FitchRatings

Public Finance
Tax Supported
U.S.A.

U.S. States Sector Monitor

2024 State Liability Report

State Median Long-Term Liabilities

	% of personal income							
(Fiscal year)	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Long-term liabilities	6.2	6.1	5.8	5.3	4.7	4.5	3.9	4.2
Direct debt	2.3	2.3	2.4	2.1	1.9	1.9	2.0	1.8
Fitch-adj. NPLs	3.1	3.6	3.1	2.7	2.8	2.9	1.7	2.5

Note: Medians for direct debt and Fitch-adjusted net pension liabilities (NPLs) will not sum to the median for long-term liabilities. Fiscal 2023 figures for California, Illinois and Nevada are based on available debt and pension disclosure, given the absence of audited financial statements.
Source: Fitch Ratings, Fitch Solutions, state and pension annual comprehensive financial reports, state bond documents, U.S. Bureau of Economic Analysis

State long-term liability (LTL) burdens rose as of their fiscal 2023 audits, as the previous year's surge in pension asset market values reversed, unwinding part of the temporary improvement in LTL burdens reported in state fiscal 2022 audits. Despite variability in the LTL metric, stronger state contribution practices are supporting the sustainability of pensions and could lower net pension liabilities (NPLs) over time.

The median LTL burden metric, which measures state direct debt plus NPLs, adjusted by Fitch Ratings to a 6% discount rate, rose to 4.2% of personal income in fiscal 2023 from 3.9% in fiscal 2022. For the direct debt component, the median fell to 1.8% of personal income in fiscal 2023, from 2% in fiscal 2022, as outstanding debt fell while personal income rose for U.S. states. Robust cash balances supported capital spending in many states, offsetting debt issuance, although infrastructure needs remain significant.

For the pension component, the median ratio of Fitch-adjusted NPLs to personal income rose sharply, to 2.5% in fiscal 2023 from 1.7% in fiscal 2022. The fiscal 2023 increase only partly reversed the metric decline in fiscal 2022, leaving the median LTL burden in fiscal 2023 still below the 2.9% median level in fiscal 2021. Importantly, state-reported pension data lag pension plan-reported data, typically by one year.

Pension Asset Values Down

The median ratio of state pension assets to Fitch-adjusted liabilities fell to 66% in states' fiscal 2023 audits, from 73.5% in fiscal 2022. The reduction was driven by a 4.9% dip in fiduciary net positions (FNPs), the assets set aside for pensions, following a 24% gain in fiscal 2022.

Considering the one-year lag noted above between pension plans' own audits and when those results are incorporated into state audits, the reversal in pension assets reported in state fiscal 2023 audits corresponded to weaker market conditions affecting pensions in 2022. As market performance steadied in 2023, Fitch expects states' fiscal 2024 audits to show stable to lower pension NPLs, consistent with the modestly higher asset values reported by plans the year before.

Based on recent audits of 100 major public plans (including state plans and multi-employer plans covering state employees), Fitch calculated the median ratio of assets to Fitch-adjusted liabilities at 75.9% in fiscal 2021, dropping to 67% in fiscal 2022 and rising slightly to 67.9% in fiscal 2023. The median money-weighted rate of return (a cash flow-adjusted measure of asset performance) for these plans rose 27.3% in fiscal 2021, fell 5.2% in fiscal 2022 and rose 7.6% in fiscal 2023.

More States Make Full Contributions

Consistent with their strong fiscal positions in the aftermath of the pandemic, U.S. states continued to improve their pension contribution practices in fiscal 2023, with 40 states making at least full actuarially determined contributions (ADCs), up from 37 states in fiscal 2022 and 25 states in fiscal 2016. Ten states contributed almost $12 billion beyond their ADCs in fiscal 2023, accelerating funding progress and reducing the future budgetary burden of contributions.

Rate This Content

Related Research

U.S. States Sector Monitor (2024 State Liability Report) Supplementary Data (November 2024)

Reversal of Pension Benefit Actions Could Pressure State Liabilities (October 2024)

2025 U.S. State Budgets Back to Normal (September 2024)

U.S. States' Resilience Remains High Despite Two Years of Weak Tax Revenue (August 2024)

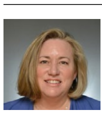
Large Supplemental State Contributions Boost Pension Sustainability (May 2024)

U.S. States Ratings and Analyst Coverage List (September 2024)

Analysts

Douglas Offerman
+1 212 908-0889
douglas.offerman@fitchratings.com

Eric Kim
+1 212 908-0241
eric.kim@fitchratings.com



Arlene Bohner
+1 212 908-0554
arlene.bohner@fitchratings.com

Improved pension contribution practices came even as contribution pressures continued to rise. The median ADC rose 4.9% in fiscal 2023, while the median actual contribution rose 6.2%, reflecting both supplemental contributions and the catch-up contributions made at the actuarial level by some states.

Liability Burdens Rebound

The state LTL burden metric rose in fiscal 2023, driven by the market decline of pension plan assets in fiscal 2022 and its effect on the NPL component of the metric. The median ratio of direct debt and Fitch-adjusted NPLs attributable to states was 4.2% of personal income, up from 3.9% in fiscal 2022.

State liability burdens remained unevenly distributed, with only nine states having burdens above 10% of personal income. For the top eight states with LTL metrics above 10%, the Fitch-adjusted NPL was a higher burden than direct debt, and the pension portion of the metric included a sizable obligation for teacher pensions.

(See *Appendix A* for individual state metrics in 2023. Readers can also download a separate file, "U.S. States Sector Monitor (2024 State Liability Report) Supplementary Data," for *Appendix A* and additional appendices with state-by-state data on LTL burdens relative to personal income and nominal GDP over time, net OPEB liability burdens, carrying cost data, including debt service, pension ADCs and OPEB actual contributions, and other data used in this report.)

The rebound in state fiscal 2023 LTL metrics has not meaningfully affected credit quality. Direct debt burdens are essentially flat and the volatility of NPLs remains consistent with Fitch's expectations. We view most states as well positioned to address the challenges posed by their LTLs, including pensions.

Fitch also views the longer-term trend of declining state LTLs as remaining unchanged, despite the fiscal 2023 rebound. In the eight years since all 50 states started reporting pensions under GASB statements 67 and 68, when Fitch began tracking this data, the LTL metric has fallen from 6.2% of personal income, and even with the fiscal 2023 reversal, it remained well below the 4.5% level of fiscal 2021.

Fiscal 2022 NPL Gains Not Fully Erased

In aggregate, states had $924 billion in Fitch-adjusted NPLs as of state fiscal 2023 audits. This was up 21.2% from the $762 billion reported last year, as post-pandemic asset values surged, but it remained below the $1 trillion level reached in fiscal 2021.

The fiscal 2023 increase in Fitch-adjusted NPLs was driven in almost equal measure by weaker asset values and higher TPLs. On an aggregate basis, the FNPs attributable to state pensions declined 4.9% from the prior year, a $79.7 billion drop, compared with average annual growth of 5% since fiscal 2016.

FNPs fell in 41 states in fiscal 2023, compared with 50 states that saw gains in fiscal 2022. The fiscal 2023 decline was only the second since the current GASB accounting framework was implemented, and was much more severe than the 0.8% FNP decline in fiscal 2017.

On an aggregate basis, Fitch-adjusted TPLs rose 3.4% in fiscal 2023, an $80.9 billion gain. This was roughly in line with the 3.2% average growth for the period since fiscal 2016. Absent changes in discount rates or major benefit modifications, TPLs for open pension plans will rise gradually over time as interest on the liability accrues and new benefits are earned, offset by payment of current benefits.

Personal income trends also influenced Fitch's LTL burden metric. Since surging 9.2% in 2021, spurred by federal pandemic aid, personal income growth has slowed toward levels closer to historical averages: it rose 5.9% in 2023, faster than the 3.1% rate in 2022 and the 4.6% average over the past 20 years, as economic growth surpassed expectations, buttressed by expansionary federal fiscal policy and strong consumer spending.

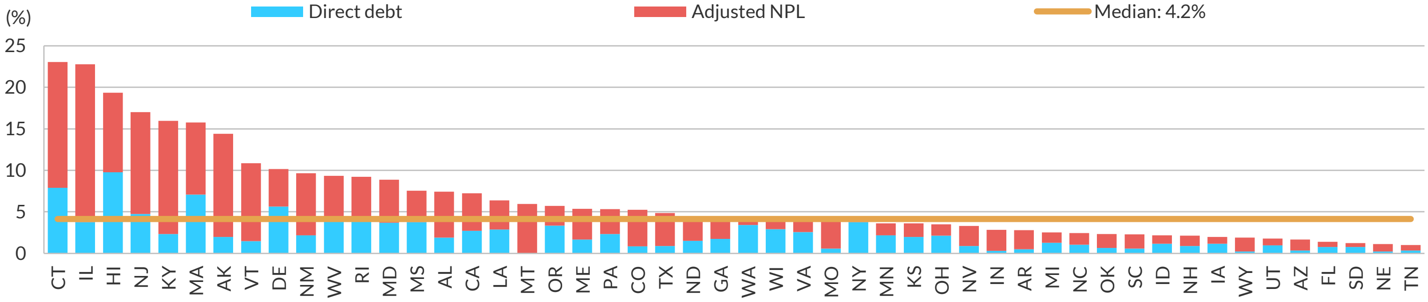
Direct Debt Burden Still Low

The median ratio of direct debt to personal income measured only 1.8% in fiscal 2023, below the 2% level in fiscal 2022. Since fiscal 2016, when the median was 2.3% of personal income, the burden of state direct debt has been flat to declining. Declining debt issuance partially reflects states' use of cash-funding for capital improvements. However, outright declines in capital investment could trigger longer-term challenges if infrastructure needs are left unaddressed.

Since fiscal 2016, 43 of the 50 states have seen their ratios of direct debt to personal income fall. The largest decline has been in New Jersey, which lowered its debt burden by 3.2 percentage points (pp), to 4.7% of personal income from 8% in fiscal 2016. New Jersey has curtailed debt issuance over much of the past decade, most recently by redirecting much of its post-pandemic revenue surge to debt reduction through its debt defeasance and prevention fund.

Among the small number of states with rising debt, North Dakota saw a 1.3pp increase to 1.5% of personal income in fiscal 2023 from 0.2% in

State Direct Debt and Adjusted Pension Liabilities
(% of personal income, fiscal 2023)



Note: California, Illinois and Nevada figures based on available disclosure, given the absence of annual comprehensive financial statements.
NPL – Net pension liability.
Source: Fitch Ratings, Fitch Solutions, state and pension annual comprehensive financial reports, state bond documents, U.S. Bureau of Economic Analysis

fiscal 2016. The increase reflected its efforts to address substantial capital needs, notably for highways, given rapid economic growth, but its level remains under the states median.

In aggregate, states had $545 billion in outstanding direct debt as of fiscal 2023. This figure has fallen 2.8% since fiscal 2021, when it peaked at $560 billion, reflecting favorable rates and a surge in issuance early in the pandemic. Thirty states saw their outstanding direct debt fall in the past two years, bringing the aggregate dollar amount in fiscal 2023 to the fiscal 2016 level.

Stable direct debt metrics have reflected the generally cautious approach taken by states to borrowing. Most have long-standing debt management policies to limit issuance and ensure affordability, with debt typically only issued for capital needs. Fitch's direct debt figure takes into account all long-term fixed governmental obligations, including GO, appropriation-supported and dedicated tax debt, as well as availability-based public-private partnership obligations, tobacco settlement bonds and federal grant anticipation revenue bonds. This often differs from a state's own statutory or policy definition of outstanding debt.

Fitch's Pension Liability Adjustment

Fitch views as risky the high investment return assumptions that many state and local defined benefit pension plans use as a discount rate for their liabilities, as this can result in liability valuations that understate both retirement obligations and the contributions necessary to pay them over time.

Under Fitch's criteria for U.S. states and territories, the primary metric for assessing LTL burdens combines outstanding direct debt and all reported NPLs, adjusted to a 6% discount rate if their discount rate is higher. Using pension data reported by plans and governments under the GASB 67 and 68 frameworks, Fitch adjusts TPLs to reflect a 6% discount rate. For states or local governments participating in cost-sharing multi-employer plans, Fitch calculates the portion of planwide TPLs corresponding to the state's share and adjusts the NPLs based on that portion.

The Fitch adjustment increases the TPL based on a liability duration using the investment return sensitivities required by GASB in financial statement notes. For most, the TPL rises 9%-15% for each 1% change in the discount rate, providing a reasonable approximation of a standardized investment return. For each rated entity, adjusted NPLs for multiple plans are aggregated, including plans covering direct employees and plans for non-employees for which the reporting entity has an obligation to contribute.

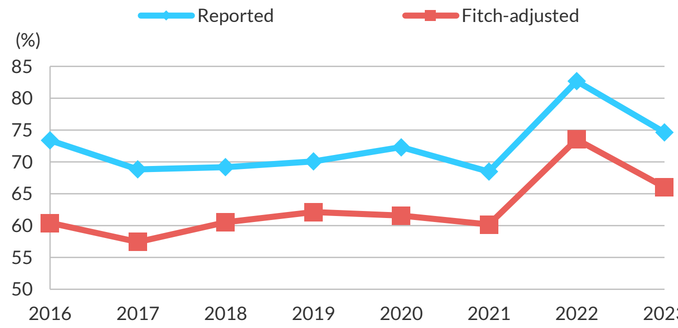
Fitch-adjusted NPLs associated with self-supporting enterprises are generally excluded, and any Fitch-adjusted net pension assets are excluded, because the excess assets in one plan cannot be used to cover an asset deficiency of another plan. Plans using discount rates below 6% — often those with projected asset depletion, making them subject to using less favorable blended discount rates and asset depletion dates under GASB's reporting methodology — are not adjusted by Fitch.

Asset/Liability Ratios Reset Lower

The ratio of pension assets to liabilities fell sharply in state fiscal 2023 audits, both on a Fitch-adjusted and reported basis. On a Fitch-adjusted basis, with TPLs restated to a 6% discount rate, the median ratio of FNPs to Fitch-adjusted TPLs was 66%, a sharp decline from 73.5% in fiscal 2022. On a reported basis, the median ratio of FNPs to TPLs in fiscal 2023 was 74.6%, down from 82.7% in fiscal 2022.

The reset in pension asset values in fiscal 2023 reversed much of the gain in asset-liability ratios from fiscal 2022, consistent with Fitch's expectations that the fiscal 2022 improvement would be temporary. On a Fitch-adjusted basis, 45 states saw their ratio of assets to liabilities decline in fiscal 2023, but for 39 states, the fiscal 2023 ratio remained higher than the ratio in fiscal 2021. Similarly, on a reported basis 47 states saw lower asset to liability ratios for their pensions in fiscal 2023, but 35 states still reported asset/liability ratios above the fiscal 2021 levels.

Median Ratio of State Pension Assets to Liabilities



Source: Fitch Ratings, Fitch Solutions, state and pension annual comprehensive financial reports, and state bond documents

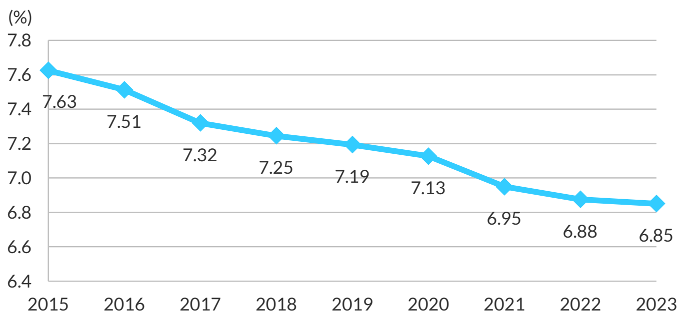
The spread between the median Fitch adjusted and reported ratios continued to narrow, to just 8.6pp in fiscal 2023 from 13pp in fiscal 2016. The narrower spread reflected the ongoing, gradual adoption of lower discount rates by pensions, raising the reported TPL in the process.

On a reported basis, lowering discount rates offsets the beneficial effects of other pension changes, such as higher age and service requirements and improved contribution practices. On a Fitch-adjusted basis, the asset/liability ratio was largely unaffected by discount rate changes. However, the slow but beneficial effects of other pension changes likely accounted for the modest gain in ratios since fiscal 2016.

Slowing Decline in Average Pension Discount Rates

Since the average state pension discount rate dropped below 7% in fiscal 2021, progress toward lower rates has slowed, with the fiscal 2023 level, at 6.85%, only slightly below that of the previous year. Nonetheless, it was well below the average 7.63% rate in fiscal 2015, and the average of 8% used for funding valuations as recently as the Great Recession.

Average Discount Rates, Major State Pension Plans



Note: Discount rate assumption reported by 100 major state pension plans, as reflected in plan audits (generally one year before state audits).
Source: Fitch Ratings, Fitch Solutions, pension annual comprehensive financial reports

Fitch has viewed the lowering of discount rate assumptions over time as positive, reducing plans' dependence on uncertain and variable returns to support funding progress over the long term. At least for the moment, it appears unlikely that the slowing reduction in discount rates is tied to recent inflation and interest rate trends in the macroeconomy, as pension plans typically shift their assumptions for real returns and inflation only gradually, as part of periodic experience studies.

Pension Contribution Practices Continue to Improve

The long-term trend of improving state contribution practices continued in fiscal 2023, with 40 states making actual contributions at least equal to their ADCs, up from 37 states in fiscal 2022 and only 25 states in fiscal 2016.

State Actual Pension Contributions as % of ADC, by Category

(Number of states, by fiscal year)

	2016	2017	2018	2019	2020	2021	2022	2023
100% or higher	25	28	30	31	33	31	37	40
90% to 99%	14	13	14	11	11	13	8	6
80% to 89%	5	3	1	4	2	1	2	1
Below 80%	6	6	5	4	4	5	3	3

Note: Fiscal 2023 figures for California, Illinois and Nevada are estimated based on available state pension plan disclosure, given the absence of annual comprehensive financial statements. ADC – Actuarially determined contribution.
Source: Fitch Ratings, Fitch Solutions, state and pension annual comprehensive financial reports, and state bond documents

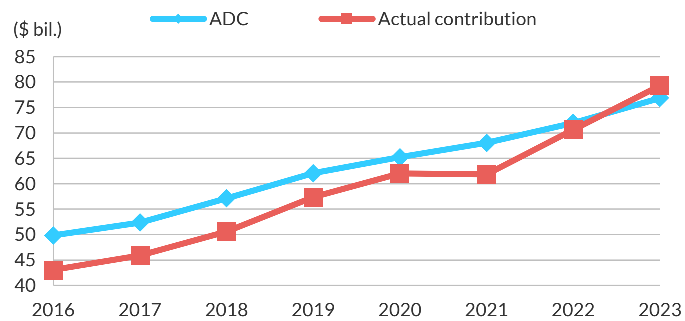
Except for a brief reversal during fiscal 2021, when pandemic uncertainty affected budget decisions, the number of states fully paying ADCs has improved in every year since fiscal 2016, when all 50 states began reporting contribution data under the current GASB framework. Continued improvement in fiscal 2023 reflected favorable state fiscal conditions, with reserve balances at historically high levels, even as the post-pandemic revenue surge began to slow. The three states paying less than 80% of the ADC in fiscal 2023 were Illinois, New Mexico and North Dakota.

Between fiscal years 2016 and 2023, the median state pension ADC grew 5.5% annually, reflecting a range of funding policy factors, including assumption changes to accelerate funding progress. Actual pension contributions rose faster, at 6.6% annually, as states that formerly under-appropriated for pensions shifted toward full funding of ADCs.

Fiscal 2023 also marks the first year when actual state pension contributions aggregated across all states exceeded the corresponding figure for ADCs. The trend reflects the narrowing gap between actual and actuarial contributions, and the ability of states in their fiscal 2023 budgets to redirect excess resources to supplemental pension contributions. While Fitch believes this will likely reverse as fiscal conditions normalize, following the pandemic, it nonetheless also speaks to states recognizing the importance of tackling sizable NPLs.

Extra state pension contributions rose as high as $11 billion in fiscal 2023 and were either ad hoc appropriations made possible by very high post-pandemic balances, or in a few cases such as Connecticut and California, triggered by statutory mechanisms designed to lower elevated state liabilities, including pensions.

Aggregate State Pension Contributions



Note: data for California, Illinois and Nevada are estimated from available state pension plan disclosure, given the absence of annual comprehensive financial statements. ADC – Actuarially determined contribution.
Source: Fitch Ratings, Fitch Solutions, state and pension plan annual comprehensive financial statements

Supplemental contributions can yield substantial future savings. California estimates the $13.7 billion supplemental contributions it has made between fiscal years 2018 and 2023 will yield $18.6 billion in cumulative savings over the long term. Connecticut estimated its $7.6 billion in supplemental contributions through fiscal 2023 will generate $700 million in annual budget savings.

OPEB Actual Contributions Remain Low

Actual contributions for OPEB historically have been steady and well below the cost of debt service and pension ADCs, with the median ratio of OPEB contributions to governmental expenditures at 0.3% in fiscal 2023, similar to that of recent years. Direct outlays for OPEB may consist of benefit costs or actuarial contributions if a funding policy has been established.

Many states began accumulating actuarial contributions in an OPEB trust in recent years, although prefunding has tended to be very low. Alaska is an exception, having fully funded OPEB plans after a lump sum deposit in fiscal 2015. Hawaii is another, with prefunding having reached 37% in fiscal 2023, following its first full actuarial contribution in fiscal 2015. Both states have high legal barriers to reducing benefits, creating a strong incentive to address liabilities.

OPEB Liabilities Very Volatile

OPEB liabilities are not included in Fitch's LTL metric, given a typically greater ability for states to modify or eliminate benefits in comparison to pensions. Nonetheless, Fitch monitors state OPEB management practices to assess whether they could represent a risk over time.

For a small group of states, Fitch more directly incorporates OPEB in its assessment of liabilities, given the magnitude of the liability (i.e. Delaware, Illinois and New Jersey), high legal barriers for a state to modify benefits (i.e. Hawaii and Louisiana), or both.

OPEB liabilities have been volatile to a greater degree than pensions. Most of this volatility stems from the complexity of projecting healthcare inflation, and the variable discount rate used to value the total OPEB liability (TOL), given low or no prefunding of benefits. The handful of states progressing to higher prefunding also have seen TOLs drop, often precipitously, as a shift to actuarial contributions enables them to raise the discount rates used to value the TOL.

Median state net OPEB liabilities (NOLs) as of fiscal 2023 remained a modest 0.6% of personal income, under the 0.9% level in fiscal 2022 and less than half of the 1.4% level reported in fiscal 2018, the first year in which all 50 states were subject to current GASB reporting standards. Given lags in OPEB reporting that are similar to pensions, Fitch expects the sharply higher market rate environment in place in the past two years to lead to lower state-reported NOLs in fiscal years 2024 and 2025.

Estimated Carrying Costs Remain Low

Fitch's carrying costs metric, which measures debt service, ADCs and OPEB actual contributions relative to governmental expenditures, is an important measure for assessing states' annual budgetary burden of LTLs relative to other spending commitments.

Median State Carrying Costs to Government Expenditures

(%, Fiscal years)	2016	2017	2018	2019	2020	2021	2022	2023
Total carrying costs	5.1	5.0	5.0	5.1	4.8	4.5	4.2	4.4
Debt service	2.6	2.4	2.5	2.3	2.3	2.0	1.9	1.8
Pension ADC	2.0	2.0	2.0	2.1	2.1	1.7	1.8	1.9
OPEB actual contribution	0.5	0.5	0.5	0.6	0.6	0.4	0.4	0.3

Note: Medians in 2023 exclude data for debt service and OPEB actual contributions for California, Illinois and Nevada, given the absence of fiscal 2023 audited financial statements. Pension ADCs are estimated. ADC – Actuarially determined contribution. OPEB – Other post-employment benefits.
Source: Fitch Ratings, Fitch Solutions, state and pension annual comprehensive financial reports, and state bond documents

As of the publication date of this report, three states — California, Illinois and Nevada — have not yet published fiscal 2023 ACFRs. The carrying cost data for fiscal 2023 in this report are, thus, limited to the 47 states with ACFRs. Fitch expects to update its medians once all states publish final ACFRs.

Carrying costs for the 47 states in fiscal 2023 were largely consistent with historical trends identified by Fitch in previous state LTL surveys. The median carrying cost for state LTLs rose to 4.4% of governmental expenditures in fiscal 2023, up from 4.2% in fiscal 2022. Carrying costs peaked in fiscal 2019, at 5.1% of governmental expenditures, and have fallen from that level since.

State Rankings Largely Unchanged

There were few material changes to state rankings in fiscal 2023. As of fiscal 2023, Tennessee's LTL burden was lowest, at just 1% of personal income, followed by Nebraska, South Dakota, Florida and Arizona. Connecticut carried the highest LTL burden, at 23% of personal income, with Illinois, Hawaii, New Jersey and Kentucky rounding out the top five states, unchanged from the prior year. All five of the highest-burden states carry the NPLs associated with teachers, in addition to direct state workers.

Many Higher-Burden States Improving Faster

States that have seen the most significant improvement in LTL burdens over time have been the higher-burden states. As of fiscal 2023, Alaska (ranked 44), Kentucky (ranked 46) and New Jersey (ranked 47) have seen the sharpest improvement since fiscal 2016. Alaska's liability burden dropped 8.6pp, to 14.4% of personal income, Kentucky's dropped 7.9pp, to 15.9%, and New Jersey's dropped 7.8pp, to 17%.

Different factors contributed to sizable declines in these states. Both Kentucky and New Jersey improved pension contribution practices, enabling pensions in both states to use higher discount rates for calculating TPLs, eliminating projected depletion dates. As noted earlier, New Jersey also has limited debt issuance consistently in recent years, including through its debt defeasance and prevention fund. In Alaska, a confluence of state actions, including less debt issuance, closing pension plans almost two decades ago and making a large lump-sum pension contribution in the middle of the past decade, helped propel declining liabilities.

Appendix A

State Direct Debt and Adjusted NPLs as of Fiscal 2023[a]

	IDR[b]	Direct debt ($000)	Debt to personal income (PI) (%)	Debt to personal income (PI) Rank	Reported net pension liability (NPL) ($000)	Adj. NPL[c] ($000)	Adj. NPL to PI (%)	Adj. NPL to PI Rank	Debt + adj. NPL ($000)	Debt + adj. NPL to PI (%)	Debt + adj. NPL to PI Rank
Alabama	AA+	5,284,868	1.9	26	10,545,123	15,270,505	5.5	40	20,555,373	7.4	36
Alaska	A+	1,043,485	2.0	28	4,349,460	6,517,928	12.4	47	7,561,413	14.4	44
Arizona	NR	1,569,003	0.3	6	3,804,054	6,079,277	1.3	13	7,648,280	1.7	5
Arkansas	NR	887,745	0.5	7	2,388,766	4,038,424	2.3	22	4,926,169	2.8	15
California[d]	AA	86,344,076	2.7	35	96,450,921	142,571,322	4.5	35	228,915,398	7.2	35
Colorado	NR	3,928,915	0.8	13	15,045,364	20,768,712	4.4	34	24,697,627	5.3	29
Connecticut	AA-	25,711,695	7.9	49	40,363,798	49,217,996	15.1	49	74,929,691	23.0	50
Delaware	AAA	3,892,188	5.6	47	1,641,519	3,121,043	4.5	36	7,013,231	10.2	42
Florida	AAA	12,178,800	0.8	12	6,394,857	9,268,982	0.6	3	21,447,782	1.4	4
Georgia	AAA	11,642,057	1.8	25	11,483,480	15,948,019	2.4	24	27,590,076	4.2	26
Hawaii	AA	9,282,017	9.8	50	6,791,174	9,109,666	9.6	45	18,391,683	19.4	48
Idaho	AAA	1,359,750	1.2	20	930,538	1,166,452	1.0	9	2,526,202	2.2	10
Illinois[d]	A-	34,169,309	3.8	41	146,327,453	172,357,568	19.0	50	206,526,877	22.8	49
Indiana	AAA	1,259,968	0.3	4	10,097,422	10,574,352	2.5	26	11,834,320	2.8	16
Iowa	AAA	2,345,477	1.2	19	881,789	1,626,546	0.8	6	3,972,023	2.0	8
Kansas	AA	3,819,318	2.0	27	2,269,924	3,207,274	1.7	18	7,026,592	3.6	19
Kentucky	AA	5,786,789	2.3	32	28,517,680	34,166,192	13.6	48	39,952,981	15.9	46
Louisiana	AA-	7,791,088	2.9	36	7,030,224	9,384,039	3.5	30	17,175,127	6.4	34
Maine	AA	1,527,055	1.7	24	2,413,100	3,336,557	3.7	31	4,863,612	5.4	31
Maryland	AAA	17,240,017	3.7	40	19,390,331	24,104,521	5.2	37	41,344,538	8.9	38
Massachusetts	AA+	44,987,164	7.1	48	42,372,536	55,023,686	8.7	43	100,010,850	15.8	45
Michigan	AA+	7,818,300	1.3	21	7,539,703	7,597,763	1.2	11	15,416,063	2.5	14
Minnesota	AAA	9,132,986	2.2	31	3,819,713	6,002,482	1.4	17	15,135,468	3.6	20
Mississippi[d]	AA	5,516,523	3.8	43	3,649,670	5,491,289	3.8	32	11,007,812	7.5	37
Missouri	AAA	2,183,409	0.6	8	10,169,871	12,871,300	3.3	29	15,054,709	3.9	22
Montana	AA+	12,679	0.0	1	2,737,726	4,368,822	5.9	41	4,381,501	6.0	33
Nebraska	NR	302,796	0.2	2	493,745	1,279,797	0.9	8	1,582,594	1.1	2
Nevada[d]	AA+	1,843,874	0.9	14	3,015,416	5,110,449	2.4	25	6,954,323	3.3	17
New Hampshire	AA+	969,801	0.9	15	1,104,165	1,377,777	1.2	11	2,347,578	2.1	9
New Jersey	A+	36,136,207	4.7	46	79,752,239	93,430,379	12.3	46	129,566,586	17.0	47
New Mexico	NR	2,551,900	2.2	30	6,262,515	8,758,551	7.5	42	11,310,451	9.7	41
New York	AA+	60,699,000	3.8	41	739,000	1,113,904	0.1	1	61,812,904	3.8	21
North Carolina	AAA	6,962,270	1.0	18	6,876,763	9,280,407	1.4	16	16,242,677	2.4	13
North Dakota	NR	844,365	1.5	23	1,520,861	1,524,526	2.7	27	2,368,891	4.2	27
Ohio	AAA	15,390,277	2.1	29	6,860,610	9,895,852	1.4	15	25,286,128	3.5	18
Oklahoma	AA	1,558,649	0.6	10	2,663,920	4,099,444	1.7	19	5,658,093	2.3	12
Oregon	AA+	9,588,682	3.3	38	4,011,314	6,780,415	2.4	23	16,369,097	5.7	32
Pennsylvania	AA	20,890,345	2.3	33	21,295,132	26,618,161	3.0	28	47,508,506	5.3	30
Rhode Island	AA	2,925,833	4.0	45	3,143,058	3,905,962	5.3	38	6,831,794	9.2	39
South Carolina	AAA	1,806,535	0.6	9	3,986,624	5,177,115	1.7	20	6,983,650	2.3	11
South Dakota	AAA	505,867	0.8	11	-	321,750	0.5	2	827,617	1.2	3
Tennessee	AAA	1,451,465	0.3	5	1,191,364	2,948,928	0.7	4	4,400,393	1.0	1
Texas	AAA	18,135,945	0.9	16	53,582,152	80,140,268	4.0	33	98,276,213	4.9	28

State Direct Debt and Adjusted NPLs as of Fiscal 2023[a]

	IDR[b]	Direct debt ($000)	Debt to personal income (PI) (%)	Debt to personal income (PI) Rank	Reported net pension liability (NPL) ($000)	Adj. NPL[c] ($000)	Adj. NPL to PI (%)	Adj. NPL to PI Rank	Debt + adj. NPL ($000)	Debt + adj. NPL to PI (%)	Debt + adj. NPL to PI Rank
Utah	AAA	2,134,623	1.0	17	819,678	1,802,046	0.8	7	3,936,669	1.8	6
Vermont	AA+	633,735	1.5	22	3,085,313	4,064,894	9.4	44	4,698,629	10.8	43
Virginia	AAA	16,460,677	2.6	34	5,599,246	8,575,268	1.3	14	25,035,945	3.9	23
Washington	AA+	21,516,205	3.4	39	1,538,324	4,581,396	0.7	5	26,097,601	4.1	25
West Virginia	AA	3,680,882	3.9	44	2,589,829	5,042,057	5.4	39	8,722,939	9.3	40
Wisconsin	AA+	11,205,080	2.9	37	1,519,440	4,240,298	1.1	10	15,445,376	4.0	24
Wyoming	NR	103,377	0.2	3	583,965	808,790	1.7	21	912,167	1.9	7
Median			**1.8**				**2.5**			**4.2**	
Low			**0.0**				**0.1**			**1.0**	
High			**9.8**				**19.0**			**23.0**	

[a]Aggregate pension data by state are calculated by Fitch for pension systems reported in annual comprehensive financial reports. [b]Issuer Default Ratings (IDRs) as of Nov. 9, 2024. [c]Fitch-adjusted figures lower the investment return assumption to 6%, if higher, recalculating the total pension liability (TPL) upward, based on a calculation of the individual plan's sensitivity to changes in the investment return assumption, derived from sensitivity data in financial statement notes. [d]California, Illinois and Nevada figures are based on available disclosure, given the absence of audited financial statements. NR – Not rated.
Source: Fitch Ratings, Fitch Solutions, state and pension annual comprehensive financial reports, state bond documents and the U.S. Bureau of Economic Analysis