

STATE OF WISCONSIN

RETIREMENT RESEARCH COMMITTEE

STAFF REPORT NO. 60

1982 COMPARATIVE SURVEY OF
MAJOR PUBLIC PENSION PLANS

Prepared by RRC Staff
Blair Testin, Director
June 22, 1982

122 W. Washington Ave.
Madison, WI 53703

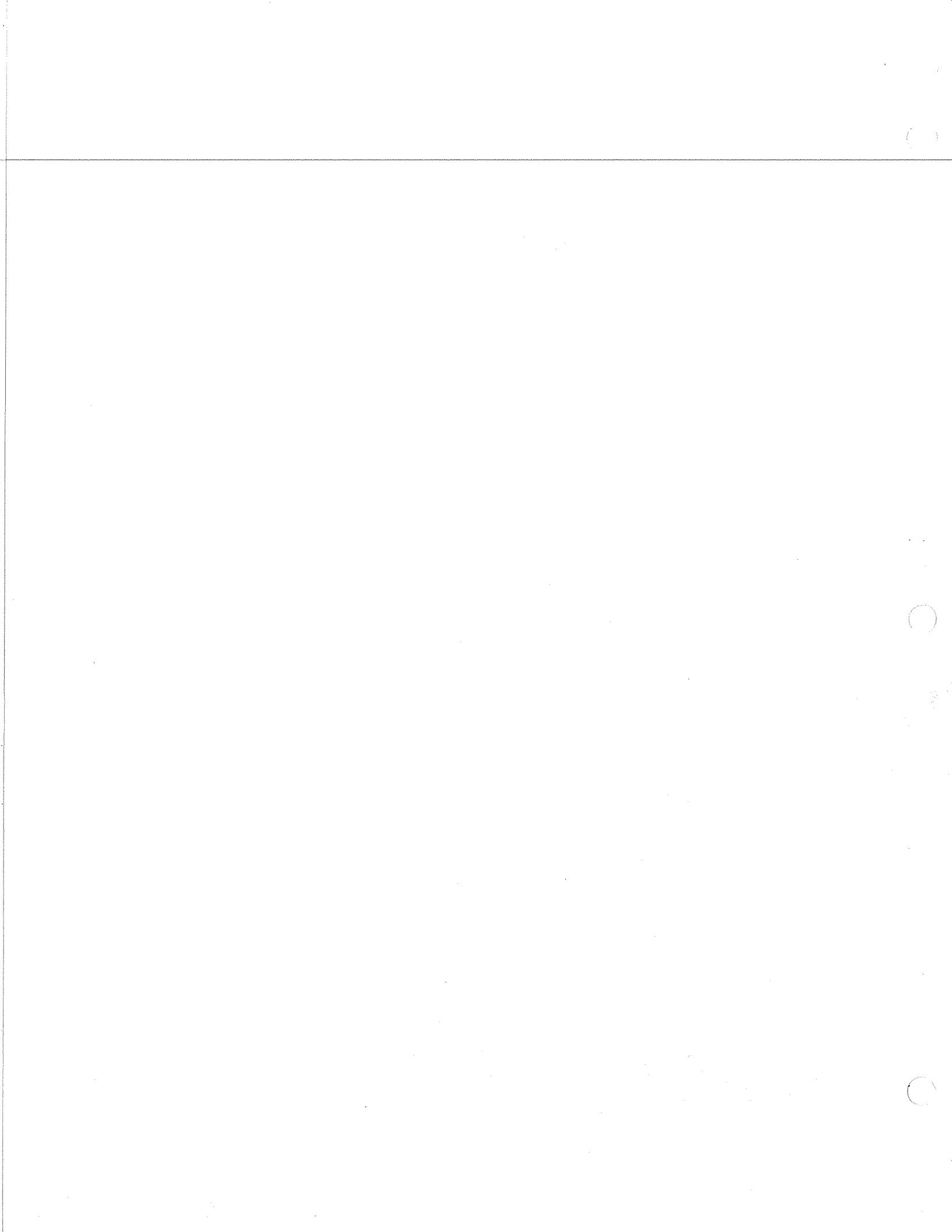


TABLE OF CONTENTS

I. MAJOR PUBLIC PENSION PLANS - COVERAGE - SOC. SEC.

A. Pension Plan Description Pages 1 & 2

B. Pension Plan Charts Pages 3 & 4

II. NORMAL & EARLY RETIREMENT REQUIREMENTS

A. Retirement Requirements Pages 5 & 6

B. Normal & Early Retirement Charts Pages 7 & 8

III. VESTING & CONTRIBUTION REQUIREMENTS

A. Provision Descriptions Pages 9 & 10

B. Charts Pages 11 & 12

IV. POST-RETIREMENT ADJUSTMENTS & TAXES

A. Post-Retirement Provisions Pages 13 & 14

B. Charts Pages 15 & 16

V. RETIREMENT BENEFIT CALCULATIONS

A. Calculation Provisions Pages 17 & 18

B. Charts Pages 19 & 20

I. MAJOR PUBLIC PENSION PLANS - COVERAGE - SOCIAL SECURITY

A. Pension Plan Descriptions

Survey. Nearly every two years the RRC staff updates a comparison of pension plan provisions for the Wisconsin state-administered retirement funds with many major public pension plans. The 1982 survey includes 80 public plans from all of the other 49 states. In addition, comparative information has been tabulated for the Milwaukee pension plans (City and County) which operate under home rule powers, and also the Federal Civil Service Retirement System and the OASDI program.

Data. The RRC office maintains files on most major public retirement systems across the country, and we actively seek annual reports, employee handbooks, statutes, actuarial information, etc. Prior to this study the various state plans were asked for their most current information, and about 80% responded. For those that did not respond, information was obtained from national surveys such as those published by the National Association of State Retirement Administrators (NASRA), the National Education Association (NEA), the Wyatt Company survey, etc. For nearly all funds listed, the information is current to the 1981-82 period.

Employee Coverage. The type of employees covered under the pension plans surveyed is designated on charts found on pages 3 and 4 of this report as "S" - state, "L" - local, and "T" - teachers. In some state plans there is some overlapping between these employee categories. Of the 80 states surveyed, the following summary of employee coverage is noted:

- State employees only	12 funds	15.0% of total
- Teachers only	26 funds	32.5% of total
- Local employees only	5 funds	6.3% of total
- State & local	15 funds	18.7% of total
- State & teacher	3 funds	3.8% of total
- State, local & teacher	19 funds	23.7% of total

With the recent passage of Chapter 96, Laws of 1981, the Wisconsin state-administered retirement funds have been merged into a single system called the Wisconsin Retirement System (WRS) which includes state, local, and teacher employees.

Active Employees. The 80 pension plans surveyed include 8.2 million public employees across the nation. The funds range in size from 6,050 in the Nebraska SERS to 609,434 in the New York ERS. Wisconsin's WRS after merger numbers about 193,000 active employees. The 80 public pension plans can be categorized by size as follows:

<u>Active Employees</u>	<u># of Funds</u>	<u>% of Total</u>
Less than 50,000	34	42.5%
50,000 to 100,000	19	23.75%
100,000 to 150,000	12	15.0%
150,000 to 200,000	2	2.5%
Over 200,000	13	16.25%
Total	80 funds	100.0%

For comparison purposes, the Milwaukee City and County Funds have 14,381 and 11,214 active employees respectively. Also, the Federal Civil Service has about 2.7 million active employees and the OASDI has about 91.4 million contributing participants.

Social Security. OASDI coverage for public employee pension plans is voluntary instead of compulsory as found in the private sector. Of the 80 major pension plans surveyed, social security coverage is as follows:

- Funds with coverage	65 funds	81.25% of total
- Funds without coverage	15 funds	18.75% of total

Of the 15 funds without social security, 8 apply to pension plans with teachers only, and 7 have varied employee coverage. The Wisconsin WRS has Social Security coverage for nearly all of the covered participants, with minor exceptions for fire, separate teachers, etc.

Integration. Integration refers to the recognition of social security benefits in the design of private or public pension plans. Integration is very common in the private sector, but much less common in the public sector. Of the 65 public pension plans with social security coverage, the integration or lack thereof is as follows:

- No integration	51 funds	78.4% of total
- Step-up formulas	5 funds	7.7% of total
- Offset Integration	7 funds	10.8% of total
- Coordinated maximum	2 funds	3.1% of total
	<u>65 funds</u>	<u>100.0%</u>

"Step-up formula" integration means that a different multiplier is applied to various levels of salary. "Offset integration" means that the final benefit is offset in some manner by all or part of the recognized social security benefit. "Coordinated maximum" integration refers to plans which provide that benefits from the retirement system and social security cannot exceed some specified level. As noted, most public pension plans have no integration, and social security benefits are supplemental (in addition) to the benefits provided by the pension plan. The Wisconsin WRS has a "coordinated maximum" of 85% of final average salary relative to the pension benefit and the primary social security benefit.

B. CHART - PUBLIC RETIREMENT SYSTEMS SURVEYED

No.	State	Fund	EE Coverage	Actives	S.S Coverage	Soc. Sec. Integration
1.	Alab.	ERS	S-L	52,720	Yes	None
2.	Alab.	TRS	T	102,435	Yes	None
3.	Alas.	PERS	S-L	21,565	No	-
4.	Alas.	TRS	T	7,473	No	-
5.	Ariz.	SRS	S-L-T	125,978	Yes	None
6.	Arka.	PERS	S-L	36,633	Yes	Offset Benefit
7.	Arka.	TRS	T	35,352	Yes	None
8.	Cal.	PERS	S-L	561,547	Yes	Offset F.A.S.
9.	Cal.	TRS	T	264,108	No	-
10.	Col.	PERS	S-L-T	99,134	No	-
11.	Conn.	SERS	S	45,900	Yes	None
12.	Conn.	TRS	T	42,026	No	-
13.	Del.	SEPP	S-T	25,136	Yes	Maximum Limit (75% F.A.S.)
14.	Flor.	FRS	S-L-T	382,968	Yes	None
15.	Geor.	ERS	S	51,759	Yes	None
16.	Geor.	TRS	T	110,000	Yes	None
17.	Haw.	ERS	S-L-T	48,868	Yes	None
18.	Idaho	ERS	S-L-T	40,722	Yes	None
19.	Ill.	SERS	S	79,130	Yes	None
20.	Ill.	TRS	T	104,121	No	-
21.	Ill.	MRF	L	104,842	Yes	None
22.	Ind.	PERS	S-L	128,117	Yes	None
23.	Ind.	STRF	T	66,870	Yes	None
24.	Iowa	PERS	S-L-T	152,000	Yes	None
25.	Kans.	PERS	S-L-T	86,238	Yes	None
26.	Ken.	ERS	S-L	40,483	Yes	None
27.	Ken.	TRS	T	42,198	No	-
28.	Lous.	SERS	S	68,231	No	-
29.	Maine	SRS	S-L-T	42,292	No	-
30.	Mary.	SRS	S-L-T	80,309	Yes	Step-Up Formula
31.	Mass.	ERS	S	76,012	No	-
32.	Mass.	TRS	T	76,000	No	-
33.	Mich.	ERS	S	63,300	Yes	None
34.	Mich.	MERS	L	29,528	Yes	Step-Up Formula
35.	Mich.	PSERS	T	305,000	Yes	None
36.	Minn.	MSRS	S & Elec.	48,200	Yes	None
37.	Minn.	PERS	L	85,249	Yes	None
38.	Minn.	TRA	T	65,189	Yes	None
39.	Miss.	PERS	S-L-T	122,303	Yes	None
40.	Mou.	SER	S	34,106	Yes	None
41.	Mou.	PSRS	T	55,707	No	-
42.	Mont.	PERS	S-L	34,000	Yes	None
43.	Mont.	TRS	T	13,000	Yes	None
44.	Nebr.	SERS	S	6,050	Yes	Step-Up M.P. Plan
45.	Nebr.	TRS	T	27,781	Yes	None

(State-S; Local-L; Teacher-T)

PUBLIC RETIREMENT SYSTEMS SURVEYED
(continued)

<u>No.</u>	<u>State</u>	<u>Fund</u>	<u>EE Coverage</u>	<u>Actives</u>	<u>SS Coverage</u>	<u>S.S. Integration</u>
46.	Nev.	PERS	S-L-T	43,437	No	-
47.	N.H.	NHRS	S-L-T	26,693	Yes	Offset Benefit - Age 65
48.	N.J.	PERS	S-L	205,038	Yes	None
49.	N.J.	TRS	T	111,987	Yes	None
50.	N.M.	PERA	S-L	25,540	Yes	None
51.	N.M.	TRA	T	41,204	Yes	None
52.	N.Y.	ERS	S-L	609,434	Yes	Offset Benefit
53.	N.Y.	TRS	T	203,330	Yes	Offset Benefit
54.	N.C.	TSERS	S-T	242,972	Yes	None
55.	N.C.	LGERS	L	66,123	Yes	None
56.	N.D.	PERS	S-L	9,481	Yes	None
57.	N.D.	TRF	T	10,282	Yes	None
58.	Ohio	PERS	S-L	258,559	No	-
59.	Ohio	STRS	T	179,733	No	-
60.	Okla.	PERS	S-L	37,599	Yes	None
61.	Okla.	TRS	T	54,764	Yes	None
62.	Oreg.	PERS	S-L-T	101,094	Yes	None
63.	Penn.	SERS	S	121,973	Yes	None
64.	Penn.	PSERS	T	216,333	Yes	None
65.	R.I.	ERS	S-T	27,394	Yes	None
66.	S.C.	SRS	S-L-T	231,069	Yes	Step-Up Formula (\$4,800)
67.	S.D.	SRS	S-L-T	26,854	Yes	Offset Benefit
68.	Tenn.	CRS	S-L-T	141,725	Yes	Step-Up Formula
69.	Tex.	ERS	S	94,477	Yes	None
70.	Tex.	TRS	T	388,458	Yes	None
71.	Tex.	MRS	L	56,231	Yes	None
72.	Utah	SRS	S-L-T	62,911	Yes	Maximum Limit (100% F.A.S.)
73.	Vert.	SRS	S	6,763	Yes	None
74.	Vert.	TRS	T	7,584	Yes	None
75.	Virg.	SRS	S-L-T	222,000	Yes	Offset F.A.S. (\$1,200)
76.	Wash.	PERS	S-L	113,202	Yes	None
77.	Wash.	TRS	T	47,064	Yes	None
78.	W.V.	PERS	S-L	34,106	Yes	None
79.	W.V.	TRS	T	49,747	Yes	None
80.	Wyom.	WRS	S-L-T	26,616	Yes	None
81.	Wis.	WRS	S-L-T	192,845	Yes	Maximum Limit (85% F.A.S.)
82.	Milw. City		L	14,381	Yes	Maximum Limit (85% F.A.S.)
83.	Milw. County		L	11,214	Yes	None
84.	Fed. Civ. S.		Federal	2.7 Mill.	No	-
85.	Soc. Sec.		All	91.4 Mill.	-	-

II. NORMAL AND EARLY RETIREMENT REQUIREMENTS

A. Retirement Requirements

Normal Requirements. Most public retirement systems require age and/or service minimums to qualify for retirement benefits without actuarial discount. Actually, most state plans have adopted multiple combinations of age and years of service such as 65 and 5 years; 62 and 10 years; 55 and 30 years. The requirements for the 80 pension plans surveyed is summarized on pages 7 and 8 of this report, along with the requirements for Wisconsin's WRS, the two Milwaukee funds, the Federal Civil Service and the OASDI program.

Age 62 Normal. Most of the discussion in Wisconsin concerning normal retirement has been relative to establishing an age 62 normal which is the earliest age at which participants may also retire under social security. Previous RRC surveys have noted the number of plans which permit normal retirement at age 62 with 10, 20, 30, and 35 years of service. This table updated to include the survey as of 1982 is as follows:

<u>Age & Service</u>	<u>S.R. #26</u> (1974)	<u>S.R. #34</u> (1976)	<u>S.R. #53</u> (1980)	<u>S.R. #60</u> (1982)
Systems permitting N.R. at 62 & 10 years	-	-	51%	52%
Systems permitting N.R. at 62 & 20 years	58%	65%	67%	65%
Systems permitting N.R. at 62 & 30 years	74%	80%	82%	82%
Systems permitting N.R. at 62 & 35 years	78%	85%	86%	86%

The above table clearly indicates that the majority of major public pension plans surveyed permit normal retirement at age 62 with 10 years of service, and that the percentage at 30 and 35 years of service includes more than four-fifths of the pension plans surveyed. Wisconsin's WRS has a normal retirement age of 65 without any specific service requirement.

X Years and Out. There is also a trend towards "X years and out" provisions in which participants may retire at any age after X number of years of service. Of the 80 pension plans surveyed, 36 plans (45% of the total) permit retirement at any age after X number of years of service as follows:

35 years and any age	--	10 plans
30 years and any age	--	24 plans
28 years and any age	--	1 plan
20 years and any age	--	1 plan

Early Retirement. The charts on pages 7 and 8 indicate that nearly all of the major pension plans surveyed permit retirement before the normal retirement age with actuarial discount. The majority of plans have established age 55 as the earliest retirement age possible, but some have used age 50 or 60. Some of the funds have adopted multiple age and service requirements for early retirement. The Wisconsin WRS permits early retirement at age 55 with actuarial discount, but the WRS does not require a minimum service period as is required by most other public funds. Hence, the WRS meets or exceeds the early retirement provisions of most other public pension plans.

Actuarial Discounts. The actuarial discounts applied for early retirement are to compensate for the longer pay-out period than the plans are normally funded for. The charts on pages 7 and 8 indicate that the actuarial discounts applied by the various pension plans vary greatly. A number of funds use a reduction table which often reflects the "actuarial equivalent" adjustment required so that there is no loss to the pension plan for early retirement. A number of funds have established by rule or statute a specific percentage for the discount, and for many, this is 6% or higher. On the other hand, the charts indicate that about 20% of the plans provide yearly discounts of 3% or less, which represents a policy of subsidizing early retirement. Wisconsin's WRS has adopted, by rule, a 6% discount for years between 60 and 65, and a 4.8% discount for years between 55 and 60.

WRS Requirements. The WRS clearly is more conservative than the majority of public pension plans surveyed in establishing a normal retirement age of 65, and in requiring a yearly discount which is at or close to the actuarial equivalent if retirement occurs before age 65. However, the WRS is more lenient than most plans in requiring no minimum service for early or normal retirement. The WRS also has two temporary plans in effect concerning early retirement. There is an election (subject to bargaining) for employers of teachers to provide benefits as if age 62 were the normal retirement age, but this plan terminates on June 30, 1984. In addition, there is an "age 62 plan" for state employees only, which terminates on June 30, 1983. For comparison purposes, the Milwaukee City and County plans have a normal retirement age of 60.

B. CHARTS - NORMAL AND EARLY RETIREMENT REQUIREMENTS

No.	State	Fund	EE Coverage	Normal Retire. Requirements	E.R. Require.	Actuarial Discount
1.	Alab.	ERS	S-L	60 & 10y; X & 30y	None	-
2.	Alab.	TRS	T	60 & 10y; X & 30y	None	-
3.	Alas.	PERS	S-L	55 & 5y; X & 30y	50 & vested	6%
4.	Alas.	TRS	T	55 & 8y; X & 20y	50 & vested	6%
5.	Ariz.	SRS	S-L-T	65 & Xy; 62 & 10y; 60 & 25y	50 & 5y	3%/5%
6.	Arka.	PERS	S-L	65 & 10y; 55 & 35y	55 & 10y	Table
7.	Arka.	TRS	T	60 & 10y; X & 35y	X & 25y	1%
8.	Cal.	PERS	S-L	60 & 5y	50 & 5y	Table
9.	Cal.	TRS	T	60 & 5y	55 & 5y; 50 & 30y	6%
10.	Col.	PERS	S-L-T	60 & 20y; 55 & 30y; 65 & 5y	55 & 20y; 60 & 5y	6%
11.	Conn.	SERS	S	55 & 25y; 65 & 10y; 70 & 5y	55 & 10y	Table
12.	Conn.	TRS	T	60 & 20y; X & 35y	60 & 10y; X & 25y	6%
13.	Del.	SEPP	S-T	62 & 10y; 60 & 15y; X & 30y	55 & 15y	4.8%
14.	Flor.	FRS	S-L-T	62 & 10y; X & 30y	X & 10y	5%
15.	Geor.	ERS	S	65; X & 30y	60 & 5y	5%
16.	Geor.	TRS	T	62 & 10y; X & 30y	60 & 10y	3%
17.	Haw.	ERS	S-L-T	55 & 5y	X & 25y	5%
18.	Idaho	ERS	S-L-T	65 & 5y; 60 & 30y	55 & 5y	Table
19.	Ill.	SERS	S	60 & 8y; X & 35y	55 & 30y	6%
20.	Ill.	TRS	T	62 & 5y; 60 & 10y; 55 & 35y	55 & 20y	6%
21.	Ill.	MRF	L	60 & 8y; 55 & 35y	55 & 8y	6%
22.	Ind.	PERS	S-L	65 & 10y	50 & 15y	1.1%/5%
23.	Ind.	STRF	T	65 & 10y	50 & 15y	1.2%
24.	Iowa	PERS	S-L-T	65	55	3%/6%
25.	Kans.	PERS	S-L-T	65	60 & 10y	7.2%
26.	Ken.	ERS	S-L	65 & 4y; X & 30y	55 & 5y	5%
27.	Ken.	TRS	T	X & 30y; 60 & 5y	55 & 5y	5%
28.	Lous.	SERS	S	60 & 10y; 55 & 25y; X & 30y	None	None
29.	Maine	SRS	S-L-T	60 & X years	X & 25y	Table
30.	Mary.	SRS	S-L-T	62 & 5y; X & 30y	55 & 15y	6%
31.	Mass.	ERS	S	65 & 10y	55 & Xy; X & 20y	Table
32.	Mass.	TRS	T	65 & 10y	55 & Xy; X & 20y	Table
33.	Mich.	ERS	S	60 & 10y; 55 & 30y	55 & 15y	6%
34.	Mich.	MERS	L	60 & 10y	55 & 15y	6%
35.	Mich.	PSERS	T	60 & 10y; 55 & 30y	55 & 15y	6%
36.	Minn.	MSRS	S & Elec.	65 & 10y; 62 & 30y	58 & 20y; 62 & 10y	Table
37.	Minn.	PERS	L	65 & 10y; 62 & 30y	58 & 20y; 62 & 10y	Table
38.	Minn.	TRA	T	65 & 10y; 62 & 30y	55 & 10y	6%/3%
39.	Miss.	PERS	S-L-T	65 & X yrs; X & 30y	60 & 10y	3%
40.	Mou.	SER	S	65 & 4y; 60 & 15y	55 & 15y	Table
41.	Mou.	PSRS	T	60 & 5y; X & 30y	X & 25y	Table
42.	Mont.	PERS	S-L	60 & 5y; 65 & X; X & 30y	55 & 5y	Table
43.	Mont.	TRS	T	60 & 5y; X & 30y	50 & 5y	6%/3%
44.	Nebr.	SERS	S	65 & X yrs.	60	Table
45.	Nebr.	TRS	T	65 & 5y; X & 35y	60 & 5y	Table

(Years - Y; Any - X)

NORMAL AND EARLY RETIREMENT REQUIREMENTS
(continued)

<u>No.</u>	<u>State</u>	<u>Fund</u>	<u>EE Cov.</u>	<u>Normal Retire. Requirements</u>	<u>Early Ret. Req.</u>	<u>Actuarial Discount</u>
46.	Nev.	PERS	S-L-T	60 & 10y; 55 & 30y	X & 10 y.	6%
47.	N.H.	NHRS	S-L-T	60 & X yrs.	50 & 10y	6 2/3%
48.	N.J.	PERS	S-L	60; 55 & 25y; X & 35y	X & 25y	3%
49.	N.J.	TRS	T	60; 55 & 25y	X & 25y	3%
50.	N.M.	PERA	S-L	X & 30y; 60 & 20y; 65 & 5y	X & 25y	4.8%
51.	N.M.	TRA	T	65 & 5y; 60 & 15y; X & 35y	X & 25y	4.8%
52.	N.Y.	ERS	S-L	62 & 20y	55 & 10y	Table
53.	N.Y.	TRS	T	62 & 20y; 55 & 30y	55 & 10y	Table
54.	N.C.	TSERS	S-T	65; X & 30y	50 & 20y; 60 & X yr	5%/6%/3%
55.	N.C.	LGERS	L	65; X & 30y	50 & 20y; 60 & X yr	5%/6%/3%
56.	N.D.	PERS	S-L	65	55 & 10y	6%
57.	N.D.	TRF	T	65 & 10y; 60 & 35y	55 & 10y	6%
58.	Ohio	PERS	S-L	65 & 5y; X & 30y	55 & 25y; 60 & 5y	Table
59.	Ohio	STRS	T	60 & 5y; X & 30y	55 & 25y	Table
60.	Okla.	PERS	S-L	62 & X; 58 & 30y	55 & 10y	6.72%
61.	Okla.	TRS	T	62 & 10y; 55 & 30y	58 & 10y; X & 30y	Table
62.	Oreg.	PERS	S-L-T	58 & any; 55 & 30y	55	8%
63.	Penn.	SERS	S	60 & 3y; X & 35y	10y	Table
64.	Penn.	PSERS	T	62 & X; 60 & 30y; X & 35y	55 & 25y	3%
65.	R.I.	ERS	S-T	55 & 30y; 60 & 10y; X & 35y	X & 30y	6%
66.	S.C.	SRS	S-L-T	65; X & 30 yrs.	60	5%
67.	S.D.	SRS	S-L-T	65 & 5y	55 & 5y	3%
68.	Tenn.	CRS	S-L-T	60 & X yrs.; X & 30y	55 & 4y	4.8%
69.	Tex.	ERS	S	60 & 10y; 55 & 30y	55 & 25y; 50 & 30y	Table
70.	Tex.	TRS	T	65 & 10y; 60 & 20y; age + y = 95	55 & 10y	Table
71.	Tex.	MRS	L	50 & 25y; X & 28y; 60 & 15y	?	?
72.	Utah	SRS	S-L-T	65 & 4y; X & 30y	62 & 10y; 60 & 20y	3%
73.	Vert.	SRS	S	65; 62 & 20y	55 & 10y; X & 30y	Table
74.	Vert.	TRS	T	60 & X yr; X & 30y	55 & X	Table
75.	Virg.	SRS	S-L-T	65 & X yr; 60 & 30y	55 & 5y; 60 & X yr.	6%
76.	Wash.	PERS	S-L	65 & 5y	55 & 20y	7%
77.	Wash.	TRS	T	65 & 5y	55 & 20y	7%
78.	W.V.	PERS	S-L	60 & 5y	55 & 10y	Table
79.	W.V.	TRS	T	60 & 5y; 55 & 30y; X & 35y	55 & 10y	Table
80.	Wyom.	WRS	S-L-T	60 & 4y	50 & 4y	?
81.	Wis.	WRS	S-L-T	65 & any	55 & any	6%/4.8%
82.	Milw. City		L	60	-	-
83.	Milw. County		L	60 & X; 55 & 30y	55 & 15y	5%
84.	Fed. Civ. Se.	Federal		62 & 5y; 60 & 20y; 55 & 30y	50 & 20y; x & 25y	2%
85.	Soc. Sec.		All	65	62	6.67%

III. VESTING AND CONTRIBUTION REQUIREMENTS

A. Provision Description

Vesting. The term "vesting" is usually defined as an employee's right to receive a pension benefit after meeting the age requirements of the plan regardless of whether the employee remains in the service of the employer. The vesting requirements for the plans surveyed are reflected in the charts on pages 11 and 12, and can be summarized as follows:

5 years of less required	32 plans	40.0% of total
6-10 years required	46 plans	57.5% of total
Over 10 years required	2 plans	2.5% of total
<hr/>		
TOTAL ~	80 plans	100.0%

Wisconsin's WRS is unique among all the plans surveyed in that the WRS vests immediately. This literally means that if an employee terminates with even one year of service, the employee has a vested right to a pension benefit payable at normal or early retirement.

Soc. Sec. Contributions. Except for the self-employed and a few other groups, the OASDHI program is financed by equal contributions from the employees and employers involved. The contribution rate in 1982 is 6.7% on a wage base of \$32,400, payable by both the employee and employer. Both the rate of contribution and the salary base to which the rate is applied have been increasing over time, which is partially reflected in the following 5-year table:

<u>Year</u>	<u>EE/ER Rate</u>	<u>Wage Base</u>
1978	6.05%	\$17,700
1979	6.13%	22,900
1980	6.13%	25,900
1981	6.65%	29,700
1982	6.70%	32,400

The contribution rate is projected to increase to 7.65% by 1990, applied to an earnings base that will be increased as average earnings in the country increase. Although often discussed, the employer rarely "picks up" the required employee contributions to social security. RRC staff is aware of only one state where this has been attempted in the public sector--Texas. The reason that there is little employer "pick-up" is that any such "pick-up" of employee contributions are deemed additions to gross wages resulting in little or no advantage to the employees and employers involved.

Employee Contributions. Although most pension plans in the private sector are non-contributory, most public pension plans require employee contributions. The employee contributions information found on pages 11 and 12 may be summarized as follows:

Employee rate over 5%	38 plans	47.5%
Employee rate of 0-5%	33 plans	41.3%
Employee rate variable (age)	2 plans	2.5%
<u>Non-contributory</u>	<u>7 plans</u>	<u>8.7%</u>
TOTALS	80 plans	100.0%

Of the 80 plans surveyed which require contributions, two plans (Illinois and Oregon) permit the employer to "pick-up" the required employee contributions. Wisconsin's WRS also permits the employer to "pick-up" employee contributions at the local level, and establishes by statute a 4% "pick-up" for state employees under the WRS. A recent DETF survey indicated that about 94% of all employee contributions to the WRS are, in fact, paid by the employer under the "pick-up" provisions. It should also be noted that 13 of the plans requiring contributions of 5% or more are plans that do not have social security coverage and the accompanying required contributions.

Employer Contributions. The data reflected in the charts on pages 11 and 12 relative to employer contributions is somewhat incomplete and confusing. Often, employer contributions in the annual reports for the various plans are stated in dollars instead of as a percentage of payroll. Also, the employer cost usually varies each year depending upon the results of periodic actuarial valuations of the plan's benefit program. Also, the total employer costs may include several categories of charges such as the payment of administrative costs, the normal cost of the retirement plan, amortization charges, and payments for ad hoc benefit increases for those already retired. The employer costs for Wisconsin's WRS are determined each year by Board action based upon current actuarial analysis, plus an amortization charge expressed as a level percent of payroll. The administrative costs of the WRS are charged against investment income from the DETF trust funds.

B. CHARTS — CONTRIBUTION & VESTING REQUIREMENTS

No.	State	Fund	Soc. Sec.	E.E. Retirement Contribution	E.R. Retirement Contribution	Vesting Period
1.	Alab.	ERS	Yes	5%	10.23 %	10 yrs.
2.	Alab.	TRS	Yes	5%	12.5%	10 yrs.
3.	Alas.	PERS	No	4.25%	13.78%	5 yrs.
4.	Alas.	TRS	No	7%	7% + 7% - State & school	8 yrs.
5.	Ariz.	SRS	Yes	7%	7% - matching	5 yrs.
6.	Arka.	PERS	Yes	Non-contributory	12% +	10 yrs.
7.	Arka.	TRS	Yes	6%	12.9%	10 yrs.
8.	Cal.	PERS	Yes	5% - 7%	Varies by contract	5 yrs.
9.	Cal.	TRS	No	8%	8% - matching	5 yrs.
10.	Col.	PERS	No	7 3/4%	12.2% average	5 yrs.
11.	Conn.	SERS	Yes	5%	?	10 yrs.
12.	Conn.	TRS	No	6%	?	10 yrs.
13.	Del.	SEPP	Yes	3%/5% (split)	14.2%	10 yrs.
14.	Flor.	FRS	Yes	Non-contributory	10.93%	10 yrs.
15.	Geor.	ERS	Yes	.25%	?	10 yrs.
16.	Geor.	TRS	Yes	6%	11.71%	10 yrs.
17.	Haw.	ERS	Yes	7.8%	23.47%	5 yrs.
18.	Idaho	ERS	Yes	5.01%	9.5%	5 yrs.
19.	Ill.	SERS	Yes	4% - pick-up allowed	7.5%	8 yrs.
20.	Ill.	TRS	No	8% gross	?	5 yrs.
21.	Ill.	MRF	Yes	4 1/2%	?	8 yrs.
22.	Ind.	PERS	Yes	3%	?	10 yrs.
23.	Ind.	STRF	Yes	3%	?	10 yrs.
24.	Iowa	PERS	Yes	3.7%	5.75%	4 yrs.
25.	Kans.	PERS	Yes	4%	5.2%	10 yrs.
26.	Ken.	ERS	Yes	4%	7.25%	5 yrs.
27.	Ken.	TRS	No	7.84%	11.9%	5 yrs.
28.	Lous.	SERS	No	7%	9%	10 yrs.
29.	Maine	SRS	No	6.5%	12.78%	10 yrs.
30.	Mary.	SRS	Yes	5% over S.S. base	5.16%	5 yrs.
31.	Mass.	ERS	No	5%-7%	?	10 yrs.
32.	Mass.	TRS	No	5%-7%	?	10 yrs.
33.	Mich.	ERS	Yes	Non-contributory	?	10 yrs.
34.	Mich.	MERS	Yes	5%	?	10 yrs.
35.	Mich.	PSERS	Yes	Non-contributory	5% +	10 yrs.
36.	Minn.	MSRS	Yes	4%	4% plus amortization	10 yrs.
37.	Minn.	PERS	Yes	4%	4% plus amortization	10 yrs.
38.	Minn.	TRA	Yes	4.5%	4 1/2 + amortization	10 yrs.
39.	Miss.	PERS	Yes	6%	8.75%	10 yrs.
40.	Mou.	SER	Yes	Non-contributory	?	10 yrs.
41.	Mou.	PSRS	No	9.5%	9.5% - Matching	10 yrs.
42.	Mont.	PERS	Yes	6%	6.2%	5 yrs.
43.	Mont.	TRS	Yes	6 3/16%	6.46%	5 yrs.
44.	Nebr.	SERS	Yes	3%/6% (split)	?	5 yrs.
45.	Nebr.	TRS	Yes	3 1/2%	?	5 yrs.

CONTRIBUTION & VESTING REQUIREMENTS
(continued)

<u>No.</u>	<u>State</u>	<u>Fund</u>	<u>Soc. Sec.</u>	<u>E.E. Retirement Contribution</u>	<u>E.R. Retirement Contribution</u>	<u>Vesting Period</u>
46.	Nev.	PERS	No	Non-contributory	15%	10 yrs.
47.	N.H.	NHRS	Yes	4.6%/9.2% (split)	?	10 yrs.
48.	N.J.	PERS	Yes	Variable by age	?	15 yrs.
49.	N.J.	TRS	Yes	Variable by age	?	15 yrs.
50.	N.M.	PERA	Yes	6.15%	6.15% - matching	5 yrs.
51.	N.M.	TRA	Yes	6.5%	6.5% - matching	5 yrs.
52.	N.Y.	ERS	Yes	3%	8.8%	10 yrs.
53.	N.Y.	ERS	Yes	3%	?	10 yrs.
54.	N.C.	TSERS	Yes	6%	9.92%	5 yrs.
55.	N.C.	LGERS	Yes	6%	?	5 yrs.
56.	N.D.	PERS	Yes	4%	5.12%	10 yrs.
57.	N.D.	TRF	Yes	6.25%	6.25% - matching	10 yrs.
58.	Ohio	PERS	No	8.5%	13.95%	5 yrs.
59.	Ohio	STRS	No	8.5%	13.5%	5 yrs.
60.	Okla.	PERS	Yes	5%	14%	10 yrs.
61.	Okla.	TRS	Yes	5%	?	10 yrs.
62.	Oreg.	PERS	Yes	6% (pickup allowed)	?	5 yrs.
63.	Penn.	SERS	Yes	5%	14.67%	10 yrs.
64.	Penn.	PSERS	Yes	5 1/4%	16%	10 yrs.
65.	R.I.	ERS	Yes	6%-7%	11.3 (S) to 14.6% (T)	10 yrs.
66.	S.C.	SRS	Yes	4%/6% (split)	7%	5 yrs.
67.	S.D.	SRS	Yes	5%	?	5 yrs.
68.	Tenn.	CRS	Yes	Non-contributory	?	10 yrs.
69.	Tex.	ERS	Yes	6% gross	8%	10 yrs.
70.	Tex.	TRS	Yes	6.65%	8 1/2%	10 yrs.
71.	Tex.	MRS	Yes	5% gross	5% - matching+	10 yrs.
72.	Utah	SRS	Yes	8.95%	8.95% - matching	-
73.	Vert.	SRS	Yes	5%	7.07%	10 yrs.
74.	Vert.	TRS	Yes	5.5%	8.7%	10 yrs.
75.	Virg.	SRS	Yes	5%	4.67 (S) to 7.33% (T)	5 yrs.
76.	Wash.	PERS	Yes	5.51%	?	5 yrs.
77.	Wash.	TRS	Yes	6.4%	?	5 yrs.
78.	W.V.	PERS	Yes	4.5%	9.5% (S) to 10.5% (L)	5 yrs.
79.	W.V.	TRS	Yes	6%	?	5 yrs.
80.	Wyom.	WRS	Yes	5.57%	5.57% - matching	4 yrs.
81.	Wis.	WRS	Yes	5%	5.5% + amortization	0 yrs.
82.	Milw.	City	Yes	5 1/2% (ER-picked up)	9.3%	4 yrs.
83.	Milw.	County	Yes	Non-contributory	21.1%	10 yrs.
84.	Fed.	C.S.	No	7%	26% +	5 yrs.
85.	Soc. Sec.	-	-	6.7%	6.7%	-

IV. POST-RETIREMENT ADJUSTMENTS AND TAXES

A. Post-Retirement Provisions

Social Security. Beginning in 1975, benefits under social security have been automatically adjusted according to changes in the CPI. If the CPI for a particular base quarter increases by at least 3% from what it was in the previous base quarter, the benefits then paid are increased by the percent rise effective the next following June. The automatic adjustments that have come into effect in the most recent five-year period are as follows:

<u>Year</u>	<u>Percent</u>
1978	6.5%
1979	9.9%
1980	14.3%
1981	11.2%
1982	7.4%

Hence, to the degree that the social security program is part of the total retirement planning for a particular system, at least that part keeps pace with inflation. In addition, social security benefits are not subject to either state or Federal taxes, which increases the value on a net vs. gross analysis.

Post-Retirement Increases. With the runaway inflation of the 1970 decade, the "number one" problem of most public pension plans was to protect the purchasing power of the benefits paid. Most public retirement systems have now adopted various "automatic" plans for increasing benefits which may be directly or indirectly linked to inflation. The types of post-retirement increase plans are noted on pages 15 and 16, and can be summarized as follows:

-Increases based on CPI changes (usually with cap)	34 plans	42.5%
- Annual automatic increases	10 plans	12.5%
- Increases based on investment returns	3 plans	3.75%
- Board or employer discretion	2 plans	2.5%
- Ad Hoc Increases	31 plans	38.75%

The table above notes that 58.75% of the plans surveyed provide an automatic post-retirement increase in benefits which participants may rely upon in their retirement planning. On the other hand, 38.75% of the plans provide only Ad Hoc increases which allows an employer advantage of determining when increases will be paid based upon the funding available. Wisconsin's WRS uses the so-called "dividend" process for providing benefit increases after retirement. This process

relies upon the generation of surplus earnings on those assets dedicated to pay annuities in force. The WRS presumably will be able to pay increases in the 5%-6% range annually for the next several years--a rate which exceeds the CPI or annual automatic provisions of most other public pension plans. Hence, the WRS is now providing equal or greater protection during the post-retirement years than the majority of plans surveyed.

State Taxes. In establishing the goals for a retirement plan, the desired level of retirement benefits partially depends on the tax status at the state and Federal level of the benefits paid. As to Federal taxes, the amount of benefits provided by the employer and investment earnings which have not been previously taxed will be included as income for Federal tax purposes. Employee contributions to the retirement plan have already been subject to Federal tax and are not taxed again. Concerning state income tax laws, the majority of states either exempt benefits (totally or partially) that are payable from the public retirement systems of that state, or have no personal income tax law. The tax provisions for each plan noted on pages 15 and 16 may be summarized as follows:

No income tax law	15 plans	18.73% of total
Benefits totally exempt	35 plans	43.75% of total
Benefits partially exempt	14 plans	17.5% of total
Benefits taxable	16 plans	20.02% of total
TOTAL	80 plans	100.0%

Hence, this survey indicates that the majority of states do not tax part or all of the pension benefits payable from the public retirement system, and presumably may provide lower benefits and still maintain the replacement goal for that system.

Wisconsin Tax Laws. Section 71.03 (2)(d) of Wisconsin statutes provides an exemption for participants of some of the public retirement systems of the state, but no tax exemption for participants of others. This section of law states that participants of Milwaukee pension funds and the State Teachers Retirement System (STRS) who were participants on Dec. 31, 1963, (active or retired) shall have their benefits excluded from state income tax considerations. All other participants including those who are participants of the old WRF and those hired after December 31, 1963, receive no tax exemption on their pension benefits. Those that are covered by this "grandfather clause" receive a significant advantage not extended to other public employees of the state, and yet there is no difference reflected in the calculation of benefits to recognize this advantage.

POST-RETIREMENT INCREASES & STATE TAX PROVISIONS

No.	State	Fund	Soc. Sec.	Post-Retirement Increases	State Taxes
1.	Alab.	ERS	Yes	Ad Hoc increases only	Benefits exempt
2.	Alab.	TRS	Yes	Ad Hoc increases only	Benefits exempt
3.	Alas.	PERS	No	CPI adjustments-4% cap	No income tax law
4.	Alas.	TRS	No	CPI adjustments-4% cap	No income tax law
5.	Ariz.	SRS	Yes	Ad Hoc increases only	Benefits exempt
6.	Arka.	PERS	Yes	Automatic 3% annual adjustment	Exempt to \$6,000
7.	Arka.	TRS	Yes	CPI adjustments-3% cap	Benefit exempt
8.	Cal.	PERS	Yes	Automatic 2% annual adjustment	Benefits taxable
9.	Cal.	TRS	No	Automatic 2% annual adjustment	Benefits taxable
10.	Col.	PERS	No	CPI adjustments-3% cap	Benefits exempt
11.	Conn.	SERS	Yes	CPI adjustments-3% cap	No income tax law
12.	Conn.	TRS	No	CPI adjustments-5% cap	No income tax law
13.	Del.	SEPP	Yes	Ad Hoc increases only	Exempt to \$2,000
14.	Flor.	FRS	Yes	CPI adjustments-3% cap	No income tax law
15.	Geor.	ERS	Yes	CPI adjustments-3% cap	Benefits exempt
16.	Geor.	TRS	Yes	CPI adjustments-3% cap	Benefits exempt
17.	Haw.	ERS	Yes	Automatic 2 1/2% annual increase	Benefits exempt
18.	Idaho	ERS	Yes	1%-6% annual--Board discretion	Benefits taxable
19.	Ill.	SERS	Yes	Automatic 3% annual increase	Benefits exempt
20.	Ill.	TRS	No	Automatic 3% annual increase	Benefits exempt
21.	Ill.	MRF	Yes	Automatic 2% increase	Benefits exempt
22.	Ind.	PERS	Yes	Ad Hoc increases only	Benefits taxable
23.	Ind.	STRF	Yes	Ad Hoc increases only	Benefits taxable
24.	Iowa	PERS	Yes	Ad Hoc increases only	Benefits exempt
25.	Kans.	PERS	Yes	Ad Hoc increases only	Benefits exempt
26.	Ken.	ERS	Yes	Ad Hoc increases only	Benefits exempt
27.	Ken.	TRS	No	Automatic 1% annual increase	Benefits exempt
28.	Lous.	SERS	No	CPI adjustments-3% cap	Benefits exempt
29.	Maine	SRS	No	CPI adjustments-4% cap	Benefits taxable
30.	Mary.	SRS	Yes	CPI adjustments-3% cap	Exempt to \$6,400
31.	Mass.	ERS	No	CPI adjustments-3% cap	Benefits exempt
32.	Mass.	TRS	No	CPI adjustments-3% cap	Benefits exempt
33.	Mich.	ERS	Yes	Ad Hoc increases only	Exempt to \$10,000 - jt.
34.	Mich.	MERS	Yes	CPI adjustments-2.5% cap	Exempt to \$10,000 - jt.
35.	Mich.	PSERS	Yes	Employer option	Exempt to \$10,000 - jt.
36.	Minn.	MSRS	Yes	Investment return increases	Exempt to \$11,000
37.	Minn.	PERS	Yes	Investment return increases	Exempt to \$11,000
38.	Minn.	TRA	Yes	Investment return increases	Exempt to \$11,000
39.	Miss.	PERS	Yes	1/2 CPI adjustments-2 1/2% cap	Benefits exempt
40.	Mou.	SER	Yes	Automatic 4% annual increase	Benefits taxable
41.	Mou.	PSRS	No	CPI adjustments-4% cap	Benefits taxable
42.	Mont.	PERS	Yes	Ad Hoc increases only	Benefits exempt
43.	Mont.	TRS	Yes	Ad Hoc increases only	Benefits exempt
44.	Nebr.	SERS	Yes	Ad Hoc increases only	Benefits taxable
45.	Nebr.	TRS	Yes	Ad Hoc increases only	Benefits taxable

POST-RETIREMENT INCREASES AND STATE TAX PROVISIONS
(continued)

<u>No.</u>	<u>State</u>	<u>Fund</u>	<u>Soc. Sec.</u>	<u>Post-Retirement Increases</u>	<u>State Taxes</u>
46.	Nev.	PERS	No	Ad Hoc increases only	No income tax law
47.	N.H.	NHRS	Yes	Ad Hoc increases only	No income tax law
48.	N.J.	PERS	Yes	60% of CPI adjustments	Exempt to \$10,000 - jt.
49.	N.J.	TRS	Yes	66% of CPI adjustments	Exempt to \$10,000 - jt.
50.	N.M.	PERA	Yes	CPI adjustments-2% cap	Benefits exempt
51.	N.M.	TRA	Yes	CPI adjustments-2% cap	Benefits exempt
52.	N.Y.	ERS	Yes	CPI adjustments-3% cap	Benefits exempt
53.	N.Y.	ERS	Yes	CPI adjustments-3% cap	Benefits exempt
54.	N.C.	TSERS	Yes	CPI adjustments-4% cap	Benefits exempt
55.	N.C.	LGERS	Yes	Ad Hoc increases only	Benefits exempt
56.	N.D.	PERS	Yes	Ad Hoc increases only	Benefits taxable
57.	N.D.	TRF	Yes	Ad Hoc increases only	Benefits taxable
58.	Ohio	PERS	No	CPI adjustments-3% cap	Exempt to \$4,000
59.	Ohio	STRS	No	CPI adjustments-3% cap	Exempt to \$4,000
60.	Okla.	PERS	Yes	Ad Hoc increases only	Benefits exempt
61.	Okla.	TRS	Yes	Ad Hoc increases only	Benefits exempt
62.	Oreg.	PERS	Yes	CPI adjustments-2% cap	Benefits exempt
63.	Penn.	SERS	Yes	Ad Hoc increases only	Benefits exempt
64.	Penn.	PSERS	Yes	Ad Hoc increases only	Benefits exempt
65.	R.I.	ERS	Yes	Automatic 3% annual increase	Benefits taxable
66.	S.C.	SRS	Yes	CPI adjustments-4% cap	Benefits exempt
67.	S.D.	SRS	Yes	50% of CPI adjustments-3% cap	No income tax law
68.	Tenn.	CRS	Yes	CPI adjustments-3% cap	No income tax law
69.	Tex.	ERS	Yes	Ad Hoc increases only	No income tax law
70.	Tex.	TRS	Yes	Ad Hoc increases only	No income tax law
71.	Tex.	MRS	Yes	Ad Hoc increases only	No income tax law
72.	Utah	SRS	Yes	CPI adjustments-4% cap	Exempt to \$6,000
73.	Vert.	SRS	Yes	CPI adjustments-5% cap	Benefits taxable
74.	Vert.	TRS	Yes	CPI adjustments-5% cap	Benefits taxable
75.	Virg.	SRS	Yes	CPI adjustments-5% cap	Benefits taxable
76.	Wash.	PERS	Yes	Ad Hoc increases only	No income tax law
77.	Wash.	TRS	Yes	Ad Hoc increases only	No income tax law
78.	W.V.	PERS	Yes	Ad Hoc increases only	Benefits exempt
79.	W.V.	TRS	Yes	Ad Hoc increases only	Benefits exempt
80.	Wyom.	WRS	Yes	Ad Hoc increases only	No income tax law
81.	Wis.	WRS	Yes	Investment return increases	Teachers exempt
82.	Milw. City		Yes	Ad Hoc only	Benefits exempt
83.	Milw. County		Yes	Automatic 2% annual increase	Benefits exempt
84.	Fed. Civ. Se.		No	CPI adjustments-no cap	-
85.	Soc. Sec.		-	CPI adjustments-no cap	Benefits exempt

V. RETIREMENT BENEFIT CALCULATIONS

A. Calculation Provisions

Final Average Salary. Most public pension plans may be defined as "final average salary plans" because they base their calculations on the highest earnings over a specified period. Final average salary plans, thusly, provide a great deal of protection against inflation, at least during the working careers. The FAS periods used by the various plans surveyed are reflected on pages 19 and 20, and may be summarized as follows:

2-year FAS periods	2 plans	2.50%
3-year FAS periods	36 plans	45.0%
4-year FAS periods	5 plans	6.25%
5-year FAS periods	35 plans	43.75%
Money purchase plans	<u>2 plans</u>	<u>2.50%</u>
	80 plans	100.0%

This summary indicates that the majority of plans use a three or five-year period for determining the highest average salary for benefit calculation purposes. Most plans also require that the high years be consecutive, and may also require that the years be within the last five or ten-year period. Wisconsin's WRS uses a three-high year average with no requirement that they be consecutive or within the last X number of years. Hence, the WRS meets or exceeds the majority of other public retirement systems relative to the final average salary period.

Limitations. The charts on pages 19 and 20 also reflect that many plans establish some limit on benefits that may be payable. The limits may be based upon integration with social security, a maximum number of creditable years that may be recognized, a maximum salary level for benefit calculation purposes, or a maximum expressed as a percentage of final average salary--with or without inclusion of social security benefits. Wisconsin's WRS has no maximum as to years of service or recognized salary, but it does have a maximum of 85% of final average salary, including the primary social security benefit.

Benefit Formulas. The chart on pages 19 and 20 also reflects the benefit formulas of the surveyed funds. The stars before the benefit formula indicate those plans which do not have social security, and hence, presumably provide a higher benefit to compensate for that lack. Looking primarily at those plans with social security coverage, the formulas indicate that the majority of plans provide a multiplier of 1.5% per year or higher. Wisconsin's WRS uses a multiplier of 1.3% per each year of service, and this results in benefits which rank in the lowest quartile of those pension plans surveyed which have social security. Actual calculations were carried out in Staff Report #57 (1980) reflecting three salary levels (low, medium, high), three lengths of service (25,30,35 years), and two ages at retirement (62 and 65). The following is the "comparative ranking" table which was found on page 7 of the 1980 report, reflecting the percent of surveyed funds providing higher benefits than the WRS.

COMPARATIVE RANKING -- 1974-1976-1980

<u>Variables</u>	<u>Funds Higher in 1974</u>	<u>Funds Higher in 1976</u>	<u>Funds Higher in 1980</u>
20 yrs. & low FAS	73%	76%	79%
20 yrs. & medium FAS	75%	79%	79%
20 yrs. & high FAS	80%	79%	79%

30 yrs. & low FAS	72%	74%	81%
30 yrs. & medium FAS	77%	76%	81%
30 yrs. & high FAS	80%	76%	81%

35 yrs. & low FAS	70%	73%	76%
35 yrs. & medium FAS	75%	75%	76%
35 yrs. & high FAS	78%	81%	76%

In fact, several pension plans have improved their benefit formulas since the 1980 survey including Georgia, Iowa, North Carolina, Oregon, and South Dakota. Hence, the WRS ranking would even be lower in 1982. It would appear that only benefit plans in Kansas, Maryland, Missouri, Nebraska, and North Dakota may provide lower benefits than the WRS.

B. CHART - FINAL AVERAGE PERIODS - FORMULAS - LIMITATIONS

No.	State	Fund	FAS Period	Benefit Formula	Limitation
1.	Alab.	ERS	3H-10	2.0125% x yrs. x FAS	None
2.	Alab.	TRS	3H-10	2.0125% x yrs. x FAS	None
3.	Alas.	PERS	3H-C	*2% x yrs. x FAS	None
4.	Alas.	TRS	3H	*2% x yrs. x FAS	None
5.	Ariz.	SRS	5H-10	2% x yrs. x FAS	None
6.	Arka.	PERS	5H-10	1.625% x yrs. x FAS - partial S.S.	100% FAS including S.S.
7.	Arka.	TRS	5H	1.59% x yrs. x FAS	None
8.	Cal.	PERS	3H-C	2.418% - age 65 x yrs. x FAS	FAS-\$133.33 @ month
9.	Cal.	TRS	3H-C	*2% x yrs. x FAS	None
10.	Col.	PERS	3H	*2.5% x 20 yrs. + 1% x remaining yrs.	70% FAS
11.	Conn.	SERS	3H	2% x yrs. x FAS	None
12.	Conn.	TRS	3H	*2% x yrs. x FAS	75% of FAS
13.	Del.	SEPP	5H	1.6% x yrs. x FAS	75% FAS including S.S.
14.	Flor.	FRS	5H	1.68% (age 65) x yrs. x FAS	None
15.	Geor.	ERS	2H	Benefit tables	None
16.	Geor.	TRS	2H-C	1.92% x yrs. x FAS	40 years credit
17.	Haw.	ERS	5H	2% x yrs. x FAS	None
18.	Idaho	ERS	5H	1.67% x yrs. x FAS	None
19.	Ill.	SERS	4H-C	1% x 1st 10 yr. to 1.5% yrs. over 30	75% FAS
20.	Ill.	TRS	4H-C	*1.67% x 1st 10 yr. to 2.3% x yrs. over 30	75% FAS
21.	Ill.	MRF	4H	Calculation tables	75% FAS
22.	Ind.	PERS	5H	1.1% x yrs. x FAS + ee annuity	None
23.	Ind.	STRF	5H	1.1% x yrs. x FAS + ee annuity	None
24.	Iowa	PERS	5H	1.67% x yrs. x FAS	30 yrs. + \$20,000 sal. max
25.	Kans.	PERS	5H	1.25% x yrs. x FAS	None
26.	Ken.	ERS	5H	1.6% x yrs. x FAS	None
27.	Ken.	TRS	5H	*2% x yrs. x FAS	None
28.	Lous.	SERS	3H-C	*2.5% x yrs. x FAS	100% FAS
29.	Maine	SRS	3H	*2% x yrs. x FAS	None
30.	Mary.	SRS	3H-C	(.8% x SS + 1.5% over SS) x yrs.	None
31.	Mass.	ERS	3H	*2.5% (age 65) x yrs. x FAS	85% FAS
32.	Mass.	TRS	3H	*2.5% (age 65) x yrs. x FAS	85% FAS
33.	Mich.	ERS	5H	1.5% x yrs. x FAS	None
34.	Mich.	MERS	5H-C	Cafeteria System	None
35.	Mich.	PSERS	5H-C	1.5% x yrs. x FAS	None
36.	Minn.	MSRS	5H-C	1%-first 10 yrs; 1.5%-added yrs.	40 years
37.	Minn.	PERS	5H-C	1%-first 10 yrs; 1.5%-added yrs.	40 years
38.	Minn.	TRA	5H-C	1%-first 10 yrs; 1.5%-added yrs.	40 years
39.	Miss.	PERS	5H-C	1.63% x 1st 20 yrs. to 2% x yrs. over 30	None
40.	Mou.	SER	5H-C	1.2% x yrs. x FAS	None
41.	Mou.	PSRS	5H	*2% x yrs. x FAS	80% FAS
42.	Mont.	PERS	3H	1.67% x yrs. x FAS	None
43.	Mont.	TRS	3H	1.67% x yrs. x FAS	None
44.	Nebr.	SERS	-	Money purchase	None
45.	Nebr.	TRS	5H	1.25% x yrs. x FAS	None

(C=Consecutive; 10-last 10 years)

(* - No social security)

FINAL AVERAGE PERIODS - FORMULAS - LIMITATIONS
(continued)

<u>No.</u>	<u>State</u>	<u>Fund</u>	<u>FAS Period</u>	<u>Benefit Formula</u>	<u>Limitation</u>
46.	Nev.	PERS	3H	* 2.5% x yrs. x FAS	75% FAS
47.	N.H.	NHRS	3H	1.67% x yrs. x FAS-S.S. offset	None
48.	N.J.	PERS	3H	1.67% x yrs. x FAS	None
49.	N.J.	TRS	3H	1.67% x yrs. x FAS	None
50.	N.M.	PERA	3H-C10	2% x yrs. x FAS	50% FAS
51.	N.M.	TRA	5H-C	2% x yrs. x FAS	None
52.	N.Y.	ERS	3H-C	2% x yrs. x FAS-S.S. offset	30 years credit
53.	N.Y.	ERS	3H-C	2% x yrs. x FAS-S.S. offset	75% FAS
54.	N.C.	TSERS	4H-C	1.57% x yrs. x FAS	None
55.	N.C.	LGERS	4H-C	1.57% x yrs. x FAS	None
56.	N.D.	PERS	5H-C10	1.04% x yrs. x FAS	None
57.	N.D.	TRF	5H-10	1% x yrs. x FAS	None
58.	Ohio	PERS	3H	* 2% x yrs. x FAS	90% FAS
59.	Ohio	STRS	3H	* 2% x yrs. x FAS	90% FAS
60.	Okla.	PERS	5H-10	2% x yrs. x FAS	\$18,900 salary maximum
61.	Okla.	TRS	5H	2% x yrs. x FAS	None
62.	Oreg.	PERS	3H-10	1.67% x yrs. x FAS	None
63.	Penn.	SERS	3H	2% x yrs. x FAS	None
64.	Penn.	PSERS	3H	2% x yrs. x FAS	None
65.	R.I.	ERS	3H-C	1.7% 1st 10 yrs. to 2.4% over 20 yrs.	80% FAS
66.	S.C.	SRS	3H-C	1.25% x \$4,800 + 1.65% x excess wage	None
67.	S.D.	SRS	3H-10	2% x yrs. x FAS less S.S. offset	None
68.	Tenn.	CRS	5H-C	Table-integrated	75% FAS
69.	Tex.	ERS	3H-5	1.5%-first 10 yrs.; 2%-added years	80% FAS
70.	Tex.	TRS	3H	2% x yrs. x FAS	None
71.	Tex.	MRS	--	Money purchase cafeteria	None
72.	Utah	SRS	5H-10	2% x yrs. x FAS	100% FAS including S.S.
73.	Vert.	SRS	5H-C	1.67% x yrs. x FAS	30 years
74.	Vert.	TRS	5H-C	1.67% x yrs. x FAS	30 years
75.	Virg.	SRS	3H-C	1.65% x yrs. x (FAS)-\$1,200	None
76.	Wash.	PERS	5H	2% x years x FAS	None
77.	Wash.	TRS	5H	2% x years x FAS	None
78.	W.V.	PERS	3H-10	2% x years x FAS	None
79.	W.V.	TRS	5H-15	2% x years x FAS	None
80.	Wyom.	WRS	3H-C	2% x years x FAS	None
81.	Wis.	WRS	3H	1.3% x years x FAS	85% FAS including S.S.
82.	Milw. City		3H	2% x years x FAS	85% FAS including S.S.
83.	Milw. County		3H	2% x years x FAS	80% FAS
84.	Fed. Civ. Se.		3H	* 1.5% 1st 5 yrs. to 2% yrs. over 10	80% FAS
85.	Soc. Sec.		Career		

