WIREPOINTS

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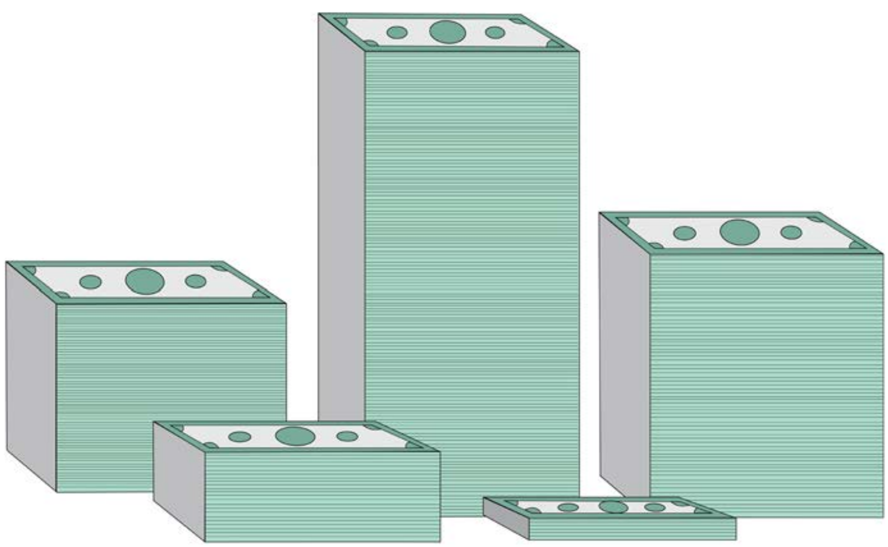
Illinois pension shortfall surpasses $500 billion, average debt burden now $110,000 per household

Moody's estimate of Illinois' retirement debts, made up of pension and retiree health shortfalls at the state and local level, hits $530 billion in 2020

By: Ted Dabrowski and John Klingner



$530 billion

in retirement debts

Table of Contents

Illinois pension shortfall surpasses $500 billion in 2020

Illinois just reached an alarming milestone: each Illinois household is now on the hook for, on average, $110,000 in government-worker retirement debts. That figure is the result of dividing Illinois' $530 billion in state and local retirement shortfalls among the state's 4.9 million households. In 2019, the burden was $90,000 per household.

Illinois' retirement debts increased to $530 billion in 2020, according to a Wirepoints analysis of Moody's Investors Service debt estimates. This is the first year the credit rating agency's estimates of Illinois' retirement debts, made up of both pension and retiree health shortfalls at the state and local level, have broken $500 billion.[1]

The jump in Illinois' shortfall, up nearly $100 billion compared to 2019, was due largely to the drop in interest rates as a result of the COVID crisis. Illinois' shortfall is expected to remain elevated in 2021 despite the market recovery. (See Appendix B.)

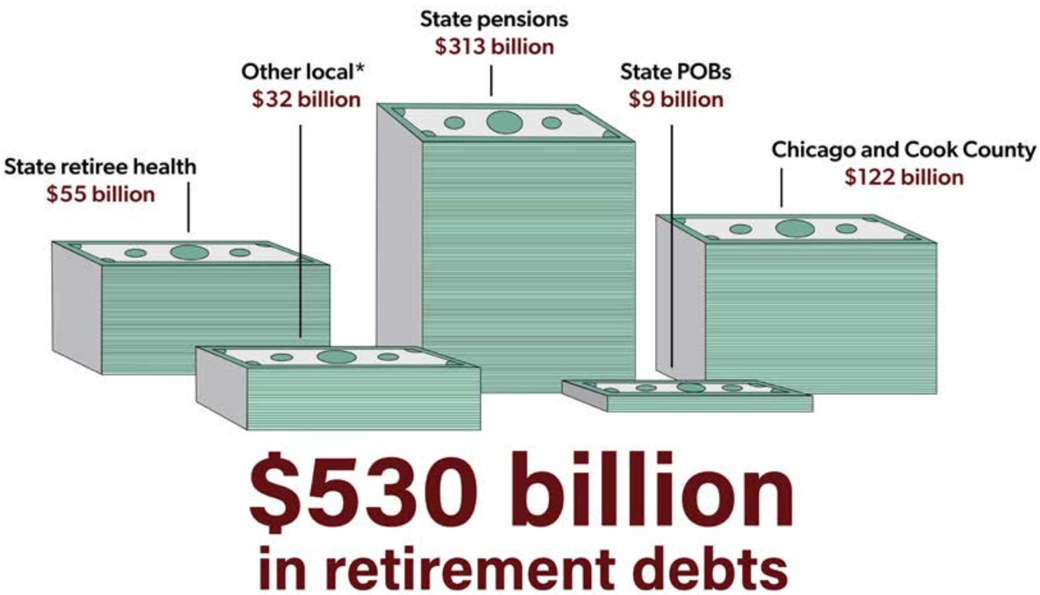
The growth in Illinois' retirement debts to half-a-trillion dollars is yet another grim reminder of how lawmakers' refusal to address the pension crisis does real harm to ordinary residents. These outsized debts have contributed directly to Illinois' other crises, including the state's worst-in-the-nation credit rating, the 2nd-highest property taxes and the nation's 5th-worst decline in real home values. The pension crisis has also contributed indirectly to a record rate of out-migration and the nation's 2nd-largest population losses since 2010.[2]

In addition, the growing debts point to just how much the retirement security of more than a million Illinois government workers and retirees has collapsed. According to Pew Charitable Trusts, Illinois' state-level pensions are just 39 percent funded, the lowest ratio in the nation.[3]

In all, Illinois' $530 billion state and local retirement shortfall is made up of:
- Illinois' five state-run pension funds – $313 billion
- State retiree health insurance – $55 billion
- State pension obligation bonds – $9 billion
- Chicago and Cook County pensions and retiree health – $122 billion
- Other local government pensions and retiree health – $32 billion

Illinois taxpayers are on the hook for $530 billion in state and local retirement debts

State and local government retirement debt based on Moody's Investors Service calculations, FY 2020



Source: Moody's Investors Service; Commission on Government Forecasting and Accountability, 2020 pension fund actuarial reports
*Moody's does not provide its own debt estimates for downstate and suburban retirement data. Official government data used instead.
Note: Numbers may not add due to rounding. See Appendix D for additional source notes.

Illinois continues to be the nation's extreme outlier when it comes to pension debts as measured by Moody's. Comparing state-level pension data alone – there is no like-for-like comparison for all state and local retirement debts across the 50 states – shows Illinois' debt swamps that of its neighbors and other big states.

At $313 billion, Illinois' state-level pension debt is the nation's biggest, the 2nd-most on a per household basis, and the highest when measured as a share of state revenues and GDP. Illinois also has the nation's highest pension costs as a share of revenues, according to Moody's.

Record debts, no matter the source

It's important to note that Moody's $530 billion calculation is much higher than the official government estimates of $303 billion for Illinois' state and local retirement debts (don't confuse this number with Moody's *state-level-only* pension debt of $313 billion). Moody's uses lower discount rates than the state to calculate the present value of what's owed to retirees, resulting in far larger shortfalls. In contrast, Illinois governments use far more optimistic investment rate assumptions to arrive at lower debt numbers.[4]

The full explanation of the difference between Moody's and the official debt calculations is covered in Appendix A, but what readers should know is that Moody's discount rates better reflect the guaranteed pension promises that governments make to public sector workers, which taxpayers are on the hook for.

Moody's methodology is broadly in line with the opinions of financial experts ranging from Nobel prize winners like Stanford's Prof. William F. Sharpe and University of Chicago's Prof. Eugene Fama, to other academics including Hoover Fellow Joshua Rauh and the late actuary Jeremy Gold.[5,6,7,8]

While Wirepoints uses Moody's debt estimates as the standard in this report, we also report the state's official numbers for comparison purposes.

Illinois' official calculations also reached a negative milestone of their own this year: state and local retirement debts crossed the $300 billion mark in 2020. Any way you cut the numbers, retirement debts are reaching record levels in Illinois.

Illinoisans are on the hook for $530 billion in retirement debts based on Moody’s calculations

State and local government retirement debt based on official government assumptions vs. Moody’s Investors Service calculations, FY 2020

Fund	Government-reported retirement shortfalls (in billions)	Moody's calculated retirement shortfalls* (in billions)
State		
Illinois' five state pension funds	$144.2	$312.6
Retiree health insurance debt	$58.7	$55.0
Pension obligation bonds	$9.4	$9.4
State subtotal	**$212.3**	**$376.9**
Chicago		
Chicago's four city pension funds	$32.0	$59.8
Chicago Teachers’ Pension Fund	$12.8	$30.8
Park District Pension Fund	$0.8	$1.8
Retiree health insurance debt	$4.6	$4.7
Chicago subtotal	**$50.3**	**$97.1**
Cook County		
Cook County Pension Fund	$6.7	$20.6
MWRD Pension Fund	$1.1	$2.2
Forest Preserve Pension Fund	$0.1	$0.4
Retiree health insurance debt	$1.4	$1.2
Cook County subtotal	**$9.3**	**$24.5**
Suburban and downstate (Government-reported data only)*		
Firefighter pension funds	$5.6	$5.6
Police pension funds	$7.7	$7.7
Illinois Municipal Retirement Fund	$2.9	$2.9
Retiree health insurance debt	$15.3	$15.3
Suburban and downstate subtotal	**$31.6**	**$31.6**
Total retirement debts	**$303.6**	**$530.1**

Source: Moody’s Investors Service; Commission on Government Forecasting and Accountability, 2020 pension fund actuarial reports
*Moody’s does not provide its own debt estimates for downstate and suburban retirement data. Official government data used instead.
Note: Numbers may not add due to rounding. See Appendix D for additional source notes.

Illinois' per household debts are overwhelming

Most Illinoisans can't comprehend the meaning of $530 billion in retirement debts, but they're increasingly feeling the burden those debts create every day.

On average, each of Illinois' 4.9 million households is on the hook for $110,000 in state and local shortfalls, based on Moody's pension calculations ($530 billion spread over 4.9 million households).

That burden has consistently manifested itself in the higher taxes that residents have been paying, as well as in the reduced services they've been receiving. What's worse, any taxes dedicated to paying down those debts over the next couple of decades won't go toward new or improved services, but instead toward services already rendered.

In other words, the future taxes needed to pay down that debt will be in addition to the taxes needed to pay for schools, transportation, healthcare and more.

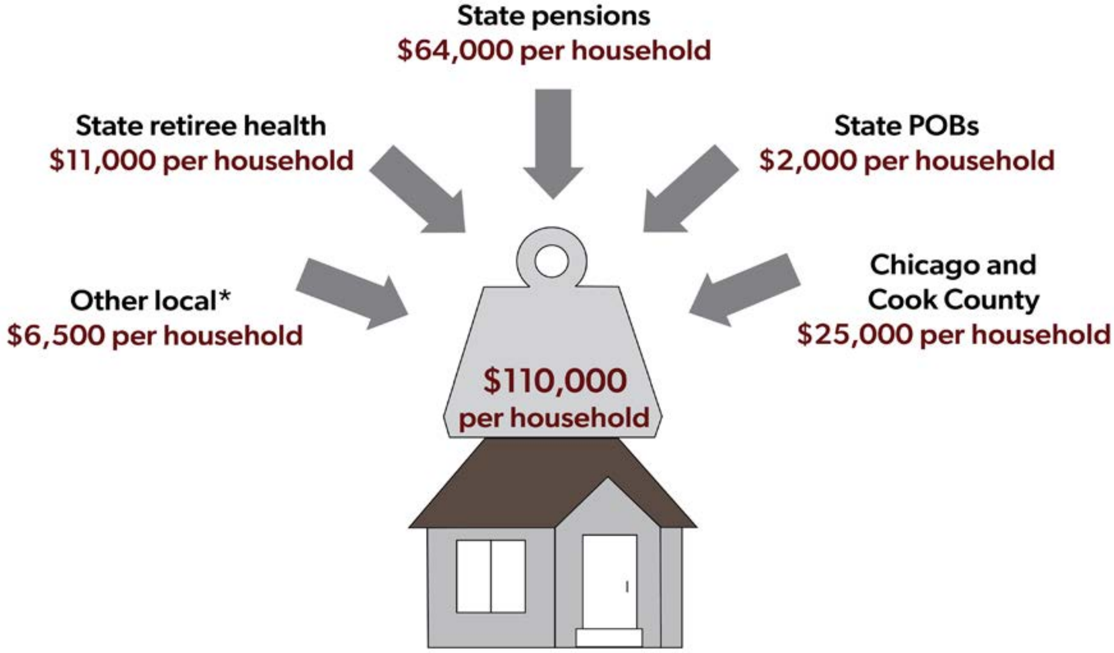
The $110,000 per household is an average across the entire state, but the precise burden for Illinoisans differs depending on where they live. The debt burden on Chicago's one million households is larger because of the city's deeper debt crisis. There, each household is on the hook for $180,000 for their share of state and local retirement debts.

Illinoisans living outside of Chicago, meanwhile, face an overall average burden of $90,000 per household.

For comparison purposes, the burdens for Chicago and non-Chicago households, based on official state and local retirement debts, are $95,000 and $53,000, respectively.

Each Illinois household is on the hook for, on average, $110,000 in state and local retirement debts

State and local government retirement debt per household based on Moody's Investors Service calculations, FY 2020



$530 billion in total state and local retirement debts divided by 4.9 million households

Source: Moody's Investors Service; Commission on Government Forecasting and Accountability, 2020 pension fund actuarial reports
*Moody's does not provide its own debt estimates for downstate and suburban retirement data. Official government data used instead.
Note: Numbers may not add due to rounding. See Appendix D for additional source notes.

Illinoisans' total retirement burden differs depending on where residents live

State and local government retirement debt based Moody's Investors Service calculations, FY 2020 ($ in billions)

Retirement debt	All Illinois households	Chicago households	Non-Chicago households
State debt	$377 billion	$84 billion	$293 billion
Chicago debt	$97 billion	$97 billion	$0
Cook County debt	$24 billion	$13 billion	$11 billion
Other local debt*	$32 billion	$0	$32 billion
Total debt	**$530 billion**	**$194 billion**	**$336 billion**
Households	**4,866,006**	**1,080,345**	**3,785,661**
Retirement debt per household	**$108,936**	**$179,665**	**$88,752**

Source: Moody's Investors Service; Commission on Government Forecasting and Accountability, 2020 pension fund actuarial reports
*Moody's does not provide its own debt estimates for downstate and suburban retirement data. Official government data used instead.
Note: Numbers may not add due to rounding. See Appendix D for additional source notes.

Illinois the outlier

Illinois is the nation's extreme outlier when it comes to retirement debts based on Moody's calculations, particularly when just state-level pension debts are compared.

Illinois' $313 billion shortfall in its five state-run pension funds, as of June 30, 2020, is the largest in the country, dwarfing that of its neighbors and other big states.[9]

California, with more than triple the population of Illinois, has a state-level shortfall of $240 billion – $70 billion less than Illinois. And Texas, with more than double the population of Illinois, has a shortfall of $173 billion – $140 billion less than Illinois.

Kentucky, suffering a pension crisis of its own, has a $56 billion state-level shortfall – just a fifth the size of Illinois'. The rest of Illinois' neighbors have shortfalls valued at just $20 billion or less.

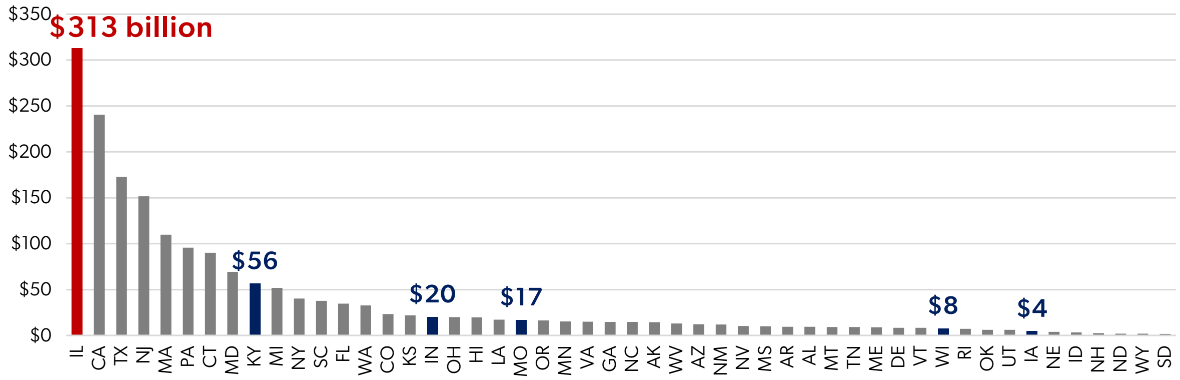
When measured on a per household basis, Illinois' state-level pension debt totals more than $64,200. That's the nation's 2nd-largest burden, behind only Connecticut's $65,400 per household.

Illinoisans' state-level household burden is four times larger than the national average of $15,600, and compared to residents in neighboring Iowa and Wisconsin, Illinoisans' burdens are 18 to 20 times larger.

Iowa and Wisconsin's per household burdens are $3,500 and $3,200, respectively.

Illinoisans are on the hook for $313 billion in state-level pension debts, the nation's most

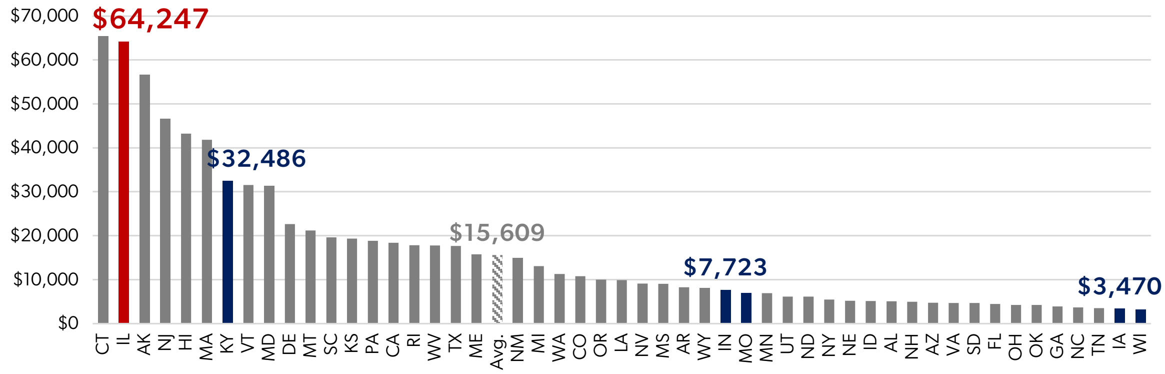
Total unfunded state-level pension debts based on Moody's Adjusted Net Pension Liability, as of 6/30/20 (in billions)



Source: Moody's Investors Service

Every Illinois household is on the hook for $64,200 in state-level pension debts, the nation's 2nd-most

Unfunded state-level pension debts per household based on Moody's Adjusted Net Pension Liability, as of 6/30/20



Source: Moody's Investors Service

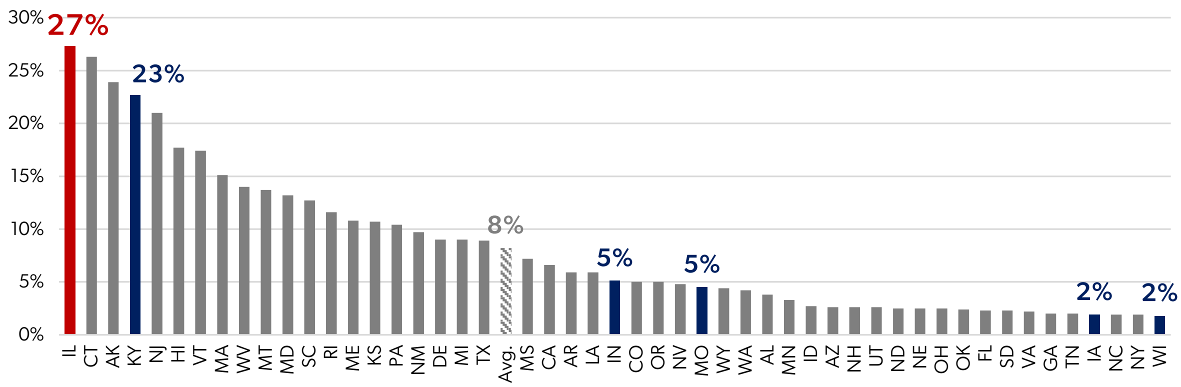
Please note the 50-state economic and financial comparisons for June 30, 2020 are not yet available from Moody's. The following 50-state comparisons are based on state-level pension debts as of June 30, 2019. Illinois' shortfall totaled $236 billion that year.

Illinois' state-level pension debt also makes the state an extreme outlier when measured against other economic and financial metrics.

Illinois' state level-debts are equivalent to 27 percent of the state's annual GDP. In most of Illinois' neighboring states, the debt is equal to just 2 to 6 percent of GDP. Indiana's debt is at 5 percent, while Iowa and Wisconsin's debt are both equal to less than 2 percent. Only Kentucky, which is struggling with a pension crisis of its own, comes close to Illinois with debts equal to 23 percent of GDP.

Illinois' state-level pension shortfall equals 27 percent of GDP, the nation's most

Unfunded state-level pension debts as a percentage of state Gross Domestic Product (GDP) based on Moody's Adjusted Net Pension Liability, as of 6/30/19

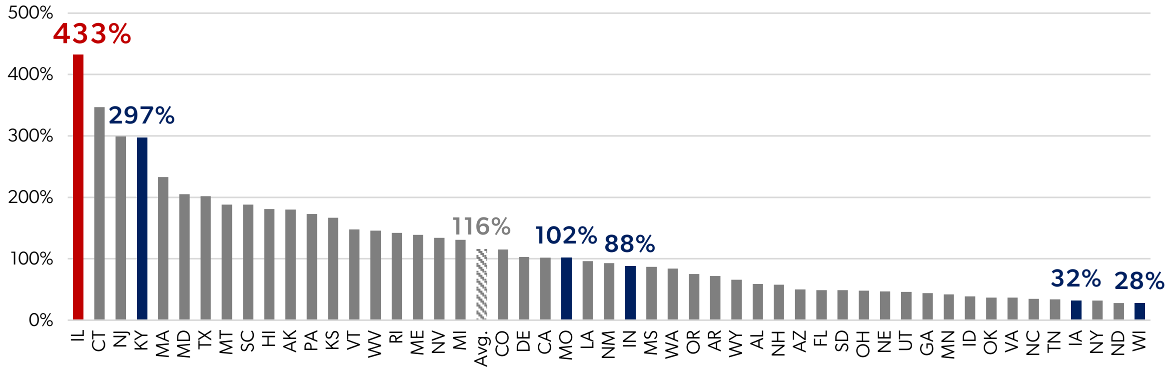


Source: Moody's Investors Service

Illinois' debts are also the nation's-most when compared to state revenues. State-level pension debts are equal to 433 percent of Illinois' own-source tax revenues, which is nearly four times the national average of 116 percent, and 15 times higher compared to Wisconsin's 28 percent of revenues.

Illinois' state-level pension shortfall equals 433 percent of state revenues, the nation's most

Unfunded state-level pension debts as a percentage of state own-source tax revenues based on Moody's Adjusted Net Pension Liability, as of 6/30/19



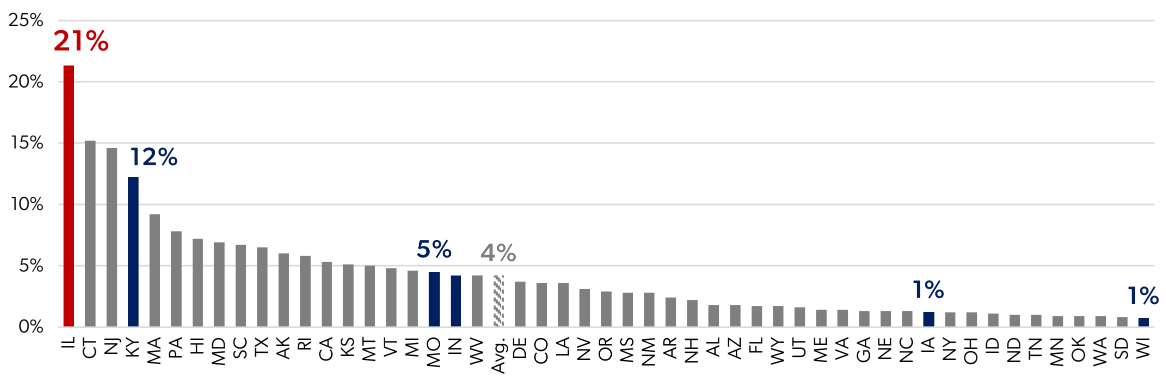
Source: Moody's Investors Service

Illinois also has, by far, the highest pension costs as a percentage of state revenues. Moody's says Illinois' "tread water" pension cost – the annual state contribution required to ensure the state's pension shortfall doesn't grow from one year to the next – equals 21 percent of Illinois' own-source tax revenues.

No other state comes close to that amount. Connecticut's tread water cost equals 15 percent of revenues, the national average is just 4 percent, and all of Illinois' neighbors' costs, except Kentucky, equal just 5 percent or less of revenues.

Illinois' state-level "tread-water" pension costs equal 21 percent of state revenues, the nation's most

State-level "tread-water" pension costs based on Moody's Adjusted Net Pension Liability as a percentage of state own-source tax revenues, as of 6/30/19



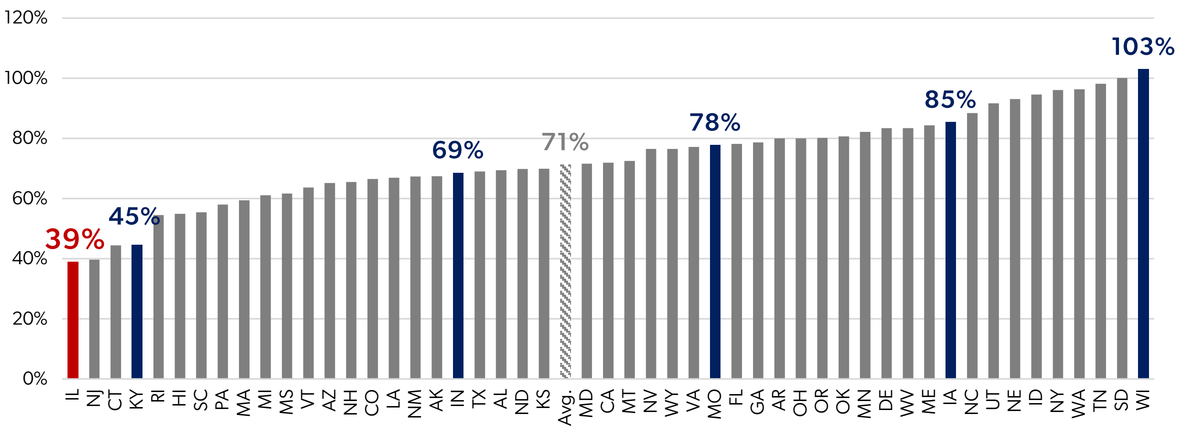
Source: Moody's Investors Service

Illinois is also the nation's extreme outlier when it comes to retirement security for state workers. Illinois state-level pensions were only 39 percent funded in 2019, according to official data collected by the Pew Charitable Trusts. A funded ratio of 60 percent or below is often seen as a "point of no return" for pension funds.[10, 11]

In contrast, most of Illinois' neighbors are far better funded. Indiana's funded ratio is 69 percent, 30 percentage points higher than Illinois, Iowa's is 85 percent, and Wisconsin has the healthiest pensions in the nation with a funding ratio of 103 percent.

Illinois has the nation's worst-funded state-level pensions

Funded ratio of state-level pension funds by state, 2019



Source: Pew Charitable Trusts

The need for structural reform

Lawmakers have done nothing since their failed reform efforts in 2013 to try and stem the growth in Illinois' debt. That year, a majority of Democratic lawmakers and Gov. Pat Quinn agreed that pension reform was essential to fixing the state's dire financial problems.

Then-Attorney General Lisa Madigan cited the conclusions previously reached by the General Assembly when she defended the reforms in front of Illinois' Supreme Court:[12]

> *"Having considered other changes that would not involve changes to the retirement system, the General Assembly has determined that the fiscal problems facing the state and its retirement systems cannot be solved without making some changes to the structure of the retirement systems."*

Today, most politicians won't even discuss the possibility of reform, while others declare reform a "fantasy."[13]

But the reasons for structural changes are even more valid today than they were in 2013. The situation for Illinoisans has only gotten worse: state-level pension debts alone have risen by more than 60 percent, hundreds of local public safety funds have fallen closer to insolvency, Illinois' tax burden remains one of the nation's highest, and the state's credit rating was at the brink of junk just a few months ago.[14]

The hard truth is that Illinois' crisis will only worsen over time. As the state's retirement debts continue to grow, more and more Illinoisans will be motivated to leave the state's debts behind while fewer migrants will be willing to move in and assume the pension burden. A growing debt burden on an ever-shrinking population will only hasten Illinois' downward spiral.[15]

Pension reform is inevitable. The question is whether Illinois' legislature will address the crisis now, while Illinois still has assets and dynamism left, or delay until this state is a shadow of its former self. It's a question of whether those reforms will happen in a controlled, organized fashion, or under the duress of fiscal and political chaos. And it's a question of whether lawmakers will enact true structural reforms or pass more can-kicks as they have in the past.

Wirepoints' Pension Solutions

The first step toward any reform effort is acknowledging that Illinois has a problem. That's the purpose of this report – to bring attention to an overwhelming crisis that's being ignored. Only once that crisis has been recognized and properly diagnosed can real solutions be discussed.

That said, Wirepoints has developed a baseline reform plan that can help fix the pension crisis. For more information about Illinois' pension crisis and how it can be solved, see Wirepoints' Pension Solutions.

To view Wirepoints' detailed, actuarially-scored baseline retirement restructuring plan, read Wirepoints' Special Report: Solving Illinois' Pension Problem: Why It's Legal, Why It's Necessary, and What It Looks Like.

For a breakdown of the state's official debts and their trend over the past two decades, visit Wirepoints' Illinois Pension Facts.

And for a deeper analysis of Illinois' local pension crisis, see Wirepoints' Special Report: Communities in crisis: More than half of Illinois cities get "F" grades for local pensions.

Appendix A. Moody's vs. official debt estimates

Moody's estimates of Illinois' debts are larger than official government numbers due to differing actuarial assumptions. The biggest driver of that difference is Moody's use of a lower discount rate to calculate the present value of future pension benefits owed. A lower discount rate means bigger debts. For the fiscal year ending June 30, 2020, Moody's used a 2.7 percent discount rate based on AA-rated corporate bonds. The rate is part of the FTSE Pension Liability Index used by Moody's across the country.[16]

The rationale for using lower, risk-free rates is simple: since governments have guaranteed a certain amount of pension benefits to government workers, then governments should lock in rates that can achieve those benefits without putting taxpayers at risk. That's why groups like Moody's use Treasury or near-Treasury rates to determine the size of government pension debts.

That methodology is broadly supported by financial experts ranging from Nobel prize winners like Stanford's Prof. William F. Sharpe and University of Chicago's Prof. Eugene Fama to other academics including Hoover Fellow Joshua Rauh and the late actuary Jeremy Gold.[17]

In contrast, governments like Illinois use higher discount rates to calculate the value of their pension debts. Illinois uses rates close to 7 percent, which results in a lower pension burden compared to Moody's calculations.

Higher discount rates may have been appropriate in the past when bond rates were far higher, but long-term yields have collapsed over the past four decades. The 10-year Treasury rate has fallen below 2 percent and high quality corporate bonds are at about 3 percent.[18]

Using 7 percent rates no longer makes sense when the 10-year U.S. Treasury rate is under 2 percent.

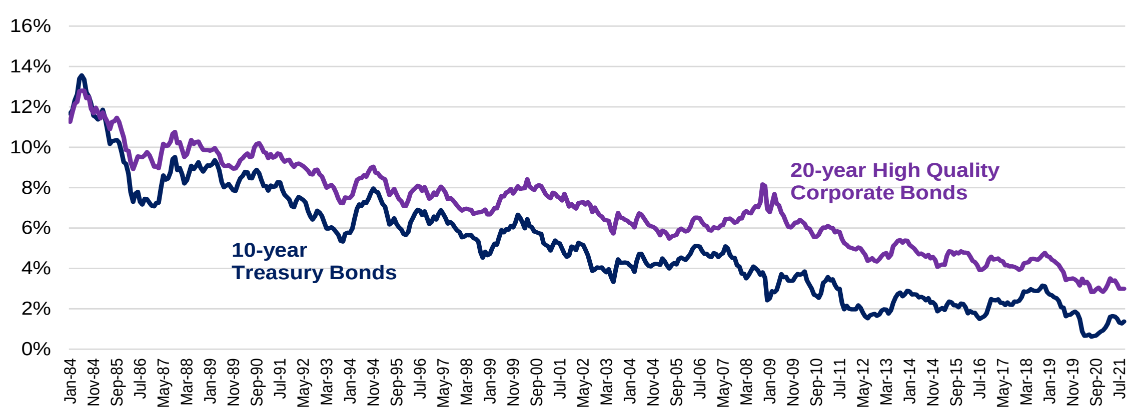
Pension funds are reportedly taking on more risk to achieve their assumed returns, in part due to those low risk-free rates. Since they can no longer count on bonds, pension funds are increasingly investing in riskier assets including real estate and private equity, as recently reported in the Wall Street Journal and by the Reason Foundation. That, of course, puts taxpayers at more and more risk.[19,20,21]

A final note to critics that dismiss Moody's debt calculations as too conservative: The agency's measurement of pension debts matters because it is one of three major agencies that rate the state's credit worthiness, which helps determine the state's cost of borrowing, investor appetite for Illinois bonds, and the state's overall financial reputation.

Illinois was recently upgraded to Baa2 – just two notches above junk – by Moody's in the wake of the federal government's unprecedented pandemic stimulus. And the City of Chicago and Chicago Public Schools are both junk-rated by Moody's, Ba1 and Ba3, respectively.[22,23]

Treasury and corporate bond rates have fallen to record lows

10-year U.S. Treasury rate and 20-year High Quality Market Corporate Bond rate



Source: U.S. Federal Reserve Bank of St. Louis, FRED

Appendix B. Total debts, 2020 vs. 2019

Total state and local retirement debts rose by nearly $100 billion between 2019 and 2020, growing from $432 billion to $530 billion.

The growth in debt was driven largely by falling interest rates. The FTSE Pension Liability Index, which Moody's uses to value government retirement liabilities, fell to 2.70 percent as of June 30, 2020, down from 3.51 percent the prior year.[24]

Illinois' total unfunded liabilities will likely decline slightly in 2021 due to better market returns and the FTSE Pension Liability Index rising to 2.84 percent as of June 30, 2021.

Total state and local retirement debts rose by nearly $100 billion between 2019 and 2020 based on Moody's calculations

State and local government retirement debt based on Moody's Investors Service calculations, FY 2019 vs. FY 2020 (in billions)

Fund	FY 2019	FY 2020
State		
Illinois' five state pension funds	$235.9	$312.6
Retiree health insurance debt	$55.0	$55.0
Pension obligation bonds	$10.5	$9.4
State subtotal	**$301.4**	**$376.9**
Chicago		
Chicago's four city funds	$53.1	$59.8
Chicago Teachers' Pension Fund	$26.2	$30.8
Park District Pension Fund	$1.4	$1.8
Retiree health insurance debt	$4.7	$4.7
Chicago subtotal	**$85.4**	**$97.1**
Cook County		
Cook County Pension Fund	$9.5	$20.6
MWRD Pension Fund	$2.2	$2.2
Forest Preserve Pension Fund	$0.4	$0.4
Retiree health insurance debt	$1.1	$1.2
Cook County subtotal	**$13.3**	**$24.5**
Suburban and downstate (Government-reported data only)*		
Firefighter pension funds	$5.6	$5.6
Police pension funds	$7.5	$7.7
Illinois Municipal Retirement Fund	$4.4	$2.9
Retiree health insurance debt	$15.2	$15.3
Suburban and downstate subtotal	**$32.7**	**$31.6**
Total retirement debts	**$431.7**	**$530.1**

Source: Moody's Investors Service; Commission on Government Forecasting and Accountability, 2019/2020 pension fund actuarial reports
*Moody's does not provide its own debt estimates for downstate and suburban retirement data. Official government data used instead.
Note: Numbers may not add due to rounding. See Appendix D for additional source notes.

Appendix C. History of state-level unfunded liabilities

Illinois' official state-level pension debts have risen by $128 billion since the year 2000, growing from $16 billion to more than $144 billion. That's an increase of more than 800 percent over the period.

Illinois' official state-level pension debts have grown more than 800 percent since 2000s

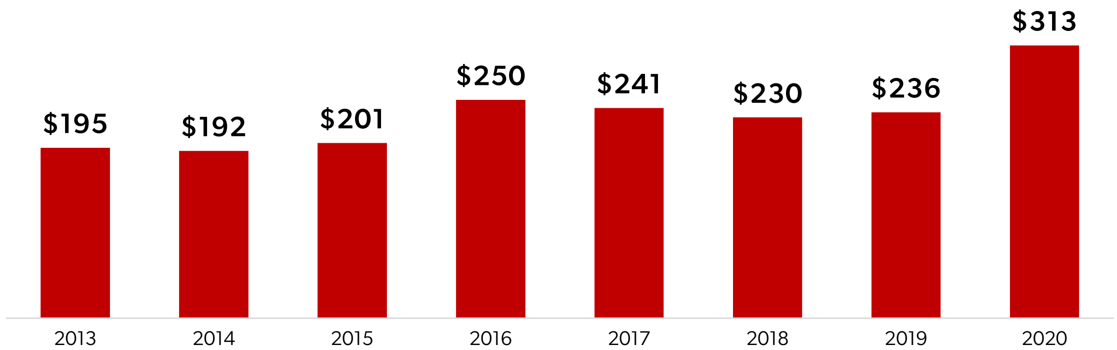
Official unfunded liabilities of Illinois' five state-run pension funds (in billions)

Source: Commission on Government Forecasting and Accountability

Moody's calculation of Illinois' state-level pension debt has consistently ranged between 70 to 100 percent larger than the state's official numbers. Moody's estimates of state debt grew from $195 billion in 2013 – the oldest data available from the credit rating agency – to $313 billion in 2020. That's an increase of $118 billion, or 60 percent, over the 7-year period.

Moody's calculations of Illinois' state-level pension debts are about double the official estimates

Total unfunded state-level pension debts based on Moody's Adjusted Net Pension Liability (in billions)



Source: Moody's Investors Service

Appendix D. Source notes

Wirepoints' compilation of Illinois' state and local retirement debts was derived from the following sources. Please note that Wirepoints used data from the most recent fiscal year available when FY 2020 data was not available.

Official data

State-level pensions and retiree health:

- FY 2020 pension data was retrieved from the Commission on Government Forecasting and Accountability (COGFA) report "July 2021 Financial Condition of the Illinois State Retirement Systems."
- FY 2020 retiree health data was retrieved from the "FY 2019 GASB 74 & 75 Actuarial Valuations" of the State Employees Group Insurance Program, Teachers' Retirement Insurance Program, and College Insurance Program. The state's share of teacher and college health debt is included in the state retiree health calculation.

Chicago pensions and retiree health:

- FY 2020 pension data was retrieved from the individual FY 2020 actuarial reports of the Chicago police, firefighters, laborers, municipal, teachers and park pension funds.
- FY 2020 retiree health data was retrieved from the FY 2020 Comprehensive Annual Financial Reports of the City of Chicago and Chicago Public Schools.

Cook County pensions and retiree health:

- FY 2020 pension data was retrieved from the individual FY 2020 actuarial reports of the Cook County, Cook County Forest Preserve, and Metropolitan Water Reclamation District pension funds.
- FY 2020 retiree health data was retrieved from the FY 2020 Comprehensive Annual Financial Reports of Cook County and the Metropolitan Water Reclamation District.

Downstate and suburban pensions and retiree health:

- FY 2020 pension data for Illinois' downstate and suburban public safety funds and the Illinois Municipal Retirement Fund was retrieved from the Illinois Department of Insurance's "2021 Biennial Report."
- FY 2019 retiree health data was retrieved from the Illinois Comptroller's "Local Government Warehouse" Fiscal Year 2019 Financial Database. FY 2019 data was largely used due to the low number of retiree health entries in the FY 2020 database. Local governments' share of teacher and college health debt is included in the local retiree health calculation.

Moody's data

State-level pensions and retiree health:

- FY 2020 pension data was retrieved from a 9/30/21 report "Medians - Pension and OPEB liabilities up ahead of decline in 2022."
- FY 2019 retiree health data was retrieved from a 9/30/21 report "Medians - Pension and OPEB liabilities up ahead of decline in 2022."

Chicago pensions and retiree health:

- FY 2020 pension data for Chicago police, firefighters, laborers, municipal, teachers and park pension funds was received via a request to Moody's Investors Service. FY 2019 Chicago Park District pension data was retrieved from a 7/27/21 "Credit Opinion" report.
- FY 2019 retiree health data was retrieved for the City of Chicago from a 7/27/21 "Credit Opinion" report. FY 2019 retiree health data was retrieved for Chicago Public Schools from a 3/12/21 "Credit Opinion" report. FY 2019 retiree health data was retrieved for Chicago Park Dist. from a 7/27/21 "Credit Opinion" report.

Cook County pensions and retiree health:

- FY 2020 pension data for Cook County received via a request to Moody's Investors Service. FY 2018 Metropolitan Water Reclamation District pension data retrieved from a 6/19/20 "Credit Opinion" report.
- FY 2018 retiree health data for Cook County was retrieved from a 12/17/20 report "Pensions still driving liability growth of 50 largest governments as interest rates fall." FY 2019 retiree health data for the Metropolitan Water Reclamation District was retrieved from a 6/19/20 "Credit Opinion" report.

Downstate and suburban pensions and retiree health:

- Moody's does not calculate ANPL pension data for Illinois' downstate and suburban public safety funds or the Illinois Municipal Retirement Fund. The funds' official debts were used in Wirepoints' calculations instead.
- Moody's does not calculate NOL retiree health data for Illinois' other local governments. Official debts were used in Wirepoints' calculations instead.

Moody's data (continued)

Note for Appendix B: Some Moody's data for FY 2019/FY 2020 was not available. Wirepoints used data from the most recent fiscal year when the appropriate year's data was not available.

Wirepoints received the below table from Moody's in response to a request for 2020 data for Chicago-area governments. Moody's ANPL data was used in this report.

Government	Retirement system description	Measurement date	GASB NPL ($ blns)	GASB funded ratio	GASB discount rate	Moody's ANPL ($ blns)	Moody's adj. funded ratio	Adjusted discount rate
Chicago Park District	PEABF	12/31/2020	$1.9	15%	2.22%	$1.8	16%	2.52%
City of Chicago	Municipal	12/31/2020	$13.7	23%	7.00%	$26.2	13%	2.52%
City of Chicago	Laborer	12/31/2020	$1.6	44%	6.84%	$3.4	27%	2.52%
Cook County Forest Preserve District	Forest preserve employees	12/31/2020	$0.3	41%	3.22%	$0.4	36%	2.52%
Chicago Board of Education	Teachers	6/30/2020	$15.4	41%	6.37%	$30.8	26%	2.70%
Cook County	County employees	12/31/2020	$14.7	46%	3.68%	$20.6	38%	2.52%
City of Chicago	Police	12/31/2020	$12.1	22%	6.28%	$20.8	14%	2.52%
City of Chicago	Fire	12/31/2020	$5.6	19%	6.30%	$9.4	12%	2.52%

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