals with teacher retirement legislation in the different states.
4. CARR, WILLIAM G. "Recent Laws That Affect the Teacher Directly." *Nation's Schools* 5:55; May, 1930.
Section devoted to the extent and nature of retirement legislation in 1929.
5. "Checklist for Teacher Retirement Systems—Table #9." *Research Bulletin* 8:70; March, 1930. Research Division, National Education Association, Washington, D. C.
Sets up twelve criteria by which a retirement system may be judged.
6. COLORADO EDUCATION ASSOCIATION, RETIREMENT FUND COMMITTEE. (Alma Krusen, Chairman.) "Report of the Committee on Retirement Allowances for the Colorado Education Association." *Colorado School Journal* 44:23-6; January, 1929.
Describes activities of the committee appointed to study the need for retirement legislation and to formulate a bill providing for a state teacher retirement system.
7. "Considering the Teachers Retirement Fund." *School and Community* 15:112; February, 1929.
Deals with development of retirement provisions for teachers and other employed groups.
8. "Determining Retirement Rates." *Ohio Schools* 8:43, 68-9; February, 1930.
Report of W. E. Kershner, Secretary of the State Teachers Retirement System. Explains the necessity of reserve funds.
9. ELSBREE, WILLARD S. *Teacher Turnover in the Cities and Villages of New York State*. Contributions to Education, No. 300. Bureau of Publications, Teachers College, Columbia University, New York City. 1928. 88p.
Data on amount of turnover due to retirement.
10. FLEMING, S. E. "The Retirement Fund—An Efficiency Measure." *Washington Education Journal* 8:208-9; March, 1929.
Presents reasons for a teachers' retirement system from standpoint of state. Believes its one purpose improvement of school service.
11. FLEMING, S. E. "The State's Share in Financing Retirement." *Washington Education Journal* 9:170; February, 1930.
Discusses the cost to the state of the retirement law proposed for Washington.
12. GILDFEISTER, THEDA. "Why the Retirement Fund Should Pass." *Minnesota Journal of Education* 9:782-3; March, 1929.
Favors passage of teacher retirement bill proposed for Minnesota, as a means of raising professional standards and as an economy measure.
13. HENDON, TELFAIR. "Teacher Retirement." *New Mexico School Review* 8:20-1; February, 1929.

- Discusses development and basic principles of teacher retirement systems.
14. HENDRICKS, E. L. "Pensions for Teachers." *Missouri School Journal* 47:12-13; January, 1929.
Favors pensioning of teachers. Points out that "private industry invests millions in retirement plans and counts it good business."
 15. McCAHAN, DAVID. *State Insurance in the United States*. University of Pennsylvania Press, Philadelphia, Pa. 1929. Chapter 10, "Pension Funds," p. 137-75.
Includes discussion and tabular data descriptive of certain provisions of state teachers' and state employees' retirement funds.
 16. MEREDITH, ALBERT B. "Elements of Successful System of Teachers' Retirement." *United States Daily* 5:14; March 25, 1930.
States that retirement should be based on (1) justice to the teacher as a public servant, and (2) the increasing benefits derived by society from the work of the public schools.
 17. NATIONAL COUNCIL OF TEACHERS' RETIREMENT SYSTEMS. *Proceedings of the Sixth Annual Meeting*. Cleveland, Ohio. February 25-7, 1929. 22 p.
Includes historical statement concerning the Council, discussions of teacher retirement systems from viewpoint of the U. S. Commissioner of Education, a state commissioner of education, and the tax-paying public. Also presents data on retirement options and the movement for adequate teacher retirement systems.
 18. NATIONAL COUNCIL OF TEACHERS' RETIREMENT SYSTEMS. *Proceedings of the Seventh Annual Meeting*. Atlantic City, N. J. February 24-26, 1930. 48 p.
Among other articles, includes a number on duties of state education associations toward needy teachers, effect of a retirement system on the profession, and relation of teacher tenure to retirement funds.
 19. NATIONAL EDUCATION ASSOCIATION, COMMITTEE ON RETIREMENT ALLOWANCES. *Report*, Washington, D. C. July 1929. 18 p.
Reports status of teacher retirement systems, legislation in behalf of teacher retirement and literature on retirement for teachers since 1928.
 20. NATIONAL EDUCATION ASSOCIATION. "Group Insurance for Teachers." *Studies in State Educational Administration, Study No. 3*. Research Division, National Education Association, Washington, D. C. February, 1930. 8 p.
Defines "group insurance," traces its development, and lists the activities of teachers' organizations in this field. A bibliography on general and special phases of the problem is included.
 21. NORTON, JOHN K. "Flat-rate vs. Percentage Retirement Plans." *Sierra Educational News* 26:21; February, 1930.
Defines terms and gives arguments for and against the two types.
 22. PRITCHETT, HENRY S. *The Social Philosophy of Pensions*. Bulletin No. 25. Carnegie Foundation for the Advancement of Teaching, 522 Fifth Avenue, New York City. 1930. 85 p.
"Free" pensions are scored and contributory systems advocated. Social and economic principles underlying a sound pension system and a review of existing pension systems for professional groups are given.
 23. PYRTLE, E. RUTH. "Efficient Teaching and a Retirement System." *School and Society* 28: 591-2; November 10, 1928.
Urges value of teacher retirement. "Better efficiency in our schools is the strongest argument teachers have to give the tax-paying public for teacher retirement systems."
 24. RAY, MABEL BARTH. "Educational Pensions Abroad." *Educational Review* 76:113-18; September, 1928.
Deals with pensioning of public school teachers in England, France and Germany.
 25. *Retirement Allowances and Insurance for the Headquarters Staff of the National Education Association*. National Education Association, Washington, D. C. May, 1929. 6 p. Mimeographed.
Explanation of provisions and operation of retirement annuity and group life insurance plan for headquarters staff of National Education Association.
 26. "Retirement Provisions of the Ithaca Board of Education." *School and Society* 30:707-8; November 23, 1929.
Ithaca Board of Education supplements state law and retires teachers on full salary of last year of teaching.
 29. SAVAGE, HOWARD J., and COGSWELL, EDMUND S. *A Retirement Plan for Colorado Public Schools*. Bulletin No. 22. Carnegie Foundation for the Advancement of Teaching, 522 Fifth Avenue, New York City. 1928. 72 p.
Outline and discussion of teacher retirement plan proposed for Colorado public schools, with actuarial and financial data.
 28. SHAW, ALBERT M. "Retirement Allowances." *Bulletin* 12:15-21; April, 1929. National League of Teachers' Associations, Milwaukee, Wisconsin.
General discussion of public school teacher retirement systems.
 29. SWIFT, FLETCHER HARPER. "State Systems of Taxation for Public Schools. I. The Wisconsin

Plan." *American School Board Journal* 78:61; March, 1929.

In regard to the Wisconsin practice of supporting the teachers' retirement fund through surtax on income, states: "Wisconsin appears to have reached a very happy solution of an extremely difficult problem now confronting some of our states, namely, that of providing revenue for financing a satisfactory teachers' retirement plan."

30. "Teacher Retirement Systems." *Research Bulletin* 8: 128-33; May, 1930. Research Division, National Education Association, Washington, D. C.

Discusses the twelve criteria set up for judging a retirement system as given in the *Research Bulletin* 8: 70; March, 1930.

31. "Teachers Retirement Salaries." *Sierra Educational News* 26: 26; January, 1930.

Comparison of Los Angeles teachers retirement salaries with those of Los Angeles policemen and firemen.

32. "Teachers' Salaries." *Woman's Journal* 14: 27; January, 1929.

Believes teachers with pension privileges have advantage over office women who have, for a time, higher salaries, but lack security.

33. U. S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS. *Public Service Retirement Systems* (United States, Canada, and Europe.) Bulletin 477, January, 1929. Government Printing Office, Washington, D. C. Chapter 5, "State and City Retirement Systems for Teachers," p. 76-117.

Reports data from survey made by Bureau of Labor Statistics in 1927. Outlines principal features and gives comparative tables on all state-wide and some city teacher retirement systems.

34. WANNEY, ANNE R. "Reasons for a Teacher Retirement Fund." *School and Community* 14: 606, 608; December, 1928.

Considers teacher retirement fund desirable from economic, social and educational standpoints.

35. WASHINGTON EDUCATION ASSOCIATION, RETIREMENT FUND COMMITTEE. (S. E. Fleming, Chairman.) *Report*. Washington Education Association, Seattle, Washington. October 22, 1928. 4 p.

Gives information on new retirement law proposed for teachers in Washington State, and the plan of organization adopted for promoting the movement.

General Theory and Development

36. BUCK, GEORGE B. *Procedure Involved in the Establishment of a Pension System*. Prepared by office of George B. Buck, Consulting Actuary, 25 Spruce Street, New York City. 16 p.

Information for employers desiring to establish pension systems in accordance with actuarial principles.

37. BUCK, GEORGE B. *Self-operated Pension and Retirement Systems and the Insurance Law*. Prepared by the office of George B. Buck, Consulting Actuary, 25 Spruce Street, New York City. 12 p.

Includes data on New York State Insurance law relating to employees, pensions and other benefits.

38. BUCK, GEORGE B. *Two Methods Which Have Been Followed in Establishing Pension Plans*. Prepared by the office of George B. Buck, Consulting Actuary, 25 Spruce Street, New York City. 22 p.

One of a series of pamphlets for the information of organizations desiring to operate their own pension plans. Indicates how actuarial principles may be employed.

39. CROWTHER, SAMUEL. "Insurance for Old Age." *Ladies Home Journal* 47: 37, 216, 219; March, 1930.

Reports an interview with Frederick H. Ecker, President of Metropolitan Life Insurance Company. Gives data concerning the cost of old age insurance. Briefs the situation affecting government pensions in Europe.

40. EPSTEIN, ABRAHAM. "Freedom for the Aged." *New Republic* 62: 261-3; April 23, 1930.

Plea for old age security in the United States based on a survey of pension systems at home and abroad.

41. EPSTEIN, ABRAHAM. *The Challenge of the Aged*. The Vanguard Press, New York. 1928. 435 p.

Deals with causes and extent of old age dependency, movement for old age security in the United States, and pension systems abroad. Pages 175-9 discuss teacher retirement.

42. FOLSOM, M. B. "Old Age on the Balance Sheet." *Atlantic Monthly* 144: 399-406; September, 1929.

Discusses the financial status of aged employees, suggests problems involved in planning and inaugurating a pension system, and concludes that a sound and adequate pension plan is an evidence of good management.

43. GIFFORD, WALTER S. "Pensions, Charity, and Old Age." *Atlantic Monthly* 145: 259-65; February, 1930.

Discusses the theory of pensions, activity of charitable organizations and the part played by the government and private individuals in helping the aged who do not provide for themselves.

44. NATIONAL CIVIC FEDERATION, INDUSTRIAL WELFARE DEPARTMENT. *State Old Age Pensions: Constructive Proposals for Prevention and Relief of Destitution in Old Age*. National Civic

Federation, Thirty-third floor, Metropolitan Tower, New York City. February, 1929. 16 p.

Presents objections to state old age pensions, with recommendations for improving work of public relief for dependent aged persons.

45. *Old Age Security Herald*. American Association for Old Age Security, 22 East 17th Street, New York City. 4: 1-8; April, 1930.

Reports passage by New York legislature of a state pension system, results of a questionnaire on pensions sent out by a group of United States Congressmen and statements concerning pensions in the United States.

46. "Prosperity or Pensions?" *Survey* 63: 68; October 15, 1929.

Refers to hearings before New York Commission on Old Age Security. Private charity, thrift, group insurance and industrial pensions seemed inadequate to meet the problem of old age support.

47. ROBERTSON, B., and SAMUELS, H. *Pension and Superannuation Funds: Their Formation and Administration Explained*. Pitman and Sons, London. 1928. 134 p.

Discusses items to be considered in the establishment of any form of superannuation fund and suggests a method for inaugurating a system.

48. STARK, LOUIS. "Old at Forty." *Outlook and Independent* 153: 3-6, 38-9; September 4, 1929.

Deals with problems of older workers and attitude of business concerns toward them. Considers group insurance and industrial pension plans inadequate to meet the unemployment situation and hazards of modern industry.

49. STEWART, BRYCE M. *Financial Aspects of Industrial Pensions*. American Management Association, 20 Vesey Street, New York City. 1929. General Management Series, No. 87. 24 p.

Considers among other topics factors involved in calculating costs of pension plans.

50. "To Make Longer Life Worth Living." *Survey* 61: 669-70; February 15, 1929.

Calls attention to increasing problem of caring for the aged, with data for New York City, and reference to Abraham Epstein's *The Challenge of the Aged*.

Pensions for Industrial Workers

51. COWDRICK, EDWARD S. *Pension—A Problem of Management*. American Management Association, 20 Vesey Street, New York City. 1928. 40 p.

Deals with the extent, need and factors of costs and organization of old age pensions in industry.

52. COWDRICK, EDWARD S. "What of the Worn-Out Worker?" *Nation's Business* 16: 19, 72-3, 76; June, 1928.

Deals with the development of pension provisions for industrial employees. Estimates annual pension outlay at \$40,000,000.

53. DOOLEY, C. R., and WASHBURN, HELEN L. *The Employment and Adjustment of the Older Worker*. American Management Association, 20 Vesey Street, New York City. 1929. General Management Series No. 86. 44 p.

Summarizes experience of 64 representative companies in attaching the problem of the older worker.

54. LAMM, LYNNE M. "Protecting the Older Worker." *Nation's Business* 17; May 25, 1929. (Extra Edition.)

From Conference on Employer-Employee Relations found practicability of old age pensions recognized.

55. RUSSELL SAGE FOUNDATION LIBRARY. *Industrial Pensions* (Supplementary List). Bulletin No. 92, December, 1928. Russell Sage Foundation Library, 130 East Twenty-second Street, New York City. 4 p.

Bibliographical material on industrial pensions.

56. "Special Retirement Adjustments in the Steel Industry." *Monthly Labor Review* 27: 99-101; August, 1929.

Reports methods by which associated companies of Bethlehem Steel deal with employees dropped from pay roll after long service.

57. U. S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS. *Beneficial Activities of American Trade-Unions*. Bulletin No. 465, September, 1928. Government Printing Office, Washington, D. C. 229 p. Excerpts also in *Monthly Labor Review* 28: 26-32; January, 1929.

Discusses the benefits available to trade union members.

Public Service Retirement Systems

58. "Billions for Pensions." *World's Work* 57: 192-5; December, 1928.

Gives data on pensions for United States War Veterans. A little more than half the pensioners were found to be surviving soldiers, others being widows, minors, and dependent parents.

59. "Care of the Aged: Church Pension and Relief plans for Ministers." *Monthly Labor Review* 28: 92-109; May, 1929.

Based on replies received from 11 national churches having pension or relief plans for aged ministers.

60. "Proposed Pension Plan for California State Employees." *Monthly Labor Review* 29: 94-5; September, 1929.

Describes a proposed plan.

61. "Public Service Retirement Systems in the United States, Canada, and Europe." *Monthly Labor Review* 28: 34-44; April, 1929.

Shows striking variations in age and service requirements under pension systems for government employees in United States, Canada, and Europe.

62. "Summary of Public-Service Retirement Systems in European Countries." *Monthly Labor Review* 26: 21-35; May, 1928.

Covers main points of civil service retirement systems in Italy, Netherlands, Denmark, Norway, and Sweden. Found right of civil service employees to service, disability, and survivor's pensions, or corresponding insurance benefits, recognized in these countries.

63. U. S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS. *Public Service Retirement Systems* (United States, Canada, and Europe). Bulletin

No. 477, January, 1929. Government Printing Office, Washington, D. C. 223 p.

Information on retirement systems for government employees in United States, Hawaii, Canada, and Europe. Chapter 5 deals with state and city teacher retirement systems.

Pensions for Other Employed Groups

64. NEW YORK STOCK EXCHANGE. *Report of the Personnel Department. "Retirement Plan."* New York Stock Exchange, New York City. September 1, 1929. p. 18-19.

Describes the contributory, non-compulsory plan covering affiliated employees of Exchange under age of 60 on July 1, 1925.

65. "Safeguarding the Employees' Interest under Industrial Pension Plans." *Monthly Labor Review* 29: 95-6; September, 1929.

Information on pension plan operated by Western Clock Company.

HOW, then, will an adequate teachers' retirement fund promote the efficiency of the schools?

It will attract and hold high-class personnel. The teaching profession for years has been a procession. There has been a tendency for men and women to leave its ranks for other lines of activity offering greater rewards and promising more in the way of independence in old age. Call the roll of successful men and women in the professions, in business, in industry, and one will find a large contingent who deserted the field of teaching. Would any employer be satisfied to have the ranks of his employees depleted in such a way? Should it not be a matter of some concern to the state?

A retirement plan relieves the mind of the teacher from the fear of a destitute old age. He can throw himself heart and soul into the demands of his work, with that buoyant and happy spirit so very important for effective leadership of children. He feels free to spend whatever is necessary to give himself opportunities for travel, advanced study, and recreation, so essential if he is to grow in his work.

Finally, when the time comes, as it is bound to come for all of us, that his strength and enthusiasm have waned and his mind and spirit are no longer nimble and responsive to the needs of youth, he may step aside without facing destitution. The retirement funds now operating in the state have demonstrated how real this benefit is. Fleming, S. E. "The Retirement Fund—An Efficiency Measure." *Washington Education Journal*, March, 1929. p. 209.

Are the schools
costing too
much?

Can we afford
to educate our
children?



SUCH facts as those assembled in this Bulletin may be added to the material gathered locally to familiarize the public with their schools.

Probably you hold such membership in the National Education Association or are a subscriber to the Research Bulletin and therefore receive this publication regularly. But additional copies should be placed in the hands of everyone in your community who is able to influence the expansion and betterment of the schools.

INVESTING IN PUBLIC EDUCATION

54 PAGES

Vol. VIII, No. 4, Sept., 1930

Reliable and up-to-date facts about the cost of schools, and the dividends received from America's investment in public education. Convincing material for selling the schools to the public.

WHAT AMERICA IS DOING FOR THE SCHOOLS

1. Amount and proportion of our income and wealth invested in public education.
2. Expenditures for public schools compared with those for luxuries and other items.
3. Portion of taxes spent for the support of public schools.

WHAT THE SCHOOLS ARE DOING FOR AMERICA

1. Enrichment of human life through health and character education.
2. Promotion of patriotism and world understanding.
3. Building foundations for American national life, prosperity, and culture.

PRICE, 25 CENTS EACH

Discounts as follows: 2 to 9 copies, 10 percent; 10 to 99 copies, 25 percent; 100 or more copies, 33 1-3 percent.



NATIONAL EDUCATION
ASSOCIATION

1201 SIXTEENTH STREET

Washington, D. C.

Research Bulletin

OF THE

National Education Association

VOLUME VIII

January to November, 1930

The Research Bulletin is issued by the Research Division, a section of the headquarters staff of the National Education Association. This division was created in February, 1922, for the purpose of conducting scientific studies of special interest to members of the teaching profession.

Bulletin One was issued by the Research Division in June, 1922, and *Bulletin Two*, in November, 1922. The first number of the *Research Bulletin* is Volume I, No. 1, January, 1923, entitled *Facts on State Educational Needs*. With Volume I, No. 1, the *Research Bulletin* became a regular publication, issued five times each year—January, March, May, September, and November. The Research Bulletins composing Volumes I, II, III, IV, V, VI, VII, and VIII are listed on the inside back cover of the November, 1930, Bulletin.

RESEARCH DIVISION
THE NATIONAL EDUCATION ASSOCIATION
OF THE UNITED STATES

1201 Sixteenth Street Northwest, Washington, D. C.

1930

THE UNIVERSITY OF CHICAGO

LIBRARY OF THE UNIVERSITY OF CHICAGO

1911

THE UNIVERSITY OF CHICAGO
LIBRARY OF THE UNIVERSITY OF CHICAGO
1911

INDEX TO VOLUME VIII

- Abercrombie, John W.**, quoted, 164.
- Adjustment, Pupil**, checklist for state administration, 64; discussion of criteria for state administration, 104-7.
- Administration**, checklists for state, 57-86; criteria for state, 104-7; good and poor, and questionnaires, 7; handbook of state, 93-163; questionnaires in the field of, 30; self-survey plan for state school systems, 57-86.
- Administrators**, certification for, 115.
- Adult education**, checklist for state administration, 76; discussion of criteria for state administration, 152-55.
- Age grade progress**, biennial statewide study desirable, 104.
- Ages, students**, fulltime attendance to sixteen, 95; why should children over seven be in school, 95.
- Aliens**. *See* Immigrants.
- Almack, John C.**, quoted, 82.
- American Education Week**, questions to be considered, 199.
- Apportionment of school funds**, census or enrolment statistics as basis for, 140; checklist for state systems, 72; discussion of criteria for state systems, 138-41; financial ability of localities and, 139; percent state should pay, 140; salaries and, 125; tax rate of local schools fixed, 138.
- Attendance**, checklist for state laws and their enforcement, 62; discussion of criteria for state laws and their enforcement, 94-9; increase in public school, 194; increase in summer school, 212; meaning of to children, 213; officers for, 97; record systems for, 98; supervision of by state department of education, 98. *See also* Enrolments.
- Automobiles**, expenditures for passenger, 179, 180, 193, 197.
- Bachman, Frank P.**, quoted, 116, 146.
- Bagley, William C.**, quoted, 147.
- Beginning teachers**, tryout periods for, 120.
- Berkeley, William**, quoted, 199.
- Bibliographies**, pension and retirement systems, 268-70, 273-77; references on use of the questionnaire in educational research, 47-9; of studies used in self-survey plan for state school systems, 156-63.
- Boards of education**, fiscal independence of, 136.
- Briggs, Thomas H.**, quoted, 217; study cited, 12.
- Buck, N. S.**, quoted, 215.
- Buckingham, B. R.**, quoted, 23.
- Building construction**, expenditures for, 176, 177, 178, 197.
- Building departments**, state education, 142.
- Building laws**, why a state school housing code, 143.
- Buildings**, public school, checklist for state regulation, 73; discussion of criteria for state regulation, 142-5.
- Butterfield, E. W.**, quoted, 18.
- California**, application of checklist to certification of teachers in, 78-80.
- Carlson, Philip E.**, quoted, 85.
- Carrothers, George E.**, quoted, 155.
- Carver, Thomas Nixon**, quoted, 215.
- Census, School**, why require annually, 94.
- Certification**, age minimum of eighteen for, 117; application of checklist to California, 78-80; authority for should be exclusively in hands of state, 114; checklist for in state school systems, 66; differentiation of secondary certificates, 116; discussion of criteria for state administration, 113-20; elementary teachers, 113; health and, 118; initial for limited time, 119; moral character and, 118; practise teaching for, 120; recognition of, in other states, 117; requirements for setting up, 115; rural and city minimum should be same, 120; secondary school teachers, 114; special subject teachers, 116; supervisors and administrators, 115; teacher training in high schools for, should be discontinued, 119; training vs. examination for, 118.
- Character**, certification requirements and, 118; how schools build, 208.
- Charters, W. W.**, study cited, 12.
- Checklists**, adult education, 76; application to certification of teachers in California, 78-80; application to employment and contracts of teachers in Pennsylvania, 81-2; application to teacher retirement in Virginia, 83-5; apportionment of state school funds, 72; attendance laws for states, 62; certification, 66; child labor laws, 63; contracts for teachers, 67; employment of teachers, 67; higher education, 76; list of, for state school systems, 58; material equipment, 73; professional organization of teachers, 69; pupil personnel and adjustment, 64; retirement systems, 70; self-survey plan for state school systems, 57; sources of school revenue in state school systems, 71; state administration, 57, 86; state board of education, 74; state salary laws, 68; supervision, 65; teacher training, 65.
- Child labor**, adult unemployment and, 211; agricultural, regulation of, 103; checklist for laws on, 63; discussion of criteria for state laws regulating, 100-4; employment certificates, issuance of, 104; extent of, 211; hazardous employments and, 102; minimum age for employment, 100; minimum age in mines and quarries, 100; night work under eighteen should be prohibited, 103; physical examinations should be required, 100; street trade, regulation of, 103; study of laws of, 104; work permits only to those of eight year educational standard, 102.
- Children**, number enrolled in private schools, 211; number enrolled in public elementary and secondary schools, 211; number five to seventeen years of age, 211; number gainfully occupied, 211.
- Church schools**, certification should be equivalent to that for public schools, 120.
- Citizenship**, adult classes in, 155; how schools prepare for, 206-7.
- Class size**, regulation needed for minimum and maximum, 105.
- Committee on recent economic changes**, quoted, 211.
- Community centers**, school buildings as, 155.
- Conference Board Bulletin**, quoted, 186.
- Continuation schools**, compulsory to eighteen years, 96.
- Contracts, Teacher**, 120; checklist applied to Pennsylvania, 81-2; checklist for, in state school systems, 67; discussion of criteria for state administration, 120-24; state departments should study, 123; statewide laws for, 123; violation of, 123.
- Cook, William A.**, quoted, 115.
- Coolidge, Calvin**, quoted, 207.
- Costs and expenditures**, automobiles, 179-80, 193, 197; building construction, 176-78, 197; education, an investment, 174, 175, 198; increase in school, 193, 196-7; life insurance, 176-8; 197; luxuries, 180-2; per capita, for recreation, 200-1; percent of total school, devoted to higher education, 193; per capita, of cities, for health and sanitation, 213-14; public, in United States and foreign countries, 183-4; retirement system support, 129; schools, by states, 172-3, 178-9, 190-2; schools, compared with income, 169-75, 193, 195; schools, compared with wealth, 169-75; schools, compared with tax collections, 189-92, 196; schools, compared with certain other expenditures, 176-82; system of recording should be prepared by state departments of education, 151.
- Counts, George S.**, study cited, 11.
- Cubberley, Ellwood P.**, quoted, 80, 151.
- Curriculums**, teachers college should be varied, 109; teachers colleges should include program of social development, 111.
- Demonstration schools**, 112.
- Department of Superintendence**, questionnaire problem and, 5.
- Diplomas**, validity of life after discontinuance of educational work, 117.
- Dismissal**. *See* Tenure.
- Education, Aims and objectives**, seven cardinal, 204-8.
- Elementary schools**, free textbooks for, 143.
- Employment, Teachers**, 120; checklist for, in state school systems, 67; statewide laws for, 123.
- English**, Adult classes in, 155.
- Enrolment**, evening schools, 201-2; private schools, 211; public schools, 211; regulation re minimum, 105; summer schools, 212; teachers colleges, 212.
- Equalization, Educational**, between rural and urban communities, 213.
- Equipment, Public school**, checklist for state school systems of material, 73; discussion of criteria concerning, 142-5.
- Ethics of teaching**. *See* Professional ethics.
- Evenden, E. S.**, quoted, 125, 126.
- Evening schools**, cost of instruction, 202; enrolment, 201-2.
- Examinations**, written, section of questionnaire on, 15.
- Fairchild, F. R.**, quoted, 215.
- Five-day week**, prevalence in industry, 199.
- Fleming, S. E.**, quoted, 277.
- France**, income collected in taxes, 183-4; income per capita, 183, 185; wealth per capita, 183, 185.
- Funds**, apportionment of state school, 72.
- Furness, E. S.**, quoted, 215.
- General Education Board**, quoted, 114.
- Germany**, percent of income expended for public purposes, 183-4; income per capita, 183, 185; wealth per capita, 183, 185.

Great Britain, percent of income expended for public purposes, 183-4; income per capita, 183, 185; wealth per capita, 183, 185.

Greist, O. H., quoted, 225.

Grimm, L. O., quoted, 126.

Handbook, self-survey plan for state school systems, 93.

Handicapped children, facilities for, should be required, 106.

Health, certification and, 118; expenditures of cities for, 213-4; how schools promote, 204-5.

Health education, supervision of, by state department of education, 107.

Helping teachers, 112.

Higher education, checklist for in state school systems, 76; discussion of criteria for state administration, 152-5.

High schools, teacher training in, 119.

Homes, how schools improve, 204-6.

Hoover, Herbert, quoted, 208, 216, 217.

Human resources, value of, 177.

Hystrom, Paul H., quoted, 217.

Illiteracy, of men drafted in the world war, 194.

Immigrants, number of, in the United States, 202.

Income, by states, 172, 187; increase in, 193, 196-7, 215; per capita in United States and foreign countries, 183, 185; percent expended for public purposes, 183-4; percent collected in taxes, 186-7, 193-4; percent devoted to school costs, 169-70, 172-5, 193, 195.

Jones, Arthur J., quoted, 16, 22.

Journalism, Educational, journals for state teachers associations, 127.

Judd, Charles H., quoted, 12.

Junior colleges, expenditure of public funds for, 154.

Kelley, Truman L., quoted, 9, 11, 18.

Kindergartens, why maintain, 94.

King, Willford, quoted, 177.

Klein, Arthur J., study cited, 12.

Koos, Leonard V., quoted, 17; studies cited, 11, 12, 17, 18, 19.

Land grant college survey, cited, 12.

Land grants for education, national expansion and, 203; number of acres, 204.

Lang, Albert R., quoted, 82.

Learned, W. S., quoted, 147.

Learning, how schools encourage, 205-6.

Leisure, wise use of, 199-202, 208.

Length of school year, eight months at least, 96; number of days, 210, 211.

Libraries, per capita circulation of books, 201.

Life insurance, expenditures for, 176-8, 197.

Lindsay, E. E., study cited, 17.

Luxuries, expenditures for, 180-2.

Mann, Horace, and questionnaires, 5.

Married women, as teachers (section of questionnaire on), 15.

Master tabulation, illustration of, 27.

Morrison, Henry C., quoted, 189.

Mortality rates, decreasing, 215.

National Education Association, Committee on Retirement

Allowances, quoted, 237; desirability of membership in, 126.

National Congress of Parents and Teachers, increase in membership, 205.

National Industrial Conference Board, quoted, 128.

National Tax Association, quoted, 135.

Nursery schools, number of, 209.

Organizations, Professional, checklists for, in state school systems, 69.

Parkinson, Burney L., quoted, 114.

Pearce, Webster H., quoted, 234.

Pennsylvania, application of checklist to employment and contracts of teachers, 81-2; department of public instruction quoted, 111.

Pension and retirement systems, actuarial investigations of, 131, 228, 262, 266-7; administration, 229, 263; age of retirement fixed by, 248; amount of teachers' allowances, 251; application of checklist to Virginia teachers, 83; bibliography, 268, 273-7; checklist for state teachers', 70; contributions of teachers and public, 235; controlling board of, 229, 260; credit given teachers for past service, 236; death benefits 131, 228, 247; deposits of teachers, 129, 227, 237-40; directory

of teachers', 271; disability allowances to teachers, 131, 228, 254-60; discussion of criteria for state teachers', 128-33; fundamental principles of teachers', 226-9; guaranties to teachers and public, 226; individual accounts with teachers, 227; legislation for, present status of, 231-2; local, for teachers, 230; list of states not having, 230; membership in teachers', 129, 241; options offered, 226, 228; permissive state laws relating to teachers', 231-2; personnel of boards administering, 260; prior service benefits, 132, 229, 236; reciprocity between states relating to teachers', 132, 229; reserve basis needed, 130, 228; retirement age compulsory, 131; rights of teachers under previous, 229; shares of teachers and public in cost of, 129; state education associations, 234; state teachers', of limited application, 230; statewide teachers', 128, 230; studies in progress, 233; superannuation allowance relation to salary, 250; support of, 129; theory and practise of, 235-67; withdrawal from, 130, 247.

Physical defects, of men drafted in world war, 194.

Physical education, time allotted in elementary grades, 204.

Physicians, School, law should require, 106.

Practise teaching, certification requirements, 120.

Private schools, certification should be equivalent to public school, 120; tax exemptions for, 137.

Professional ethics, state education associations and, 127.

Professional growth, required for tenure, 121.

Professional organizations, checklist for state school systems, 69. *See also* Teachers associations.

Property, Public school, value of, 171, 173-4.

Pupil personnel, checklist for, 64; discussion of, criteria for state administration, 104-7.

Public expenditures, compared with national incomes in United States and other countries, 184. *See also* Costs and expenditures; tax collections.

Purchasing value of dollar, decrease since 1913, 194.

Pyrte, E. Ruth, quoted, 270.

Questionnaires, administration and, 6, 7; as trail-blazers, 12; case against, 9; case for, 11; data from inaccurate, 10; form used in studying uses made of questionnaires, 51; general conclusions regarding circulating of, 5; master tabulation should be included in, 26; objections to, appraisal of, 10; only way to get certain information, 13; postal card, used by cooperating school systems in reporting receipt of, 49; preparation of, poor, 10; problem of, 5; replies to, selection of, 9; reporting results of, 25; results of inconclusive, 9; should be reproduced, 27; sources of information on, 44-7; superintendents and, 13; time-consuming, 10.

Questionnaires, Preparation of, 14; ask only for data respondents can and will give, 19; data should not be collected by, if otherwise available, 16; follow-up, 16; formulators of, should know field, 15; identification of report of, 25; mechanical form, 22; practises desirable in, 23; preliminary considerations to preparation of, 14; preliminary tryout should be given, 22; preparing, 18; purpose of investigation should be stated, 23; require minimum of writing, 21; responses should lend themselves to tabulation, 21; results of, disseminating 17; scope of, delimiting, 15; sending, 18; should deal with matters of fact, 18; should be short, 19; sponsorship of, 14; tabulating, plans for, 17; wording should be simple and clear, 20.

Questionnaires, Problem of, 28; analysis of questionnaires received, 29; availability of results, 36; college student questionnaires, 41; clearing house for, 42; duplication, 33; evidence and what it shows, 28; factors affecting percent of answered, 33; field of questionnaire, 30; form of questions 31; incoming, handling, 38; information sought, 32; length of questionnaires, 30; number of questionnaires, 28, 29; proposed plan for cooperative regulation of, 38; purpose, is it frankly stated, 39; rating plan for, 39; returns, are they promised respondents, 40; sending out policy, need of, 41; sponsorship, is it adequate, 39; superintendents' viewpoint, 28; uses made of, 25, 36; when are questionnaires sent, 30, 31; who sends, 29.

Reading circles, 112.

Recreation, per capita expenditure of cities for, 200-1.

Reform schools, state department of education should control, 106.

Revenues, Public school, appropriations for losses from permanent school fund, 133; bonding for current expenses prohibited, 137; bonds of state should be prohibited for investment of permanent fund, 133; budget of state unified, 134; checklist for state sources of, 71; discussion of criteria for state sources, 133-8; increase of state aid with increase of need, 134; investment of permanent school fund, 133; local

- tax limitation undesirable, 134; property tax should be supplemented, 135; state tax commissions, 135; tax levy by all local school units, 136; tax-levying schoolboards should be fiscally independent, 136. *See also* Apportionment of school funds.
- Robinson, William McKinley**, quoted, 119.
- Rugg, Harold**, quoted, 21.
- Rural education**, certification for, 120.
- Sabbatical leave**, salary and, 126.
- Salaries**, apportionments from state funds for, 125; checklist for state laws governing, 68; controlling boards of institutions of higher learning, 153; discussion of criteria for state laws governing teachers, 124-6; increase in, 1920 to 1928, 212; increase with experience, 125; increase with training, 125; sabbatical leave and, 126; states' chief school officers' fixed by state board, 148; state laws for minimum, 124; state superintendents underpaid, 150-1.
- Schwab, Charles M.**, quoted, 216.
- Secondary education**, differentiation of certificates for, 116.
- Secondary schools**, free textbooks for, 143.
- Self-survey plan**, cautions in use of, 60; for state school systems, 57; handbook for, on state school systems, 93; how to continue, 59; illustrations of application of, to state school systems, 78-80; who can use, 61.
- Sick leave**, pay and, 126; section of questionnaire on, 16.
- Special subjects**, certification for teaching of, 116.
- State boards of education**, checklist for, 74; discussion of criteria for, 146-9; investment of permanent funds by, 133.
- State department of education**, advice in purchasing supplies, 145; apportionment of funds by state studied by, 141; attendance and, 98, 99; checklist for, 75; division of school-housing in, 142; minimum building standards should be set by, 143; revenues for schools studied by, 138; self-survey plan for, 57; teachers contracts should be studied by, 123; textbook adoption and, 144.
- State teachers associations**. *See* Teachers associations.
- Steele, Robert McCurdy**, quoted, 117.
- Student accounting**, checklist for state administration, 64; discussion of criteria for state administration of, 104-7.
- Superintendents**, questionnaires and, 13.
- Supervision**, checklist for state school systems, 65; discussion of criteria for state administration of, 107-13.
- Supervisors**, certificates for, 115.
- Supplies**, combination of small units for purchase of, 145; state departments of education should advise in selection of, 145.
- Survey of Education in West Virginia**, quoted, 146, 148.
- Sutton, Willis A.**, quoted, 288.
- Taxation for education**. *See* Revenues, public school.
- Tax collections**, by states, 187, 188, 190-2; in United States and foreign countries, 183, 184; percent devoted to school costs, 189-93, 196; compared with income, 183-4, 186-93; trend in total, 1922 to 1928, 193.
- Taxes**, incidence of federal, 186.
- Teachers**, census of and their qualifications, 111; responsibility to some superintendent, principal, or supervisor, 112.
- Teacher-training**, checklist for state school systems, 65; discussion of criteria for state administration, 107-13; high-school classes should be abandoned, 107; high school, should be discontinued, 119; state program for improvement of facilities for, 113.
- Teachers associations**, checklist for state, 69; committees in state, 127; conventions of state, 128; discussion of criteria for state, 126-8; fulltime secretaries for state, 127; journals of state, 127; desirability of membership in state and national, 126.
- Teachers colleges**, admission requirements, 108; curriculum program for social development, 111; curriculums should be varied, 109; placement services of, 110; separate state board of control for undesirable, 109; tuition should be free, 111.
- Teachers institutes**, 112.
- Tenure**, after trial, 121; dismissal appeal from, to state authority, 122; dismissal for incompetence, 122; dismissal notice required, 122; dismissal power in hands of appointing board, 122; members of boards of control of higher institutions, 154.
- Terman, Lewis M.**, study cited, 12.
- Texas educational survey reports**, quoted, 146.
- Textbooks**, adopting authority, the state board or department of education, 144; free, in elementary and secondary schools, 143; state adoptions on multiple list basis, 145.
- Three R's**, time allotted, 205.
- Tigert, J. J.**, quoted, 150.
- Time allotments**, health education, 204; three R's, 205.
- Toops, H. A.**, study cited, 17.
- Tupper, C. Ralph**, quoted, 146.
- Unemployment**, amount of, 211.
- United States**, area, 202, 203; income, 169-70, 183-5; number of immigrants, 202; population, 202; tax collections, 183-4, 187-93; value of human resources, 177; wealth, 170-1, 173-4, 183, 185-6, 188.
- United States Office of Education**, quoted, 107, 110, 142, 146, 147, 150, 153, 216.
- Virginia**, application of checklist to teachers retirement system in, 83.
- Virginia Education Commission and Virginia Survey Staff**, quoted, 107.
- Vocational education**, how schools furnish, 205-7; state board of education should act as board for, in federal program, 149.
- Waney, Anne R.**, quoted, 262.
- Waples, Douglas**, study cited, 12.
- Wealth**, by states, 188; compared with tax collections, 186, 188; compared with value of school property, 171, 173; per capita, in United States and European countries, 183, 185; percent devoted to school costs, 170-71, 173, 174.
- Zook, George F.**, quoted, 116.

Teach

s

The

2

Publi

F

The

1

Effici

c

Majo

2

Majo

2

Salari

2

The

2

The

F

Schoo

Creat

D

The

p

Practi

c

Can

P

Can

p

The

P

Salary

25

Vitali

c

The

P

The

C

A Sel

36

A Sel

76

Invest

c

Research Bulletins Now Available

- Teachers' Salaries and Salary Trends in 1923.* Vol. I, No. 3, May, 1923. 116 p. Price per single copy, \$1.00.
- The Problem of Teacher Tenure.* Vol. II, No. 5, November, 1924. 40 p. Price per copy, 25 cents.
- Public School Salaries in 1924-1925.* Vol. III, Nos. 1 and 2, January and March, 1925. 72 p. Price per copy, 50 cents.
- The Ability of the States to Support Education.* Vol. IV, Nos. 1 and 2, January and March, 1926. 96 p. Price per copy, 50 cents.
- Efficient Teaching and Retirement Legislation.* Vol. IV, No. 3, May, 1926. 72 p. Price per copy, 25 cents.
- Major Issues in School Finance—Part I.* Vol. IV, No. 5, November, 1926. 32 p. Price per copy, 25 cents.
- Major Issues in School Finance—Part II.* Vol. V, No. 1, January, 1927, 64 p. Price per copy, 25 cents.
- Salaries in City School Systems, 1926-27.* Vol. V, No. 2, March, 1927. 64 p. Price per copy, 25 cents.
- The Scheduling of Teachers' Salaries.* Vol. V, No. 3, May, 1927. 64 p. Price per copy, 25 cents.
- The Advance of the American School System.* Vol. V, No. 4, September, 1927. 32 p. Price per copy, 25 cents.
- School Records and Reports.* Vol. V, No. 5, November, 1927. 132 p. Price per copy, 50 cents.
- Creating a Curriculum for Adolescent Youth.* Vol. VI, No. 1, January, 1928. 80 p. Price per copy, 25 cents.
- The Advance of the Teacher Retirement Movement.* Vol. VI, No. 3, May, 1928. 56 p. Price per copy, 25 cents.
- Practices Affecting Teacher Personnel.* Vol. VI, No. 4, September, 1928. 52 p. Price per copy, 25 cents.
- Can the Nation Afford to Educate Its Children?* Vol. VI, No. 5, November, 1928. 48 p. Price per copy, 25 cents.
- Can the States Afford to Educate Their Children?* Vol. VII, No. 1, January, 1929. 44 p. Price per copy, 25 cents.
- The Principal and Progressive Movements in Education.* Vol. VII, No. 2, March, 1929. 60 p. Price per copy, 25 cents.
- Salary Scales in City School Systems, 1928-29.* Vol. VII, No. 3, May, 1929. Price per copy, 25 cents.
- Vitalizing the High-School Curriculum.* Vol. VII, No. 4, September, 1929. 104 p. Price per copy, 25 cents.
- The Principal as a Supervisor.* Vol. VII, No. 5, November, 1929. 84 p. Price per copy, 25 cents.
- The Questionnaire.* Vol. VIII, No. 1, January, 1930. 52 p. Price per copy, 25 cents.
- A Self-survey Plan for State School Systems—Part I: Checklists.* Vol. VIII, No. 2, March, 1930. 36 p. Price per copy, 25 cents.
- A Self-survey Plan for State School Systems—Part II: Handbook.* Vol. VIII, No. 3, May, 1930. 76 p. Price per copy, 25 cents.
- Investing in Public Education.* Vol. VIII, No. 4, November, 1930. 56 p. Price per copy, 25 cents.

A SOUND teacher retirement law serves two important purposes: It protects the public from teachers rendered less competent by advanced age or other disability, and it adds dignity to the work and position of the teacher. A modern retirement system is not charity, but simple justice. The work of the teacher is basic to economic and social welfare. Consequently, every effort should be made to attract a high type of worker to the profession, to encourage a long period of happy and useful service, and to provide an honorable way out of the profession when that service is concluded. A retirement system is one of the most effective agencies available for attaining these purposes.—*Willis A. Sutton, President, National Education Association.*

