Teacher Retirement Systems: Research Findings **(2009).**
Hansen, J., Podgursky, M., and Costrell, R. NCPI Research Brief Series. Nashville, TN.

This research brief summarizes findings presented at the February 2009 research conference on teacher retirement systems. Several themes echoed throughout the conference. First, teacher pensions represent large financial commitments by states and school districts. It is arguable how well prepared pension systems are to meet the promises already made to current teachers and retirees without imposing higher contributions on employers, employees, and/or future taxpayers. Second, the current design of teacher pensions creates strong incentives for work and retirement decisions that are not necessarily aligned with efforts to maximize the quality of the teaching force. Third, there is a need for more transparency about the implications of actuarial assumptions and benefit designs on public costs and individuals' pension benefits, in order to understand how well current policies serve public purposes. And fourth, teacher pension policy is made in a highly political environment and is subject to a variety of legal limitations. Would-be reformers will need to address these political and legal issues as well as behavioral, actuarial, and fiscal concerns.

To read this paper, please click here.

The Link between Pensions and Retirement Timing: Lessons from California Teachers **(2009).**
Brown, K. NCPI Conference Paper Series No. 2009-12. Nashville, TN.

This paper exploits a major, unanticipated reform of the California teachers' pension to provide quasi-experimental evidence on the link between pension generosity and retirement timing. Using two large administrative datasets, the author conducts a reduced-form analysis of the pension reform and estimates a structural model of retirement timing. With both methods, the author finds that the rise in the price of retirement had a positive, but relatively small effect on the fraction of people retiring later. The implied estimates of the elasticity of retirement age with respect to the price of retirement are 0.02 in the medium-run and 0.10 in the long-run. With the baby boomers reaching retirement age, public officials and private pension managers are scrambling to design policy that will reduce the burden of pension obligations on younger workers and shareholders, while still fulfilling the promises made to those nearing retirement. The proposed reforms will inevitably alter key pension financial incentives faced by members, such as the reward for an additional year of work, making the degree to which these incentives affect retirement timing central to the policy debate.

To read this paper, please click here.

Retiree Health Plans for Public School Teachers After GASB 43 and 45 **(2009).**
Clark, R. NCPI Conference Paper Series No. 2009-03. Nashville, TN.

Most public elementary and high school teachers are covered by health insurance provided by their employer while they are employed. In most cases, these health plans are managed at the state level. At retirement, teachers with sufficient years of service are allowed to remain in the health plan. Retiree health plans for teachers vary widely across the country with some states paying the full premium for the retired teacher while other states require that the retiree pay 100 percent of the premium. Recent changes in the accounting rules now mandate that public sector employers report the accrued liabilities associated with these plans. This paper documents the unfunded liabilities of teacher retiree health plans in the various states, examines the reasons for these differences, and considers how these plans might evolve in the future.

To read this paper, please click here.

Determinants of the Generosity of Pension Plans for Public School Teachers, 1982 to 2006 **(2009).**
Clark, R. and Craig, L. NCPI Conference Paper Series No. 2009-05. Nashville, TN.

The authors offer a concise history of teacher retirement plans in the United States, highlighting the increase in the generosity of the plans over the past 25 years. They employ data from plans in all fifty states to estimate the impact of a set of social and economic variables on the plans' replacement rates for a hypothetical teacher. The authors find that, at the state level, population growth and the share of the labor force that is unionized positively affect replacement rates; while expanding plan membership to include other state employees and participating in Social Security negatively affect replacement rates.

To read this paper, please click here.

Teacher Pensions Incentives, Retirement Behavior, and Potential for Reform in Arkansas **(2009).**
Costrell, R. and McGee, J. NCPI Conference Paper Series No. 2009-10. Nashville, TN.

In this paper, the authors present an analysis of the Arkansas Teacher Retirement System (ATRS) pension plan and an empirical investigation of the behavioral response to that plan, as well as to a possible reform plan. They begin by describing the plan parameters and discussing the incentives these parameters create. They then estimate the effect of pension wealth accrual on teacher separation decisions using a new longitudinal dataset of Arkansas teachers. The resulting coefficients are subsequently used to compare predicted separation probabilities under the current parameter regime versus a constant accrual retirement plan. The authors find evidence that teachers' retirement decisions are sensitive to pension plan parameters. They also show that changing the pension plan design could yield a very different pattern of retirement behavior.

To read this paper, please click here.

Distribution of Benefits in Teacher Retirement Systems and Their Implications for Mobility (2009). **Costrell, R. and Podgursky, M. NCPI Conference Paper Series No. 2009-04. Nashville, TN.**

While it is generally understood that defined benefit pension systems concentrate benefits on career teachers, and impose costs on mobile teachers, there has been very little analysis of the magnitude of these features and patterns of variation between states. The authors develop a measure of implicit redistribution of pension wealth among teachers of varying ages of separation. Compared to a neutral system, they find that about half of an entering cohort's net pension wealth is redistributed to teachers who separate in their fifties from those who separate earlier, and they also identify some variation across six representative state systems. This implies large costs for mobility. The authors estimate that teachers who split a thirty-year career between two pension plans often lose over half their net pension wealth compared to teachers who complete a career in a single system. Plan options that permit purchases of service years mitigate little or none of these losses. It is difficult to explain these patterns of costs and benefits on efficiency grounds.

To read this paper, please click here.

Scrambling the Nest Egg: How well do teachers understand their pensions and what do they think about alternative pension structures? (2009). **DeArmond, M. and Goldhaber, D. NCPI Conference Paper Series No. 2009-13. Nashville, TN.**

In this paper we add to the nascent literature on teacher pensions by exploring two questions: How well do teachers understand their current pension plans? And, what do they think about alternative plan structures? For our analysis we use data from a 2006 original survey of teachers in Washington State. We link survey results on pension knowledge and preferences to detailed data on school and district characteristics so that we can analyze variation across individuals and workplaces. The results suggest that Washington's teachers are fairly knowledge about their pensions. In addition, a majority of teachers indicated a preference for investing additional retirement savings in a defined contribution (DC) plan; newer teachers appear to be especially receptive to DC plans. While some might take these findings to suggest that pension reforms will make teaching more attractive to future teachers, many important questions about the relationship between teachers and pensions remain.

To read this paper, please click here.

Labor Market Effects of Pensions and Implications for Teachers (2009).
Friedberg, L. and Turner, S. NCPI Conference Paper Series No. 2009-06. Nashville, TN.

While the pension plan landscape has changed remarkably over the last two decades, with most private-sector workers seeing a shift from defined benefit (DB) to defined contribution (DC) plans, DB pension plans remain the overwhelming norm for K-12 teachers employed by state and local governments. With DB plans, teachers typically receive minimal pension benefits if they leave their jobs before their fifties, then large gains for staying a few more years, after which their pension wealth begins to drain away if they do not retire. The resulting jumps and dips in the path of teacher pension wealth accrual have major implications for the staffing of schools, potentially affecting retirement behavior, the mobility of mid-career teachers, and the characteristics of remaining teachers. Beyond describing the aging of the teacher labor force and the parameters of teacher pensions, this paper outlines lessons from the labor economics literature about the likely implications for teacher labor markets.

To read this paper, please click here.

An Introduction to Teacher Retirement Benefits (2009).
Hansen, J. NCPI Conference Paper Series No. 2009-01. Nashville, TN.

Like most other state and local government employees, teachers participate primarily in defined benefit pension plans whose benefits are based on final average salaries and length of service. Such pensions have been replaced in many private sector firms by defined contribution pensions. A number of questions have arisen about the feasibility and desirability of continuing to rely on defined benefit pensions for teachers. These include (1) whether teacher pension plans are adequately financed to fulfill the commitments made to plan participants; (2) whether current pension plans are both fair to short-term and long-term teachers; and (3) whether these plans contribute to teacher shortages by encouraging early retirements and discouraging people from moving to schools where their skills and knowledge are most needed.

This paper (1) presents basic information on teacher retirement plans; (2) discusses differences in the legal and economic context for public and private sector pensions that are important considerations in plan design; and (3) introduces issues related to financial sustainability, teacher mobility, and teacher shortages. The paper also provides an overview of key differences between defined benefit and defined contribution plans. It highlights the fact that the boundaries between various types of pensions are porous, and plans can be designed to include a variety of features depending on the objectives being sought. The paper also discusses one form of defined benefit pension, the cash balance plan, that has features normally found in both defined benefit and defined contribution programs. Cash balance plans have replaced some traditional defined benefit plans in private firms but have received almost no attention in the public sector.

To read this paper, please click here.

"But the Pension Fund Was Just Sitting There..." The Politics of Teacher Retirement Plans (2009).
Hess, F. and Squire, J. NCPI Conference Paper Series No. 2009-09. Nashville, TN.

The tension at the heart of pension politics is the incentive to address today's claimants and focus on the here-and-now at the expense of long-term concerns and more dispersed constituencies. In the private sector, rules and regulations seek to tame corner-cutting and short-sighted behavior. In the public sector, the primary safeguard is the self-discipline of public officials and the hope that they will not be unduly tempted by short-term electoral considerations or influential constituencies. Teacher pensions, in particular, pose two challenges for K-12 schooling. The first challenge is the political incentives that lead to irresponsible fiscal stewardship, as public officials make commitments to employees that outstrip the available funds. The second is that of electoral considerations which hinder modernization, as policymakers dance around existing structures built to serve an industrial-era workforce and ill-suited to attracting talent in the contemporary labor market. The alignment of the political stars has helped states and localities to address the first challenge, but there has been little evidence of a willingness to tackle the second. The authors examine the political control of public pensions, the influence of teacher associations, and the lack of institutional constraints on public officials to explain the severity of these challenges. Those dynamics are illustrated via discussion of fiscal crises in New Jersey, Oregon, and San Diego and the way in which those crises created opportunities for addressing enormous shortfalls in funding. The authors close by suggesting several measures that may encourage public officials to be more responsible fiscal stewards or to revisit anachronistic retirement systems in order to promote teacher quality.

To read this paper, please click here.

Teacher Retirement Ponzi Schemes (2009).
Kotlikoff, L. NCPI Conference Paper Series No. 2009-02. Nashville, TN.

This paper is about the funding status of teachers' retirement pension schemes. Its goal is to relate the accounting for the funding of these pension obligations to the endemic, systematic, and fundamentally fraudulent system of accounting our country uses to assess the financial positions of federal, state, and local government as well as many financial and non-financial private enterprises. Indeed, the paper argues that fraudulent accounting and misrepresentation is the defining element of Ponzi schemes and the real reason we find such schemes repugnant. Furthermore, any public or private enterprise that engages in fundamentally fraudulent accounting can fairly be characterized as running a Ponzi scheme. In this regard, it seems fully appropriate to characterize many, if not most, teachers' retirement plans as Ponzi schemes.

To read this paper, please click here.

Legal Limitations on Public Pension Plan Reform (2009).
Monahan, A. NCPI Conference Paper Series No. 2009-08. Nashville, TN.

There is significant interest in reforming retirement plans for public school employees, particularly in light of current market conditions. This paper presents an overview of the various types of state regulation of public pension plans that affect possibilities for reform. Several states have legal protections that effectively prevent a state from making any changes to its retirement plans that would reduce the monetary value of an employee's pension from what he or she would have earned under the terms of the plan in effect on the employee's date of hire. Many other states allow changes to their pension plans only if any disadvantages of the plan amendment are offset by comparable new advantages for participants. Other states allow retirement plan changes as long as participants have been afforded due process. Nearly all of the various approaches to public pension plan protection taken by the states have significant flaws. These flaws include a lack of clarity regarding what plan changes the relevant legal standard will allow, combined with either too much or too little protection for plan participants. This paper argues that states would be well served to adopt the approach used by the federal government with respect to pension plans. The federal approach protects plan participants' currently accrued benefits, but gives employers freedom to change plan terms going forward. This approach is clear, protects legitimate participant interests, and preserves an employer's ability to respond to changing economic conditions.

To read this paper, please click here.

Teacher Pension Incentives and Labor Market Behavior: Evidence from Missouri Administrative Teacher Data (2009). **Ni, S., Podgursky, M., and Ehlert, M. NCPI Conference Paper Series No. 2009-11. Nashville, TN.**

Policy discussions about teacher quality and teacher "shortages" often focus on recruitment and retention of young teachers. However, attention has begun to focus on the incentive effects of teacher retirement benefit systems, particularly given their rising costs and the large unfunded liabilities. In this paper the authors analyze accrual of pension wealth for teachers in a representative defined benefit teacher pension system. Missouri substantially enhanced retirement benefits during the 1990's in response to a booming stock market. The authors estimate the current costs of those enhancements, and evidence of their effects on teacher retention and retirement. They construct forward-looking measures of teacher pension wealth and show that the actual distribution of teacher retirements can be approximated by simple models which assume that teachers retire when pension wealth is maximized. While retirement age is rising in other sectors of the economy, these pension enhancements appear to have lowered the average experience and age of retiring public school teachers in Missouri.

To read this paper, please click here.

Teacher Pension Preferences: Pilot Study Results (2009).
Smith, E. and Guthrie, J. NCPI Conference Paper Series No. 2009-14. Nashville, TN.

Teacher pensions are fast becoming a significant issue in education policy. Mounting unfunded pension financial liability, likely larger numbers of retiring teachers, increasing mobility among existing teachers, and unfavorable comparisons with less generous private sector pension plans all contribute to putting pedagogues' pensions in the public spotlight. Little is known, however, about the actual pension preferences of current and potential teachers. To this end, this paper provides results from an exploratory survey designed to probe the preferences of current and prospective teachers, the results of which may eventually illuminate the role of pensions in attracting and retaining a higher-quality teacher force.

To read this paper, please click here.

Patterns of Retirement and Return Employment of Pennsylvania's Professional School Personnel: 1984-2005 (2009). **Strauss, R. and Liu, J. NCPI Conference Paper Series No. 2009-07. Nashville, TN.**

The purpose of this paper is to characterize the choice made by retired professional school personnel in Pennsylvania to return to work in public education. The authors describe such retiring teachers, administrators and coordinators as "retirees," and describe such persons who return to work in public education post-retirement as "returnees." The authors find that:

- PA is excess teacher supply state, employment rate of new teachers is about 20% to 25%.
- The PA Teacher retirement system is a typical defined benefit plan, .025 x service x average top salary.
- Returnees are relatively rare, about 2% of retirees, tend to be administrators and coordinators, younger by 10 years, earn less, tend to retire earlier, tend to be mobile when returning to work, and are selective to where they go in terms of working conditions.
- Returnees typically wait between 2 and 3 years before returning to public education.
- Returnees typically work between 4 and 5 years.
- An exploratory multinomial logit model of the decision to return or not to public education indicates that a higher, inflation adjusted salary reduces the probability of returning compared to remaining retired.

To read this paper, please click here.

Early Career Teachers' Perceptions of Traditional Versus Innovative Benefits Packages **(2009). Tran, D. and Huang, E. NCPI Conference Paper Series No. 2009-15. Nashville, TN.**

Limited information exists on how early career teachers, particularly those in "Generation Y", feel about the pension system and potential reforms to the pension system. This paper presents an analysis of the appeal of different aspects of pension plans; their influence on charter versus traditional public school teachers; and how retirement benefits influence career decisions. Findings are drawn from a pilot study surveying teachers (n=52) in years two through ten on particular characteristics of defined benefit and defined contribution plans. Key findings include: (1) lack of portability is a frustration to early career teachers; (2) early career teachers have an interest in defined contribution plans; (3) charter school teachers are more open to pension reform; and (4) teachers who plan to stay in the profession are more open to pension reform than might have been expected.

To read this paper, please click here.

Efficiency and Equity in the Time Pattern of Teacher Pension Benefits: An Analysis of Four State Systems **(2007). Costrell, R. and Podgursky, M. NCPI Working Paper Series No. 2007-01. Nashville, TN.**

Defined benefit pension plans often generate odd time patterns of benefits. One typical pattern exhibits low accrual in early years, accelerating in mid-late years, followed by dramatic decline, or even negative returns in years that are relatively young for retirement. We consider four states for specific analysis: Arkansas, Missouri, California and Massachusetts. There are interesting variations among these states' formulas, which affect the incentive to retire early. We identify key factors in the defined benefit formulas that drive such patterns and likely consequences of these systems and lessons that might be drawn for pension reform.

To read this paper, please click here.