State and local pension systems have received significant attention in the last few years. Changes to state pension systems have been taking place in response to the increased attention and concerns. This brief examines a number of pension issues from a budgetary perspective. A budgetary perspective considers long term pension funding adequacy, and the financial cost of promised benefits in relation to the rest of current state spending. Sufficiently budgeting for public pension systems can help states resolve pension funding issues over time without disrupting current appropriations for public services. Pension contributions currently represent a small percentage of states’ operating budgets, but pension funding requirements may comprise a greater share of spending in the future, as public sector employee demographics change and new pension fund accounting rules gain traction.

States are taking steps to limit the future budgetary impacts of pension plans by enacting reforms that reduce liabilities and promote funding adequacy. In fact, according to the National Conference of State Legislatures, 40 states made significant revisions to at least one state retirement plan in 2010 or 2011. As tax revenues slowly increase, states will also have the option to allocate more funds to build stronger pension systems. However, this will entail real budgetary trade-offs between alternative state services or more robust pension systems. Gradual plan and funding changes can allow states to match contributions with future obligations over time, without drastically reducing services or undermining the retirement security of present employees or retirees.

Background on Public Pensions

Public pension systems vary widely by employment fields, levels of government, and across states. Funds from the operating budget are placed directly into a pension trust fund so that states are able to obtain additional income from investment returns. Public sector retirees then receive payments from the pension trust fund and not directly from the state operating budget. Most public pensions have retained a defined benefit status in which retiree payments are guaranteed under state statute, constitution, or contract law. The trust fund, held and maintained by a state or local government, is typically funded through a combination of employee contributions, employer contributions, and income from returns on invested assets.

Pension systems are different from retiree health care plans or other post-employment benefits (OPEBs), which are managed under different legal structures and financing techniques. Historically, most state governments providing OPEBs have done so on a pay-as-you-go basis, which may become problematic as health care costs continue to rise. State-administered pension plans account for only 9 percent of public plans, but state-administered plans represent 89 percent of the active members and 84 percent of public pension fund assets. This means that even in instances where local governments make substantial annual contributions to pension plans; states remain responsible for the majority of assets and retirees under public pension systems.

Well run pension systems require successful execution in a number of areas including: benefit calculation and administration, actuarial valuation, investment fund management, and rule making. In 2011, public pension trust funds had nearly $3 trillion dollars worth of assets under management in the form of stocks, bonds, and other investment vehicles. Income from investment returns remains the largest source of pension income, accounting for roughly 60 percent of the dollars paid out to beneficiaries. Greater reliance on investment returns means that less tax dollars and employee wages must be spent on retirement benefits. However, in times of economic decline, falling asset values can also significantly
Pension Funding Concepts and State Contributions to Pensions

Actuarial accounting methods are used to determine the present value of future retirement payouts. That is, states must estimate how much money they need to set aside in the present in order to fund retiree obligations in the future. The assumptions that are built into this financing mechanism determine the payment amount that must be contributed to pension funds each budget cycle, to ensure that currently accruing benefits are covered by the fund. The yearly (or biennial) employer contribution to the fund comes directly from the state’s operating budget and is called the annual required contribution or (ARC). The ARC represents the level of payment needed for the state to keep pace with the accumulation of benefits. Keeping pace entails meeting the cost of benefits accrued in the current year in addition to paying a portion of the unfunded liabilities. If actuarial assumptions are correct and states consistently fund nearly the entire ARC, they are more likely to resolve potential pension funding issues over time while continuing to sufficiently fund normal state operations.

According to the Public Fund Survey by the National Association of State Retirement Administrators, ARC payments for state and local plans averaged 91 percent of the required contributions for fiscal year 2001 through fiscal year 2009. In calendar year 2010 however, the Center for Retirement Research estimated that state and local governments significantly reduced the percent of ARC paid to 78 percent of the required contributions. Two factors likely resulted in below average contribution levels in 2010, severe declines in state and local tax revenues, and rising unfunded liabilities tied to pension assets that lost value during the downturn. In times of prolonged economic decline, pension funds face two challenges simultaneously; falling asset values, which raise the ARC, and a diminished ability to strengthen the funding ratio through increased budgetary contributions.

When states contribute significantly less than the ARC, assets in the pension fund may not be able to meet the liabilities that accrue, which can necessitate future taxpayer dollars to cover the cost of benefits for services delivered in the past. States must consider the issue of equity because, as the Government Accountability Office points out, “When the ARC is not paid in full each year, future generations must make up for the costs of benefits that accrued to employees in the past.” If states are unable to make the full ARC in tight budgetary times or when executive leaders express more pressing priorities, states can often choose to reduce contribution levels because the accrued liabilities do not all come due at once. This means that states have the opportunity to improve the funding status of pension systems in times of budget surplus or rising investment returns. The amount owed on unfunded liabilities can be paid over time because the obligations are amortized much like a mortgage payment. Annual contributions are often determined in conjunction with the overall budget, statutes, and constitutional provisions, as well as liabilities. In contrast, optimal funding levels or funding ratios are related to the valuation of assets and liabilities. Few state or local pension plans contain enough assets set aside to equal 100 percent of liabilities because the funding status can be impacted by a number of factors both financial and policy related, including: cost of living adjustments, fluctuating investment returns, variations in actuarial assumptions, employee demographic changes, mortality rates, and plan changes.

When a pension plan’s accrued actuarial liability (liabilities) exceeds the actuarial valuation of assets (assets) the plan is said to have an unfunded actuarial accrued liability (UAAL) or unfunded liabilities. The ratio of liabilities to assets is depicted as a pension plans’ funding ratio, which indicates the level of funds available for paying accrued benefits. The benchmark for many state and local plans is to maintain an 80 percent funding ratio or enough assets to cover 80 percent of accrued liabilities. Funding ratios can be used as an indicator of plan solvency, but the statistic does not always represent a meaningful comparison due to different assumptions and rules built into pension systems. However, funding ratios due signal when ARC payments must be increased or when policy oriented plan changes are needed to reduce liabilities.

Pension Systems and the State Budget

In the past, pension dollars accounted for a much greater share of state budgets than they do today. (See graph). Non-pension expenditures for health care and education have grown rapidly, reducing pension costs in relation to other spending categories. Overall, pension contributions represent a small percentage of states’ operating budgets at roughly 3.8 percent. Despite pension contributions’ relatively small proportion of state budgets,
during difficult fiscal times all spending priorities are signifi-
cant. Furthermore, according to the Center for Retirement Re-
search, state and local government contributions are estimated
to rise from 3.8 percent budgets to roughly 5.0 percent by 2014.
This estimate assumes no plan changes and the continued use of
an 8.0 percent discount rate or assumed annual rate of discount
from pension fund liabilities.13 Falling pension assets can also
lead to unanticipated increased pension funding requirements,
which can make budgeting for pension contributions difficult
from year to year. The potential for increased budgetary con-
tributions is important for states to consider in exercising long
term fiscal plans and especially in weighing alternative uses in
times of tight budgets.

Government Pension Contributions as a Percent
of State and Local Budgets, 1957-200814

![Graph](image)

**Source:** Center for Retirement Research, October 2010.

Budget dollars designated for pensions are resources that must
be directed away from other state services. Placing pension con-
tributions within the context of the overall budget allows policy
makers to examine plan affordability and promised benefits in
relation to spending for other state services. Pension contribu-
tions are often viewed as a percentage of payroll costs, but from
a budget perspective pension funding requirements are seen in
connection with the entirety of state spending. From this per-
spective, the costs associated with retiree benefits can best be
understood by measuring the value of alternative state services
that must be given up or reduced in order to meet pension fund-
ing requirements.

Pension plans typically have long time horizons, which allow
investment gains or losses to be smoothed out over a period
of years and unfunded liabilities to be amortized. In contrast,
state budgets must be balanced on an annual or biennial basis.
Therefore, state pension contributions can receive similar pres-
sure and scrutiny that other state services and programs experi-
ence in the budget process. For many states, the ARC payment
remains an anchoring point that helps guide budget deliber-
eations even when the payment level is not legally required. Some
states have acknowledged that this can be problematic and have
adopted statutes or constitutional provisions tying contribution
levels to actuarial calculations or specified amounts in order to
insulate pension funding from budget deliberations.

Pension funds continue to derive the majority of their income
through investment returns and not the budget. However, bud-
get dollars do account for 28 percent of pension revenue,15 so
when equity values fall, states can experience budgetary im-
pacts as they did in the Great Recession. When pension assets
decline there are greater unfunded liabilities, which can increase
the payment needed for states to keep pace with accruing ben-
efits. Actuaries can account for asset fluctuations by phasing in
gains and losses, a technique known as smoothing. However,
this accounting procedure does not eliminate the budgetary
impact from declining or rising assets, but rather spreads the
impact over a number of years.16 This means that losses in cal-
endar years 2008 and 2009 will not be fully reflected in pension
contribution levels until fiscal year 2016. For this reason, pen-
sion funding requirements may continue to have implications
for state budgets. In many states, the budgetary impact from the
recession is being mitigated by changes to pension plans that
limit liabilities or increases employee contributions.

**Pensions, Debt, and Borrowing Costs**

Pension liabilities can also be viewed as a debt structure com-
ponent, comprising one aspect of a state's long-term outstanding
debt. Therefore, state pension systems are a factor that rating
agencies consider before issuing an opinion on a state's ability to
repay debt obligations. The degree to which states consistently
pay their ARC indicates that other debt obligations will likely
be met through the normal budget process. According to the
Center for Retirement Research, pension funding does not have
a statistically significant effect on bond ratings, but the extent
to which ARC payments are met does result in a statistically
significant but modest impact on state borrowing costs.17 The
effect of pension funding on bond ratings is likely minimal be-
cause pension contributions comprise a relatively small portion
of the operating budget. Despite having an effect on ratings, di-
minished ARC payments do increase borrowing costs although
only by three to seven basis points.18 A demonstrated ability to
make ARC payments may have a greater impact on borrowing
costs in the future if pension funding requirements comprise a
larger portion of state budgets or if levels of unfunded liabilities
increase significantly.
Accounting Changes, Pension Reform, and Implications for State Budgets

Potential changes to actuarial valuation methods of pension liabilities are being considered by the Government Accounting Standards Board (GASB). It remains unclear exactly what GASB changes will occur, but the board is reviewing rules covering the discount rate or the rate used to discount liabilities. If discount rules under consideration are enacted, this would compel states to align discount rates with the nature of the liabilities. Pension obligations are referred to as “riskless” because the payments are guaranteed to beneficiaries. In contrast, pension fund assets are often in the form of equities that carry risk. The proposed GASB rules will require states to assume future asset returns in a similar riskless manner, which will reduce the rate that the future liabilities are discounted. This accounting change would revise downward the funding ratios for almost all pension funds, especially funds that already have large unfunded liabilities.

The impact of pension fund accounting changes on state budgets is not clear at this point, but the Center for Retirement Research predicts that pension contributions could shift from 5 percent of state and local budgets to 9 percent, if the discount rate is revised downward to 5 percent to reflect the GASB proposals. However, decreasing the discount rate does not necessarily mean that states will need to substantially increase contribution levels because many policy options can serve to limit liabilities. For example, some states are increasing the employee contribution requirements in order to reduce the employer funding requirements, which is easing budgetary pressure from pension systems. Forty states made significant revisions to at least one state retirement plan in 2010 or 2011. To counter the growth in liabilities, states have made pension plan changes in a number of ways including: raising the retirement age before employees can receive benefits, reducing cost of living adjustments, restructuring benefit formulas, extending the time period for employee vesting, and increasing employee contribution levels. States that limit future pension liabilities may relieve some current budgetary pressure through reduced borrowing costs or decreased employer contribution levels. However, pension reforms are primarily intended to limit pension risk on future state budgets rather than create substantial, immediate spending relief.

Conclusion

Currently, pension plan reforms and accounting changes under consideration by the Government Accounting Standards Board are likely to have uncertain implications for state budgets. Policy changes that limit pension liabilities in the future may reduce budgetary contributions to pension systems. State legislatures and accounting officials are taking steps to avoid an excessive draining of budgetary resources for pension systems. States have taken initiatives to reduce liabilities in times of steep budget cuts, but as tax revenues slowly increase, states will have the option to improve the funding ratio of their pension systems. Larger employer and employee pension contributions may ease fiscal strain in the long run, before unfunded liabilities reach excessive levels. This will require budgetary trade-offs between less funding availability for state services or more robust pension systems. Increasing the annual required contribution is one budgetary ingredient that can improve the funding status of retirement plans. It is likely that policy actions and increased employee contributions are also necessary to prevent pension system erosion. States can take steps to equally distribute the financial costs of promised benefits between employees and employer. Sound fiscal policy can produce this change over time before pension costs jeopardize state spending for essential services, and before beneficiaries must sacrifice retirement security.

If you would like additional information, please contact Scott Pattison (spattison@nasbo.org or 202-624-8804) or Michael Streepey (mstreepey@nasbo.org or 202-624-8433).
References

5. ARC payments are comprised of two components; the cost of benefits that employees accrued in the current year and the amount needed to cover unfunded liabilities over the amortization period, typically 30 years.
9. Current GASB standards require that amortization periods not exceed 30 years, the presumed working life of the average employee.
10. For purposes of simplicity, accrued actuarial liability and actuarial valuation assets will be referred to as liabilities and assets respectively. Accrued actuarial liability (AAL) is the value of benefits already earned. Actuarial valuation of assets (AVA) refers to the asset value used for valuation purposes, assets are the sum of past contributions and investment returns.
16. Most states use a 5 year period for smoothing.
19. The proposed rule change will only impact the unfunded liabilities. Funded liabilities will continue to be allowed to use a discount rate of eight percent.