

CASE STUDY

Neutralizing Pension Debt: Indiana's Policy Approach that Stabilized and Reversed Hidden Education Funding Cuts

This case study is based on research published in "Hidden Education Funding Cuts: How Growing Teacher Pension Debt Stresses America's K-12 Education Budgets." See the [full paper](#) for complete definition of terms and methodology.

Back in 1995, Indiana's teacher retirement plan was financially struggling. The Indiana Teachers Retirement Fund had \$6.7 billion in unfunded liabilities and a 30.1% funded ratio. A key reason for this funding shortfall was that only recently had the state begun attempting to fully "pre-fund" retirement benefits the way that defined benefit pension plans are intended to be. Years of not adequately saving enough money to be invested and generate returns meant high costs if the state wanted to attempt to catch up and create a fully funded teacher pension plan.

Instead, the state legislature decided to adopt a different approach by creating a new retirement plan for all teachers going forward while setting up a payment plan specific to the legacy liabilities. Over time, the state would take on costs for the legacy pension benefits (instead of requiring school districts to pay for all of the costs of covering the funding shortfall) and instead the state would provide money to cover promised pension checks a "pay-as-you-go" basis.

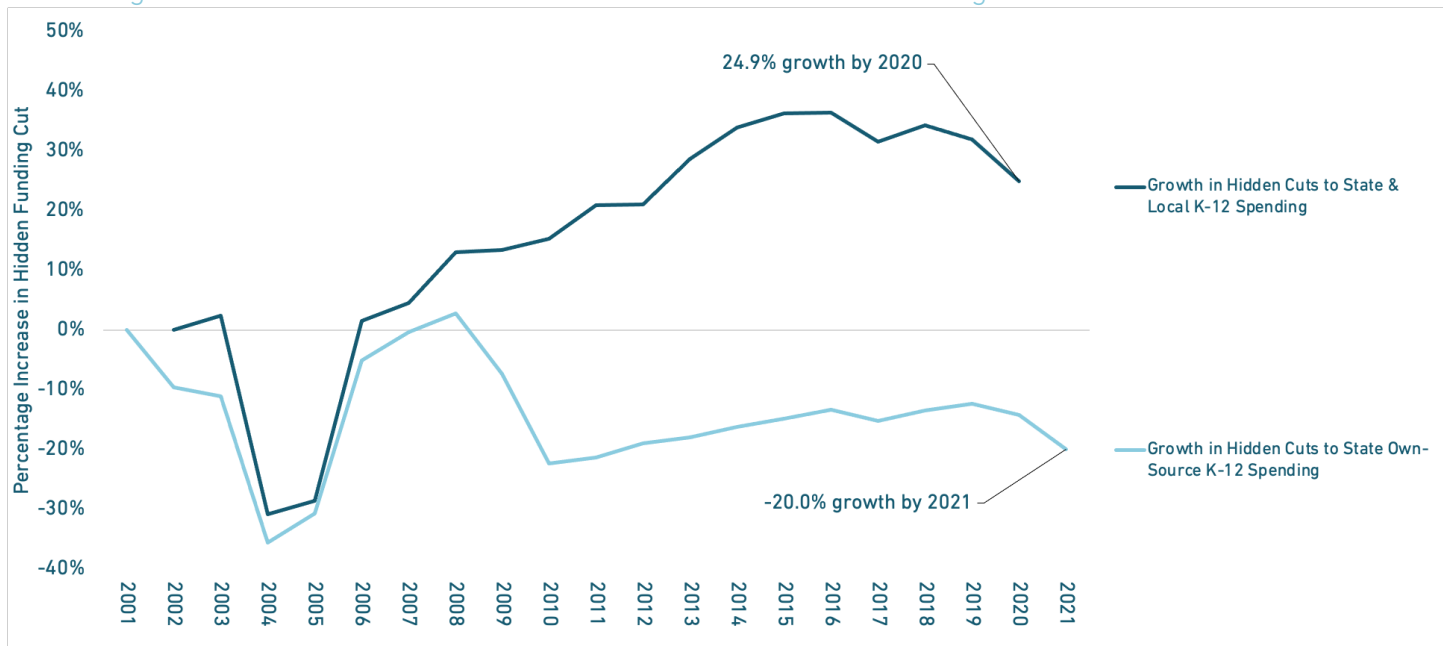
Meanwhile, the costs for future pension benefits under the new plan would be "pre-funded" from the start. This would give school districts the chance to move forward with offering retirement benefits for teachers and other school employees without facing massive payments toward unfunded liabilities.

Although Indiana was not intending to do so at the time, this creative division of legacy debt from the costs of providing benefits to new employees has helped the state avoid growing hidden education funding cuts.

Each year we can measure retirement costs for teachers and public school employees as a share of K-12 resources. Figure IN1 shows the percentage change in that share over the past two decades, comparing retirement costs to state own-source K-12 spending and to combined state and local K-12 expenditures.

Figure IN1: The Percentage Change in Indiana's Hidden Education Funding Cut Over Twenty Years is Either Relatively Flat or Declining, the Only State to Reverse Hidden Cuts

Percentage increase in retirement costs as a share of education funding



Source: NASBO, Census Bureau, actuarial valuations and ACFRs for the Indiana Public Retirement System (INPRS).

There isn't an inherent problem with school districts spending on retirement benefits — in fact, it is a valuable part of compensation for teachers and non-instructional employees. The problem is when the spending on those benefits is growing so much faster than any increase in K-12 budgets that retirement expenditures start eating in basic resources for students or dollars for adequate teacher pay.

Nationally, the costs of teacher retirement benefits are growing between 2x and 3x faster than K-12 education spending, depending on how you count expenditures for primary education. Most states, even those below the average, have experienced retirement costs for school districts grow at a faster rate than spending on K-12 education.

Indiana stands out for being able to reverse the “hidden cuts trend” and increase education spending on both an inflation adjusted basis and retirement cost adjusted basis. This case study will look at both sides of hidden education funding cuts — retirement costs and resources available for K-12 education — to understand how Indiana has avoided a problem that plagues the rest of the country.

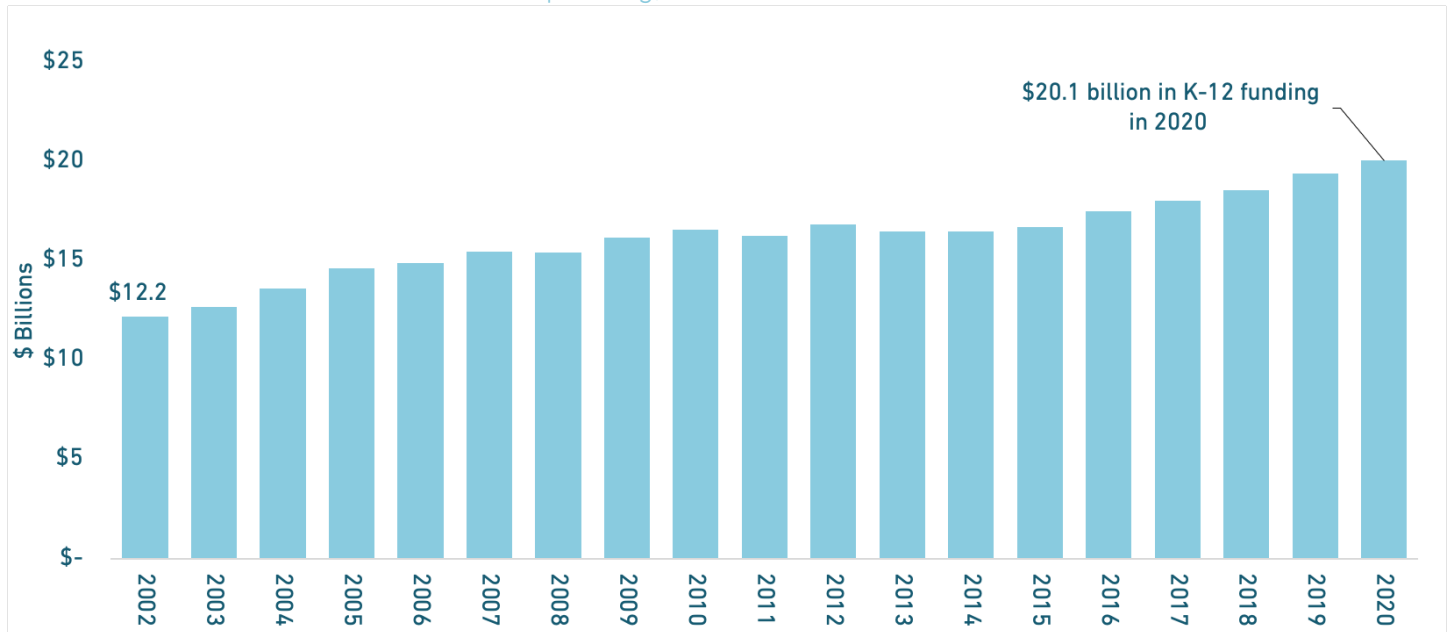
1. Education Funding History

Spending on K-12 education in Indiana has not grown in great multiples, but it has steadily increased over time. Figure IN2 shows the nominal change in state and local K-12 expenditures.¹ When comparing education spending to retirement costs, it is more reasonable to look at inflation adjusted changes over time. Figure IN3 shows Indiana's state and local K-12 spending, adjusted to 2021 dollars.

¹ This broad way to look at education spending is a conservative way of thinking about the share of K-12 spending that goes toward retirement costs. To reflect a range of perspectives, we've also analyzed hidden education funding cuts based on state-own source K-12 expenditures. This information is reported in our main paper, linked elsewhere in this case study.

Figure IN2: Indiana State and Local K-12 Funding History, Nominal

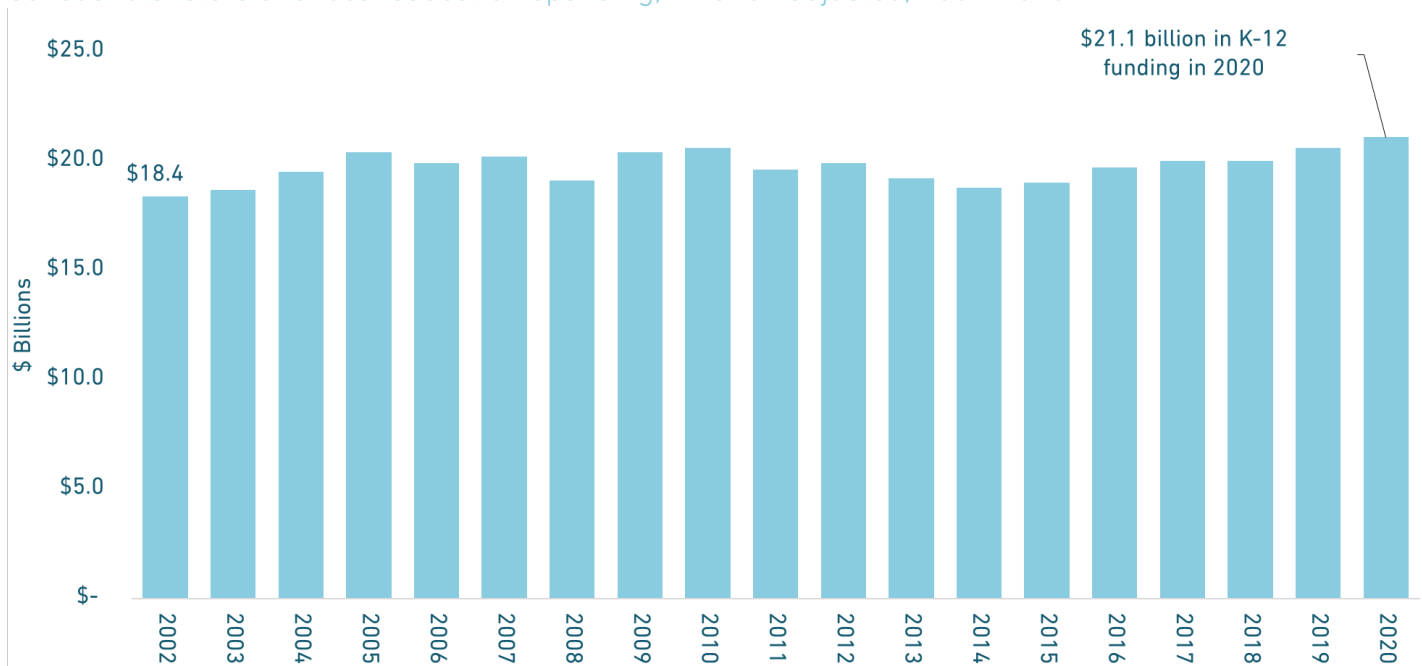
Census total state and local education spending, 2002-2020



Source: Census Bureau Annual Survey of State and Local Government Finance.

Figure IN3: Indiana State and Local K-12 Funding History, Inflation Adjusted to 2021 Dollars

Census total state and local education spending, inflation adjusted, 2002-2020



Source: Census Bureau Annual Survey of State and Local Government Finance.

On an inflation adjusted basis, K-12 expenditures have increased from \$18.4 billion in 2002 to \$20.4 billion in 2009, and then up to \$21.1 billion in 2020 — a 14.7% increase from 2001 to 2020, and a 3.4% increase from 2009 to 2020. This modest growth in K-12 spending, even adjusted for inflation, is likely having outsized effects because it has grown faster than the rate of enrollment. Back in 2001, Indiana had roughly 999,000 students while by 2021 there were 1,040,000 students enrolled.

2. Retirement Cost History

Teacher retirement benefits in Indiana are managed as part of Indiana's statewide umbrella organization called the Public Retirement System (INPRS), which also oversees retirement plans for state workers, public safety, municipal employees, judges, and elected officials. INPRS administers three distinct retirement plans for teachers, though each is interconnected in some way:

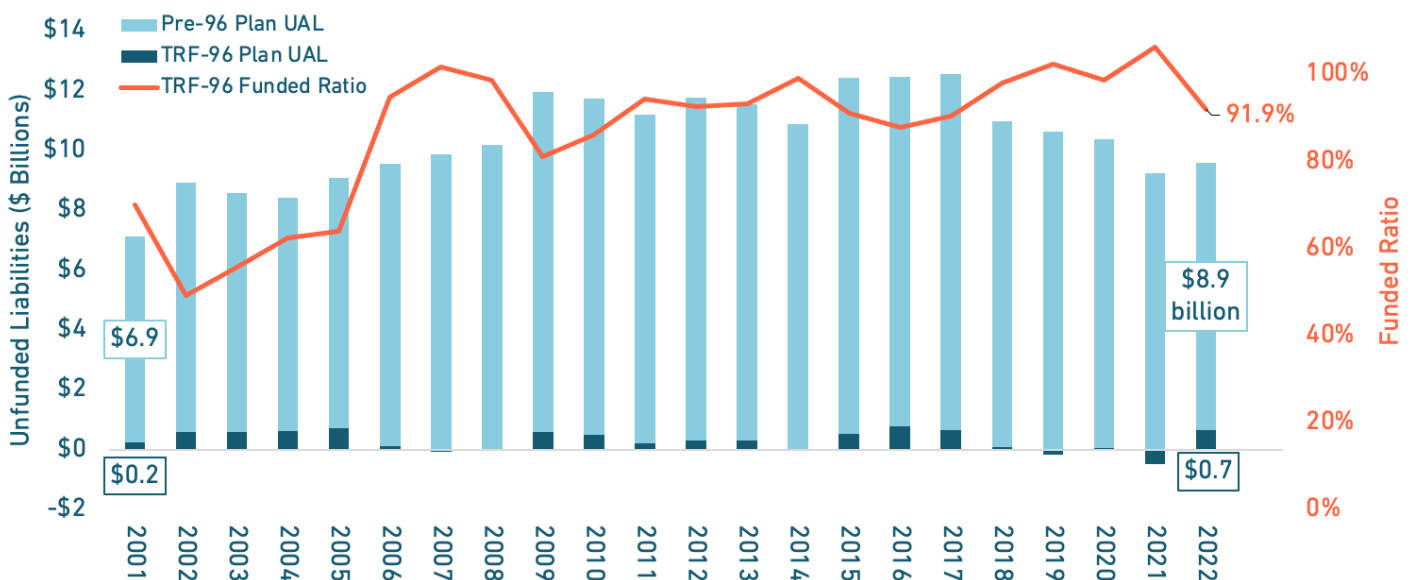
- The legacy retirement plan that was walled off to new members by the Indiana legislature in 1995 is known as the "Teachers Retirement Fund Pre-1996 Account" (TRF Pre-96).
- All teachers hired since 1996 are by default enrolled in the "Teachers Retirement Fund 1996 Account" (TRF-96) — which is also called the TRF Hybrid Plan.
- Indiana teachers also have the option of enrolling in a defined contribution plan called the My Choice: Retirement Savings Plan. School districts contribute at least 6% of payroll to this plan, and individual district bargaining agreements can involve larger contribution rates.²

In fact, both the Pre-96 and TRF-96 teacher retirement plans are "hybrids" insofar as they are pension plans with an associated defined contribution (DC) account. Members are required to contribute into the DC plan, which is intended to boost the value of pension benefits upon retirement. The data in this case study, though, is focused on the TRF Pre-96 and TRF-96 hybrid plans, and in particular the pension portion of those plans as the driver of employer costs.

Figure IN4 shows the combined funded status history of Indiana's two teacher retirement plans. Because the Pre-96 pension benefits are being intentionally paid off on a pay-as-you-go basis, they are technically classified as unfunded liabilities. As a result, the combined unfunded liabilities are elevated, but the level of unfunded liabilities is not indicative of any future solvency challenges. The state will continue to cover paying Pre-96 retirement plan benefits directly until the last member or beneficiary from the Pre-96 plan passes away (and this will be a declining amount of money in nominal terms over time in addition to shrinking as a percentage of teacher payroll).

Figure IN4: Funded Status History of Indiana TRF

Market valued unfunded liability for



Source: INPRS actuarial valuations.

² INPRS does not provide robust data on these total contributions, though, so they are not counted in the data below. While this makes the overall analysis slightly conservative, the effect isn't substantial because this defined contribution only plan was only first available in 2019.

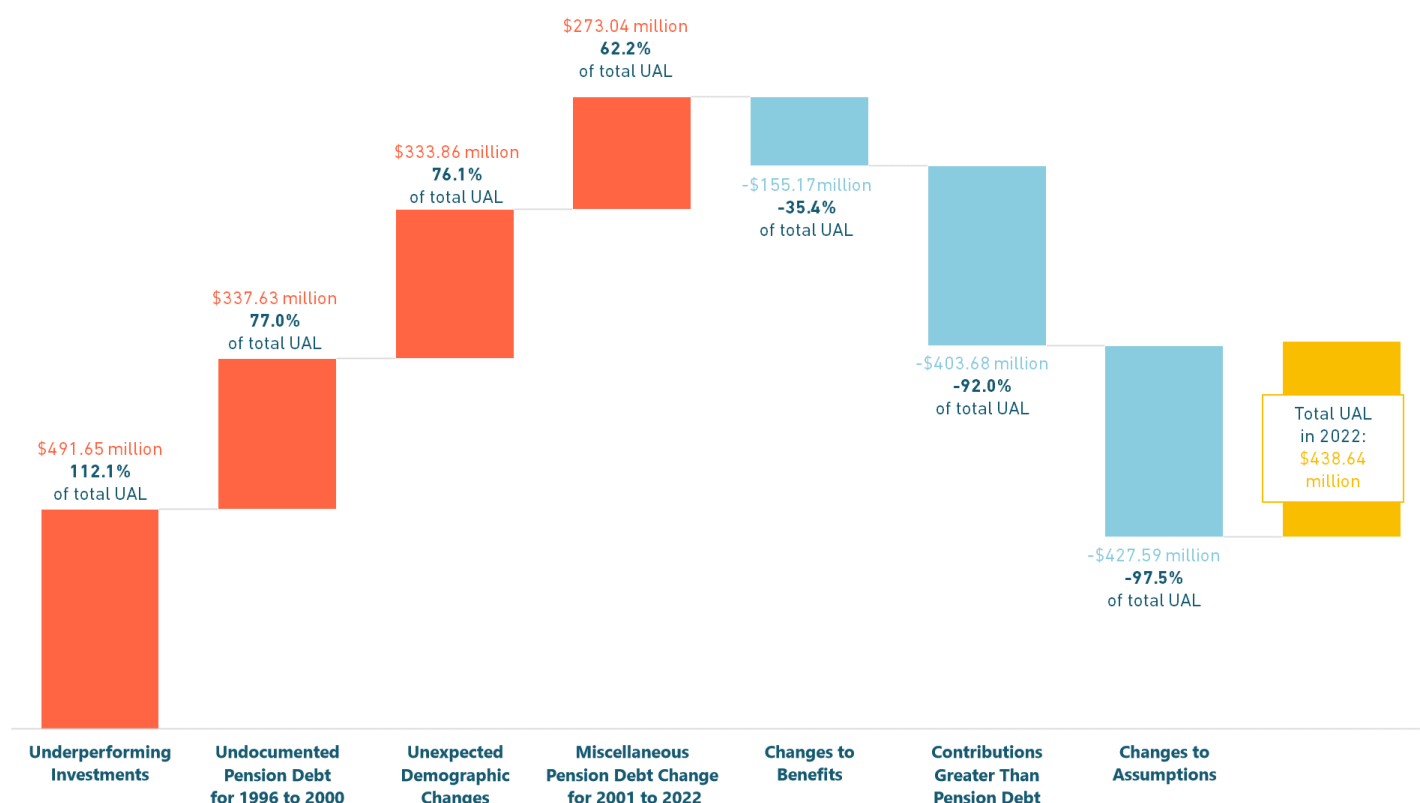
The most important part of the above figure is the level of unfunded liabilities for the TRF-96 pension plan, which is shown in the dark blue bars, and the funded ratio for the same plan, shown in the orange line.³ Both of these data series underscore that there is very little pension debt for the TRF-96 pension plan and that it has a strong funded status. While there are some unfunded liabilities for the TRF-96 plan, they are paltry compared to the total promised benefits.

As of June 30, 2022, market valued assets are 91.9% of promised benefits — and that's after accounting for serious losses during the fiscal year ending 2022. The majority of Indiana teacher unfunded liabilities are related to the Pre-96 plan.

There have been two main causes to the unfunded liabilities that do exist for the Indiana teacher retirement plans. First, “legacy” pension debt that developed before the 1996 split in the plans. This is the overwhelming reason (86%) for TRF Pre-96 unfunded liabilities, with the majority of the rest of reported Pre-96 liabilities coming from methodological changes to how the value of promised benefits are estimated for the future.⁴

Second, actuarial assumptions about investment returns and demographic experience for the TRF-96 plan have not been perfect, which is shown in Figure IN5.

Figure IN5: The Specific Causes of IN TRF-96 Unfunded Liability Growth
Gains and losses to actuarially valued assets and liabilities



Source: INPRS actuarial valuations.

³ The funded ratio for the TRF Pre-96 plan has been intentionally allowed to fall to minimal levels. Retirement benefits for this legacy plan are not pre-funded or invested in any meaningful way. Assets held in the Pre-96 Account are only for paying benefits due in the coming year. As a result, the combined liability-weighted or asset-weighted funded ratio is not entirely reflective of total future solvency of teacher retirement benefits.

⁴ Specifically, as of June 30, 2022, the TRF Pre-96 retirement plan reports \$8.4 billion in actuarially valued unfunded liabilities. Of this amount, actuarial gain/loss data shows that \$7.2 billion is related to “legacy” unfunded liabilities, \$1.98 billion is related to “assumption and method changes,” and -\$780 million is the net change due to a combination of investment experience, demographic experience, benefit changes, expected change to unfunded liabilities, and miscellaneous experienced. For a complete set of detailed data, contact the authors of this report.

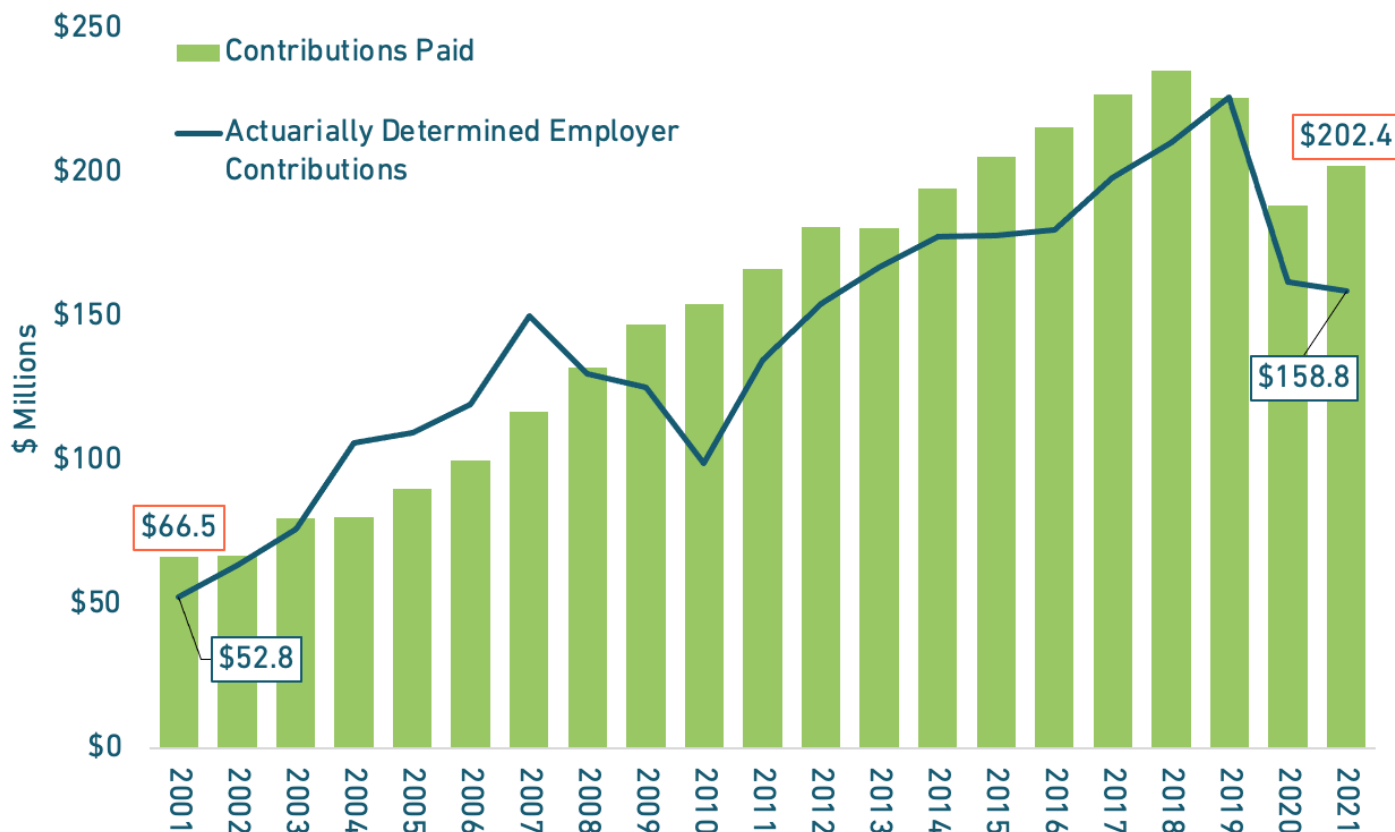
While today, INPRS uses a 6.75% assumed rate of return for the pension fund assets that it manages, it had been assuming a 7.5% return until the financial crisis. INPRS has also missed certain assumptions about payroll growth trends, retirement patterns, and mortality rates.

But INPRS has also managed to use changes to assumptions to reduce unfunded liabilities, which have nearly entirely balanced out underperforming investments. And the state legislature has ensured that contributions were paid into TRF in excess of any interest growing on pension debt. So, while certain factors have driven up unfunded liabilities for the TRF-96 plan (the orange columns), these have been almost entirely offset by robust contribution inflows greater than expected and adjustments to accounting methods (the light blue columns).

The extra contributions into the TRF-96 plan that have helped funded status can also be seen in Figure IN6, which shows the actuarially required contributions to the TRF-96 plan (blue line) and the actual contributions paid (green bars).

Figure IN6: Indiana Has Been Paying More than Actuarially Required since 2009

Actuarially determined employer contributions and actual employer contributions paid

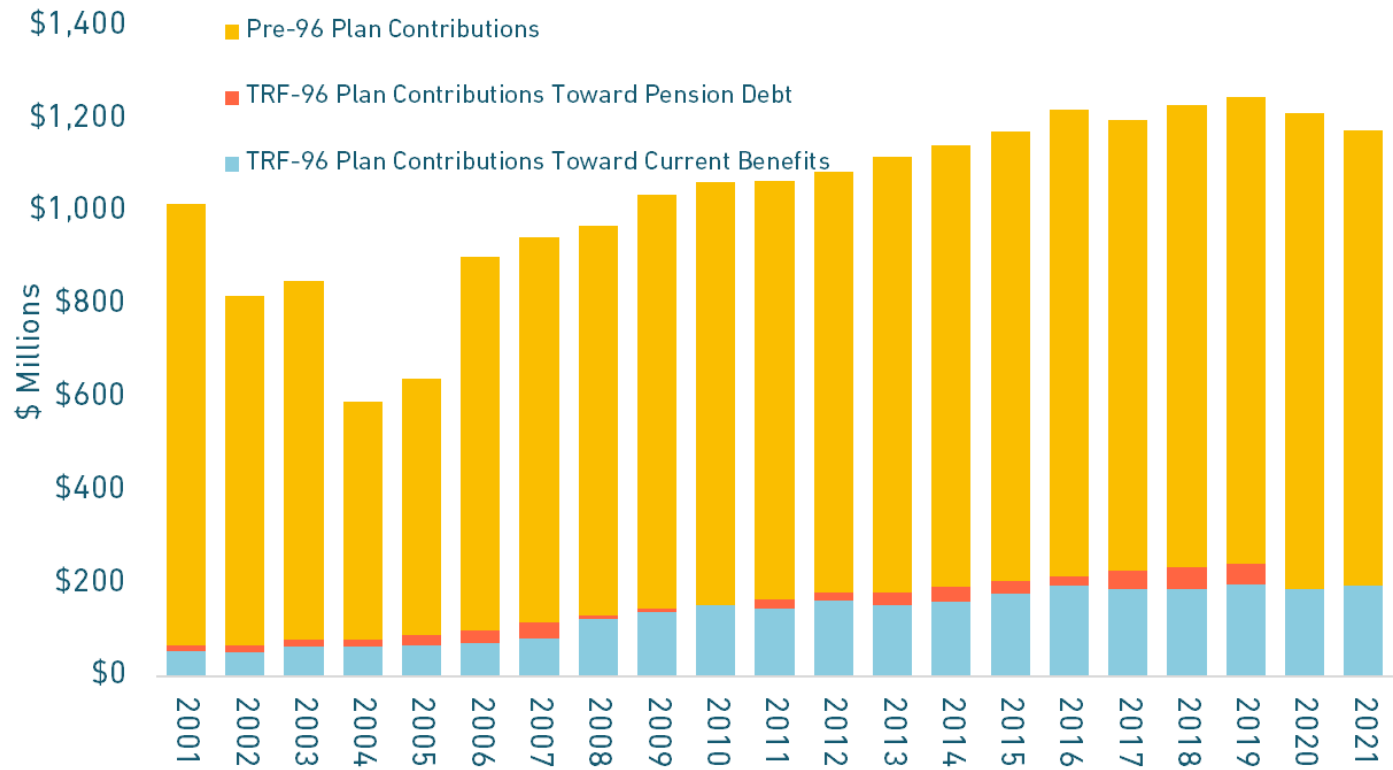


Source: INPRS actuarial valuations and ACFRs.

Of course, Indiana hasn't been only contributing to the TRF-96 plan. Most contributions paid today are actually going toward the Pre-96 plan, which is partially because there aren't assets in that plan earning investment returns and partially because it is just a lot more mature, being almost entirely made up of retirees (since there are few hired before 1996 still teaching). Figure IN7 shows the dollars actually contributed to both plans, and how they were divided up between "pay-as-you-go" costs for the Pre-96 plan (yellow columns), "normal costs" to pay for TRF-96 benefits earned in a given year (light blue columns), and "amortization payments" to pay for a small amount of TRF-96 unfunded liabilities (orange columns).

Figure IN7: Most Contributions for TRF are to the Legacy Pay-As-You-Go Pre-96 Plan

Actual contributions paid, inflation adjusted to 2021 dollars

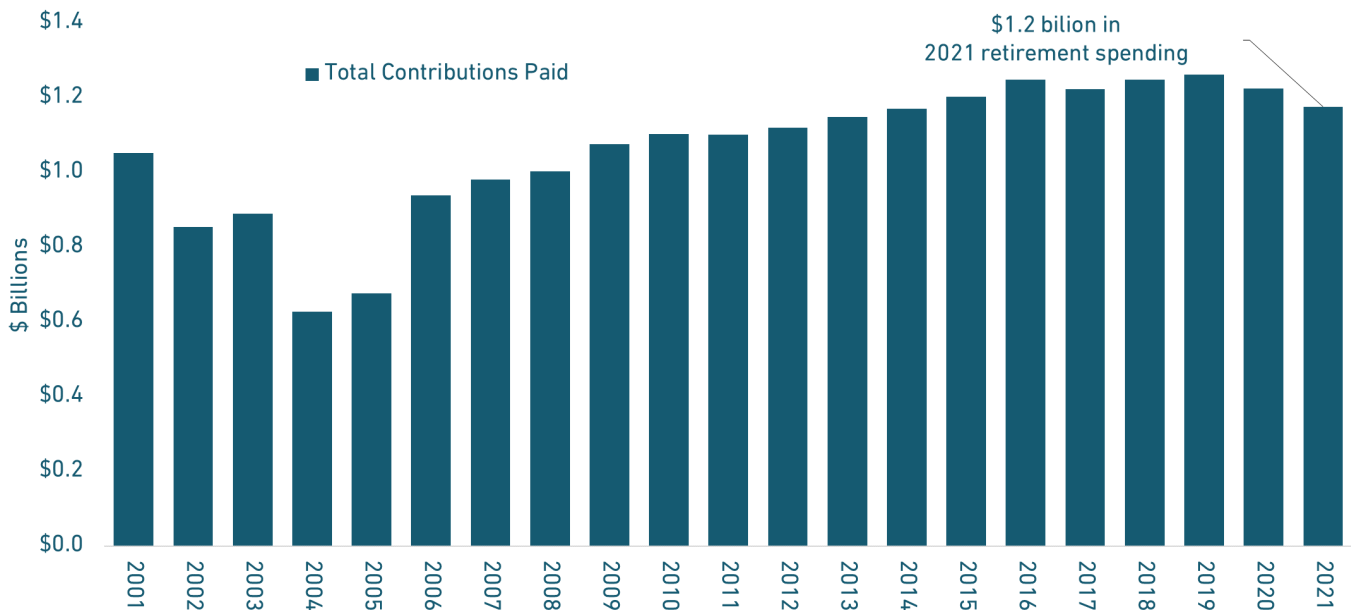


Source: INPRS actuarial valuations and ACFRs.

Finally, to appropriately compare these costs to K-12 resources, Figure IN8 shows an inflation adjusted history of all TRF costs. Through this lens we see that total contributions to teacher pension benefits in Indiana only increased 53.5% between 2001 and 2021, from an inflation adjusted \$1.05 billion to \$1.16 billion; and similarly, they only nudged up 50.3% between 2009 and 2021, from \$1.08 billion to \$1.16 billion.

Figure IN8: Growth in Total TRF Pre-96 + TRF-96 Plan Retirement Contributions, 2001 to 2021, Inflation Adjusted

Actual employer contributions paid, inflation adjusted to 2021 dollars



Source: INPRS actuarial valuations and ACFRs

3. Hidden Education Funding Cuts

The share of K-12 expenditures that is consumed by retirement costs has been relatively flat to declining in Indiana over the past two decades. Depending on how education spending is defined, Indiana has experienced a 25% increase in hidden state plus local education funding cuts — the seventh lowest nationally — or a 20% decline in hidden cuts to state own-source education spending.

The first way to think about hidden cuts to K-12 spending is to look at state own-source K-12 expenditures. The state has control over education funding formulas and determining how K-12 dollars are distributed. The retirement system is ultimately controlled by the state legislature (which adopts laws related to benefits and funding) and a board of trustees organized at the state level. School districts carry responsibility for hiring and firing public school employees, but don't have much direct capacity to influence decisions that have led to unfunded liabilities and higher costs. Plus, in Indiana, the state covers costs for the TRF Pre-96 plan. So, the most appropriate way to measure Indiana's hidden education funding cuts could be to *examine retirement costs as a share of what the state put towards education*.

The second way to think about hidden cuts is retirement costs as a share of state and local combined resources for K-12. Through this perspective, taxes are collected by both the state and municipalities, and local resources constituted around 59% of all Indiana K-12 spending in 2020.⁵ So, it is also appropriate to measure hidden cuts in Indiana by looking at *retirement costs as a share of state and local education expenditures*.

The figures below show Indiana's hidden education funding cuts from both points of view.

- Charts looking at state only K-12 spending using own-source revenues are based on data reported to the National Association of State Budget Officers (NASBO). These data are available for 2001 to 2021.

⁵ According to data from the Census Bureau Annual Surveys of State and Local Government Finance.

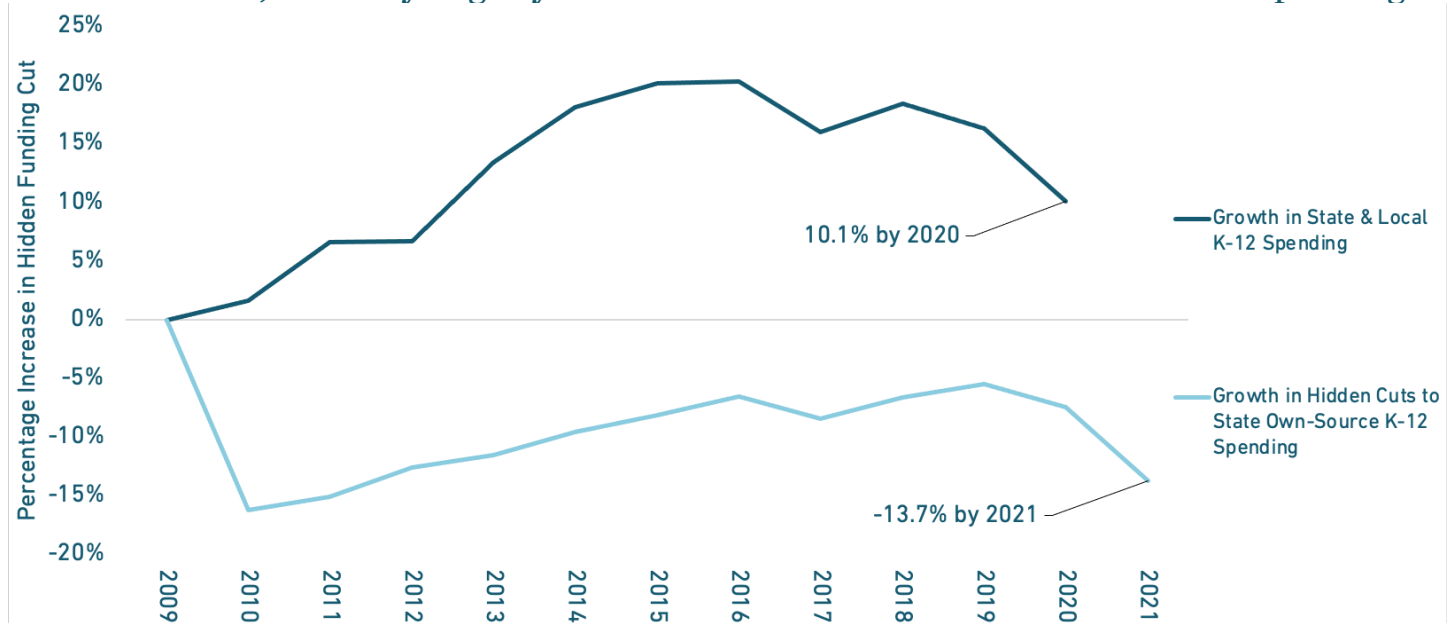
- Charts looking at state and local combined K-12 expenditures are based on Census Bureau data reported in the Annual Survey of State and Local Government Finance. These data are only available for 2002 to 2020 due to methodological quirks in how Census reports data.

See our "[Hidden Education Funding Cuts](#)" primary paper for a complete methodology behind our research and this case study.⁶

The most important way to analyze a hidden education funding cut is its trendline. Reasonable minds can debate exactly how much of education funding should go toward compensation costs generally or retirement costs specifically. However, when retirement costs are growing at a faster rate than the growth in education budgets that signals there is currently a problem or likely to be a problem in the near future.

Figure IN1 at the start of this case study showed a decrease in hidden education funding cuts over the past two decades for state own-source resources, and a small increase in hidden cuts to state and local K-12 spending. The same basic trendlines can be seen when looking at the percentage change in hidden education funding cuts since 2009, shown in Figure IN9 below.

Figure IN9: Indiana Hidden Cuts to State-Only K-12 Funding Have *Declined* Since the Financial Crisis, and Only Slightly Increased for Combined State & Local K-12 Spending



Source: Equable Institute analysis of Indiana hidden funding cuts

The retirement costs that are measured against these two ways of thinking about K-12 spending are the same, which means that state education funding is growing faster than local resources for education. But to the degree that there is any share of education funding going to retirement costs, the majority of it is simply for the "pay-as-you-go" legacy costs for the Pre-96 plan or the "normal" pension costs instead of "pension debt" costs. We can see this in Figures IN10 and IN11 (next page), which show the absolute change in retirement costs as a share of education spending for K-12 funding methods. In that sense, these retirement plan expenditures are entirely reasonable since that is one form of compensation for teachers and non-instructional employees.

⁶ North Dakota's school districts or state legislature might have different preferences for how to define school spending. NASBO data is self-reported by state budget officers, and may differ from how education agency officials classify certain spending. Census data is gathered via specific methodologies that generalize across all states, and may also be classified differently than how a given state stakeholder might think about expenditure data. The trendlines are the most important measurement point in this analysis, whereas absolute cut levels should be considered rough estimates.

The first of these charts, Figure IN10, shows a relatively stable, 4.7% to 5.8% share of state and local education spending going to cover retirement costs between 2002 and 2020, with a share of 6.3% in 2016. The absolute change over this period of 1.2 percentage points is negligible, as is the 0.5 percentage point change between 2009 and 2020 — just a 10.3% growth rate since the financial crisis.

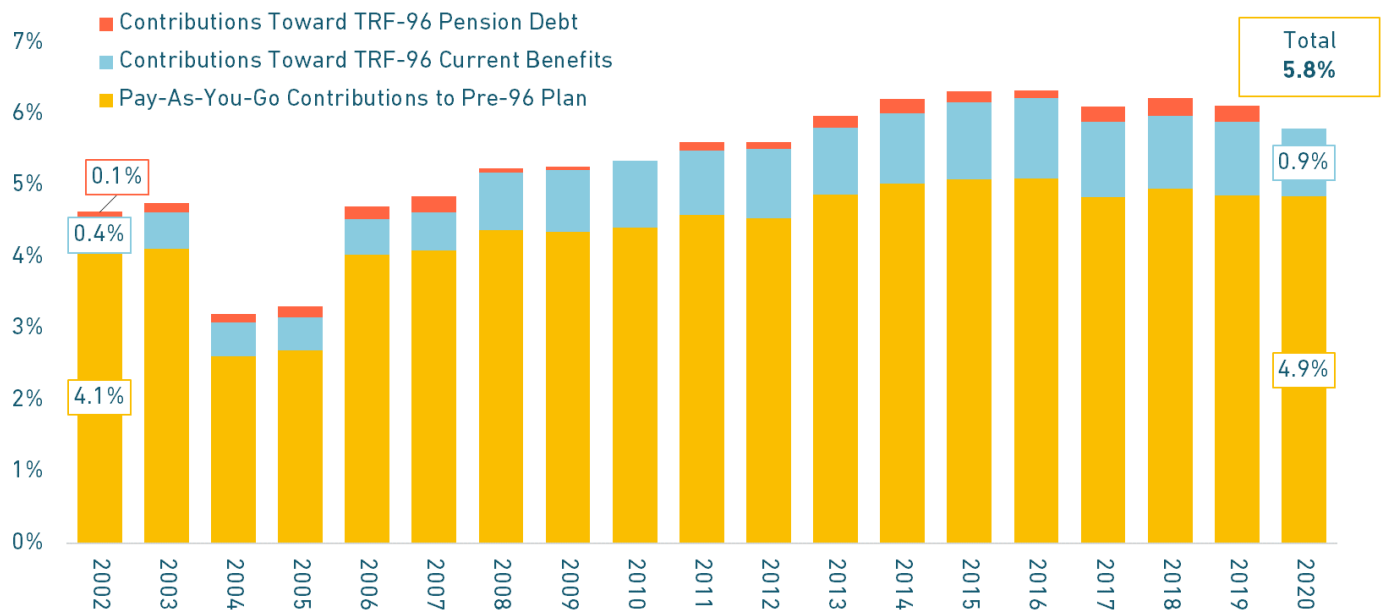
There is also a stable rate of change in the hidden cut to state own-source K-12 spending from retirement costs, shown in Figure IN11. The 14.3% hidden cut rate in 2001 declined and then increased to 14.7% in 2008 before declining again, eventually to 11.4% in 2021. The absolute decline of 2.9 percentage points between 2001 and 2021 reflected a 20% drop in hidden cuts — which is the only state-own source decline during that period nationwide.

Florida, Rhode Island, and West Virginia all had declining hidden cuts to state own-source K-12 spending between 2009 and 2021 — but West Virginia achieved this in part by using proceeds from a massive legal settlement to buy down unfunded liabilities, and the other two states reduced benefit values during this time frame to try and cut overall costs.

Similarly, Florida and Ohio recorded lower hidden cuts to state and local K-12 expenditures in 2020 than they did in 2009, but both states achieved this in part by raising contribution rates on teachers themselves (which avoided contribution increases from school districts) and eliminating cost-of-living adjustments for retired teachers. Indiana stands apart for their minimal, to declining, hidden education funding cuts because they didn't accomplish this by shifting costs to teachers or cutting benefit values.

Figure IN10: The Absolute Change in Retirement Cost Shares of State and Local Combined K-12 Spending Has Been Very Small

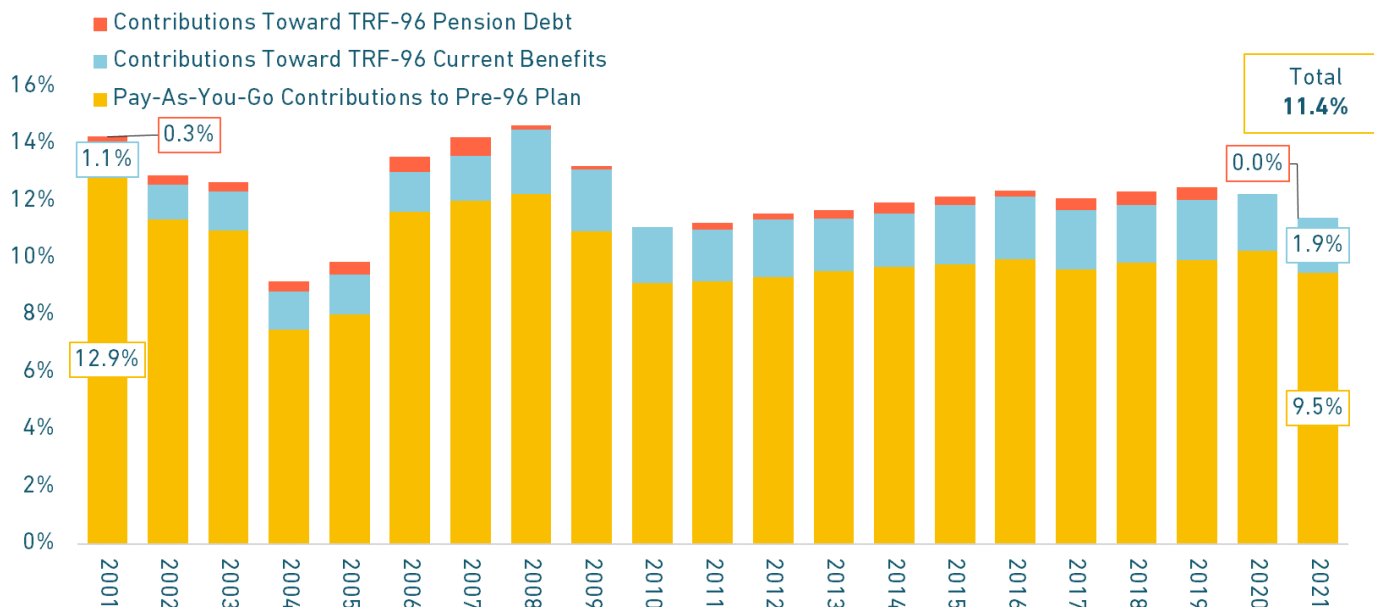
Hidden funding cut based on Census Bureau state and local total education expenditures, 2002-2020



Source: Equable Institute analysis of INPRS public plan valuation reports; combined state and local funding data are drawn from Census Bureau Annual Survey of State and Local Government Finances. These figures are based on expenditures data adjusted for inflation to 2021 dollars.

Figure IN11: TRF-96 Retirement Costs are Just 2% of State Own-Source K-12 Spending

Hidden funding cut based on state own-source K-12 spending data reported to NASBO, 2001-2021



Source: Equable Institute analysis of INPRS valuation reports; state own-source K-12 education spending data are drawn from NASBO state expenditure reports. These figures are based on expenditures data adjusted for inflation to 2021 dollars.

4. What Caused Hidden Cuts to Remain Stable?

Indiana is relatively unique among other states because of both the legacy pay-as-you-go plan and how the costs of the two retirement plans relate to K-12 education spending. They are also one of the few states in the country where funding for K-12 education has grown at a similar pace to teacher retirement costs — if not faster. Looking at state own-source education spending, we see a decline in the share of education spending going toward pension costs (-20.0% from 2001 to 2021), which is visible in Figure IN1. Other than for a large increase in retirement checks for Pre-96 members in 2021, Figure IN11 demonstrates that the absolute share of retirement costs relative to state-own source K-12 expenditures is flat or lower than in 2001.

When measuring retirement costs relative to state and local K-12 spending together, we see a slight rise the share of total education spending going toward pension costs increase from 4.65% in 2002 to 5.81% in 2020 (a 24.9% increase in the hidden education funding cut). However, this is effectively flat compared to the 322% increase in hidden education funding cuts for states on average.

Perhaps most importantly, retirement costs as a share of K-12 spending have been stable in Indiana because of the way the state divided benefits in 1996, with a plan to pay down legacy costs separate from how new benefits are funded. This approach will involve large payments from the state for pension checks as they are due — a pay-as-you-go method doesn't benefit from investing assets. School districts benefit from this approach by not having to pay large contribution rates as a percentage of their salary, which is not a luxury most schools around the country have.

The decision in the 1990s to create a new teacher retirement plan and develop a separate funding policy for the legacy Pre-96 pension plan wasn't intended to avoid hidden education funding cuts. But that has been a positive, albeit unintended, consequence. By dividing legacy pension costs from retirement benefits offered on a "go-forward" basis, Indiana has been able to keep its overall teacher retirement contributions stable while also responsibly funding those benefits.

Any state could keep their retirement costs stable by simply not paying adequate contributions for teacher benefits. This would eventually lead to retirement plan insolvency. But that's not the projected future for Indiana's TRF-96 plan. The legacy plan's liabilities are leveling out after three decades and that will mean costs are going to be effectively flat in the coming years and then will decline as the Pre-96 plan winds down. Meanwhile, the pension portion of the TRF hybrid plan is using a relatively modest investment return assumption that can be lowered further in the future without much additional cost. The funded status is resilient, and the plan has hovered around 95% funded relatively consistently since the financial crisis in 2009.

None of this analysis says anything about whether the overall spending on K-12 in Indiana is appropriate generally. Nor does this analysis suggest that the benefits offered by the TRF-96 hybrid plan or the MyChoice defined contribution plan are adequate for ensuring retirement income security. However, at the very least, retirement costs are not exacerbating any problems that may otherwise exist for Indiana's education system. As a result, Indiana stands out nationally as an example of what it looks like to have teacher retirement costs declining as a share of state and local K-12 spending while much of the nation struggles with the opposite problem of growing hidden education funding cuts.



This case study was written by Anthony Randazzo and Jonathan Moody.

Please review the primary paper that his study is based on for additional information and contact the authors with any questions.

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