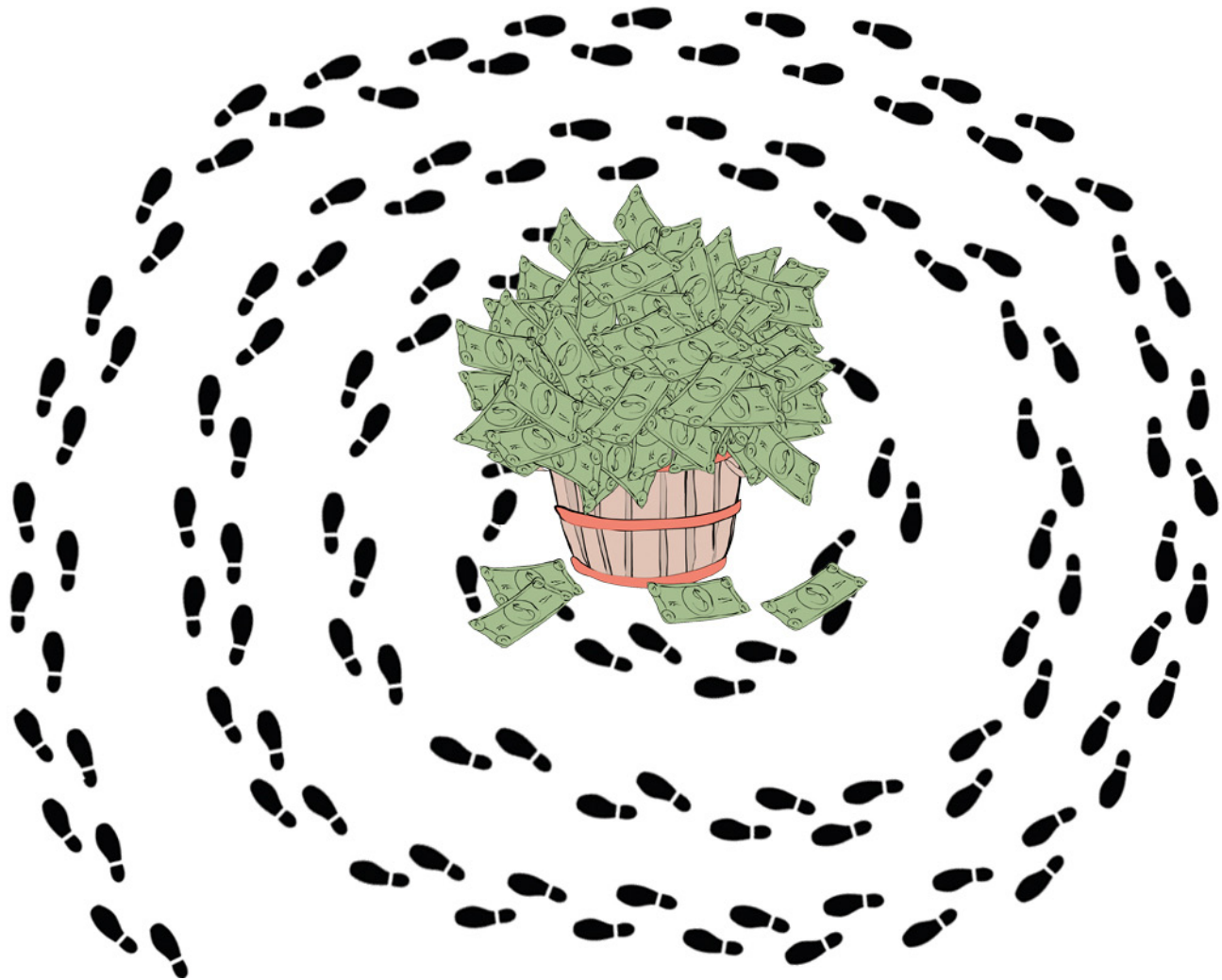


# *Footprints*

How NVPERS, step by step, made Nevada government employees some of the nation's richest



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## Executive Summary

To tell the tale of the troubles facing Nevada's Public Employees' Retirement System — and thus, also, the need for serious reform that now confronts the taxpayers of the Silver State — nothing substitutes for a simple walk down Memory Lane.

So that's the approach this white paper takes — examining the actual legislative history of NVPERS over the decades.

Such an examination is quite revealing and offers important insights — such as:

- How the complexity of public pension plans allowed a coalition of public unions and the NVPERS board — functionally a public union itself — to regularly mislead Nevada legislators over 30-plus years and, at tremendous cost to taxpayers, stealthily enhance public pensions.
- How this ever-increasing enhancement of benefits is a primary source of NVPERS' soaring unfunded liability — playing a bigger role, indeed, than the market collapse of 2008. Most clearly, this is revealed by the extraordinary enhancements given police and fire personnel, when their compensation was already well above the national average.
- How a flawed approach to pension funding — an approach rejected both by private U.S. pension plans and even the *public* pension plans of most other nations — encourages NVPERS to bet big, when most experts are advising caution. To justify its 8 percent discount rate, NVPERS has now allocated more of its portfolio to risky assets than at any other time in its history. This makes the system exceptionally vulnerable, should the market downturn that most experts predict within the next decade occur.
- How Nevada's public-pension debt grew so great that — should another serious market collapse occur — Nevadans would be unable to bail NVPERS out. In that scenario, retirees would face almost certain benefit reductions.
- Why governments, finally, are ill-equipped to provide public pensions: Financially naïve citizen-lawmakers can too easily be lobbied and/or intimidated by public unions into approving legislation that enriches union members at the expense of the general public. Because the costs of the schemes are essentially hidden in the pensions' actuarial complexity and are extended out over future generations, compliant lawmakers escape election accountability. Repeatedly, over the past 30 years of Nevada's legislative sessions, this has been the pattern. Starting with a sizable increase that was laughably referred to as “fixing a discriminatory provision,” enhancements are now so rich that men in their 40s are drawing \$100k-plus “retirement incomes” while working full-time for other governments.

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# *Footprints*

## How NVPERS, step by step, made Nevada government employees some of the nation's richest



### Introduction

How did a “reasonable base income” for public employees retiring due to old age or disability morph into annual retirement benefits well over \$100,000 for 43-year-olds who’ve left Nevada in order to simultaneously pull down *additional* full-time government salaries elsewhere?

A “reasonable” base income, is, after all, the original purpose of Nevada’s Public Employee Retirement System (NVPERS), established in 1973:

#### **NRS 286.015 Declaration of state policy; purpose of chapter**

A reasonable base income to qualified employees who have been employed by a public employer and whose earning capacity has been removed or has been substantially reduced by age or disability

The answer to that “how” question spans decades.

Partly indicative of the answer was when one key lawmaker — the chairman of a strategically important legislative committee — complained of harassment and threats to his safety from Metro cops, if he refused to play ball.

His offense? Less-than-immediate kowtowing before a coalition of government unions and most state lawmakers — the latter reflexively obedient to those unions’ increasingly voracious demands.

About this implicit pact, both sides have long been happy to keep taxpayers in the dark. Nevertheless, it is Exhibit A in a multi-decade fiduciary failure of Nevada state government.

Facilitating this failure has been the exceedingly complex nature of public pension plans, which require — but rarely receive — lawmakers’ in-depth understanding before approval.

Another factor has been a self-interested and biased NVPERS board, which — entirely composed of union careerists — regularly sends its top executive, session after session, to mislead uninformed legislators.

Repeatedly, after good investment years, the system's representatives have pushed for immediate legislative enactment of additional benefits — increasing long-term costs and liabilities that must be spread out over ever-more-distant 30-to-40 year timelines, and for which generations of taxpayers and system contributors not yet alive must pay.

Together, the two elements produced a legislative process optimized for covertly enriching public-employee compensation well beyond rational or affordable limits.

Consequently, should today's international no-growth economy stumble into the deep financial crisis that many forecasters fear, NVPERS' fantasy economic forecasts will be replaced by immediate bankruptcy — leaving every Silver State household with a sudden, implicit, \$50,000-plus tax liability.

Thus it appears that neither the public unions lobbying for the enhancements nor the legislators approving them ever actually grasped the full implications of their actions.

For Nevadans, this is a critically important matter.

Silver State taxpayers' annual contributions — made via state and local governments — are the third-highest in the nation, according to the most recent, 2013, data from the Public Plans Database, which places it at 9.8 percent of own-source revenue.

Then there's the state's pension debt.

Every household in Nevada — if the calculations are done on the real-world market basis the federal government requires *private* pensions to use — faces a hit of some \$50,888, in the event of a serious financial crisis.

That's the conclusion scholars at the Stanford Institute for Economic Policy Research came to, using 2014 data. It puts the State of Nevada at 9th highest, nationwide.<sup>1</sup>

The crisis in American public pensions has received wide attention after cities such as Detroit and San Bernardino went bankrupt and the territory of Puerto Rico defaulted under the crushing weight of pension debt.

Yet rather than learn from these experiences and taking steps to ensure such a calamity does not befall the Silver State, NVPERS continues along the same track, just one serious market downturn away from insolvency.

While many experts increasingly caution that a major market correction and lower long-term returns will characterize the next 10-plus years, NVPERS is betting big on a continued bull market — with a larger allocation in equities than at any other time in the agency's history.

This paper explores the structural and governance factors that drive such excessive risk-taking, as well as what has been called “intergenerational theft,” where the costs of today's indulgences are passed onto future generations that will receive none of the benefits.

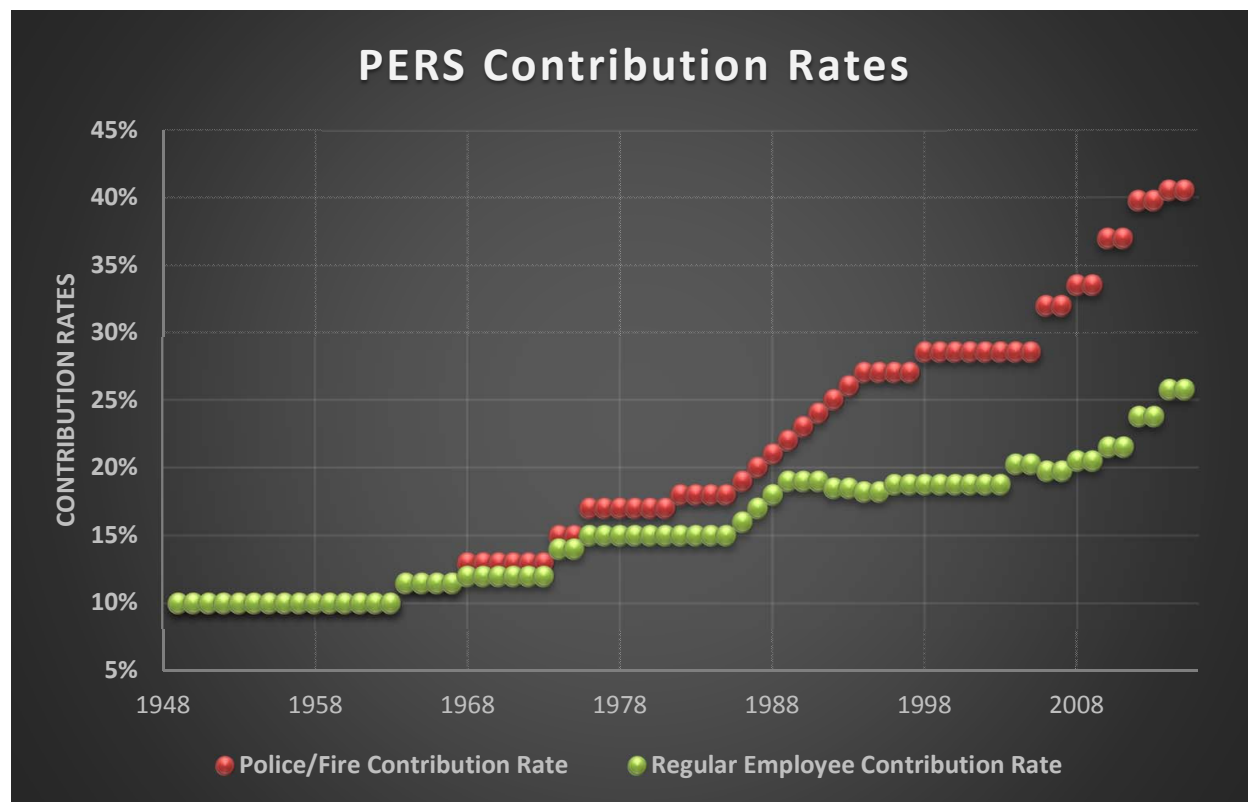
We also review the actual legislative history, from the 1970s to the present, where all the theoretical flaws of public pensions manifest themselves throughout the legislative process.

Finally, we highlight the reform options available to Nevada. Readers not clear on differences between the two main types of pension plans — defined-benefit and defined-contribution — can find explanations in Appendix A.

## Costs: Private plans vs. public plans

In 2016, the annual required contribution (ARC) to NVPERS pensions hit an all-time high as a percentage of payroll for Nevada public employees: 28 percent for regular public employees and 40.5 percent for police/fire personnel. (For average police and fire pay, by state, in 2015, see Appendix B.)

As documented in the chart below, contributions had begun in the late 1940s at a mere 10 percent:



Here in Nevada, as across the country, virtually all full-time state and local-government workers have access to retirement and medical benefits.<sup>2</sup>

This is significantly different than in the private sector, where only 76 percent of full-time private workers had access to retirement benefits in 2015. Most of those participated in Defined Contributions plans.<sup>3</sup>

The disparity in costs between sectors, however, is even greater than the gap in access rates. Pension expert Andrew Biggs of the American Enterprise Institute in 2011 compared the value of what a hypothetical worker would receive under NVPERS after 30 years with what the same worker would receive in the private sector.

He concluded, "Total benefits under PERS are 55 percent more generous than those for a typical private-sector worker with Social Security and a 401(k)."<sup>4</sup>

In a more recent study, Biggs found that, "Since 2001, the average [public pension] plan ARC more than tripled as a percentage of employee payroll, from 8.6 percent of payroll to 27.2 percent."<sup>5</sup>

In contrast, for private sector workers enrolled in a retirement savings account with an employer-match, the median maximum employer contribution rate was only 3 percent. Even at the 90th percentile, the median maximum employer contribution was only 6 percent.<sup>6</sup>

To be fair, the disparity is less than it would appear for Nevada’s state government workers. State law mandates that public employees must pay half of the ARC themselves, either directly or through an equivalent reduction in salary.

While this is the case at the state level — where government workers either contribute their

half or select a reduced-salary schedule — local-government workers are different.

First, essentially all local governments elect to pay the *full* share, claiming it is done in lieu of a salary increase or by an equivalent reduction of salary. In *no* major local Nevada government does the employee contribute his or her half directly.

Second, in contrast to state government, local governments are subject to mandatory collective-bargaining statutes and must also conduct that bargaining in secret.

Thus, members of the public lack any actual assurance that such “in lieu of” or

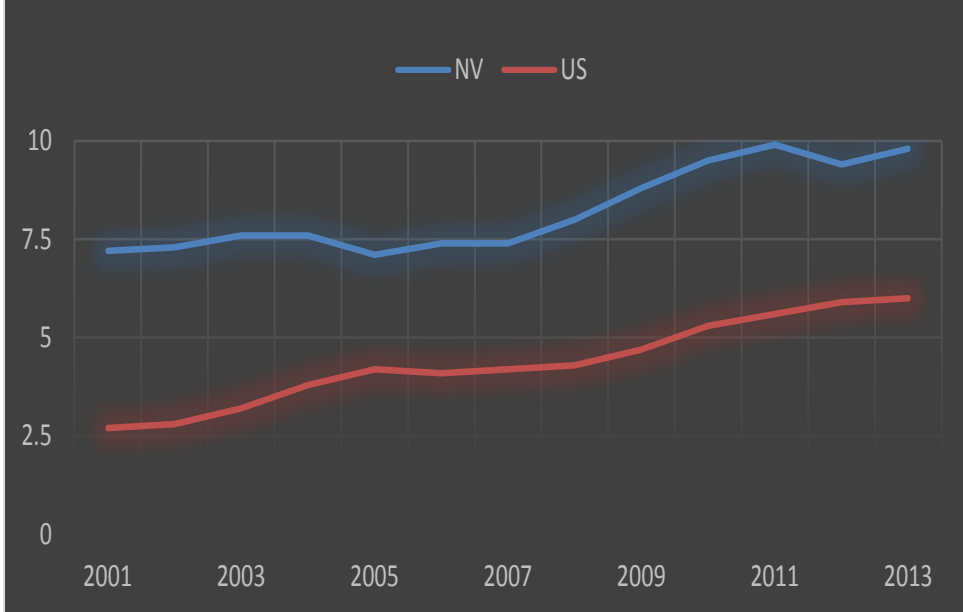
“salary reduction” claims are true. Moreover, data — discussed in more detail below — strongly contradicts the claim that local-government workers are seeing a reduction in salary to offset the employer paying the entire ARC.

### **NVPERS cost is among the nation’s highest for public pension plans**

As noted earlier, the NVPERS’ ARC equaled 9.8 percent of Nevada’s state and local governments’ own-source revenue. This is one of the highest rates nationwide and significantly above the 6.0 percent national average, according to the Public Plans Database. As can be seen in the chart above, NVPERS has historically cost much more than the average public pension plan, although costs for all public pension plans nationwide have risen dramatically since 2001.

The primary driver for such extraordinary costs is the generosity of NVPERS’ benefits. The average full-career NVPERS retiree can expect to receive a \$64,008 annual benefit — or roughly \$1.325 million in present-value dollars. According to a 2014 study by Biggs, that is the richest of any state-based retirement system in the nation.<sup>7</sup>

**Annual Required Contribution as percent of State and Local Own-Source Revenue, 2001-2013**



## How did they get so rich?

Originally, NVPERS benefits were quite modest. In 1949, the average annual retirement benefit was roughly \$11,000, and the highest were subject to a cap of roughly \$24,000, in inflation-adjusted dollars.<sup>8</sup> By 2014, however, the average benefit had risen to \$33,750, after merely 19 years of service, and the highest benefits levitated as high as \$272,000.

The timeline of how benefits were enhanced reads like a case study of why government is ill-equipped to provide a Defined Benefit system. Unlike Defined Contribution plans, where the employer has a fixed annual cost with no potential for unforeseen future liabilities, the costs of DB plans are inherently volatile.

Thus, while such DB plans guarantee fixed payments for life, only imperfect forecasting methodologies are available with which to attempt to estimate their costs. Accordingly, when those forecasts turn out wrong, the liabilities for employers can be tremendous.

Taxpayers being the ultimate employers for the public sector, it is they — along with a later generation of public employees — who, years afterward, must bear the burden when the inadequacy of those old forecasts are revealed through higher-than-expected costs. In effect, the previous era of unjustified DB generosity is revealed as one of intergenerational theft.

The American Academy of Actuaries calls intergenerational equity one of the “three primary objectives [that] need to be balanced” by pension policymakers. Yet, because of the incentives facing public pension administrators, failure is almost guaranteed.

Public pension plans tend to use a 30-to-40 year amortization period — the time-period in which accrued liabilities will be paid down — as opposed to the seven-year period required by corporate pension plans.<sup>9</sup> Such lengthy amortization periods, coupled with the political pressures built into public-pension administration, encourage everyone involved to defray costs onto future generations. This practice, therefore, makes returning to full-funding that much more difficult.

Pension expert Pete Constant, senior fellow at the Reason Foundation’s Pension Reform Project,<sup>10</sup> observes that:

Nearly every person at the decision-making level benefits from low projected normal costs, and nobody at the decision-making level is harmed by high unfunded liability amortization payments in the short term.

In fact, there is an incentive to drive down normal costs through the careful selection of actuarial assumptions. This lowers the employee’s contribution rate, effectively increasing take home pay, and, due to established laws and court precedent, irrevocably transfers the entire risk and debt to the government agency – and therefore the taxpayers – through either higher taxes or lower levels of services.

There is neither an incentive for being accurate, nor a consequence for being inaccurate. It is actually a perverse system in which there is a win for the entire membership when pension board trustees are *wrong!*

The phenomenon of governments violating the principle of intergenerational equity is so

**The phenomenon of governments violating the principle of intergenerational equity is so common that the federal body that oversees and regulates public pensions, offers a standing explanation.**



common that the federal body regulating public pensions, offers a standing explanation.

“More commonly,” says the Governmental Accounting Standards Board (GASB) “the explanations may be found in the political pressures of annually balancing the budget or a lack of a full understanding about the long-term implications of the benefit promises that were made to employees.”<sup>11</sup>

This is precisely what has happened at NVPERS.

No single legislative act, in a particular year, is responsible for the dramatic increase in the generosity, and cost, of NVPERS’ benefits. Instead, enhancements were made incrementally over the years, with each following almost an identical pattern: A coalition of public unions asking legislators to use recent, above-average investment returns to cover the added cost of benefit enhancements, with little attention paid to the potential for significant increases in taxpayer cost.

Remarkably, these enhancements were all passed even though NVPERS was severely underfunded and carried billions of dollars in unfunded liabilities, and despite an explicit mandate that NVPERS become fully funded by 2024. Rather than pay down the debt more quickly or allow contribution rates to decline, legislators repeatedly chose to increase benefits, which would ultimately make it that much more expensive to reach fully funded status.

Said differently, when faced with choosing either the fiscally responsible option or increasing benefits, the Legislature repeatedly chose the latter.

## **Richer benefits equals higher costs**

In Nevada before 1977, the formula determining the size of the lifetime annuity for pensioners, known as the “multiplier,” was 2.5 percent for the first 20 years of service and 1.5 percent for the next ten years, capped at 65 percent of the final average salary, or FAS.

NVPERS received its first significant enhancement in 1977, as the “multiplier” was increased to 2.5 percent of the final average salary (FAS), capped at 90 percent of that FAS. That cap was later reduced to 75 percent for all employees hired on or after July 1, 1985.

The 1977 enhancement represented a 15 percent increase for 30-year employees.

To justify that increase, NVPERS told lawmakers that the change would cure the supposedly “very discriminatory” effect of a 1.5 percent multiplier for employees who’d already accrued 20 years of annuity and yet continued to work.<sup>12</sup>

However, a graduated formula based on years of service, or even age, is common in public pension plans. The nation’s largest public pension fund, the California Public Employees’ Retirement System (CalPERS) contains several benefit formulas that offer a higher multiplier based on distance from retirement age.<sup>13</sup>

The City of Fresno Employees’ Retirement System uses both an age factor and a years-of-service factor that is nearly identical to the allegedly “very discriminatory” one first employed by NVPERS.<sup>14</sup>

Had NVPERS and state lawmakers truly been exercised over “inequity,” they simply could have *standardized* the multiplier, as opposed to increasing it, by going to a 2.17 percent multiplier overall — which would have been a cost-neutral change.

In reality, benefit differences — so-called “inequities” — are inherent in almost all aspects of DB plans. Because the future pension is based upon the highest three years of salary,

full-career employees receive disproportionately richer benefits than do short-career employees. Supplemental forms of pay, such as callback, shift differential and hazard pay also disproportionately benefit those employees eligible for those supplemental forms of pay, even though they still pay into NVPERS at the same rate as do employees who are not eligible.

It is important to note that, under state law, six of the seven NVPERS board members must be “active NVPERS members,” while the seventh must be a retiree collecting NVPERS benefits. Thus all board members personally benefit from whatever increase in factors they can get lawmakers to endorse.

NVPERS acknowledged that “fixing” this “discriminatory factor” was actually a benefit enhancement, and so would result in higher costs to taxpayers, state and local governments and government employees themselves. Although the annual required contribution per employee was set to decline, thanks to recent strong investment returns, NVPERS suggested that the Legislature instead could simply keep them at their current level. That meant instead of dropping from 16 percent to 13.7 percent, the rates would be frozen to “absorb the benefits that are provided in this bill.”<sup>15</sup>

This pattern — using short-term gains to rationalize increasing long-term costs — would repeat itself many times over in the following years.

## COLAs

In 1983, the Legislature implemented a regular cost of living adjustment (COLA) worth the lesser of 2 percent or the average of the CPI for the three preceding years, beginning in the fourth year of retirement. Given that the Legislature previously had only authorized COLAs on an ad-hoc basis, this was a legitimate enhancement, and was done while expressly acknowledging and accounting for its added cost.

However, in subsequent legislative sessions, the COLA would be continuously increased, reaching as high as 5 percent per year. By 1991, the COLA was increased to a graduated scale that topped out at 3.5 percent following the tenth year of retirement.<sup>16</sup>

That same legislative session, NVPERS itself drafted and successfully lobbied for Assembly Bill 500, which changed the CPI index to a “lifetime” calculation, instead of the previous method of averaging the three preceding years. This resulted in most retirees receiving COLAs at the maximum percentage allowed.

Then, in the 1993 session, NVPERS successfully lobbied to increase the maximum COLAs to 4 percent in the 13th year of retirement and to 5 percent in the 15th year, beginning in 1997.<sup>17</sup>

In each legislative session, legislators overwhelmingly ignored long-term NVPERS viability while focusing instead on whether or not the proposed enhancements would increase *that year’s* contribution rates.

In 1977, NVPERS had submitted testimony from their actuary — Dr. John Mackin of the Martin E. Segal Company — stating that, “I do not recommend...post-retirement increases (COLAs)... up to 5 percent.” Instead he recommended a limit of 2 to 3 percent.

On the question of basing COLAs on the CPI, Dr. Mackin had stated that, “some retirement

In each legislative session, legislators overwhelmingly ignored long-term NVPERS viability while focusing instead on whether or not the proposed enhancements would increase *that year’s* contribution rates.

systems have used this in a successful manner by providing a limit such as 2 percent to 3 percent,” but implementing this change without any cap “would...establish a very dangerous and expensive precedent,” under which “retired employees could receive larger increases than active employees.”<sup>18</sup>

By 1997, NVPERS had adopted the exact enhancements — COLA increases up to 5 percent — that their actuary had disapproved of 20 years prior. It had been done by a gradual, Fabian-like strategy — phasing in the requests over many years and avoiding dramatic one-time increases. As can be seen in the chart of PERS contribution rates on page 3, all of these enhancements occurred alongside rising taxpayer costs.

## “25 and out”

In 2001, NVPERS — its board comprised entirely of career public-employee union leaders and backed up by crowds of public union members — once again successfully lobbied the Legislature for increased enhancements. NVPERS sought, among other things, an increase in the multiplier to 2.67 percent from 2.5 percent and a proposal called “25 and out” — the ability for police and fire employees to retire after 25 years of service at any age. Those changes would eventually be embodied in Senate Bill 349.

Once again, the cost of the enhancements was advertised as acceptable because the new costs would not, it was said, force a contribution hike. After years of rising rates, costs were expected to finally, if slightly, fall. But instead of allowing that to happen, NVPERS proposed keeping the rates fixed and using the difference to offset the estimated cost of the new enhancements.<sup>19</sup>

During the 2001 legislative hearings on Senate Bill 349, certain legislators in Senate Finance showed real resistance to the proposed benefit enhancements. Senator Bob Coffin grilled NVPERS over the cost of these enhancements, particularly in the context of the system’s significant unfunded liability. NVPERS, represented by then-CEO George Pyne, stated that the practice of using recent, above-average investment gains to pay for enhancements has “historically worked very well for the plan.”<sup>23</sup>

The recklessness of the claim was astounding. NVPERS is explicitly required, by law, to provide for the very long-term. To advocate using short-term investment gains to covertly increase the system’s underlying costs rather than address the funding liability was a clear violation of that fiduciary responsibility.

This exact practice, in fact, would be later called an “employer con” by the system’s own actuary in a 2010 paper that NVPERS itself commissioned:

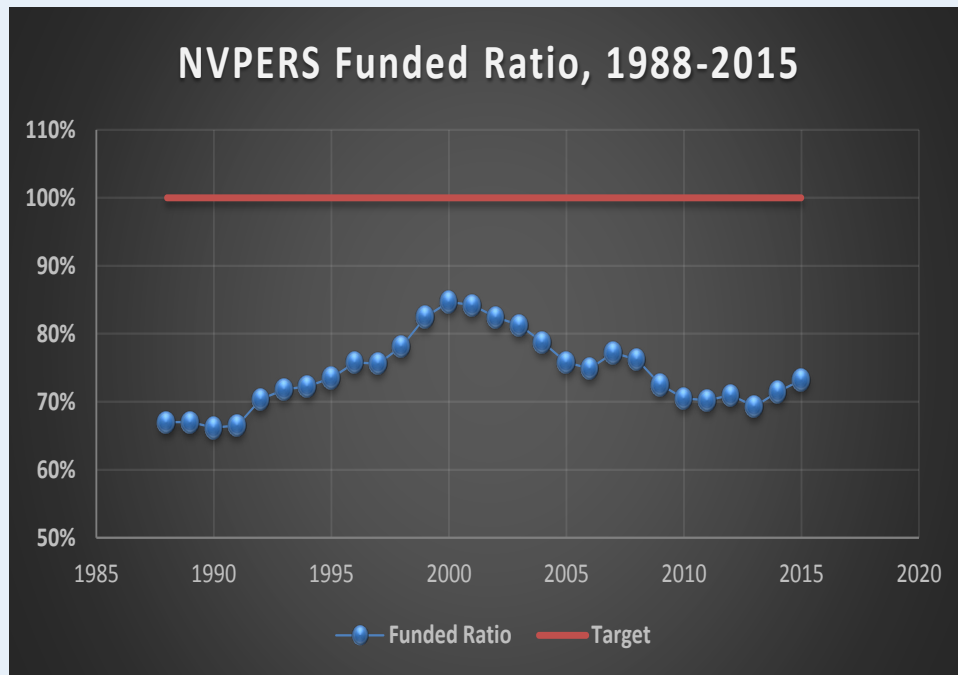
The goal of a responsible funding methodology for a DB plan is to achieve a 100 percent funded status... However, this goal may not be understood by all stakeholders. When investment returns are good and the funded status increases, there is pressure to increase benefits. When investment returns are used to finance benefit improvements and the improvements are followed by investment losses the contributions must increase at a level greater than they would have had the benefits not been improved.<sup>24</sup>

As shown on page 9 and later, this “employer con” of a DB plan has consistently manifested itself throughout Nevada’s history with NVPERS.

## An ever-receding fully funded date

On January 1, 1984 NVPERS officially initiated a plan to have the system fully funded over a 40-year period. It is now clear that will not happen. As of June 30, 2015, the most recent actuarial valuation, NVPERS was 73.2 percent funded, a number which will decline in 2016, given the -0.5 percent investment return reported for the first half of FY2016.<sup>20</sup>

The chart below reflects the funded ratio for NVPERS beginning in 1988 — the first year this information was reported on an annual basis — to the most recent, 2015 level.



While poor investment returns are commonly cited as the reason for the billions of dollars in unfunded liabilities, the corresponding poor funding ratio and the perpetually growing taxpayer costs, those returns cannot be the entire explanation.

In the 31 years since that 40-year plan was adopted, NVPERS investments significantly *outperformed* their 8 percent target rate, returning an annualized 9.6 percent investment return, as of June 30, 2015.<sup>21</sup> Moreover, contribution rates have essentially doubled since their 1984 levels.

If investment returns have dramatically outperformed assumptions and contribution rates have steadily increased to all-time highs, other factors must be behind the failure to fully fund NVPERS.

To begin, it is likely that at least some of the other assumptions — the estimated costs of the various benefit enhancements, salary, mortality,

economic, etc. — were inaccurate and understated the true cost.

In *Backtested Pension Math: An Empirical Look at the Causes of CalPERS Underfunding*, pension scholar Michael Sabin found that, “investment return played only a minor role in the current underfunding. The primary cause was that annual required contributions were too small to provide full funding.”<sup>22</sup>

These findings support Constant’s argument regarding the incentives for public pension administrators to lowball costs. They also suggest a likelihood that such lowballing played a role in NVPERS’ failure to meaningfully improve its funded ratio.

The final evidence is a simple observation: The Legislature repeatedly increased the cost of pension benefits, in a less than transparent manner, despite the fact that NVPERS was still carrying billions of dollars in unfunded liabilities.

There are three components to the contribution rate:

1. the part needed to pay down the unfunded liability,
2. the normal cost to pre-fund the benefit, and
3. a small administrative expense.

Initially, contribution rates began rising and were being allocated to pay down the unfunded liability.

Yet, when strong investment returns combined with the higher taxpayer and employee contributions would have allowed rates to reverse their continual ascent, NVPERS and public employee unions repeatedly used these opportunities to *enhance* benefits and thus *increase* system costs.

A good example is the total contribution rate for police and firefighters. As of June 30, 2000, it was 28.33 percent — of which 21.59 percent reflected normal costs and 6.59 percent reflected the unfunded liability.

By the fiscal year ending June 30, 2007, in large part due to the 2001 benefit enhancements, the *normal cost* for police and firefighters had increased to 29.43 percent with — according to actuaries — a 9.78 percent cost for the unfunded liability. In other words, taxpayers in 2007 would still have had to pay an all-time high 29.43 percent contribution rate, *even if the system was fully funded*.

This explains why, despite years of *both* exceptional investment returns and record-high taxpayer contributions, NVPERS remains dangerously underfunded: Repeatedly, over the life of the system, that was the choice made by the NVPERS board and a state legislature dominated by politically compliant, short-term-oriented lawmakers.

Again the narrow focus of both NVPERS and lawmakers was exclusively on the short term, with an apparently complete disregard for the longer-term health of the system. Pyne emphasized that the increased costs associated with the proposed enhancements would fall just short of the threshold that would force legislators to raise rates. Nevertheless, Senator William R. O'Donnell noted that this practice of increasing costs just shy of the threshold would, "almost guarantee that there is going to be a [rate] increase down the road."

It is easy to see why such legislative practices can be so appealing. It allows lawmakers to have the best of both worlds: They can curry favor with public unions by enriching the latter's benefits, yet to the lay voter, the costs of these increases are invisible. Indeed, legislators can point to a contribution rate that stayed flat during their session. If costs skyrocket later on, that will be someone else's problem.

Later in the session, Assembly Government Affairs Chairman Douglas Bache expressed concerns over the potentially dramatic increase in costs associated with the "25 and out" provision. Rather than eliminate the minimum retirement age for any safety officer with at least 25 years of service, Bache suggested a compromise — increasing the multiplier from 2.67 percent up to 2.75 percent. Without "25 and out," police and fire employees could still retire and begin receiving full benefits at age 50 with 20 years of service, 55 with 10 years of service, or any age with at least 30 years of service. All employees could also retire earlier than the ages listed, in exchange for a reduced benefit amount.

The intensity of this issue was revealed when Chairman Bache — who, again, was a supporter of

## **Triggering the rate increase**

While the annual required contribution (ARC) is calculated annually by the plan's actuary, Nevada sets statutory rates biannually, informed by the system actuary's latest ARC. Specifically, when the Legislature reconvenes, its members compare that contribution as newly determined by the actuary against the existing statutory rate. In the past, lawmakers only revised that statutory rate — the rate to be actually be paid — if the difference between it and the newly recalculated ARC was greater than 0.5 percent.

In 2009, Senate Bill 427 modified the law so that the statutory rate would not be lowered unless the new ARC is at least 2 percentage points below the existing statutory rate. The stated purpose of this change was to pay down the unfunded liability quicker — a laudable goal, of course. The change does, however, highlight the unfairness whereby new employees will have more taken out of their paychecks in order that debt accrued by a previous generation can be paid for. Present-day taxpayers are hit with the same inequity.

Remarkably, no discussion of this particular legislative change appears on the legislative record, despite representing a significant departure from the method Nevada had used for more than 40 years. This suggests that few legislators may have actually understood the change's impact and its equity issues.

enriching police and fire employees’ pensions — reported that he had received numerous threatening e-mails and phone calls from policemen in Las Vegas because of his reservations regarding the “25 and out” provision.<sup>25</sup>

Threats from Nevada law enforcement notwithstanding, the enhancements ended up passing, and Bache’s concerns were soon realized.

Consider the case of recently retired Clark County Fire Chief Bertral Washington.

In late 2014, at 43 years of age, Washington had purchased — as allowed by state law — an extra five years of service, bringing him to the 25 years of service credit needed to retire, which he then did. Immediately, he began receiving an annual NVPERS pension of \$105,695.<sup>26</sup>

Washington thus also immediately demonstrated the adverse consequences of the heedless hiking of system COLAs that NVPERS and state lawmakers had perpetrated in the early 1990s.

COLAs that compound at 5 percent annually after 14 years in retirement have a much greater impact when police and fire employees can begin receiving their retirement benefits in their 40s.

To see that, let’s apply the maximum COLA schedule to Washington’s \$105,695 pension.

First, it results in an additional \$647,024 payout even before Washington’s 50th birthday. Then, assuming a life expectancy of 82 years, his lifetime take from Nevada’s retirement system for public employees would total over \$9 million. That’s \$4.3 million higher than what another employee of the same age who waited to retire at age 50 under NVPERS’ earlier, more modest COLA — 2 percent per year after the 3rd year of retirement — would realize by that same age.

Washington’s estimated lifetime NVPERS pension payouts of over \$9 million in today’s dollars is not an isolated incident.

Former Las Vegas Fire Chief Mike Myers retired in 2013 at the age of 46 and began collecting a nearly \$117,000 pension. Almost immediately after retirement he took a job as fire chief in St. Charles, Missouri, where he worked for 15

<b>PROJECTED PENSION PAYOUTS</b>		
<b>Age</b>	<b>NVPERS</b>	<b>2% COLA @ 50</b>
44	\$105,695	-
45	\$105,695	-
46	\$105,695	-
47	\$107,809	-
48	\$109,965	-
49	\$112,165	-
50	\$115,530	\$105,695
51	\$118,996	\$105,695
52	\$122,566	\$105,695
53	\$126,855	\$107,809
54	\$131,295	\$109,965
55	\$135,891	\$112,165
56	\$141,326	\$114,408
57	\$146,979	\$116,696
58	\$154,328	\$119,030
59	\$162,045	\$121,411
60	\$170,147	\$123,839
61	\$178,654	\$126,316
62	\$187,587	\$128,842
63	\$196,966	\$131,419
64	\$206,815	\$134,047
65	\$217,155	\$136,728
66	\$228,013	\$139,463
67	\$239,414	\$142,252
68	\$251,384	\$145,097
69	\$263,954	\$147,999
70	\$277,151	\$150,959
71	\$291,009	\$153,978
72	\$305,559	\$157,058
73	\$320,837	\$160,199
74	\$336,879	\$163,403
75	\$353,723	\$166,671
76	\$371,409	\$170,004
77	\$389,980	\$173,405
78	\$409,479	\$176,873
79	\$429,953	\$180,410
80	\$451,450	\$184,018
81	\$474,023	\$187,699
82	\$497,724	\$191,453
<b>Sum</b>	<b>\$9,052,101</b>	<b>\$4,690,703</b>

months. Afterwards, he accepted a position as the new fire chief of Portland, Oregon, beginning on June 30, 2016.<sup>27</sup>

Washington himself is now Fire Chief in Pasadena, California, pulling down \$308,452.61 annually in total pay and benefits.

The stated mission of NVPERS is to “provide a reasonable base income” to those who’s “earning capacity has been removed or has been substantially reduced by age.”<sup>28</sup>

The “25 and out” provision, by contrast, provides retirement income in excess of \$100,000 annually for those whose earning power remains at its peak, as evidenced by the experiences of both Washington and Myers.

## **Attempting to undo the damage**

The stock market crash of 2008 produced a 2009 legislative session that modified the enhancements of the 2001 session. Specifically, Senate Bill 427 ended the “25 and out” provision for new police and fire employees, but left it in place for thousands of existing employees.

For new employees hired after January 1, 2010, the state reverted to the original “30 and out” arrangement. The 2.67 multiplier was also reverted back to 2.5 but, again, only for new hires.

Unlike enhancements, benefit reductions do not apply retroactively. Still these changes, along with stronger definitions of callback pay to reduce abuses, were the primary factors behind projected cost savings over a 20- to 30-year period of 7.08 percent of payroll for the Police and Fire Fund and 2.17 percent for the Regular Fund. This suggests that the continued cost of these enhancements for existing employees are similarly substantial.<sup>29</sup>

## **NVPERS benefits, explained**

This is the formula used to determine the employee’s future pension benefit under a defined benefit plan:

[Multiplier] X [Years of Service] X [Final Average Salary (FAS)] @ [Minimum Retirement Age]

For example, a public pension plan with a 2.0% @ 62 formula would provide an employee with a final salary of \$100,000 a starting pension of \$60,000 after 30 years of service, if retiring at age 62 or later:

$2.0\% \times 30 \times \$100,000 = \$60,000$  pension.

Repeated changes made by the Nevada Legislature have created a patchwork of multiplier formulas based on year of hire and then only applying to certain years. This in and of itself is strong evidence that legislators have difficulty penetrating the differences between NVPERS advocacy and the true costs of public pensions. Imprudent enhancements were passed and then subsequently revoked for later hires as the high costs became unmistakable. Unfortunately, imprudent pension enhancements, once passed, takes decades to cure, even if subsequently discontinued for new hires.

While all employees hired before January 1, 2010 will receive a multiplier somewhere between 2.5 percent and 2.67 percent, we will use the 2.5 percent multiplier for simplicity in this analysis.

That multiplier, itself, is uniquely large. In a nationwide survey of 70 major public pension plans



### **Current framework to determine multiplier for NVPERS members**

- Employees hired between July 1, 2001 and January 1, 2010 receive a 2.67 percent multiplier.
- Employees hired before July 1, 2001 receive a 2.5 percent multiplier for years of service before July 1, 2001, and a 2.67 percent multiplier for all service accrued after July 1, 2001.
- Employees hired after January 1, 2010 receive a 2.5 percent multiplier.
- Regular employees (excludes police/fire) hired after July 1, 2015 receive a 2.25 percent multiplier.
- Employees hired before June 1, 1985 have their initial benefit capped at 90 percent of final average salary while those hired afterwards are under a cap of 75 percent of final average salary.

performed by the Wisconsin Legislative Council, only four plans had a multiplier greater than 2.1 percent. NVPERS' 2.5 percent multiplier was tied for the highest nationwide.<sup>30</sup>

### **When salary is more than just salary**

Equally as important as the multiplier is the salary it is applied to. All things equal, above-average salaries will produce above-average pensions. Most Nevada government workers receive above-average salaries, which is discussed in more detail later. Beyond the level of average salaries, how a pension plan calculates an employee's final average salary (FAS), also known as pensionable compensation, powerfully determines how rich will be the pension.

Social Security, for example, arrives at a FAS based on 35 years of salary data. Employees with less than 35 years of taxable earnings are treated as earning \$0 for each year that they are short of the 35 needed. Public pension plans typically use a much shorter period, most commonly the average of the five highest years.<sup>31</sup> NVPERS' FAS is based on the highest three consecutive years of salary.

The method used to calculate a FAS has a tremendous impact on the size of an employee's future pension. A three-year FAS will produce a pension at least 52 percent larger than an average that — taking its cue from Social Security or employers' 401K contributions — is based on the entire 30-year career of a typical Nevada government worker.

Assume, for example, a starting salary of \$31,137 that increases 3.5 percent per year until retirement at age 55 with a final salary of \$84,440 — salary figures which closely align with the actual starting and ending salaries of NVPERS members.

Under NVPERS' current system of using the highest three years of salary, the employee's \$81,616 FAS is 52 percent higher than the \$53,579 FAS produced if using a 30-year average.

Consequently, use of a 30-year FAS would result in nearly \$1,000,000 less in lifetime pension benefits, assuming a retirement age of 55 and life expectancy of 82.

<b>30-year FAS</b>	<b>3-year FAS</b>
\$40,184	\$61,212
\$40,184	\$61,212
\$40,184	\$61,212
\$40,988	\$62,437
\$41,808	\$63,685
\$42,644	\$64,959
\$43,923	\$66,908
\$45,241	\$68,915
\$46,598	\$70,983
\$48,229	\$73,467
\$49,917	\$76,038
\$51,664	\$78,700
\$53,731	\$81,848
\$55,880	\$85,121
\$58,674	\$89,378
\$61,608	\$93,846
\$64,688	\$98,539
\$67,923	\$103,466
\$71,319	\$108,639
\$74,885	\$114,071
\$78,629	\$119,774
\$82,560	\$125,763
\$86,688	\$132,051
\$91,023	\$138,654
\$95,574	\$145,587
\$100,353	\$152,866
\$105,370	\$160,509
\$110,639	\$168,535
\$1,791,110	\$2,728,374
<b>Savings: \$937,265</b>	

However, regular salary is only the starting point for what NVPERS, early in its history,<sup>32</sup> succeeded in getting Nevada lawmakers to designate as salary for pension calculations: a variety of supplemental and premium forms of pay won by government unions at the bargaining table with government administrators — such as callback, standby, holiday, shift differential, extra duty, hazard, and longevity pay.<sup>33</sup>

While NVPERS is not alone in expanding its definition of final average salary to include supplemental forms of pay beyond base salary, the inclusion of callback pay is especially controversial.

Essentially a form of overtime pay, “Call-back pay,” the official definition reads, “is defined as compensation earned for returning to duty after a member has completed his regular shift, is off duty for any period of time, and is requested to return to duty with less than 12 hours’ notice.”

While overtime pay is excluded from FAS, the Legislature has authorized NVPERS to count callback pay as part of an employee’s FAS. No justification for adding this separate category of overtime pay to the FAS calculation appears to exist other than the fact it increases certain employees’ future pension benefits.

Although as far back as 1977 NVPERS had complained about “the continuing abuse of overtime pay at the expense of the System,”<sup>34</sup> at least one employee was recently caught attempting to use callback to inappropriately boost his future pension. A 2014 City of Las Vegas audit highlighted a parks and recreation employee who received an extra \$92,000 in callback pay on top of his annual base salary of \$71,000. The auditor then alerted NVPERS where the reported callback pay was reclassified as overtime.<sup>35</sup>

Notably, the nation’s largest public pension fund as well as the world’s largest teachers-only fund, CalPERS and CalSTRS, both exclude overtime and callback pay in their FAS calculations. The Nevada Legislature should follow suit. Additionally, it should exclude all forms of add-on pay beyond the employee’s base salary when

calculating FAS. Doing so would dramatically reduce costs, while increasing transparency.

## The confounding nature of employers paying the employees' share

Another way to increase transparency would be to eliminate the practice whereby the employer pays the employee's share of the contribution rate.

Roughly 80 percent of NVPERS members and virtually all local-government workers are under the "Employer-Pay" plan, where the employer pays 100 percent of the contribution rate, claiming it is done in lieu of a salary increase or in conjunction with an actual salary reduction.

The latter is clearly true for workers in state government, where collective bargaining is prohibited and reduced salary schedules are displayed for those electing the Employer-Pay system.

Local-government workers, however, benefit from a secret, mandatory collective bargaining process, where neither transparency nor (thus) accountability are present.

Pay data that show Nevada local government employees standing atop national compensation rankings suggest that actual salary reductions are not occurring, and that the public is being misled.

Raw publicly reported numbers — plus a bit of analysis — do the same. Consider this specific example:

The chart below comes from TransparentNevada.com and shows the last five years of salary data for a Las Vegas Metro Police lieutenant who retired in 2015 with 30 years of service and, as such, is entitled to a pension equal to 75 percent of his FAS.

A casual observer might expect a starting pension of roughly \$89,625 by multiplying 75 percent by \$119,548 (the average of the highest three regular pay amounts: 120,913.90 + 118,983.60 + 118,747.20). However, *the actual starting pension is \$172,370* — a nearly 50 percent increase over the highest regular pay earned.

Job title	Regular pay	Overtime pay	Other pay	Total Benefits	Total pay & Benefits	Year
POLICE LIEUTENANT	\$88,554.33	\$48,025.07	\$296,387.99	\$67,868.33	\$500,835.72	2015
POLICE LIEUTENANT	\$120,913.90	\$41,660.85	\$63,509.10	\$86,941.60	\$313,025.45	2014
POLICE LIEUTENANT	\$118,983.60	\$23,579.80	\$46,200.47	\$81,403.76	\$270,167.63	2013
POLICE LIEUTENANT	\$118,747.20	\$24,093.48	\$51,688.44	\$78,516.42	\$273,045.54	2012
PO LT	\$118,815.20	\$18,726.11	\$33,195.77	\$69,768.67	\$240,505.75	2011
PO LT	\$114,916.80	\$15,530.96	\$32,430.33	\$65,437.93	\$228,316.02	2010


Working backwards, this means NVPERS used a final average salary (FAS) of \$229,827, which is more than the employee received in any year preceding retirement.

In fact, even when adding all the permitted forms of "other pay" and qualifying callback pay, the actual salary received is less than \$190,000. So how does PERS generate a FAS of nearly \$230,000?

Lawmakers authorized PERS to include the employee's share of the contribution rate paid by the employer — roughly \$38,400 in this particular case — when calculating the employee's FAS.<sup>36</sup>

This benefits employees via reduced taxable earnings while working, but it prevents the public from accurately seeing the true size and cost of the pension benefits being offered.

For example, the maximum salary recently reported *publicly* by Metro for the position of police lieutenant was \$124,322, the figure typically used by the general public and the media when reporting on public pay.<sup>37</sup>

	<b>Police Lieutenant</b>	<b>Class Code:</b> 80352
	Bargaining Unit: Police Managers and Supervisors Association (PMSA)	
LAS VEGAS METROPOLITAN POLICE DEPARTMENT		
<hr/>		
<b>SALARY RANGE</b>		
\$41.99 - \$59.77 Hourly \$7,278.27 - \$10,360.13 Monthly \$87,339.24 - \$124,321.56 Annually		
<b>NVPERS Salary: \$109,174 - \$155,401</b>		

But the actual salary used by PERS, assuming no other add-ons or callback pay, would be roughly 20 percent higher, as show in the red text added above.

It is easy to see how taxpayers can be led to believe the highest pension for which a police lieutenant is eligible would be: 75% X \$124,000 = \$93,000.

Yet the real number is actually 75% X \$155,401 = \$116,550.

Adding on the routinely received forms of other pay, such as longevity, shift differential and callback pay can increase some lieutenants' FAS to \$229,827, as shown in the example above.

Legislators fail in their duties when they enact policies that reduce transparency and hide the full cost borne by taxpayers. Enacting legislation that requires employees to pay their half directly, while restricting pensionable compensation (aka FAS) to the posted, regular salary amount would allow the public to have a better sense of the true size of the benefits they are paying for.

### Above-average salaries produce above-average pensions

The claim that local governments are making salary reductions or paying the employee's share in lieu of raises contradicts national data that reveals Nevada local-government workers receive wages dramatically higher than either state or private workers.

Nevada local-government workers' \$52,373 average annual wage was the eighth highest of any state nationwide, according to 2014 wage data from the Bureau of Labor and Statistics' Quarterly Census of Employment and Wages. All seven states with higher average local government wages than Nevada — New Jersey, Hawaii, California, New York, Rhode Island, Massachusetts and Connecticut — have dramatically higher costs of living.

Average wages for Nevada private and state government workers were 15 and 10 percent below the national average, respectively. By

	Nevada	US Avg.	NV vs US	Rank
Private	\$43,536	\$51,296	-15.13%	32
State	\$48,548	\$54,179	-10.39%	29
Local	\$52,373	\$46,155	13.47%	8

contrast, Nevada local-government workers earned 13.5 percent more than the national average. Adjusting for cost of living differences magnifies this disparity. The outcomes below adjust the above values for cost of living differences between the 50 states, using the U.S. Bureau of Economic Analysis' 2013 Regional Price Parity by State information.

Earnings, adjusted for cost of living	
Type of Nevada Workers	Rank (1-50)
Private	41st
State government	37th
Local government	2nd

Another way to look at the wage premium enjoyed by Nevada's local-government workers is by comparing how local-government workers' wages measure up against those of their private and state-government counterparts.

In Nevada, the average local-government worker earned 20 and 8 percent *more* than Nevada's private and state government workers, respectively.

	Local govt. vs private	Local govt. vs state
Nevada	+20%	+8%
National Average	-10%	-15%

This was the second-largest comparative premium received by local-government workers of any state nationwide, trailing only local-government workers in Hawaii.

Nevada's situation is quite unique: Nationally, the average local-government worker made 10 percent *less* than private workers and 15 percent less than state government workers.

## Police and Fire

The federal Bureau of Labor Statistics reports wage data by occupation in its annual "Occupational Employment and Wage Estimates." In the May 2015 BLS report, the average Nevada wage for all occupations — which includes both private and government workers — was \$42,800, under the national average by 11-plus percent and 35th amongst the 50 states.

	Nevada wage vs. national avg.	Rank among 50 states
Police and Sheriff's Patrol Officers	+16%	5
Firefighters	+22%	6
Correctional Officers	+25%	7
All Occupations Surveyed	-11%	35

Statistically, therefore, Nevada's police and firefighters might be expected to rank much lower compared to police and firefighters nationwide. This would be especially so if Nevada's safety officers were in fact seeing salary reductions or forgoing raises to offset 20 percent payroll contributions made on their behalf by local governments.

The data, however, tell a much different story: Nevada's police and fire employees receive annual wages *well above* the national average. When adjusted for cost-of-living differences between states, wages for Nevada's safety officers rank even higher.

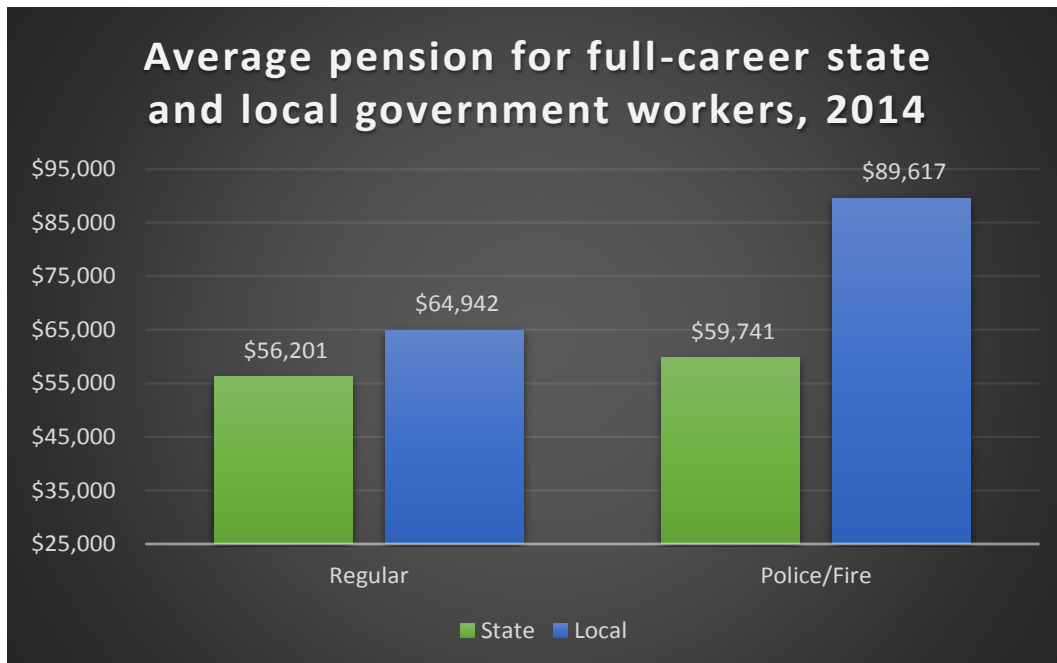
Given the significantly above-average national rankings of Nevada police and fire wages, it strains credulity to suggest such wages are being reduced by 20 percent and that, therefore, local governments

Average 2015 wage by occupation, adjusted for cost of living	Rank among 50 states
Police and Sheriff's Patrol Officers	4
Firefighters	4
Correctional Officers	4
All Occupations	46

are warranted in paying the entire contribution rate — currently at 40.5 percent of pay. In other words, a preponderance of evidence suggests that Nevada’s local governments are *not*, in fact, paying the entire contribution rate in exchange for wage reductions or foregone salary increases.

### Higher pensions

In light of their outsized salaries, it is unsurprising that Nevada’s local-government workers receive, on average, much higher pensions than do state government workers. The chart below depicts the average full-career pensions — defined as at least 25 years of service for police/fire and 30 years for regular employees — for Nevada’s state and local government retirees.



If the Nevada Legislature truly believes that all government employees should pay at least half of their pension contributions, state lawmakers must require employees to do so directly. Pretending that employees *do* pay half, while permitting local government employers to in actuality pay *both* halves of the obligation is disingenuous. The consequent obfuscation and doubt as to whether or not local governments are, indeed, following the law, is corrosive and destroys any credibility that the Nevada Legislature can attempt to claim.

### Compound interest is really powerful

The final factor driving NVPERS’ over-the-top generosity is its lack of a minimum retirement age for regular employees with at least 30 years of service or police/fire employees with at least 25 years of service. Police/fire employees hired after January 1, 2010 may retire at any age with at least 30 years of service. These costs are compounded by NVPERS’ above-average “post-retirement benefit increase[s],” also known as a cost-of-living increases or COLAs.

For individuals who became members before January 1, 2010, the formula for benefit increases is the lesser of the member’s lifetime change in CPI or:

- 2 percent per year following the third anniversary of the commencement of benefits,

- 3 percent per year following the sixth anniversary,
- 3½ percent per year following the ninth anniversary,
- 4 percent per year following the twelfth anniversary and
- 5 percent per year following the fourteenth anniversary.

The average regular<sup>1</sup> Nevada government worker aged 50-59 with between 25 and 34 years of service has a salary of \$72,575.<sup>38</sup> The chart below reflects the difference in lifetime pension payments made to a 55-year-old retiring with this average salary under NVPERS' existing retirement age and COLA structure, compared to a system with a 2 percent COLA and a minimum retirement age of 62:

Scholars analyzing Social Security have found that the traditional CPI measure tends to overstate inflation and recommend adopting the chained-CPI, instead.<sup>39</sup> NVPERS is even more prone to waste public resources using this flawed metric, given the dramatically larger benefits it pays vis-à-vis those of Social Security. The Nevada Legislature should implement chained-CPI as the basis for making COLA increases or, alternatively, implement a 2 percent cap on annual COLA increases if the traditional CPI is still used.

### Governance

In a survey of 87 of the country's largest public pension plans, NVPERS was one of only four plans that had a Retirement Board comprised entirely of plan members.<sup>40</sup> Under state law, board members for the system are required to be plan members with at least 10 years of service. Consequently, NVPERS is functionally another public union, frequently lobbying for benefit enhancements or other favorable legislation.

In fact, three of the seven current board members are either active or former government-union leaders. For example, while vice president of the Professional Firefighters of Nevada, Rusty McAllister lobbied extensively before the 2001

<sup>1</sup> Excludes police and fire.

Effect of a minimum retirement age and 2% COLA cap on regular NVPERS full-career retiree, age 55		
Age	NVPERS	62 w/2% COLA
55	\$54,431	-
56	\$54,431	-
57	\$54,431	-
58	\$55,520	-
59	\$56,630	-
60	\$57,763	-
61	\$59,496	-
62	\$61,281	\$54,431
63	\$63,119	\$54,431
64	\$65,328	\$55,520
65	\$67,615	\$56,630
66	\$69,981	\$57,763
67	\$72,780	\$58,918
68	\$75,692	\$60,096
69	\$79,476	\$61,298
70	\$83,450	\$62,524
71	\$87,623	\$63,775
72	\$92,004	\$65,050
73	\$96,604	\$66,351
74	\$101,434	\$67,678
75	\$106,506	\$69,032
76	\$111,831	\$70,413
77	\$117,423	\$71,821
78	\$123,294	\$73,257
79	\$129,458	\$74,722
80	\$135,931	\$76,217
81	\$142,728	\$77,741
82	\$149,864	\$79,296
Sum	\$2,426,125	\$1,376,967
Savings	\$1,049,157	

Legislature to get the “25 and out” provision passed. Now President of the Professional Firefighters of Nevada, McAllister was appointed to the NVPERS Board, where he presently serves, by Governor Brian Sandoval in 2011.

While Nevada’s public employees obviously have a tremendous stake in the well-being of NVPERS, the present Board composition ignores the other major stakeholders in the NVPERS system: Nevada’s taxpayers. Because taxpayers, by law, must ensure that promised benefits are paid in the event of a shortfall — either through reduced services, higher taxes or both — they should at least be equally represented on the Board.

Ideally, the majority of Board members should not be union members. Seats should be added for private citizens with financial experience as well as elected officials with statewide financial responsibilities, such as the State Controller and State Treasurer.

### **Inappropriately high discount rates understate debt**

The single most important assumption a pension plan can make is the rate used to discount its future liabilities. America’s public pension plans stand alone in their practice of using inappropriately high discount rates, with most plans using a discount rate between 7 and 8 percent based on their expected investment return.

*Private* pension plans in the U.S., however, are required by federal law to use a discount rate

## **The consensus on using a liability-based discount rate is difficult to overstate**

**Nobel laureate William Sharpe:** “Let me describe this more clearly. If the state has promised a worker certain payments in the future for having worked at least up to this date — so-called accrued benefits — and it is certain that those payments are going to be made, anybody, any economist, and probably most of you in this room would ask, how do you value that? It’s simple. You find U.S. Treasury securities that would provide cash flows to match those payments. That is how you should value the liability. As most of you know, that is not what the Governmental Accounting Standards Board and the state and local systems do. They value those liabilities at 7.5 percent or 8 percent on the grounds that they are pretty sure they’ll earn that in the long run. This is crazy.”<sup>43</sup>

**Donald Kohn, then-Vice Chairman of the Federal Reserve Board:** “While economists are famous for disagreeing with each other on virtually every other conceivable issue, when it comes to this one there is no professional disagreement: The only appropriate way to calculate the present value of a very-low-risk liability is to use a very-low-risk discount rate.”

**98 percent of professional economists:** In a survey of 39 professional economists, 38 agreed that public pension plans use inappropriately high discount rates.<sup>44</sup> This view is shared by scholars with the Federal Bureau of Economic Analysis, the Federal Reserve Bank of Cleveland, the Congressional Budget Office, and Moody’s Investors Services.<sup>45</sup> The fatal flaw in using a discount rate



based on the expected rate of investment return is that it ignores risk or, more accurately, treats risk as having a cost of zero. As pension experts Truong Bui and Anthony Randazzo note, even if we knew that NVPERS “would definitely earn an average return of 8 percent on its investments over a certain time period, using the 8 percent discount rate would still be inappropriate.”<sup>46</sup> This is due to the fact that an average rate of return is not a guaranteed rate, and since pensions are guaranteed, they must be discounted based on that certainty, not an average that contains a tremendously wide range of above or below-average outcomes.

There is a cost to insuring against risk, and public pension plans cannot make it disappear by using inappropriately high discount rates. This is why Bui and Randazzo conclude that, “changing the discount rate does not reduce the true, long-term cost of a pension,” but simply, “shifts the pension cost from current taxpayers to future ones...”<sup>47</sup>

This is precisely what has happened in Nevada. Present-day (and future) taxpayers must bail out NVPERS’ underperformance via higher taxpayer contributions. In a recent study, Biggs adjusted the unfunded liabilities of major U.S. public-pension plans to reflect what they would look like under a “risk-free” rate. Biggs estimated the true size of Nevada’s pension debt at nearly \$40 billion, which equaled 28 percent of state GDP. By this metric, Nevada’s pension debt was the 7th largest of any state.<sup>48</sup>

This suggests that Nevada taxpayers — in the event of another stock market collapse that could push the system to the brink of insolvency — may simply be unable to bear the weight of bailing out NVPERS. Unfortunately, NVPERS is more vulnerable to a market downturn now than at any other time in its history.

based on a high-quality corporate bond index, which Moody’s Investors Service has calculated at between 4 to 5 percent over the past two years.<sup>41</sup> Even public pension plans in other countries use significantly lower discount rates than U.S. public pensions, by following the liability-based model rather than the expected rate of investment return. In a global report on public pension debt, Citi Research employed a “standard 3 percent discount rate” in their analysis and described the rates used in the UK as a “substantially higher discount rate of 5 percent.”<sup>42</sup> The section titled, “Sensitivity of the Net Pension Liability to Changes in the Discount Rate” from NVPERS’ 2015 CAFR reveals the magnitude of even seemingly small changes to the discount rate. The system reported a nearly \$11.5 billion unfunded liability based on their assumed 8 percent discount rate. However, merely decreasing the discount rate 1 percentage point resulted in an increase to the unfunded liability of more than 50 percent! Based on a discount rate of 7 percent, NVPERS’ unfunded liability increased to nearly \$17.5 billion.

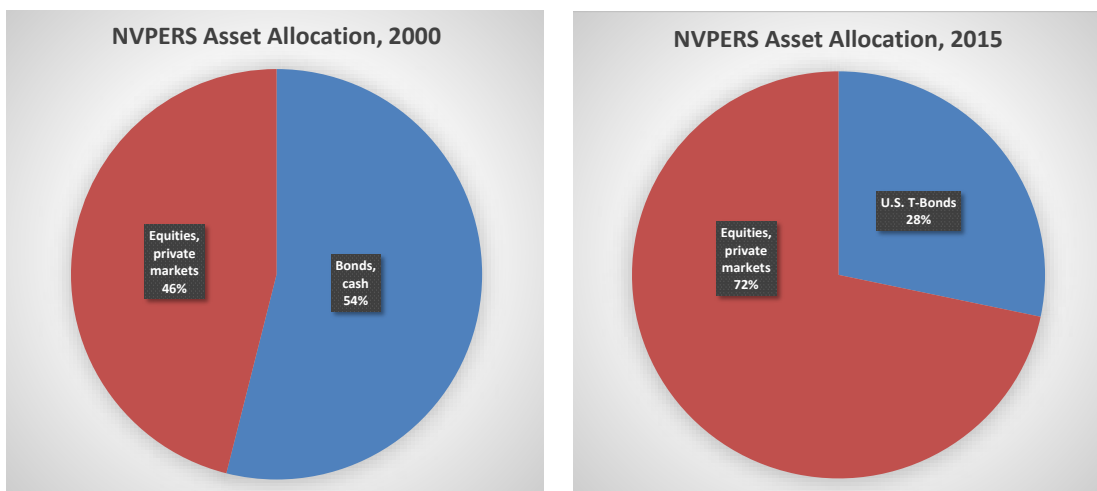
### **Inappropriately high discount rates incentivize risk taking**

In the case of any assumed investment return, two factors are always of exceptional importance: the expected rate of inflation and the rate of return that exceeds inflation, known as the “real rate” of return.

Historically, NVPERS targeted a 3 percent real rate of return with an assumed long-term inflation

rate of 5 percent. Beginning in late 2000, however, NVPERS began lowering its inflation assumption to more accurately reflect economic conditions. In October 2003, NVPERS adopted the 3.5 percent inflation rate still in use today, along with the 4.5 percent real rate of investment return.

In other words, by late 2003, NVPERS had adopted an assumed real rate of investment return (4.5 percent) that reflected a 50 percent increase from their historical 3 percent rate. To justify such a dramatic increase in the assumed real rate of return, NVPERS had to allocate a much larger percentage of their investment portfolio to assets that offered the potential for higher investment returns, alongside the correspondingly higher level of risk. Specifically, NVPERS increased its holdings of equities, real estate and private investments such as hedge funds, while reducing the percentage of traditionally safer assets, such as bonds. The charts below reflect NVPERS asset allocation for the fiscal years ending 2000 and 2015, respectively:



Today, consequently, NVPERS is more exposed to a market downturn than at any other time in modern history.

It is critical to note that PERS' dramatic increase in riskier assets was not based on any particular investment forecast or perceived opportunity, but was done in response to the dramatic decline in U.S. Treasury yields (the 10-year U.S. Treasury yield fell from 7 percent in 1994 to less than 2 percent in 2012) which would have forced a reduction in their assumed discount rate.

Rather than lower the 8 percent discount rate to reflect this reduced yield, which would have required substantial contribution rate hikes, PERS chose to increase its exposure to equities, which offer the potential for larger returns, alongside a corresponding greater level of risk (PERS classifies equities as having a 17-20 percent risk measure, roughly triple the 6 percent risk associated with U.S. bonds.)

NVPERS' big bet on strong market returns is being made when most pension investment experts are moving in the *other* direction. In March 2015, the chief investment officer for CalPERS — the nation's largest public pension fund — warned that, "We need to prepare for extended periods of low returns."<sup>49</sup> Not long after that, the CalPERS Board adopted a plan to gradually reduce its 7.5 percent investment target to 6.5 percent over the next several years.<sup>50</sup>

Similar rate reductions have been taken in California's regional public pension plans, with the San Diego County Employees Retirement Association cutting its 7.75 percent target to 7.5

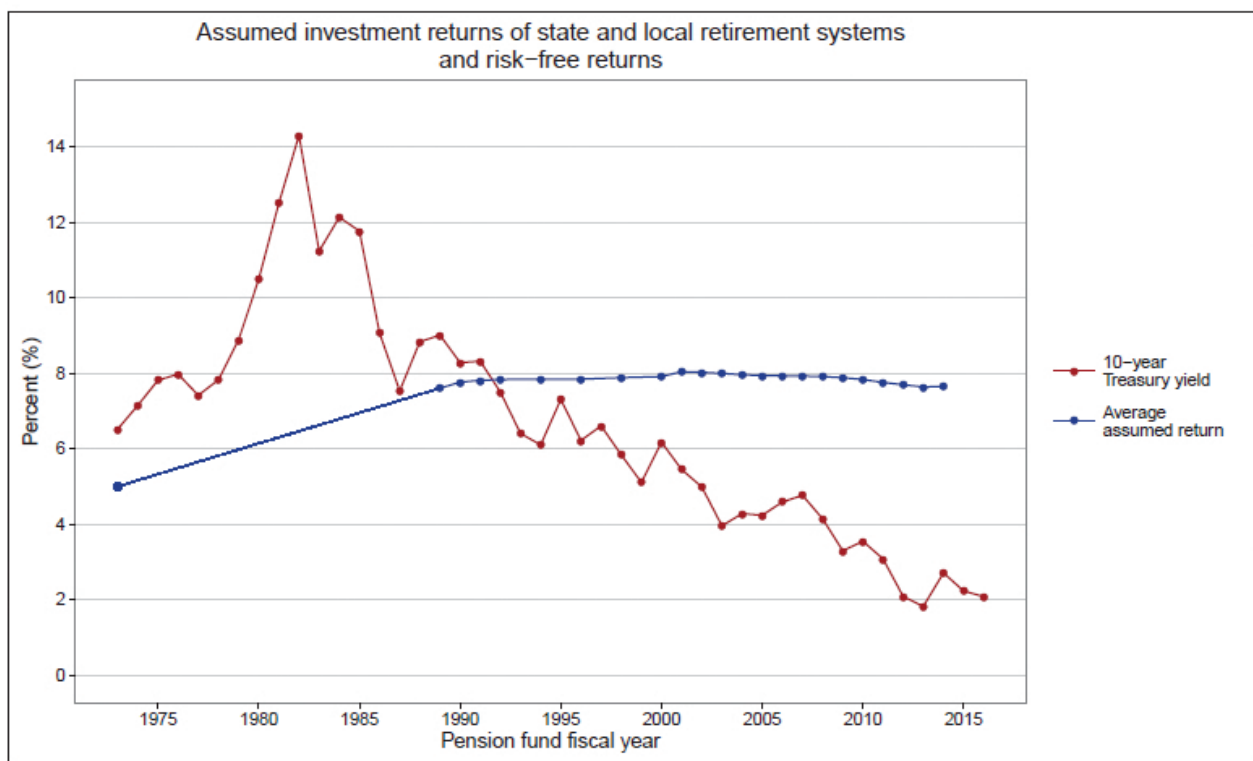
percent, and the Contra Costa County Employees Retirement Association dropping its 7.25 percent target down to 7.0 percent.<sup>51</sup>

In its just-released *Global Investment Outlook Q2 2016*, BlackRock Investment Institute declared that, “we are living in a low-return world.”<sup>52</sup> McKinsey & Company speaks similarly in its May 2016 report, “Diminishing Returns: Why Investors May Need to Lower their Expectations.” The firm’s global management consultants warn<sup>53</sup> that, “Our analysis suggests that over the next 20 years, total returns including dividends and capital appreciation could be considerably lower than they were in the past three decades. If ... correct, this will have significant repercussions for both institutional and individual investors, pension funds, and governments around the world.”

Given that U.S. stocks represent the largest share — 44.5 percent — of its total portfolio, NVPERS is particularly exposed to underperformance in domestic equities. While NVPERS has an 8 percent target rate for their entire portfolio, their expected rate of return for U.S. equities is 9.0 percent, substantially greater than most industry experts predict. In their April 2016 report, the Pension Consulting Alliance, drawing on data from JP Morgan, BNY Mellon and BlackRock, found that, “U.S. equities are expected to produce approximately 6.95 percent on a geometric basis over the next 10+ years.”<sup>54</sup>

Making matters worse, this era of low returns is coming at the worst possible time for NVPERS, which is now experiencing net outflows for the first time in its history. In 2015, NVPERS paid out \$352.4 million more in benefit payments than it received in combined member and employer contributions — representing 1 percent of assets under management. This means that the first investment point of future returns will just prevent assets from declining, as opposed to growing the size of the fund as is normally assumed.

Consequently, NVPERS cannot offset low returns in the near term with higher returns in the longer term, even if they would have been sufficient to raise the overall annualized return to their



Data & calculations: Rockefeller Institute of Government, State University of NY

target level of 8 percent. The later returns will have to be even greater, because the net outflows will have shrunk their investment portfolio to be smaller than assumed, reducing the benefits of those future periods of high returns. Said differently, if a fund is experiencing net outflows, the order — not simply the long-run average — of investment returns matters.

In the likely event that NVPERS does not hit its optimistic targets, the harm will be magnified by the system's record-high level of exposure to equities. It is easy to see why Nobel Laureates refer to the accounting practices of U.S. public pensions as “crazy.”

Public pension plans can use artificially high discount rates to reduce their *reported* liabilities (the *actual* liabilities stay the same, only the reported values are affected), thereby reducing taxpayer and government contributions. Such an approach not only spawns economic errors. It also incentivizes extreme risk taking, as evidenced by the overwhelming shift to risky assets and rosy investment assumptions, despite most market forecasts urging caution.

Under a liability-based valuation, NVPERS is already less than 50 percent funded, a metric that CalPERS Chief Investment Officer Ted Eliopoulos calls a “crisis” point and “a very difficult place to climb out of...”<sup>55</sup>

Even when using a 7 percent discount rate, NVPERS is only 66 percent funded, a level that will certainly decline once 2016's dismal returns are factored in. A retirement system should not operate under incentives to make risky gambles in order to meet its financial obligations.

Given NVPERS' dangerously overweight allocation to equities and substantial unfunded liability, a market downturn within the next decade could very easily push the system into a financial hole from which it cannot escape.

While taxpayers have historically been used as the backstop to bail the system out — since 1994, taxpayer contributions have risen more than 50 percent in real, inflation-adjusted dollars<sup>56</sup> — NVPERS' current unfunded liability and oversized exposure to equity markets is so great that a significant market correction within the next 10 years would produce a debt far too large for taxpayers to cover. In such an event, the State may have to default on its promises and reduce the retirement benefits promised to government workers.

NVPERS should adopt a liability-based discount rate modeled after the approach taken by corporate pension plans or institutions such as Moody's Investors Services, where the discount rate is derived from the yield on high-grade, long-term corporate or government bond indexes.<sup>57</sup>

## Conclusion

Defined benefit plans are inherently opaque, but NVPERS is in a class of its own. With one statute dictating that all employees pay half of the retirement cost, and another requiring that employers pay the employee's half, coupled with a contribution rate based on arbitrary thresholds and a litany of other unique quirks, it is little wonder most legislators, much less taxpayers, are unable to fully understand how the system works.

Throughout this paper we recommend modest reforms to the NVPERS system that would reduce its escalating costs. Yet, it is difficult to read through the 40-plus years of legislative history and not concur with the large body of academic research finding the primary effect of government-run DB plans is their ability to covertly enrich the compensation of public employees.

Core tenets of good government are transparency and accountability, but defined-benefit plans

fail spectacularly on both counts. Benefits are enhanced in largely unseen and misunderstood ways, while governance issues actually reward stakeholders who enact policies that expose the system to greater long-term risk.

Surprising, no doubt, to DB proponents, academic research suggests that governments vastly overpay for defined-benefit plans, given the limited value their employees place on them. Even the core feature of DB plans — providing excessively rich benefits to full-career employees at the expense of partial-career workers — is counterproductive for employees in today's economy, where most workers change employers multiple times throughout their career.

The Nevada Legislature should eliminate the mandate that requires local governments to participate in NVPERS. Local governments independently set every other aspect of employee compensation (wages, health benefits, etc.) and they should be free to do the same for retirement benefits. Local governments could then adopt a defined-contribution (DC) plan for new hires and either leave existing workers within NVPERS or offer a lump-sum buyout of the benefits already accrued.

The State of Nevada should follow the model for reform set by the federal government in 1986, which faced many of the same problems today plaguing state-based DB systems, and was compelled to abandon the DB model. Today, the Federal Employees' Retirement System places all employees in Social Security, provides a generous DC plan and even has a modest DB component.<sup>58</sup>

At the state level, successful reform has many examples. Utah closed its existing DB plan to new hires and now offer employees a choice between a reduced DB plan with structural changes to limit taxpayer costs and a DC plan.<sup>59</sup>

Arizona recently enacted groundbreaking reforms for the state's police and fire pension plan. Similarly to the reforms in Utah and at the federal level, new employees may now choose between either a DC or hybrid DB plan. The DC plan offers employees a professional managed, tax-deferred 401(a) plan with an 18 percent contribution rate split equally by employee and employer. The hybrid DB plan adopts a reduced, graduated multiplier formula (similar to the formula originally used by NVPERS), a 2 percent cap on COLAs and a cap on an employee's FAS (pensionable compensation) of \$110,000.<sup>60</sup>

The specific reform chosen by Nevada is much less important than acknowledging what the federal government, Utah, Arizona, Michigan, Alaska and others have realized: Maintaining the status quo is simply not an option.

# Appendix A: Comparing DB and DC pension plans

## How do DB and DC plans differ?

Defined benefit (DB) plans guarantee a fixed pension payment for life. While not technically a public pension plan, Social Security does provide a defined benefit payment and is representative of a DB plan in that sense. Employees and employers contribute toward the plan, and the future benefit is calculated by the employee’s salary and contributions history, retirement age and other factors. In addition to employer and employee contributions, the plan relies heavily on assumed investment returns to fund the promised benefits.

A 401(k) is the most popular form of a defined contribution (DC) plan. DC plans derive their names from the fact that only the contribution towards the retirement account is defined, not the actual benefit received in retirement. DC plans are portable retirement accounts that the employee owns outright, and are funded by regular contributions made by both employer and employee, with actual investment performance influencing the account’s ultimate value.

Some of the key differences between the two plan types are summarized in the chart on the following page:

<b>Defined Benefit</b>	<b>Defined Contribution</b>
<ul style="list-style-type: none"><li>• Future pension benefit is guaranteed, regardless of market performance or any other unexpected change in economic conditions.</li></ul>	<ul style="list-style-type: none"><li>• The value of the retirement account and, subsequently, the amount that can be withdrawn during retirement, is heavily dependent on market returns</li></ul>
<ul style="list-style-type: none"><li>• The normal defined benefit pension ends upon employee’s death.</li></ul>	<ul style="list-style-type: none"><li>• Retirement account is owned by the employee and is an asset that can be passed on after death.</li></ul>
<ul style="list-style-type: none"><li>• Employees must work at least 5 years to vest. The back-loaded nature of DB plans means employees who do not work full careers receive disproportionately smaller benefits.<sup>61</sup></li></ul>	<ul style="list-style-type: none"><li>• Account can be transferred upon termination from employer without penalty. Consequently, partial-career employees tend to do much better under a DC plan than a DB.<sup>62</sup></li></ul>
<ul style="list-style-type: none"><li>• Extreme volatility in employer (taxpayer) costs from, among other things, having to offset poor investment returns with increased employer contributions.</li></ul>	<ul style="list-style-type: none"><li>• Employer costs are fixed, providing a level of stability and transparency that is essentially impossible for a DB plan to provide.</li></ul>

## Why do DB plans dominate in government?

In general, defined contribution plans are preferred by private employers because of their superior stability and cost-efficiency. In fact, the percentage of private workers enrolled exclusively in a defined benefit plan fell from 28 percent in 1979 to just 3 percent in 2011, according to the Employee Benefit Research Institute.<sup>63</sup>

Defined benefit plans, however, have remained extremely popular in the public sector. Virtually all state and local government workers in Nevada belong to the defined benefit NVPERS, with 82 percent of full-time state and local government workers nationwide belong to a DB plan,

according to the BLS.<sup>64</sup>

While many defenders of the public pension industry assert this trend is due to the unique preference of government workers for a retirement-rich compensation package, this claim crumbles upon closer scrutiny.

Rather than government workers uniquely valuing future retirement benefits at a disproportionately higher rate than the general population, these costly benefits are preferred by government unions because of the ability to “shroud” their full cost from public view, according to a National Bureau of Economic Research paper published by Harvard economist Edward Glaeser and CREI scholar Giacomo Ponzetto.<sup>65</sup>

In fact, in an extraordinary case study where public teachers were given the opportunity to choose between higher salaries or richer retirement benefits, Cornell professor Maria Fitzpatrick found that, “the majority of IPS (Illinois Public School) employees value their pension benefits at about 19 cents on the dollar.”<sup>66</sup>

Having directly refuted the myth used to justify the vastly richer retirement benefits received by government workers compared to the general public, Fitzpatrick concluded the most plausible explanation was, “the political nature of public pensions to drive a wedge between the actual costs of pension benefits and the perceived costs of those benefits.”<sup>67</sup>

Nowhere is this wedge greater than in Nevada, where a variety of measures covertly enhance the richness, and thus taxpayer cost, of public-pension benefits.

## Appendix B: Average police and fire pay, by state, 2015

<u>Police and Sheriff’s Patrol Officers</u>		<u>Firefighters</u>		<u>Correctional Officers</u>	
California	\$93,550	New Jersey	\$81,590	New Jersey	\$70,800
New Jersey	\$89,160	Washington	\$67,270	California	\$69,040
Alaska	\$77,230	New York	\$66,930	Massachusetts	\$66,880
Washington	\$74,170	California	\$67,920	New York	\$61,160
<b>Nevada</b>	<b>\$71,330</b>	Oregon	\$62,180	Alaska	\$59,100
Illinois	\$69,910	<b>Nevada</b>	<b>\$60,020</b>	Illinois	\$57,990
New York	\$69,140	Connecticut	\$59,400	<b>Nevada</b>	<b>\$56,870</b>
Connecticut	\$65,950	Alaska	\$57,440	Oregon	\$55,030
Oregon	\$65,890	Massachusetts	\$57,610	Connecticut	\$52,690
Delaware	\$65,740	Pennsylvania	\$55,120	Washington	\$50,270
Colorado	\$65,700	Maryland	\$56,530	Hawaii	\$50,060
Hawaii	\$64,940	Rhode Island	\$52,770	Pennsylvania	\$49,830
Massachusetts	\$64,250	Hawaii	\$54,550	Michigan	\$48,560
Pennsylvania	\$63,480	Nebraska	\$51,350	Minnesota	\$47,820
Maryland	\$61,610	Colorado	\$50,550	Iowa	\$47,050
Arizona	\$60,700	Virginia	\$50,440	Colorado	\$46,440
Minnesota	\$59,310	Texas	\$49,580	Maryland	\$45,520
Texas	\$58,710	Illinois	\$51,070	Florida	\$43,330
Florida	\$57,420	Florida	\$51,520	Wisconsin	\$42,920
Michigan	\$56,720	Montana	\$47,050	New Hampshire	\$42,150

Ohio	\$56,090	Indiana	\$45,510	Ohio	\$41,890
Rhode Island	\$55,790	Missouri	\$47,310	Wyoming	\$41,800
Iowa	\$54,300	Arizona	\$45,210	Arizona	\$40,650
Wisconsin	\$54,220	Michigan	\$44,000	Utah	\$40,570
Nebraska	\$53,610	Delaware	\$44,490	North Dakota	\$39,530
Wyoming	\$53,590	Ohio	\$44,210	Nebraska	\$38,820
Virginia	\$53,410	North Dakota	\$42,720	Texas	\$38,210
New Hampshire	\$53,250	Wyoming	\$42,440	Virginia	\$38,030
North Dakota	\$51,610	New Hampshire	\$42,200	Maine	\$36,820
Idaho	\$50,060	Oklahoma	\$43,300	Montana	\$35,840
Montana	\$49,630	Iowa	\$37,850	Alabama	\$35,730
Indiana	\$48,990	Alabama	\$39,780	South Dakota	\$35,560
Utah	\$48,770	South Dakota	\$41,920	Oklahoma	\$35,160
New Mexico	\$48,480	Vermont	\$38,560	Louisiana	\$34,170
Vermont	\$46,950	Tennessee	\$38,510	Kansas	\$33,970
Missouri	\$46,230	Idaho	\$37,480	North Carolina	\$33,710
Kansas	\$45,390	Kansas	\$36,980	West Virginia	\$33,450
South Dakota	\$44,070	New Mexico	\$37,700	Arkansas	\$33,100
Oklahoma	\$43,710	Georgia	\$34,240	South Carolina	\$32,990
Maine	\$43,580	South Carolina	\$34,150	Indiana	\$32,630
Tennessee	\$43,090	Kentucky	\$32,040	New Mexico	\$32,630
North Carolina	\$42,980	North Carolina	\$33,270	Kentucky	\$32,420
Alabama	\$42,400	Utah	\$35,030	Tennessee	\$31,250
Kentucky	\$42,030	Arkansas	\$33,440	Missouri	\$30,320
West Virginia	\$41,020	Louisiana	\$33,210	Georgia	\$29,650
South Carolina	\$40,340	Maine	\$32,730	Mississippi	\$26,740
Georgia	\$39,510	Minnesota	\$32,860	Only 46 states reported data on correctional officers	
Louisiana	\$38,100	West Virginia	\$30,890		
Arkansas	\$37,330	Mississippi	\$31,020		
Mississippi	\$33,350	Wisconsin	\$33,940		

Source: BLS, May 2015 State Occupational Employment and Wage Estimates



**Average pay, all occupations**

Massachusetts	\$59,010	Texas	\$46,560	<b><i>Nevada</i></b>	<b><i>\$42,800</i></b>
New York	\$57,030	Pennsylvania	\$46,550	Nebraska	\$42,630
Connecticut	\$56,280	Michigan	\$46,310	Indiana	\$42,070
Alaska	\$55,760	Vermont	\$46,060	Alabama	\$41,920
California	\$55,260	Wyoming	\$45,850	Iowa	\$41,840
New Jersey	\$54,950	North Dakota	\$45,660	Oklahoma	\$41,820
Maryland	\$54,630	Georgia	\$45,420	Tennessee	\$41,300
Washington	\$54,010	Arizona	\$45,310	Kentucky	\$40,880
Virginia	\$51,670	Ohio	\$44,750	Louisiana	\$40,810
Colorado	\$51,180	North Carolina	\$44,170	Idaho	\$40,810
Rhode Island	\$50,780	Utah	\$44,130	Montana	\$40,620
Delaware	\$50,300	Wisconsin	\$43,930	South Carolina	\$40,580
Illinois	\$49,970	Missouri	\$43,640	West Virginia	\$39,100
Minnesota	\$49,740	Maine	\$43,260	South Dakota	\$38,820
New Hampshire	\$48,710	New Mexico	\$43,170	Arkansas	\$38,540
Oregon	\$48,100	Kansas	\$42,930	Mississippi	\$37,620
Hawaii	\$47,740	Florida	\$42,860		

Source: BLS, May 2015 State Occupational Employment and Wage Estimates

### About the Author

**Robert Fellner** is the director of transparency research at NPRI, having joined the Institute in December 2013.

Robert moved to Nevada in 2005 to play professional poker, at which he has been remarkably successful, with two top 10 World Series of Poker finishes and the #1 ranking three years running in the online 10/20 Pot-Limit Omaha cash games.

Long interested in economics, he won first place with a 2011 analysis of the minimum wage in a contest hosted by George Mason University Professor Peter Boettke.

Robert has been published in the *Las Vegas Review-Journal*, the *Los Angeles Times*, the *Los Angeles Daily News*, the *San Diego Union-Tribune*, on Forbes.com and elsewhere.

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