Evolution of Public Pensions in the US

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Retirement plans for American workers

- Social Security
  - Coverage almost universal
  - However, about one quarter of state and local employees remain outside of SS; a majority of these uncovered public employees are teachers
  - For these workers, the employer pension is their only retirement plan

- Employer-provided retirement plans
  - Only about one half of private sector workers covered by an employer plan
  - All full time state and local government employees covered by a public plan

A brief history of SS coverage

- Public pension plans preceded the establishment of Social Security (SS) with teacher plans dating back to the 19th century
- When SS was first established in 1935, public employees were specifically excluded from coverage
- In 1950s, state and local governments were allowed, but not required, to join SS
- While many government agencies chose to join SS some did not
- In fact, there are public employees in all states who remain outside of SS

States and local employees and teachers are not covered by Social Security

States in which state employees are not covered by SS:

Alaska	Colorado	Louisiana	Maine
Massachusetts	Nevada	Ohio	

States where teachers are not included in SS:

Alaska	California	Colorado	Connecticut
Illinois	Louisiana	Maine	Massachusetts
Missouri	Nevada	Ohio	Texas

Importance of employer pensions for public employees

- About one quarter of all state and local employees are not covered by SS
- As a result, they depend exclusively on the employer provide pension
- Thus, the well-being of public retirees is determined by the financial status and sustainability of public retirement plans
- Recent reforms of public pension indicate that future retirees will receive lower retirement benefits, will contribute more to help finance these plans, and have to work until older ages

Limited federal oversight of state and local retirement plans

- Private sector pensions are highly regulated by the federal government
  - Employee Retirement Income Security Act (ERISA) and subsequent amendments regulate funding standards and benefit options
- Public retirement plans are not subject to ERISA regulations; they can make their own rules and provisions including issues like:
  - Funding standards
  - Pricing of annuity options and lump sum distributions
  - Default benefits (single life vs providing survivor benefits)

Outline of Presentation

I. Types of retirement plans
II. Funding status
III. Pension reforms
IV. Payout options
V. Supplemental retirement saving plans
VI. Future of public pension plans

I. Types of retirement plans

- Virtually all full time public employees are covered by a retirement plan
- Participation in these plans is mandatory
- Traditionally, public plans in the United States have been defined benefit pension plans (DB)
- At beginning of 21st century, virtually all plans offered by states, cities, and other local governments were DB plans
- Over the last two decades, there has been a significant shift by government agencies away from offering only traditional DB plans

Types of retirement plans

- Recently, I reviewed 85 large state managed plans for teachers, state employees, and local governments to determine the type of retirement plan offered
  - 59 retirement systems still offered only traditional DB plans
  - 6 offered only hybrid plans
  - 5 offered only cash balance plans
  - 3 offered only defined contribution plans
  - 12 offered employees a choice of plans (either DB, DC, and/or hybrid)

Thus, there is a large movement away from only offering a traditional DB plan by state and local retirement plans

Public sector DC plans

- When DC plans are the primary retirement plan in the public sector, they differ substantially from 401k plans in the private sector
  - Coverage is mandatory
  - Contribution rates are much higher
  - Employer bears more of the cost
  - Annuities typically offered by plan

Plans for public school teachers

- Pension plans for public school teachers were among the first pension plans in the US
- Today, teachers are in the same plans as other public employees in 24 states
- Teachers have separate plans in 26 states
- Our discussion of state and local retirement plans covers both of these plans
- Some large cities still maintain their own separate retirement plans, e.g. New York City, Chicago

Reasons for changes in pensions

- Large unfunded liabilities associated with DB plans
- Rising annual cost of funding DB plans
- Are the incentives in DB plans appropriate for the workforce of the 21^{st} century?
- Changes in private sector retirement plans creates "pension" envy by taxpayers making them less likely to support generous plans for teachers and other public employees

Early retirement incentives

- Many public pension plans allow workers to retire in their 50s with full retirement benefits
- Most public pension plans are more generous than private sector plans
- Most public plans provide cost of living adjustments for retirees while most private sector plans do not include COLAs
- Conclusion: Public plans provide strong economic incentives for individuals to retire once they have reached retirement age.

Early retirement incentives

- Should public employers encourage workers to retire at relatively young ages in the 21st century?
- Early retirement might have been an appropriate HR policy in the 20th century but should it be an objective going forward?
  - Increasing life expectancy
  - Better health
  - Rising cost of paying benefits for 30 or more years

II. Funding status

- The cost of state and local retirement plans has become a major policy Issue in the US
  - State and local plans have large unfunded liabilities as assets are less than liabilities
  - Projections indicate that in some states pension funds could be exhausted in the next two decades if no changes are made
  - Annual cost of funding accrued liabilities are rising as a percent of state budgets

Funding status of state retirement plans

- In 2016, state pension plans reported a total of $4 trillion of liabilities (Pew Center for the States)
  - However, these plans reported only $2.6 trillion in assets
  - Thus, there was a cumulative deficit of $1.4 trillion in these plans.
- This deficit is $295 billion larger than in 2015 and the 15th annual increase in pension debt since 2000.
- Funding data are based on those reported by the retirement systems

Funding variation in state plans

- There is considerable variation in the funding status of state and local retirement plans as measured by the ratio of assets to reported liabilities
- Pew reports that the funding ratio for state plans in 2016 ranged from 31 percent in New Jersey to 99 percent in Wisconsin.
- Colorado, Connecticut, Illinois, Kentucky, and New Jersey were less than 50 percent funded
- Another 17 states had less than two-thirds of the assets needed to pay promised benefits.
- Only New York, South Dakota, Tennessee, and Wisconsin were at least 90 percent funded.

Causes of funding problems

- Lack of will by state legislatures to make annual contributions to pay for pension accruals
- Some governments regularly make the annual required contributions while others contribute much less
- Insufficient contributions lead to increasing unfunded liabilities
- Higher than market assumptions on rate of return to assets
- Some states in serious financial difficulties and could face rising pension debts

Assumptions in calculating pension liabilities

- Most state and local retirement plans discount future liabilities at relatively high interest or discount rates
- Many states use interest rates between 7 and 8 percent with an average rate of about 7.5 percent
- Private sector pension plans are required to use a much lower rate of around 4 percent

- Higher discount rates produce lower estimated unfunded liabilities

Assumptions in calculating pension liabilities

- Calculating pension liabilities using lower interest rates dramatically increases liabilities and unfunded liabilities
- Pew adjusts reported pension liabilities by state plans using a 6.5 percent interest rate. Using this lower rate, liabilities increase to $4.4 trillion.

This adjustment increases unfunded liabilities to $1.7 trillion

Assumptions in calculating pension liabilities

- Many economist argue that public pension funds should use a market interest to determine liabilities, more like 4 percent; similar to that required for private sector plans

- Using market interest rates, studies by Joshua Rauh and others report unfunded liabilities of over $3 trillion

- Over time, public plans have been gradually reducing the assumed rates of return in an effort to better reflect actual returns

Funding status and pension reforms

- The large and growing unfunded liabilities of pension promises along with increases in annual costs are the primary reasons for pension reform in the US
- Cost concerns have led to the shift away from traditional DB plans by government agencies
- In addition, those states that have retained DB plans have made major changes in the generosity of plans for future retirees.

III. Pension reforms

- As noted earlier, an important reform for many states has been to shift away from the use of DB plans as their primary retirement plan

- Those systems that have retained DB plans have made major changes in their systems that reduce the generosity of retirement benefits and thus lower the cost to the government

Changes in pension provisions in DB plans

- Virtually all states have modified their retirement plans to reduce the future cost

  - Increasing the full retirement age to receive unreduced benefits
  - Lowering the generosity parameter
  - Increasing the years used to calculate final average salary
  - Reducing COLAs for retirees

Legal impediments to pension reform

- State and local government agencies face legal and bargaining constraints to reducing the benefits of current employees
  - State laws, constitutional provisions, or judicial rulings in many states require government agencies to retain the same pension provisions in effect when workers were first employed
  - Agencies can modify pensions for new workers
  - Thus, most reforms only affect the retirement benefits of newly hired workers; as a result cost savings are often 20 to 30 years in the future

Potential adverse effects of reforms

- Most pension reforms have been driven by rising costs and unfunded liabilities

- However, pension are an important form of compensation
- Pension benefits help attract and retain high quality workers

- Significant reductions in the generosity of pensions and other retirement benefits tend to increase turnover and make it harder to hire new employees

IV. Payout options

- Public pension plans offer a variety of distribution or payout options
  - Lump sum distributions at termination or retirement
    - Lump sum distributions are often limited to employee contributions plus accumulated interest
    - Retirees often lose the option of remaining in the state health plan if they accept a lump sum distribution
  - Annuities
    - Benefit formula specifies a single life annuity
    - All plans also offer join and survivor annuity
    - Social Security Leveling offered by many plans

Annuities

- All DB plans specify the retiree benefit using a formula that shows the single life annuity that a retiree would receive
- In general, plans offer a J&S annuity so that survivors continue to receive a benefit after the death of the retiree
  - 100% J&S, 50% J&S
  - In private sector, J&S benefits are the required default distribution
- Public plans are not covered by federal government regulations and thus many do not require a J&S benefit as the default distribution

Annuities

- Plans usually require reductions in monthly benefits if the retiree selects a J&S benefit
- Plans usually state that the annuity options are cost neutral (have the same present value to the system)
- Annuity options are usually priced using the same interest rate that the systems assumes for that it will earn on its assets
- These high interest rates imply that reductions for J&S annuities are lower than if the system used a market rate

Impact of lower interest rates

- Over time, public retirement systems have been lowering their assumed rate of returns on their investments
- Following this trend, systems are using lower interest rates to price their J&S annuities
- The reduction in assumed interest rates will increase the cost of J&S annuities and will likely lower the use of J&S annuities in public plans
- Recently, I have shown that lower interest rates substantially reduce the monthly J&S benefit relative to the single life benefit and in response, fewer retirees are selecting J&S benefits

Teachers' J&S monthly benefits for $1,000 single life annuity: 8% interest and 4% interest: using life table for school teachers

J&S monthly benefit: 8% interest rate

Age of benefit claimant	50	Age of beneficiary 60	70
50	$967	$979	$989
60	$914	$941	$967
70	$801	$844	$901

J&S monthly benefit: 4% interest rate

Age of benefit claimant	50	Age of beneficiary 60	70
50	$941	$970	$987
60	$855	$914	$960
70	$698	$780	$875

Other public pension plans

- We now consider other public pensions plans
  - College and university employees
  - Federal government employees

Retirement plans for college and university personnel

- In US, there are both public and private universities
- Public university employees are typically included in the state retirement plans discussed earlier
  - However, many public universities allow faculty to enroll in DC plans
- Private Universities usually offer DC pension plans
  - Each university sets its own rules for employee and employer contributions
  - Major vendors include TIAA, Fidelity, Vanguard

Federal government employees: Federal Employees Retirement System

- Employees of the federal government are covered by Social Security and The Federal Employees Retirement System (FERS)
- FERS is a DB pension plan with a retirement benefit equal to 1% of high 3 years average earnings times years of service
- Employees contribute 0.8% of pay while employing agency contributes 10.7% or more to FERS

Federal government employees: Thrift Saving Plan

- In addition, to mandatory coverage in FERS, federal employees are allowed to contribute to the Thrift Savings Plan (TSP)
  - Employer contribution of 1% of pay regardless of employee contribution
  - Employee is automatically enrolled in TSP at contribution of 3% of pay; employees allow to vary contributions up to legal maximum
  - Employer match of employee contributions up to 5% – employee contributes 5% of pay, employer contributes 4% of pay
  - Thus, employee who contributes 5% of pay will have a total contribution of 10% of pay

V. Supplemental retirement saving plans

- Virtually all public employees are offered the opportunity to participate in tax advantaged retirement saving plans
- These plans are DC plans
- In the private sector, plan sponsors of DC plans provide an employer offer matching contributions. Typically, these DC plans are the only retirement plan offered employees.
- In contrast, public employers rarely provide employer matches to these plans on the assumption that they are already funding the mandatory plan

Supplemental retirement saving plans

- Increasingly private sector DC plans have chosen automatic enrollment provisions so that newly hired workers are placed in the plan at a default contribution rate. With automatic enrollment, participation rates in these plans typically are 90 percent or more

- Public sector plans rarely have automatic enrollment provisions.

Supplemental saving plans

- Participation in supplemental retirement saving plans in the public sector are much lower.

- I have completed two studies of participation in saving plans by public employees:
  - Teachers in North Carolina have a participation rate of only about 30 percent
  - Prior to the adoption of automatic enrollment, less than 5% of public employees in South Dakota contributed to the retirement saving plan

Behavioral economics and retirement saving

- Research indicates that individuals exhibit considerable inertia when it comes to retirement saving
- The adoption of automatic enrollment policies and automatic escalation of contributions have been found to have large effects on individuals in the public and private sectors of the economy
- In my study of South Dakota, I found that prior to automatic enrollment only 5% of public employees contributed to the voluntary retirement saving plan. After the introduction of this policy, participation soared to over 90%

VI. Future of public pensions

- Pensions are an important component of total compensation for public employees
- Objective is to provide a secure retirement income for career employees in conjunction with Social Security
- The rising cost of public retirement plans has stimulated pension reforms that reduce the cost to government agencies and of course, the benefits to future retirees

Reforming public pensions

- Over the past three decades, pension plans in all states have been modified
- Primary objectives of pension reforms have been to decrease annual costs of plans and to reduce unfunded liabilities
- Important reforms include:
  - Shift away from traditional DB plans
  - Increasing age and service requirements for full retirement benefits
  - Increasing employee contributions
  - Lowering benefit formula

Future of public pensions

- Higher cost to governments
  - Increasing life expectancy
  - Aging of labor force and retirees
- Lower benefits to employees
  - Lower income in retirement
  - Need to save more

Pension reform not done in a vacuum

- Government employers must consider pension reforms in the context of total compensation
- Public employers must be able to attract and retain quality employees

- Pension reforms must also consider changes in national retirement policies
  - Social Security
  - Medicare

Funding challenges to Social Security

- The national retirement plan in the US is Social Security
- Annual cash flow of the system is in deficit
- Projections indicate that by 2033, the trust fund for SS will be depleted
- Under current law, this will require a reduction in all SS benefits for current and future retirees of about 25%

What will happen to SS?

- In order to restore funding balance, the program must either reduce benefits or increase taxes
- There are many ways to lower benefits and to increase taxes
- SS reform is now being debated but there is no consensus on how to solve the long range funding problem

Impact of SS changes on Public Plans

- If SS benefits are reduced,
  - retirees will have lower income in retirement
  - retirees will become more reliant on their employer pensions
- If SS taxes are increased,
  - cost of SS goes up to employers so they will have less money to allocate to employer pensions
  - cost to employees goes up so they will be able to save less

State and local government responses to SS changes

- Employees may need more retirement income, can state and local government pensions be increased?

- But cost to government employers for SS will go up, so there will be pressure to decrease budgets for retirement plans

Importance of supplemental saving plans

- If SS benefits and those of employer retirement plans for public workers become less generous, employees will need to save more through saving plans offered by government agencies

- However, this may be difficult if payroll taxes are increased and employee contributions to employer pensions become higher