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COMPTROLLER GENERAL OF THE UNITED STATES
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RELEASED

The Honorable William D. Ford
Chairman, Committee on Post Office
and Civil Service
House of Representatives

Dear Mr. Chairman:

Subject: Federal Employee Demographics and Integration of State Retirement Plans With Social Security (GAO/FPCD-83-38)

On November 15, 1982, you asked us to obtain information on the issue of social security coverage for Federal civilian employees. Specifically, you asked us to (1) develop demographic data on employees now covered by the civil service retirement system (CSRS) and (2) analyze the approaches used by several State governments to integrate social security into their staff retirement plans for general employees.

To develop demographic data on covered employees and CSRS annuitants, we reviewed and analyzed various reports and data obtained from the Office of Personnel Management (OPM) and held discussions with OPM personnel.

To analyze approaches States have used in integrating social security into their retirement systems, we obtained information from eight States--three specified in your request (Michigan, New York, and Maryland) and five selected by us. We selected certain States (Pennsylvania, Illinois, and California) because of the large number of participants in their retirement programs and others (Hawaii and Nebraska) because of recent or planned changes to their programs. We also reviewed the Tennessee Valley Authority's (TVA's) retirement system because it is the largest Federal retirement system (in terms of participants)that is integrated with social security.

We searched retirement literature to identify approaches to integrate employer plans with social security. We also obtained comments from State officials on pension plans and integration with social security. We collected data by sending a questionnaire to each State, reviewing State plan brochures and annual reports, and interviewing plan administrators and legislative

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staff members in four States. We did not find it necessary to visit all eight States. We compared retirement benefits available in each of the various plans and calculated that portion of retiring employees' final income that would be replaced by retirement benefits under each of the various plan formulas.

We performed our review in accordance with generally accepted Government audit standards.

EMPLOYEE AND RETIREE DEMOGRAPHICS

Data on current employees covered by the CSRS are contained in enclosure I, which shows the distribution of employees by age and years of service. Enclosure II shows the average age, years of service, and annuity for CSRS retirees who elected optional retirement during each of the last 10 years. On the average, employees retired at age 61 during the last 10 years, and all Federal annuitants on the rolls as of September 30, 1982, averaged almost 70 years of age. Enclosure III shows that about 250,000 Federal employees were eligible for retirement as of September 30, 1982. Enclosure IV is an analysis of the circumstances under which Federal employees leave or retire from the work force. It shows that only 43 percent of all new employees the Government hires are expected to receive benefits from CSRS and only 23 percent will eventually qualify for optional retirement.

INTEGRATION OF STATE PLANS

A plan is integrated with social security to the extent it recognizes social security in establishing benefits. Because social security benefits as a percent of salary decrease as income levels increase, integrated plans attempt to compensate for this decrease.

Most of the State plans we reviewed were not integrated with social security. In 8 of the 11 retirement plans 1/, State retirement benefits were an additive to the social security benefits the employees received. The primary reason why State plans were not integrated is that the plans were in existence before social security was enacted or before the State elected social security coverage; the plans had never been revised. The three most recently established State plans are integrated; one of the plans uses the step rate approach, another employs an

1/New York had three plans and Maryland had two, while the other States each had one plan.

offset approach, and the third uses a form of step rate approach in its defined contribution plan 2/. The TVA plan used the offset approach.

The step rate and offset approaches facilitate integration of plan benefits with social security across various income levels. Of these two approaches, the step rate is considered the easier to administer, while the offset is more sensitive to changes in social security.

Under the step rate approach, the plan benefit formula used to compute an employee's annuity is comprised of two different percentage factors. One percentage factor is applied to that portion of the employee's average earnings below the social security integration level and a second, higher percentage factor is applied to average earnings above the integration level.

Under the offset approach, a portion of an employee's social security benefit is deducted from the benefits that would otherwise be payable under the plan's pension formula.

A more detailed explanation of the advantages and disadvantages of these approaches is contained in enclosure V.

State officials' comments regarding pension plans and integration with social security are included in enclosure VI. Several officials advised against the use of the offset approach because of administrative problems. State officials said wage earnings information needed for calculating the offset of each employee is not always readily available. Officials in New York, which uses the offset approach for one of its plans, said they are considering changing the plan to the step rate approach or making plan benefits totally additive to social security.

Enclosure VII contains profiles of the 11 State retirement plans we reviewed. It shows how normal, early, and disability retirement benefits and survivor benefits under the plans relate to social security. Enclosure VIII provides similar information for the TVA retirement system.

2/Our limited review of all State retirement plans showed a similar pattern. Employees in 46 States are covered by social security. In 40 States, the benefits were additive to social security, 4 States used a step rate approach, and 2 States used the offset method.

We found that three State plans (California, Illinois, and Michigan) and TVA have a level income benefit option for individuals taking retirement before they are eligible for social security. This option attempts to equalize total retirement benefits before and after social security begins. Estimated social security benefits that an individual would be expected to receive at age 62 or 65 are reduced by an actuarial amount for the number of months the individual is under age 62 or 65. This amount is then added to the plan benefits until the individual reaches age 62 or 65. At that time, the plan benefit is reduced by the full amount of the original estimated social security benefit.

For example, an employee in Michigan retiring at age 55 with a plan benefit of $800 each month for life could elect the level income option. The employee's estimated social security benefit at age 65 is $600 per month and the theoretical actuarially reduced benefit at age 55 is $232 per month. The reduced social security benefit is added to the initial plan benefit for a total retirement annuity of $1,032 per month until the individual reaches age 65. At that time, the estimated $600 social security benefit is deducted from the retirement annuity and the individual would receive $432 per month for life. However, since the individual would then be receiving social security benefits, the combined annuities would equal the previously larger plan benefit. The monthly plan benefit of $1,032 until age 65 and $432 per month thereafter is equivalent to $800 per month for life starting at age 55.

Postretirement annuity adjustment provisions varied among the 12 plans we reviewed. Only one plan provided for full cost-of-living increases based on increases in the Consumer Price Index (CPI), while two plans provided no cost-of-living adjustments. The other plans provided small percentage increases each year or ad hoc adjustments. Of course, social security benefits are adjusted annually for inflation, whenever the CPI increases by 3 percent or more.

Eligibility for disability retirement was based on the social security definition (total disability) in five plans, while seven plans allowed disability retirement if the employee could no longer perform the job occupied.

Enclosure IX shows final salary replacement rates for each plan. It shows that total retirement benefits for the 11 State plans and the TVA plan, including social security, ranged from 60 percent to 88 percent of final salary for a hypothetical employee making $22,000, the approximate final average salary for current Federal retirees.

Enclosure X compares how certain plans relate to social security at various income levels. It shows that plans using the step rate or offset integration approach accommodate decreasing rates of social security benefits at higher incomes.

As arranged with your office, unless you publicly announce the contents of this report earlier, we will not distribute the report until 7 days after its issue date. At that time, we will send copies to interested persons and make copies available to others upon request.

Sincerely yours,

Clifford I. Gould

Clifford I. Gould
Assistant to the Comptroller
General for Federal Retirement
Matters

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ESTIMATED DISTRIBUTION OF COVERED CIVIL SERVICE EMPLOYEES BY AGE AND YEARS OF SERVICE AS OF SEPTEMBER 30, 1982

	(Years of service)									
Age	Less than 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & over	Total	Percent
15-19	4,337	0	0	0	0	0	0	0	4,337	0.2
20-24	82,640	12,424	0	0	0	0	0	0	95,064	3.6
25-29	127,637	139,995	15,791	0	0	0	0	0	283,423	10.6
30-34	88,935	162,607	146,526	15,842	0	0	0	0	413,910	15.6
35-39	52,415	89,990	134,293	115,887	8,348	0	0	0	400,933	15.1
40-44	39,352	48,698	57,256	97,483	68,871	7,204	0	0	318,864	12.0
45-49	28,649	46,063	41,920	56,929	72,323	65,939	7,236	0	319,059	12.0
50-54	16,089	31,197	43,834	55,243	54,998	72,090	57,803	4,808	336,062	12.6
55-59	8,808	18,530	28,573	47,948	50,578	50,673	44,560	31,844	281,514	10.6
60-64	3,218	9,208	15,963	27,978	28,849	27,638	19,137	25,960	157,951	5.9
65-69	658	1,941	4,119	6,714	6,798	6,169	4,578	9,193	40,170	1.5
70-74	177	348	826	1,445	1,255	1,200	932	2,280	8,463	0.3
75-79	10	35	60	85	13	16	9	15	243	0.0
Total	452,925	561,036	489,161	425,554	292,033	230,929	134,255	74,100	2,659,993	100.0
Percent	17.0	21.1	18.4	16.0	11.0	8.7	5.0	2.8	100.0	

Overall averages

Age	42.4
Years of service	14.2

ENCLOSURE I

OPTIONAL RETIREMENTS
FOR FISCAL YEARS 1973 THROUGH 1982

Fiscal year	Added to the roll during year: Number	Average age	Average service (yrs.)	Average monthly annuity (note a)	Total on the roll at end of year: Number	Average age	Average service (yrs.)	Average monthly annuity (note a)
1973	61,473	61.8	28.9	$564	437,958	70.0	27.8	$445
1974	71,039	61.5	29.2	$648	489,438	69.6	28.1	$523
1975	42,006	61.3	28.8	$703	504,510	69.7	28.2	$620
1976	36,497	61.1	28.9	$728	525,944	69.9	28.3	$695
1977	41,631	60.9	29.1	$766	551,348	69.8	28.4	$765
1978	49,973	60.8	29.3	$819	579,473	69.7	28.5	$827
1979	51,498	60.7	29.8	$927	609,032	69.7	28.7	$924
1980	68,220	60.7	30.1	$1,067	654,203	69.6	28.9	$1,062
1981	90,402	60.8	29.8	$1,019	719,064	69.1	29.0	$1,103
1982	59,596	61.0	28.1	$935	752,909	69.3	29.0	$1,183
10 yr. average		61.1	29.3			69.6	28.6	

a/Annuities are net of survivor benefit reductions.

ENCLOSURE II

EMPLOYEES ELIGIBLE
FOR OPTIONAL RETIREMENT AS OF
SEPTEMBER 30, 1982

Age	Number
55-59 a/	76,404
60-61	53,715
62-69	111,997
70 and over	8,518
Total	250,634 b/

a/This group includes all employees over age 54.5; therefore, the actual number eligible to retire will be somewhat less.

b/Represents 9.4 percent of the 2,659,993 employees covered by the system.

ESTIMATED PERCENTAGE OF EMPLOYEES EXPECTED TO LEAVE GOVERNMENT SERVICE BY TYPE OF SEPARATION

Type of separation	Active employees (note a) Male	Active employees (note a) Female	Active employees (note a) Total	New entrants (note b) Male	New entrants (note b) Female	New entrants (note b) Total
Leave service before eligible for retirement	18.8	38.2	24.8	50.7	77.2	62.0
Less than 5 years service	1.5	7.9	3.5	23.5	54.5	36.7
More than 5 years service	17.3	30.3	21.3	27.2	22.7	25.3
Death	5.1	2.0	4.2	4.6	1.2	3.2
Disability retirement (note c)	11.0	11.1	11.0	10.1	5.8	8.3
Involuntary retirement	6.4	6.8	6.5	4.1	2.3	3.3
Optional retirement	58.8	41.9	53.5	30.4	13.4	23.2
Total (note d)	100.0	100.0	100.0	100.0	100.0	100.0
Estimated separations with no vested benefit	15.3	32.1	20.5	45.3	72.7	56.9
Estimated separations with vested benefit for deferred annuity (note e)	3.5	6.1	4.3	5.4	4.5	5.1
Immediate benefit	81.1	61.8	75.2	49.3	22.8	38.0
Total (note d)	100.0	100.0	100.0	100.0	100.0	100.0

a/OPM based these estimates on employees covered by the retirement system as of September 30, 1977, and attrition rates of employees who left the system during fiscal years 1972 through 1976.

b/OPM based these estimates on new entrants into Government service during fiscal years 1972 through 1976.

c/Since 1980, when eligibility standards were tightened, the number of disability retirements has dropped dramatically. Therefore, these percentages may be overestimated based on more recent experience. If so, optional retirement would be correspondingly underestimated.

d/Individual items may not add to totals due to rounding.

e/OPM estimates that 20 percent of all employees leaving with more than 5 years of service will elect a deferred annuity.

ENCLOSURE IV

THE CHARACTERISTICS, ADVANTAGES, AND DISADVANTAGES OF VARIOUS APPROACHES USED TO INTEGRATE PLAN BENEFITS WITH SOCIAL SECURITY

In designing a pension plan, it is generally recognized that employees will earn retirement benefits both from the plan and social security. Since the employer bears part of the cost of social security benefits, it is only logical to recognize such benefits in developing an employee pension plan. The nature of the recognition or integration with social security may be either implicit or explicit. It is implicit if the general level of benefits provided by the plan is lower than what it would have been in the absence of social security. The recognition is explicit if, in the design of the plan, some attempt is made to compensate for the fact that the social security benefit formula provides proportionately greater benefits to lower income workers. Disability and survivor benefits can also be integrated with social security benefits.

In 8 of the 11 State pension plans we reviewed, plan retirement benefits were not integrated with social security. That is, social security benefits were additive to plan benefits. In large part, the absence of integration in these plans can be attributed to the fact that the plans were established before covered employees were subject to social security.

The following is a discussion of the two different integration approaches we identified during our review of State plans.

Step rate approach

Under the step rate approach to integrating with social security, the plan benefit formula used to compute an employee's annuity is comprised of two different percentage factors. One percentage factor is applied to that portion of the employee's average earnings below the social security integration level and a second, higher percentage factor is applied to average earnings above the integration level. Basically, the "integration level" represents the average social security taxable wage base over an individual's working career. In Maryland's step rate plan, the employee receives .8 percent of final average salary up to the integration level and 1.5 percent of final average salary in excess of that level for each year of service. The objective of applying a higher percentage factor to average earnings in excess of the integration level is to compensate for the fact that the social security benefit formula provides higher income replacement for lower paid employees.

While the step rate approach is not particularly difficult to administer, it does have the disadvantage of being only moderately responsive to changes in social security. When a plan establishes an integration level for its employees, it is generally based on some assumed relationship between social security benefits and the social security taxable wage base. However, over time, unless the plan is amended to adjust for changes in either social security benefits or the taxable wage base, the plan's step rate integration formula will lose its logic. The consequences can be inequitable benefits and increased costs to the plan.

The step rate form of integration is also used in pension plans where an individual's retirement benefit is based on the total contributions made to the plan during the individual's career. Under this type of plan, contributions are made at one rate on employees' salary earnings below the plan's integration level and at a higher rate on salary earnings above the level. For example, Nebraska's plan provides for the employee to contribute 3.6 percent of salary up to $24,000 and 4.8 percent of salary above $24,000. The State contributes 5.6 percent of salary up to $24,000 and 7.5 percent of salary in excess of $24,000.

Offset approach

Under the offset approach to integration, a portion of an employees' social security benefits is deducted from the benefits that would otherwise be payable under the plan's pension formula. The approach is simple in concept and adapts automatically to changes in the social security program. It is not, however, without disadvantages. Primary among these is the adverse reaction employees may have to the direct reduction of their plan benefits. While employees' benefits are also reduced under other integration methods, the reduction is not so obvious to employees as under the offset method. Another disadvantage is administration of the plan formula. Plan benefits cannot be calculated with certainty until social security benefits are computed. Consequently, it is necessary to either delay calculating the amount of the offset until information is obtained on the amount of the social security benefit or to estimate the amount of the benefit. Employees have criticized New York's offset plan because they perceive it takes away a portion of the social security benefits they feel they have earned. Plan administrators pointed out the administrative problems they encountered because earnings data necessary for estimating social security benefits is not readily available.

COMMENTS MADE BY STATE PLAN ADMINISTRATORS AND STATE LEGISLATIVE STAFF MEMBERS REGARDING PENSION PLANS AND INTEGRATION WITH SOCIAL SECURITY

In the States we visited, most officials said they were satisfied with the design of their pension plans and would not change them. However, New York officials said they were considering changing their offset plan to either an additive or step rate approach. They said they are having problems administering this plan because of difficulties in obtaining employee wage history data and computing social security benefits. Also, officials told us that some employees with little service had all of their State benefits offset by social security.

State plan administrators and legislative staff members had the following comments or suggestions for consideration in designing a Federal supplemental retirement system.

Maryland:

--Offset approach causes administrative problems.

--Step rate approach is administratively efficient and can be easily understood.

--Defined contribution plan should be considered as it is easy to administer and the employer knows the exact liability.

Nebraska:

--Employees were apprehensive at first about Nebraska's defined contribution plan but providing them reports showing their projected retirement benefits has decreased their apprehension.

--If the Government selects a defined contribution plan, a private carrier should administer the plan. This will simplify administration.

New York:

--Offset plan is difficult to administer since computing the social security benefits is time consuming and relies too much on employee wage history information, which is not always readily available.

--Consider making the plan noncontributory so individual employee accounts will not be necessary.

--Establish a waiting period before coverage begins to eliminate the administrative details connected with short-term employees if plan is contributory.

Pennsylvania:

--Defined benefit plan provides a more stable benefit than a defined contribution plan over a long term.

--Place a cap on the cost-of-living adjustments to hold down costs.

California:

--Avoid an offset formula. Agencies have difficulty using it and employees cannot always understand it.

Hawaii:

--To control costs, total benefits from the employer plan and social security should be limited to a certain percentage of final average salary.

Illinois:

--Additive approach is the best but can result in excessive benefits with upward trend in social security benefits.

--Be alert to adjusting formula rates downward to consider benefit improvements provided under social security.

--Consider a 6-month waiting period before making coverage effective to eliminate administrative burden connected with short-term employees.

--A noncontributory plan could make the pension more of an employee motivator.

PROFILES OF EIGHT STATE PUBLIC EMPLOYEE RETIREMENT SYSTEMS

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Type of plan:

Defined benefit

Method of integration:

Additive

Employee contribution:

5 percent of monthly salary over $1,513

Normal retirement eligibility:

Age 63 and 5 years service

Normal retirement benefit formula:

2.418 percent of final average salary multiplied by years of service.

Final average salary is the average of the highest 3 consecutive years salary, reduced by $1,600 to recognize that a portion of salary is not subject to employee contributions.

Early retirement eligibility:

Age 50 and 5 years service

Early retirement benefit formula:

Same as normal retirement benefit formula, except amount is actuarially reduced.

A level income option is available to equalize total retirement benefits before and after social security begins.

Postretirement benefit adjustments:

Annual adjustment, up to a maximum of 2 percent, based on the increase in the CPI, and periodic ad hoc adjustments.

Disability retirement:

Eligibility based on inability to perform job occupied. Disability benefits are additive to any social security benefit received.

Survivor benefits:

Retiree can elect one of several different benefit options by taking an actuarially reduced annuity. Such benefits are in addition to social security survivor benefits. There are no State benefits for survivors of active employees.

HAWAII EMPLOYEES' RETIREMENT SYSTEM

Type of plan:

Defined benefit

Method of integration:

Additive

Employee contribution:

7.8 percent of salary

Normal retirement eligibility:

Age 55 and 5 years service

Normal retirement benefit formula:

2 percent of final average salary multiplied by years of service.

Final average salary is the average of 3 highest years salary.

Early retirement eligibility:

25 years service

Early retirement benefit formula:

Same as normal retirement benefit formula, except amount is actuarially reduced.

Postretirement benefit adjustments:

Automatic annual increase of 2.5 percent

Disability retirement:

Eligibility based on incapacitation for performance of duty. Disability benefits are additive to any social security benefits received.

Survivor benefits:

Retiree can elect one of several different benefit options by taking an actuarially reduced annuity. Such benefits are in addition to social security survivor benefits. Survivors of deceased employees receive a return of employees contributions plus a portion of one year's salary.

ILLINOIS STATE EMPLOYEES' RETIREMENT SYSTEM

Type of plan:

Defined benefit

Method of integration:

Additive

Employee contribution:

4 percent of salary

Normal retirement eligibility:

35 years service, or age 60 with 8 years service

Normal retirement benefit formula:

Benefits accrue at rate of 1.0 percent for each of first 10 years, 1.1 percent for each of second 10 years, 1.3 percent for each of next 10 years, and 1.5 percent for each year over 30. The resulting factor is multiplied by final average salary to compute the amount of the benefit.

Final average salary is the average of the highest 4 consecutive years salary earned during the last 10 years of service.

A level income option is available to equalize total retirement benefits before and after social security begins.

Early retirement eligibility:

Age 55 with 30 years service

Early retirement benefit formula:

Normal retirement benefit formula reduced by 6 percent for each year under age 60 at time of retirement if less than 35 years of service.

A level income option, explained above, is also available.

Postretirement benefit adjustments:

Automatic 3-percent annual adjustment

Disability retirement:

Eligibility based on inability to perform job occupied. Disability benefits are reduced by the amount of any social security benefits received.

Survivor benefits:

Survivors of employees and retirees receive pension benefits. However, such benefits are reduced by 50 percent of any benefits the survivor is entitled to from social security.

MARYLAND EMPLOYEES' RETIREMENT SYSTEM (EMPLOYEES WHO JOINED SYSTEM ON OR BEFORE DECEMBER 31, 1979)

Type of plan:

Defined benefit

Method of integration:

Additive

Employee contribution:

5 percent of salary during first 24 years of service

Normal retirement eligibility:

Any age with 30 years service, or age 60

Normal retirement benefit formula:

1.82 percent of final average salary multiplied by years of service.

Final average salary is the average of the 3 highest consecutive years of salary.

Early retirement eligibility:

25 years service

Early retirement benefit formula:

Normal retirement benefit formula reduced by the lesser of 6 percent for each year under age 60, or 6 percent for each year under 30 years of service at time of retirement.

Postretirement benefit adjustments:

Annual adjustment based on full increase in the CPI

Disability retirement:

Eligibility based on total disability. Disability benefits are additive to any social security benefits received.

Survivor benefits:

Retiree can elect one of several different benefit options by taking an actuarially reduced annuity. Such benefits are in addition to social security survivor benefits. Survivors of employees receive a lump-sum benefit consisting of a return of employees contributions plus interest and one year's salary.

MARYLAND EMPLOYEES' PENSION SYSTEM (EMPLOYEES HIRED ON OR AFTER JANUARY 1, 1980)

Type of plan:

Defined benefit

Method of integration:

Step rate

Employee contribution:

5 percent of salary in excess of social security taxable wage base.

Normal retirement eligibility:

Any age with 30 years service; age 62 with 5 years service; age 63 with 4 years service; age 64 with 3 years service; or age 65 with 2 years service.

Normal retirement benefit formula:

.8 percent of final average salary up to social security integration level (SSIL) 1/ and 1.5 percent of final average salary in excess of SSIL, multiplied by years of service.

Final average salary is the average of the 3 highest consecutive years.

Early retirement eligibility:

Age 55 with 15 years service

Early retirement benefit formula:

Normal retirement formula reduced by 6 percent for each year under age 62 at time of retirement.

Postretirement benefit adjustments:

Annual adjustment up to a maximum of 3 percent of annuity at retirement based on any increase in the CPI.

Disability retirement:

Eligibility based on total disability. Disability benefits are computed on a step rate basis, the same as the normal retirement benefit.

1/SSIL is the average of social security taxable wage bases between 1959 and the year of retirement.

Survivor benefits:

Retiree can elect one of several different benefit options by taking an actuarially reduced annuity. Such benefits are in addition to any social security survivor benefits. Survivors of employees receive a lump-sum consisting of a return of employees contributions plus interest and one year's salary.

MICHIGAN STATE EMPLOYEES' RETIREMENT SYSTEM

Type of plan:

Defined benefit

Method of integration:

Additive

Employee contribution:

None

Normal retirement eligibility:

Age 55 with 30 years service, or age 60 with 10 years service

Normal retirement benefit formula:

1.5 percent of final average salary multiplied by years of service.

Final average salary is the average of highest 5 consecutive years.

A level income option is available to equalize total retirement benefits before and after social security begins.

Early retirement eligibility:

Age 55 with 15 years service

Early retirement benefit formula:

Normal retirement formula reduced by 6 percent for each year member is under age 60 at time of retirement. A level income option, as explained above, is also available.

Postretirement benefit adjustments:

Ad hoc

Disability retirement:

Eligibility based on total disability for State-wide employment. Disability benefits are additive to any social security benefits received.

Survivor benefits:

Retiree can elect one of two different benefit options by taking an actuarially reduced annuity. Such benefits are in addition to social security survivor benefits. Survivors of employees with 15 years of service receive a pension in addition to social security benefits.

NEBRASKA STATE EMPLOYEES' RETIREMENT SYSTEM

Type of plan:

Defined contribution

Method of integration:

Form of step rate approach. Employee and employer contributions are increased on salary above $24,000 in recognition of lower social security benefits paid on higher incomes.

Employee contribution:

3.6 percent of first $24,000 of salary, and 4.8 percent of salary in excess of $24,000.

Normal retirement eligibility:

Age 60 with 30 years service or approval of department head

Normal retirement benefit formula:

Life annuity is computed based on amount of employee and employer accumulated contributions including investment income and employee's age at time of retirement.

Early retirement eligibility:

Not applicable

Early retirement benefit formula:

Not applicable

Postretirement benefit adjustments:

Ad hoc based on earnings in excess of those anticipated when annuity was established.

Disability retirement:

Eligibility based on total disability. Disability benefits are additive to any social security benefits received.

Survivor benefits:

Retiree can elect one of several different benefit options. Such benefits are in addition to social security survivor benefits. Survivors of employees can elect a lump-sum benefit or an annuity in addition to social security benefits.

NEW YORK STATE EMPLOYEES' RETIREMENT SYSTEM
NEW CAREER PLAN FOR TIER 1 MEMBERS (EMPLOYEES WHO JOINED SYSTEM BEFORE JULY 1, 1973)

Type of plan:

Defined benefit

Method of integration:

Additive

Employee contribution:

None

Normal retirement eligibility:

Age 55 with 20 years service

Normal retirement benefit formula:

2 percent of final average salary multiplied by years of service.

Final average salary is average of highest 3 consecutive years.

Early retirement eligibility:

Age 55

Early retirement benefit formula:

1.66 percent of final average salary multiplied by years of service.

Postretirement benefit adjustments:

None

Disability retirement:

Eligibility based on inability to perform job occupied. Disability benefits are additive to any social security benefits received.

Survivor benefits:

Retiree can elect one of several different benefit options. Such benefits are in addition to social security survivor benefits. Survivors of employees receive a lump-sum payment in addition to social security benefits.

NEW YORK STATE EMPLOYEES' RETIREMENT SYSTEM
NEW CAREER PLAN FOR TIER 2 MEMBERS (EMPLOYEES WHO JOINED SYSTEM BETWEEN JULY 1, 1973, AND JULY 1, 1976)

Type of plan:

Defined benefit

Method of integration:

Additive

Employee contribution:

None

Normal retirement eligibility:

Age 62 with 20 years service

Normal retirement benefit formula:

2 percent of final average salary multiplied by years of service.

Final average salary is average of highest 3 consecutive years.

Early retirement eligibility:

Age 55 with 5 years service

Early retirement benefit formula:

For a member with 20 years of service, the normal benefit is reduced by the table below:

Age at retirement	Percent reduced
61	6
60	12
59	15
58	18
57	21
56	24
55	27

For a member with less than 20 years of service, the formula is 1.66 percent of final average earnings multiplied by years of service reduced by the table above for retirees under age 62.

Postretirement benefit adjustments:

None

Disability retirement:

Eligibility based on inability to perform job occupied. Disability benefits are additive to any social security benefits received.

Survivor benefits:

Retiree can elect one of several different benefit options. Such benefits are in addition to social security survivor benefits. Survivors of employees receive a lump-sum payment in addition to social security benefits.

ENCLOSURE VII

NEW YORK STATE EMPLOYEES' RETIREMENT SYSTEM COORDINATED ESCALATOR RETIREMENT PLAN FOR TIER 3 MEMBERS (EMPLOYEES WHO JOINED SYSTEM AFTER JULY 1, 1976)

Type of plan:

Defined benefit

Method of integration:

Offset

Employee contribution:

3 percent of salary

Normal retirement eligibility:

Age 62 with 20 years service

Normal retirement benefit formula:

2 percent of final average salary multiplied by years of service, reduced by 50 percent of estimated social security benefits receivable.

Final average salary is the average of highest 3 consecutive years.

Early retirement eligibility:

Age 55 with 10 years service

Early retirement benefit formula:

For a member with 20 years of service, the normal benefit is reduced by the table below:

Age at retirement	Percent reduced
61	6
60	12
59	15
58	18
57	21
56	24
55	27

For a member with less than 20 years service, the formula is 1.66 percent of final average earnings multiplied by years of service reduced by the table above for retirees under age 62.

When member reaches age 62, benefit will be further reduced by 50 percent of estimated social security benefits receivable.

Postretirement benefit adjustments:

Annual adjustment, up to a maximum of 3 percent, based on an increase in the CPI.

Disability retirement:

Eligibility based on total disability. Disability benefits are reduced by 50 percent of any estimated social security disability benefit receivable.

Survivor benefits:

Retirees can select one of several different benefit options. Such benefits are in addition to social security survivor benefits received. Survivors of employees can elect a lump-sum payment or a pension in addition to social security benefits.

PENNSYLVANIA STATE EMPLOYEES' RETIREMENT SYSTEM

Type of plan:

Defined benefit

Method of integration:

Additive

Employee contribution:

5 percent of salary

Normal retirement eligibility:

35 years service at any age, or age 60 with 3 years service

PROFILE OF TENNESSEE VALLEY AUTHORITY EMPLOYEE RETIREMENT SYSTEM

Type of plan:

Combination of defined benefit and defined contribution plan

Method of integration:

Defined benefit - offset
Defined contribution - step rate

Employee contribution:

Minimum contribution for defined contribution plan is 3 percent of salary up to the social security taxable wage base and 6 percent of salary in excess of this base. Maximum contribution is 16 percent of salary. No employee contribution required for defined benefit plan.

Normal retirement eligibility:

Age 65

Normal retirement benefit formula:

For the defined benefit plan, the formula is 1.3 percent of final average salary multiplied by years of service reduced by a social security offset of $21 per year of service.

Final average salary is the average of the highest 3 consecutive years.

For the defined contribution plan, the annuity is based on the actuarial equivalent of member's accumulated contributions with interest.

Early retirement eligibility:

Age 55 with 10 years service, or age 60

Early retirement benefit formula:

For the defined benefit plan, the formula is the same as for normal retirement except the rate of 1.3 percent is reduced by .06 percentage points for each year member retires earlier than age 60.

For the defined contribution plan, the annuity would be computed in the same manner as for normal retirement.

A level income option is available to equalize total retirement benefits before and after social security begins.

Postretirement benefit adjustment:

Defined benefit is adjusted annually by up to 5 percent, based on the CPI. TVA's retirement board can approve adjustments over 5 percent.

Disability retirement:

For the defined benefit plan, disability benefits are generally reduced by a social security offset amounting to 90 percent of the offset computed under the normal benefit formula.

For the defined contribution plan, disability benefits are in addition to social security benefit received.

Eligibility based on inability to perform job occupied.

Survivor benefits:

Retiree can elect any one of several different benefit options by taking an actuarially reduced annuity. Such benefits, under both the defined benefit and defined contribution plans, are in addition to social security survivor benefits. Survivors of employees can elect either a lump-sum payment or an annuity in addition to social security benefits.

ILLUSTRATIONS OF RETIREMENT BENEFIT REPLACEMENT RATES FOR A HYPOTHETICAL EMPLOYEE

Years of service - 30 for both ages 55 and 62

Final salary - $22,000

Received 5-percent salary increase in each of 30 years

	Percent of final salary replaced (note a)		
		Age 62	
	Age 55 Annuity only	Annuity	Annuity & social security
California	38.6	60.0	88.2
Hawaii	57.2	57.2	85.4
Illinois	22.2	31.6	59.8
Maryland			
Retirement system	52.0	52.0	80.2
Pension system	31.6	31.6	59.8
Michigan	40.9	40.9	69.1
Nebraska (note b)	35.2	40.6	68.8
New York			
Tier 1	57.2	57.2	85.4
Tier 2	41.7	54.6	82.8
Tier 3	40.0	43.1	71.3
Pennsylvania	41.3	57.2	85.4
Tennessee Valley Authority (note b)	41.2	52.1	80.3

a/Replacement rates would be reduced if retiree selected survivor benefit options and/or level income option where available.

b/Assumes 7-percent interest rate on invested funds.

ILLUSTRATIONS OF PLAN INTEGRATION WITH SOCIAL SECURITY AT VARIOUS INCOME LEVELS

Years of service - 30

Retirement age - 62

Received 5-percent salary increase in each of 30 years

Plan approach	Percent of final salary replaced											
	$14,000			$22,000			$42,000			$64,000		
	State plan	Social security	Total	State plan	Social security	Total	State plan	Social security	Total	State plan	Social security	Total
Additive plan (Michigan)	40.9	39.3	80.2	40.9	28.2	69.1	40.9	15.0	55.9	40.9	9.9	50.8
Step rate approach (Maryland—pension plan)	25.2	39.3	64.5	31.6	28.2	59.8	37.0	15.0	52.0	39.0	9.9	48.9
Offset approach (New York—Tier 3)	37.5	39.3	76.8	43.1	28.2	71.3	49.7	15.0	64.7	52.2	9.9	62.1
Defined contribution plan (Nebraska) (note a)	40.7	39.3	80.0	40.6	28.2	68.8	41.7	15.0	56.7	43.6	9.9	53.5

a/Assumes 7-percent interest rate on invested funds.