hooker & holcombe

MUNICIPAL PENSION & OPEB REPORT 2020

Hooker & Holcombe (H&H) is pleased to provide you with our second annual Municipal Pension & OPEB Report. We analyzed both pension and OPEB plan information based on data extracted from the Comprehensive Annual Financial Reports (CAFRs) submitted by local municipalities in Connecticut for the fiscal year ended June 30, 2019. Our pension and OPEB experts analyzed approximately 200 municipal pension plans in Connecticut representing over 70,000 participants and more than $11.5 billion in pension fund assets. This year, we expanded the pension section to include data by plan size.

The OPEB section reveals findings for approximately 180 municipal OPEB plans in Connecticut, representing over 115,000 participants and more than $8.8 billion in actuarial accrued liability. With the continued rise in healthcare costs over the past decade, we expanded the OPEB section to include data on healthcare cost trend assumptions.

We trust you will find the results of our second annual Municipal Pension & OPEB Report useful in understanding the Connecticut municipal pension and OPEB landscape and how your plan may compare to others.

MAJOR FINDINGS

Municipalities with Pension plans:

- The average long-term rate of investment return assumption declined by 7 basis points to 6.74%, compared to an average of 6.81% in our 2019 report. Moreover, this assumption has declined by 40 basis points over the past four years. This year, we also analyzed the investment return assumption based on plan size. Within each range of plan asset size, the average assumption decreased from 4 to 10 basis points from 2018 to 2019, and the average decrease for all plans was 7 basis points (from 6.81% to 6.74%).
- The average funded ratio decreased slightly to 74.2% compared to 74.9% in the June 30, 2018 CAFRs. This year, we also analyzed the average funded ratio based on plan size. Interestingly, while the average funded ratio declined on average between 1.1% and 1.4% for the smallest and largest plans, the average increased slightly (by 0.2%) for plans with between $10 to $49 million in assets.
- The average money-weighted rate of return for FYE 2019 is 5.72%, representing a slight increase versus the five-year trailing average of 5.17%. This year, we also reviewed the money-weighted rate of return by plan size. Larger plans generally achieved higher average money-weighted rates of returns versus smaller plans. However, on average, the smallest plans outperformed larger plans for FYE 2019 (6.11% rate of return for plans under $10 million, vs. 5.37% to 5.67% on average for larger plans).
- Sixty percent of municipalities use a mortality assumption based on the RP-2014 Mortality Table, compared with 51% in our 2019 report. Use of the RP-2000 Mortality Table continues to decline, with 36% of plans using this table versus 43% in the previous study. The new Pub-2010 public sector-specific mortality table is now in use by 1% of plans, while a mere 3% of plans utilize an assumption based on "other" mortality tables.
- When looking at the mortality improvement scale assumption, 60% of plans use Scale MP as provided annually by the Society of Actuaries (SOA) versus 51% in our 2019 report, followed by Scale AA (28%, versus 35% in 2018) and Scale BB (9%, versus 10% in 2018). Only 3% of plans use another approach.
- When looking at amortization payment schedules for purposes of determining annual employer contributions, Connecticut pension plans use an average period of 18 years, representing a slightly shorter period than the average of 19 years in our 2019 report.

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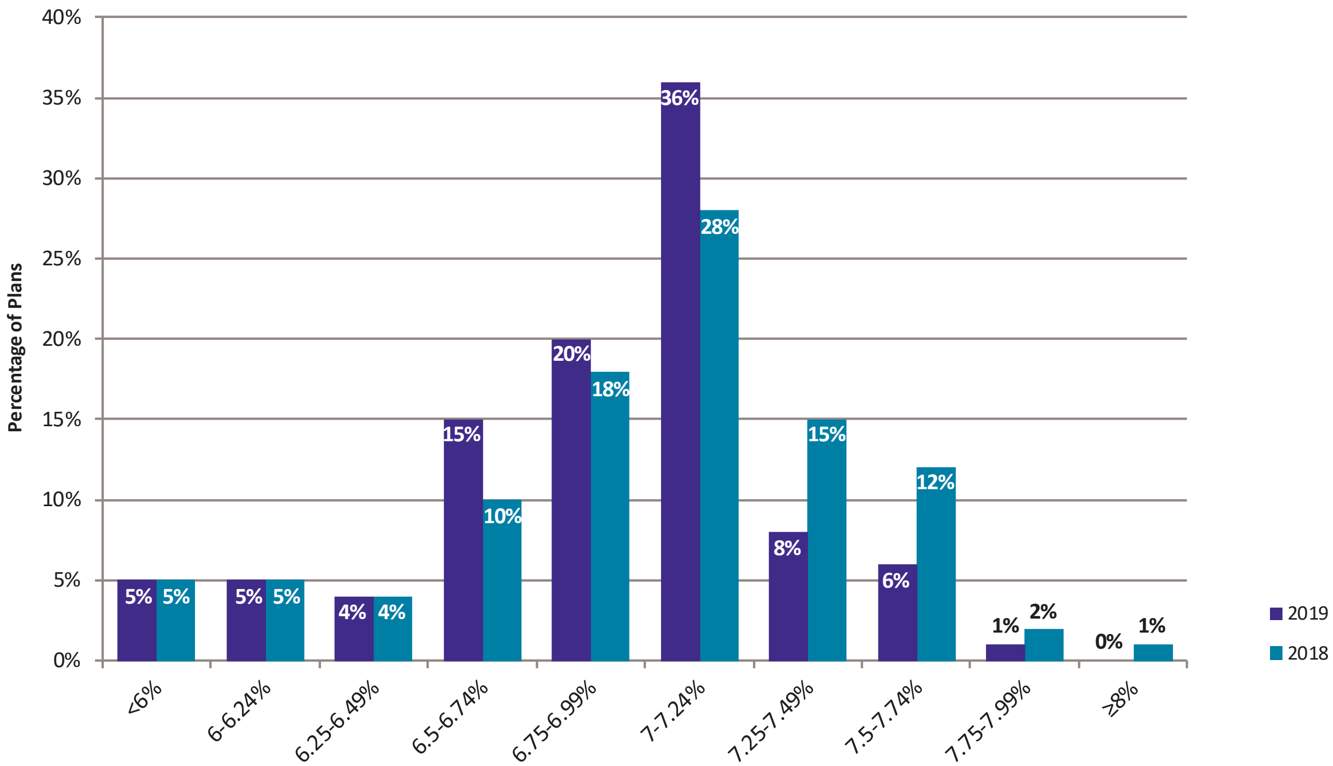
continued from page 1

Municipalities with OPEB plans:

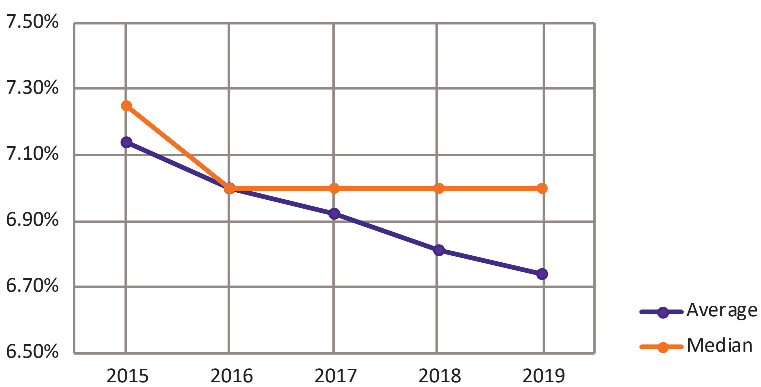
- Fifty-five percent of OPEB plans are unfunded (vs. 57% in the previous study), with 45% of plans funded with an OPEB trust (vs. 43% in our 2019 report).
- For those plans funded using an OPEB trust, the average funded ratio is 27.9%, compared with an average funded ratio of 27.5% in our 2019 report.
- The median investment return assumption for funded OPEB plans is 6.50%, which is a decrease of 25 basis points from the median assumption of 6.75% in our 2019 report, and is slightly lower when compared to pension plans (6.74%).
- For FYE 2019, the average money-weighted rate of return for funded OPEB plans is 5.23%, which is 49 basis points lower than the comparable average return for pension plans (5.72%).
- The average healthcare cost trend assumption is 6.72% for the initial year and 4.60% for the ultimate year, with a median period of 6 years from the initial to the ultimate year.

PENSION: LONG-TERM INVESTMENT RETURN ASSUMPTION (FYE 2019 VS. FYE 2018)



The average investment return assumption is 6.74% (median is 7.00%). This represents a decline of 7 basis points from the 6.81% average (7.00% median) in our 2019 report. This assumption is generally tied to either the July 1, 2018 or July 1, 2017 actuarial valuation used in determining the employer's cash contribution amount (also known as the Actuarially Determined Employer Contribution, or ADEC).

PENSION: AVERAGE AND MEDIAN INVESTMENT RETURN ASSUMPTION TRENDS

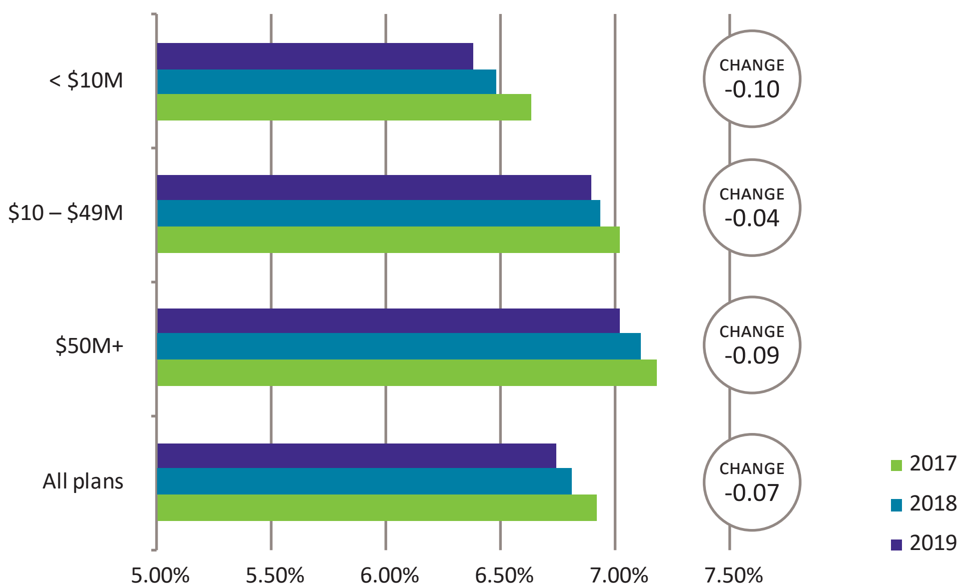


When looking at trends, the average long-term rate of return assumption has declined by 40 basis points (from 7.14% to 6.74%) from FYE 2015 to 2019. The median assumption has declined 25 basis points (from 7.25% to 7.00%) during that same period. Approximately 39% of plans reduced the long-term rate of return assumption from FYE 2018 to FYE 2019, with the most common reduction being 12.5 basis points. All else being equal, a lower investment return assumption results in higher actuarial liability and ADEC, and a lower funded ratio.

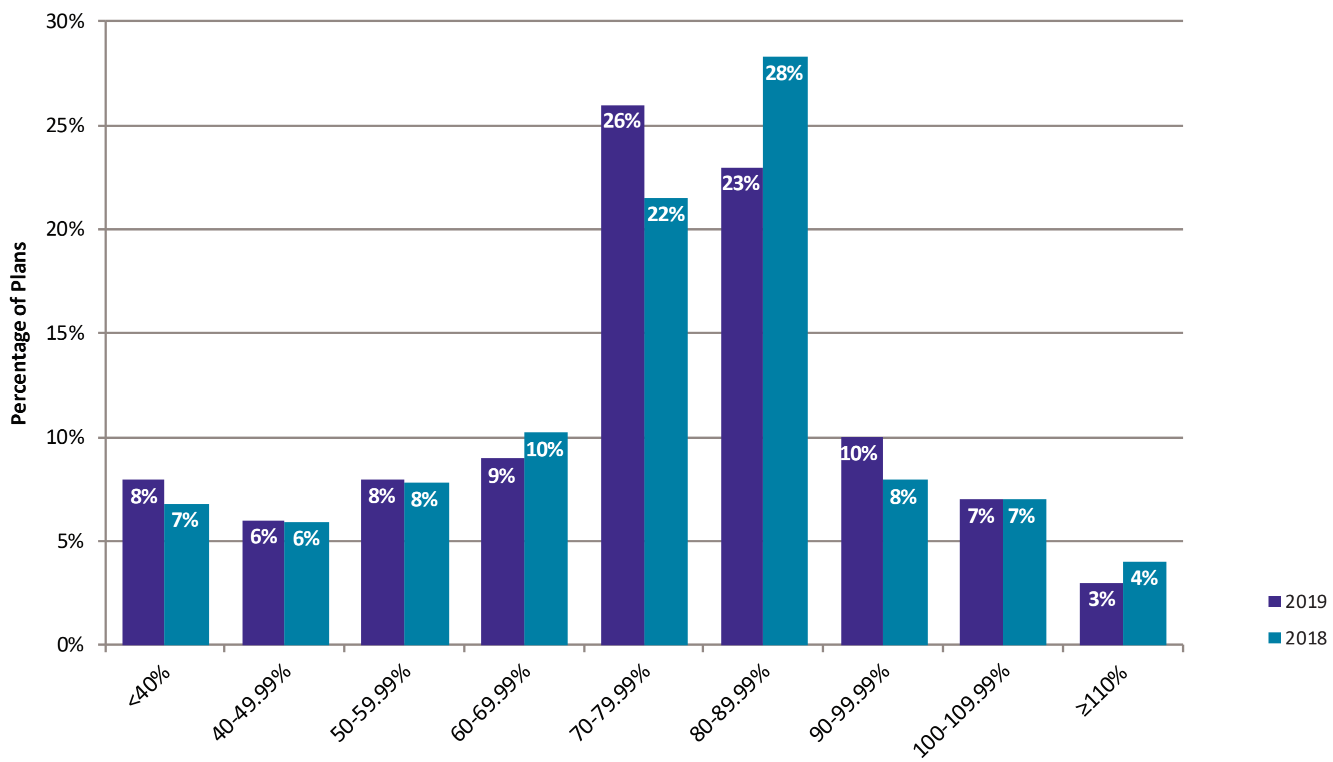
PENSION: AVERAGE INVESTMENT RETURN ASSUMPTION BY PLAN SIZE

In this report, we also analyzed the investment return assumption based on plan size. For this purpose, we classified a plan by asset size (under $10 million, $10 to $49 million, $50 million plus). The results show that as plan size increases, the average investment return assumption increases as well. Within each range of plan asset size, the average assumption decreased from 4 to 10 basis points from 2018 to 2019, and the average decrease for all plans was 7 basis points (from 6.81% to 6.74%).

Plan assets ($ millions)	% of plans	Average Investment Return Assumption			
		2019	2018	2017	2019 vs 2018 % Change
< $10	38%	6.38%	6.48%	6.63%	-0.10%
$10 – 49	35%	6.89%	6.93%	7.02%	-0.04%
$50+	27%	7.02%	7.11%	7.18%	-0.09%
All plans	100%	6.74%	6.81%	6.92%	-0.07%



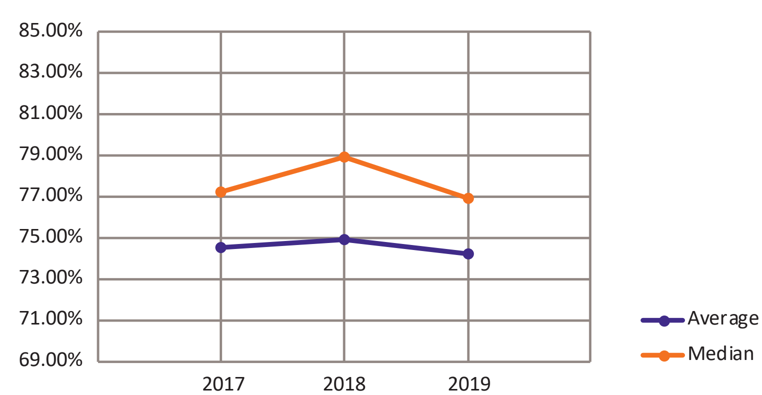
PENSION: FUNDED RATIO



Forty-three percent of the pension plans analyzed exceed the 80% funded mark, with 14% falling below 50%. These percentages are consistent with declines in the average and median funded ratios, when compared with 47% of plan exceeding the 80% mark in our 2019 report (and with 13% falling below 50% in our 2019 report). Notably, 10% of plans can boast pensions that are funded at 100% or higher, down slightly from 11% in last year's report.

PENSION: AVERAGE AND MEDIAN FUNDED RATIO TRENDS

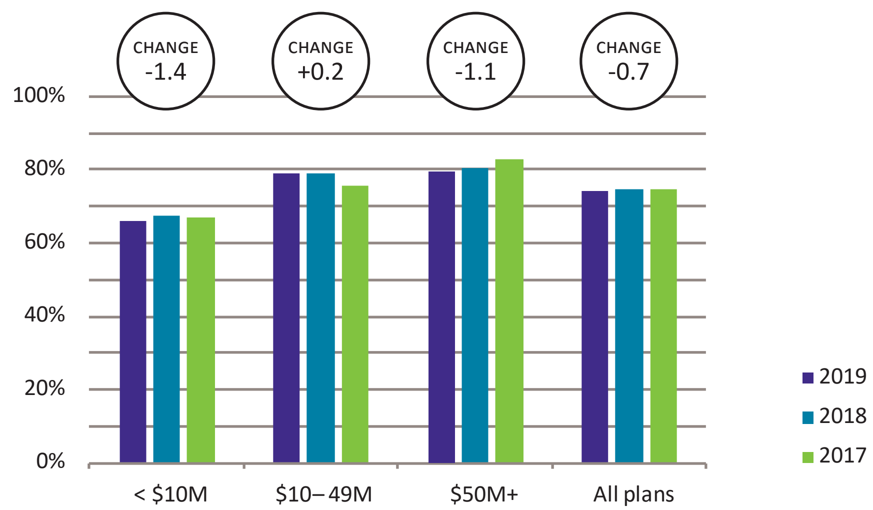
We analyzed the funded ratio (Market Value of Assets divided by Accrued Liability) for each plan. As of FYE 2019, the average funded ratio was 74.2% (median of 76.9%), a slight decrease versus an average of 74.9% (78.9% median) in our 2019 report.



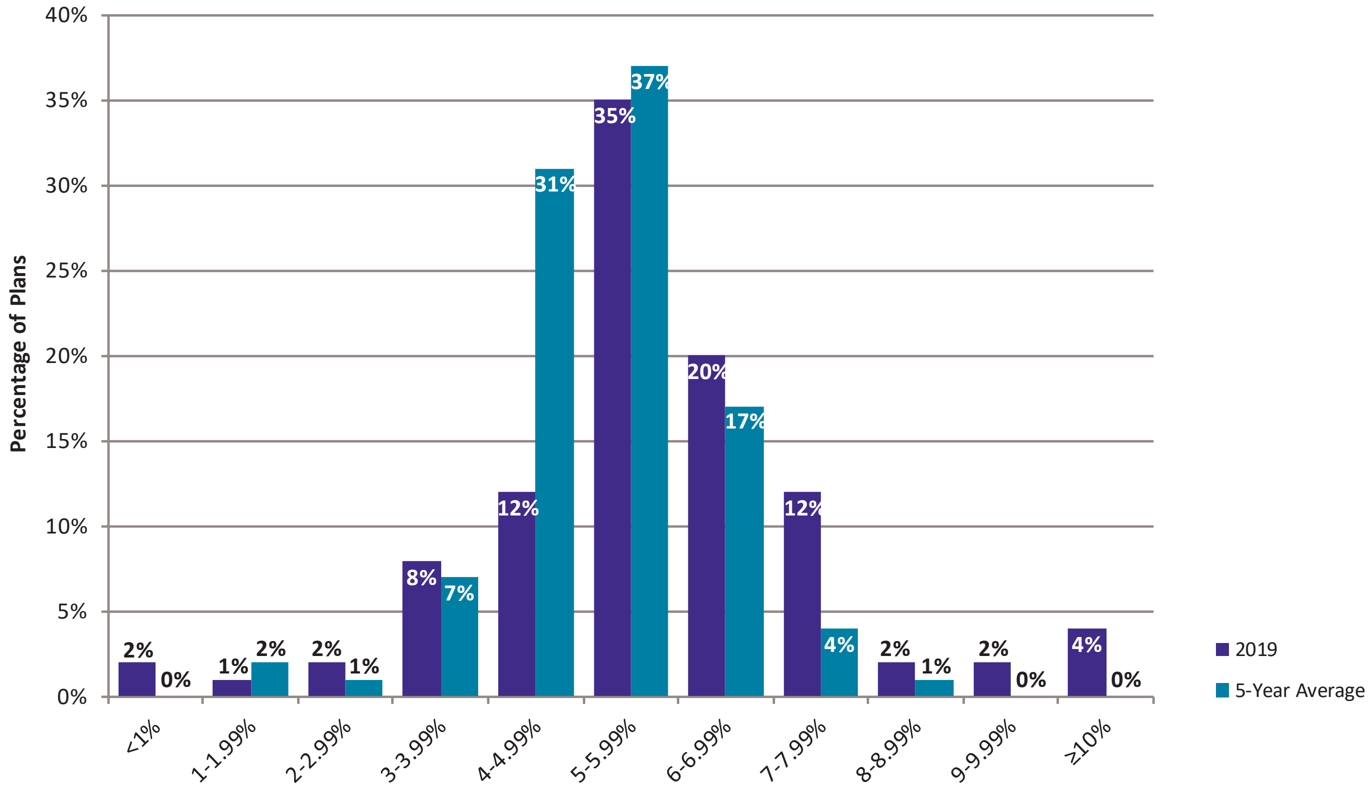
PENSION: AVERAGE FUNDED RATIO BY PLAN SIZE

This year, we also analyzed the average funded ratio based on plan size. Similar to our analysis of the investment return assumption, we classified a plan by asset size (under $10 million, $10 to $49 million, $50 million plus). The results show that as plan size increases, the average funded ratio tends to increase as well. Interestingly, while the average funded ratio declined on average between 1.1% and 1.4% for the smallest and largest plans, the average increased slightly (by 0.2%) for plans with between $10 to $49 million in assets.

Plan assets ($ millions)	% of plans	Average Funded Ratio 2019	2018	2017	2019 vs 2018 % Change
< $10	38%	65.9%	67.3%	67.0%	-1.4%
$10 – 49	35%	79.0%	78.8%	75.7%	+0.2%
$50+	27%	79.3%	80.4%	83.0%	-1.1%
All plans	100%	74.2%	74.9%	74.5%	-0.7%



PENSION: FYE 2019 RETURN VS. 5-YEAR AVERAGE RETURN

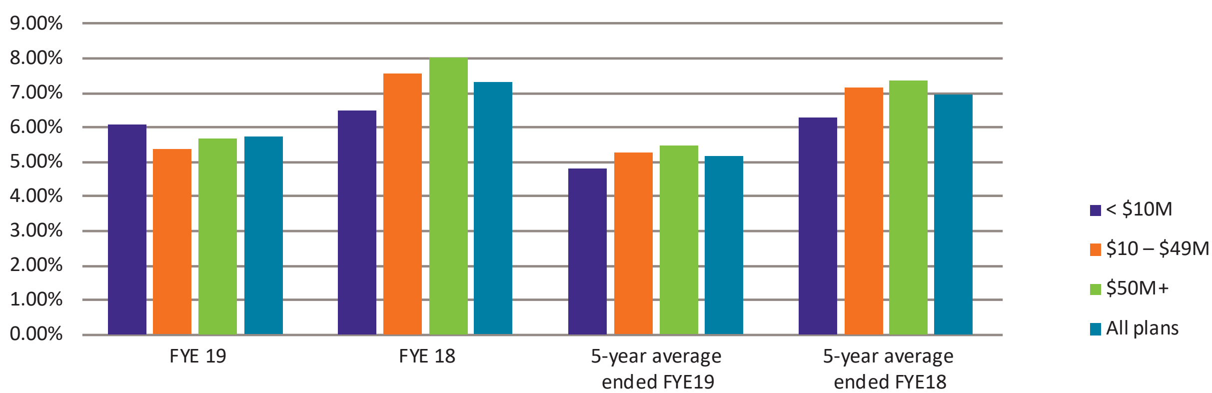


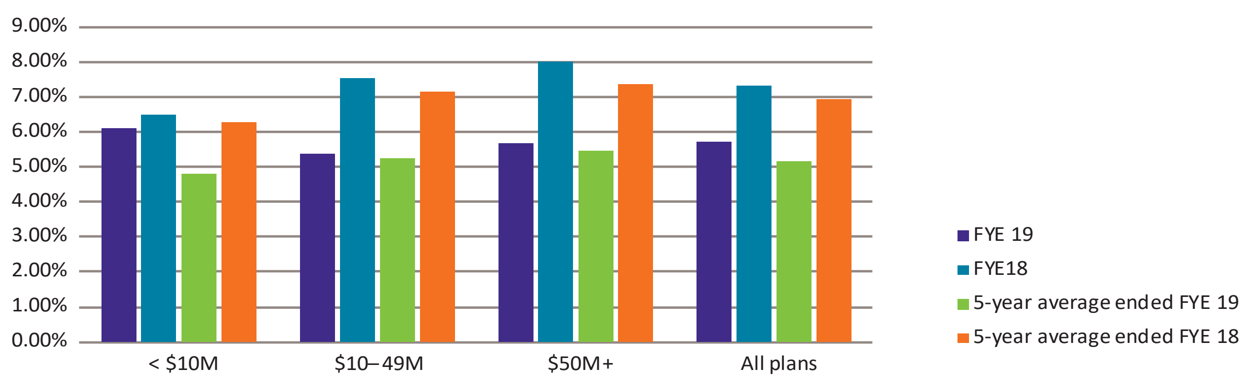
The average money-weighted rate of return for FYE 2019 was 5.72% (median of 5.65%). This rate was compared to the most recent 5-year compounded average money-weighted rate of return (5.17% average and 5.15% median). Interestingly, the average return for FYE 2019 is slightly higher than the average for the trailing 5-year period.

PENSION: MONEY-WEIGHTED RATE OF RETURN BY PLAN SIZE

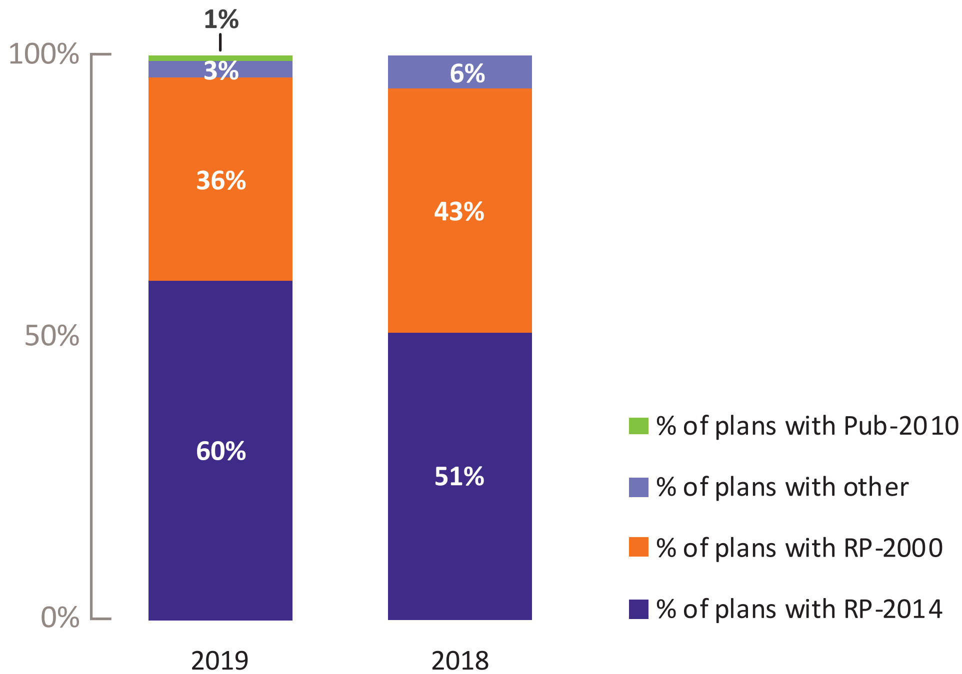
In our report this year, we also reviewed the money-weighted rate of return by plan size (under $10 million, $10 to $49 million, $50 million plus), both for FYE 2019 and for the 5-year period ending on that same date. Consistent with the results of our analysis of the investment return assumption, we found that larger plans generally achieved higher average money-weighted rates of returns versus smaller plans. Interestingly, there was a smaller decline (40 basis points, from 6.51% to 6.11%) for the smallest plans from 2018 to 2019, versus declines ranging from 219 to 237 basis points for plans with $10 million or more in assets. In addition, on average the smallest plans outperformed larger plans for FYE 2019 (6.11% rate of return for plans under $10 million, vs. 5.37% to 5.67% on average for larger plans).

Plan assets ($ millions)	FYE 19	FYE 18	5-year average ended FYE 19	5-year average ended FYE 18
< $10	6.11%	6.51%	4.81%	6.27%
$10 – 49	5.37%	7.56%	5.26%	7.16%
$50+	5.67%	8.04%	5.47%	7.38%
All plans	5.72%	7.31%	5.17%	6.94%





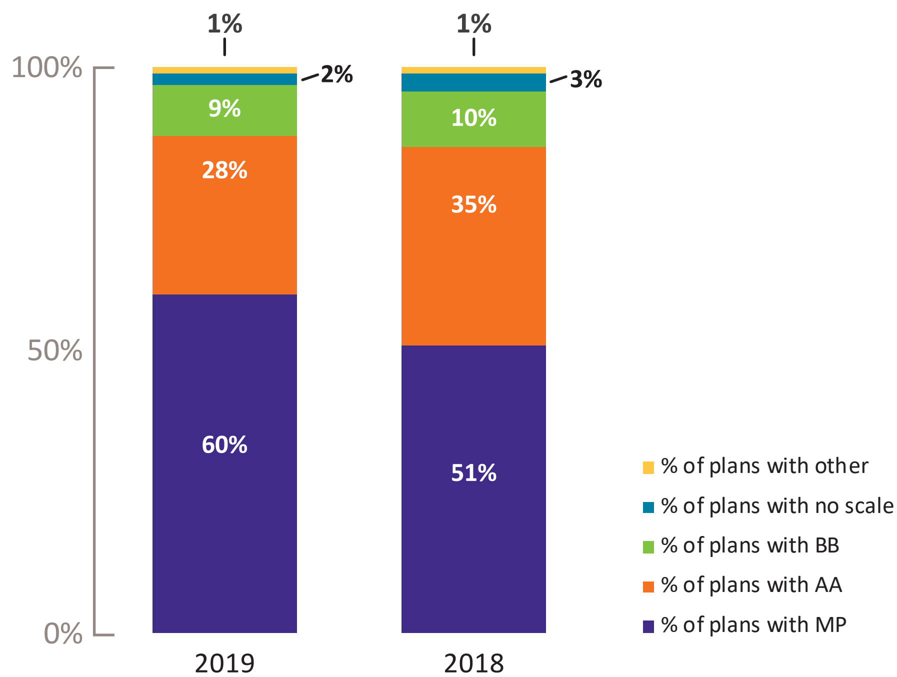
PENSION: MORTALITY TABLE ASSUMPTION



Over time, life expectancies have generally increased. The Society of Actuaries (SOA) periodically publishes mortality studies reflecting updated life expectancies based on large databases of pensioner mortality experience. As of the June 30, 2019 CAFRs, the two most common mortality tables in use by Connecticut public pension plans were the RP-2014 Mortality Table (60% of plans) and the older RP-2000 Mortality Table (36% of plans). Use of the RP-2000 Mortality Table continues to decline, with 7% of plans moving away from this table versus the previous study. The new Pub-2010 public sector-specific mortality table is now in use by 1% of plans, while a mere 3% of plans were using an assumption reflecting some other mortality basis.

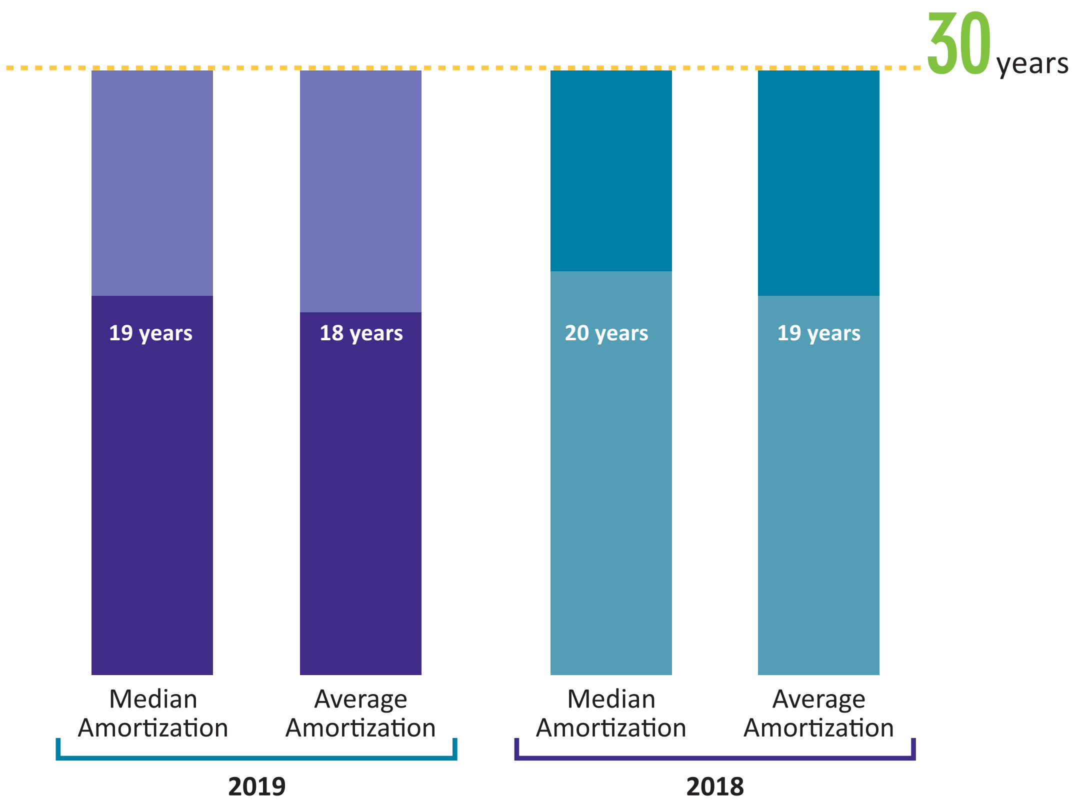
As we noted in last year's report, the recent mortality study issued by the SOA (and subsequent to the June 30, 2018 CAFR date for our previous report), is now being used by public sector plan sponsors. The new tables are known as the Pub-2010 Public Retirement Plans Mortality Tables, and are based on the first study ever done by the SOA that incorporates public sector-specific pensioner mortality experience.

PENSION: MORTALITY IMPROVEMENT SCALE ASSUMPTION



Because actuarial valuations involve calculating liability associated with providing benefits to participants, both today and for many years into the future, actuaries also consider the potential effect of future improvements in life expectancies. This effect is captured most often by way of a mortality improvement scale assumption, with the most common scale (60% of plans, versus 51% in our 2019 report) being Scale MP which is updated annually by the SOA. The next most common scales, which are most often used in conjunction with the RP-2000 Mortality Table, are Scale AA (28% of plans, versus 35% in our 2019 report) and Scale BB (9% of plans, versus 10% last year). Only 3% of plans in the study are using some other approach for the mortality improvement scale assumption.

PENSION: AMORTIZATION PERIOD

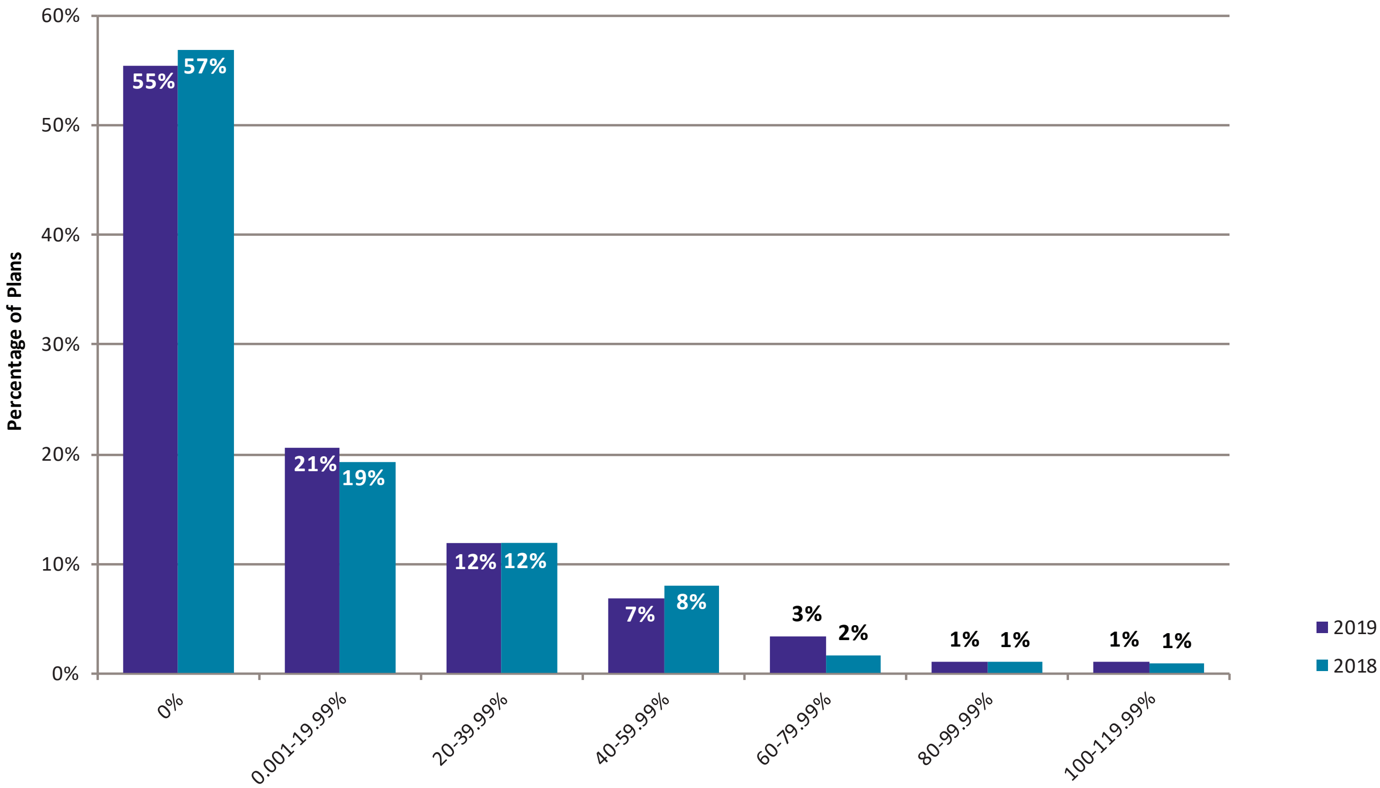


The ADEC most commonly reflects two components: 1) the normal cost, which is the value of benefits expected to be earned by active participants during the upcoming year, and 2) an amortization payment, which is a contribution towards eliminating the pension plan's unfunded actuarial liability (or surplus, if applicable) over time.

Since a pension plan's unfunded actuarial liability is generally considered a long-term expense, the amortization payment, similar to making a payment against a home mortgage, is recognized over time.

Connecticut public sector pension plans' amortization periods (average of 18 years, median 19 years) are reasonably consistent with findings nationwide, and compare favorably with the 30-year period that is generally considered to be the maximum for public sector plans. Both the average and median period for Connecticut public sector plans shortened by one year when compared with the results of our 2019 report.

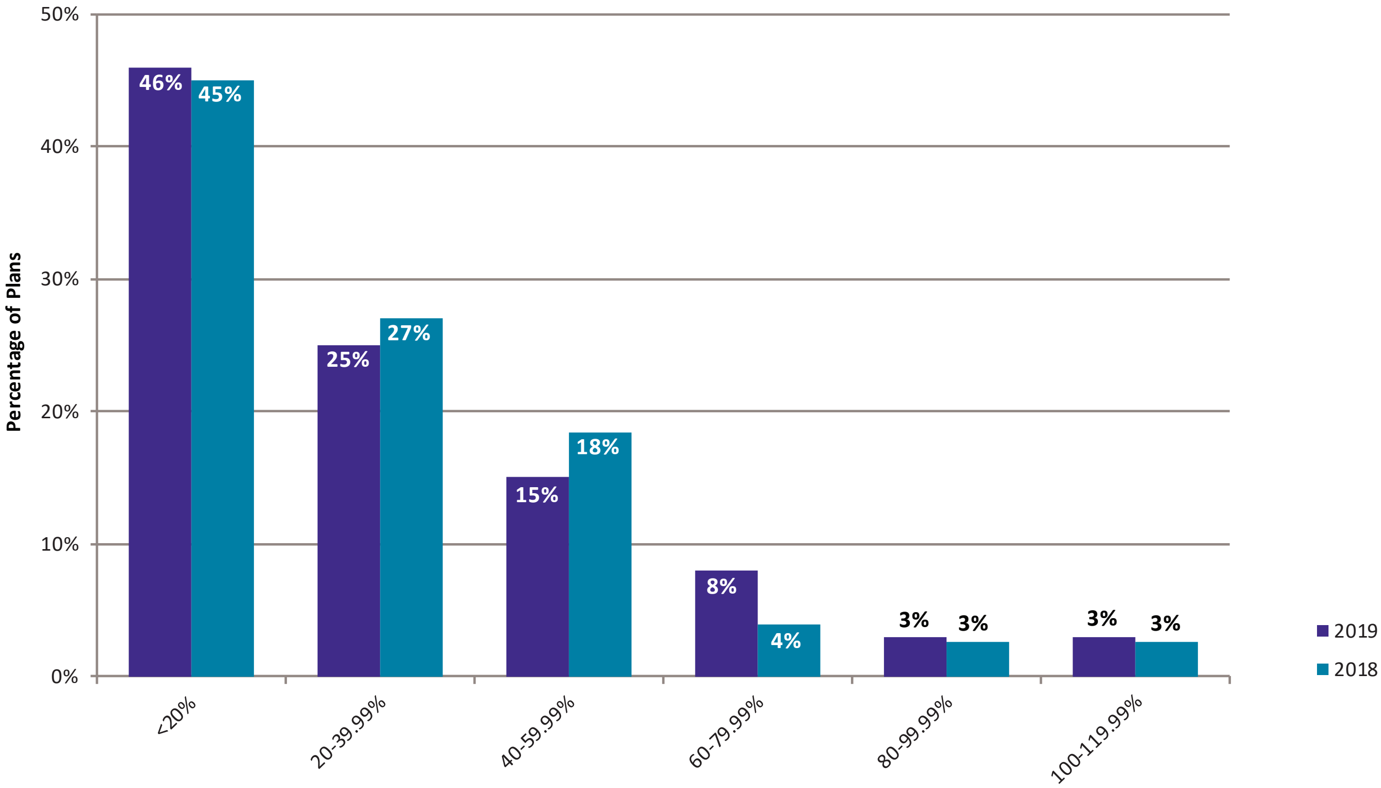
OPEB: FUNDED RATIO FOR ALL PLANS



Many public sector OPEB plans continue to be unfunded arrangements, as the Government Accounting Standards Board (GASB) did not require actuarial measurements of the liabilities until about a decade ago.

As of FYE 2019, approximately 55% of the OPEB plans in Connecticut are unfunded, with the remaining 45% of plans funded via an OPEB trust. These statistics represent a slight shift (2% of plans) from unfunded to funded arrangements since our 2019 report.

OPEB: FUNDED RATIO FOR FUNDED PLANS ONLY

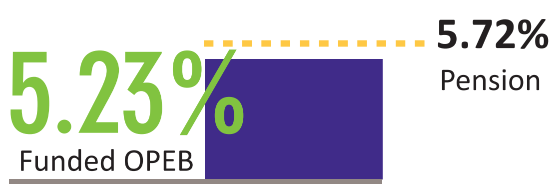


When looking only at the OPEB plans funded via a trust, the average funded ratio as of FYE 2019 is 27.9% (median of 22.9%), versus an average of 27.5% (23.7% median) in the 2018 CAFRs. Forty-six percent of the plans have a funded ratio of less than 20%, while 3% of plans are at least 100% funded. These results are virtually unchanged from our 2019 report (45% of plans with funded ratio less than 20%, and 3% of plans at least 100% funded).

OPEB: INVESTMENT RETURN ASSUMPTION

As of FYE 2019, the median investment return assumption for funded OPEB plans is 6.50%, down from 6.75% in our 2019 report. This assumption is 24 basis points lower than the 6.74% average assumption for pension plans.

OPEB: MONEY-WEIGHTED RATE OF RETURN

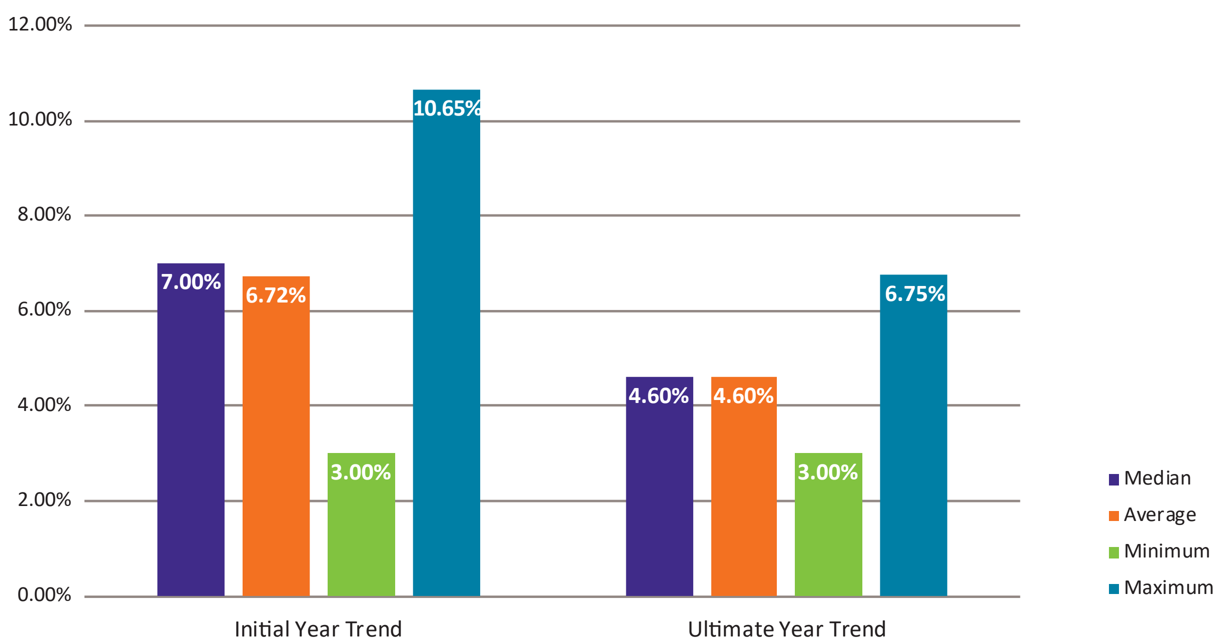


Similarly, the average money-weighted rate of return for FYE 2019 for funded OPEB plans is 5.23%, which is lower than the comparable statistic for pension plans.

OPEB: HEALTH CARE COST TREND ASSUMPTION – NEW IN OUR 2020 REPORT

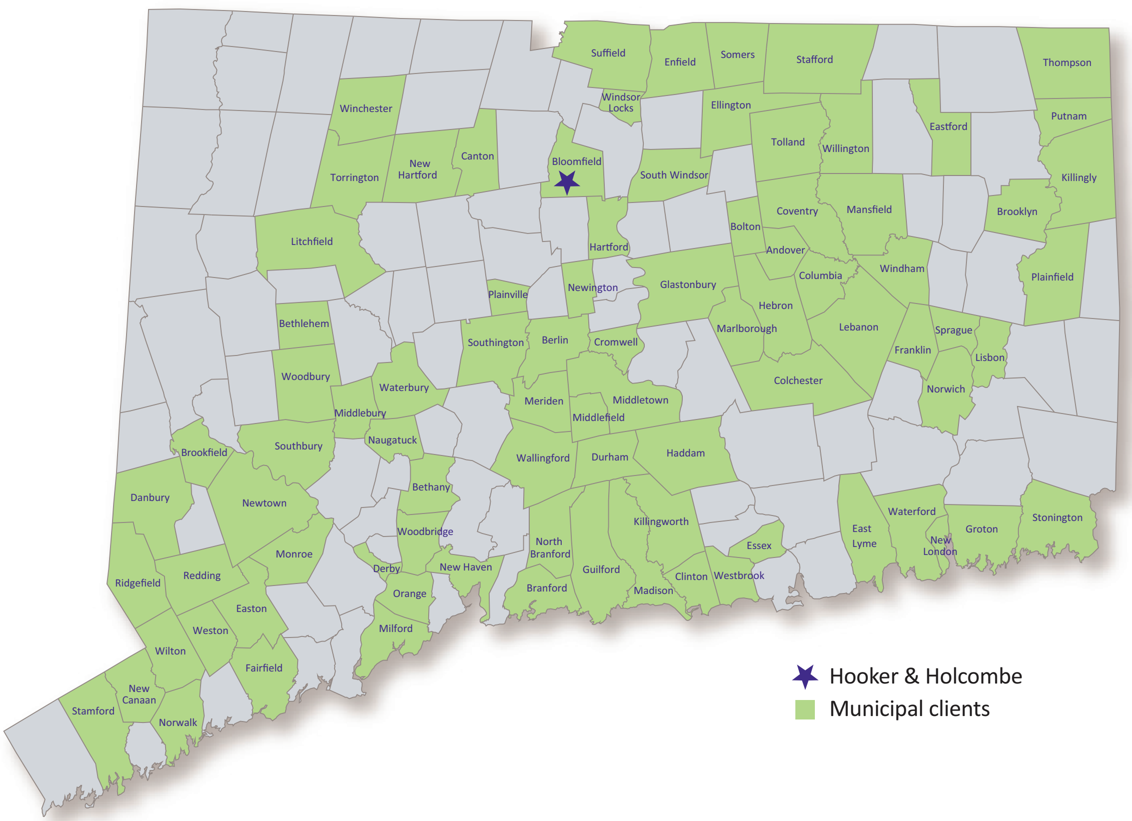
OPEB actuarial valuations include assumptions about future expected rates of growth in the annual cost of providing health care to retirees (i.e. annual premiums for medical, dental, and vision, etc.). Most actuaries agree that the current higher expected rates of growth will gradually decline over some period of time to an "ultimate" constant expected rate of growth for all subsequent years.

The average healthcare cost trend assumption is 6.72% (median of 7.00%) for the initial year and is 4.60% (median 4.60%) for the ultimate year, with a median period of 6 years (average of 22 years) from the initial to the ultimate year. There is a relatively large difference in the median and average number of years to the ultimate health care cost trend assumptions, due to a difference in the two most common approaches regarding this assumption. One approach generally assumes that the ultimate year is reached within 10 years or less, while the other approach (known as the "Getzen model") assumes that there is a much more gradual and longer period (typically 50 years or more) needed to reach the ultimate rate.



	Initial Year Trend	Ultimate Year Trend	Years to Ultimate
Median	7.00%	4.60%	6
Average	6.72%	4.60%	22
Minimum	3.00%	3.00%	1
Maximum	10.65%	6.75%	83

ABOUT HOOKER & HOLCOMBE



Hooker & Holcombe has been working with municipalities to consult, design, and administer pension and OPEB plans since it opened its doors in 1956. Fifty percent (50%) of Connecticut cities and towns work with H&H in some capacity. Whether we're helping create, modernize, merge or terminate a plan, our dedication and years of experience have helped literally hundreds of thousands of municipal employees realize a comfortable retirement.

In addition to pension and OPEB solutions, our Retirement Services Group offers recordkeeping and TPA services for all types of employer-sponsored defined contribution plans. Our Investment Advisory Group delivers independent investment advisory consulting services for both defined benefit and defined contribution plans, and investment and financial wellness education for employees, ensuring that our clients understand their fiduciary responsibilities and how they relate to their plans.

To learn more about our services, visit **hhconsultants.com**.
If you would like additional details about this report, please contact:

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Since 1956, Hooker & Holcombe has delivered the solutions needed to identify, achieve and exceed our clients' retirement plan goals.

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- Plan terminations
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- Asset liability modeling
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- Storage of and access to all plan documents, including forms packages
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Service Center

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- Fee benchmarking

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- Retirement or termination payout calculations & vesting
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