

The Supreme Court of Ohio

| | | |
|---------------------------------|---|-----------------------------|
| THE STATE OF OHIO, ex rel. | : | |
| EDWARD SIEDLE | : | |
| | : | |
| Plaintiff, | : | Case No. 2021-0659 |
| | : | |
| v. | : | Original Action in Mandamus |
| | : | |
| STATE TEACHERS RETIREMENT | : | |
| SYSTEM OF OHIO, <i>et al.</i> , | : | |
| | : | |
| Defendants. | : | |

RESPONDENTS'
BATES-STAMPED NUMBERS STRS 0291-0508
VOLUME 2 OF 2

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CERTIFICATE OF SERVICE

I hereby certify that a true and exact copy of the foregoing ***RESPONDENTS' BATES-STAMPED NUMBERS STRTS 00291-0508 Volume 2 of 2*** was sent via electronic mail on March 15, 2022, upon the following:

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[Redacted]

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[Redacted] determine your liabilities' inflation sensitivity. The degree of total inflation sensitivity determines the proportion of inflation-indexed bonds versus nominal bonds that belong in your liability proxy portfolio.

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[REDACTED]

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[REDACTED]

| | Long Nominal Bonds | | Inflation Indexed Bonds | | CPI |
|------------|--------------------|------------|-------------------------|------------|------------|
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |

Appendix B - Methodology used to calculate asset and asset-liability risk

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

| | |
|------------|------------|
| [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |

[REDACTED]

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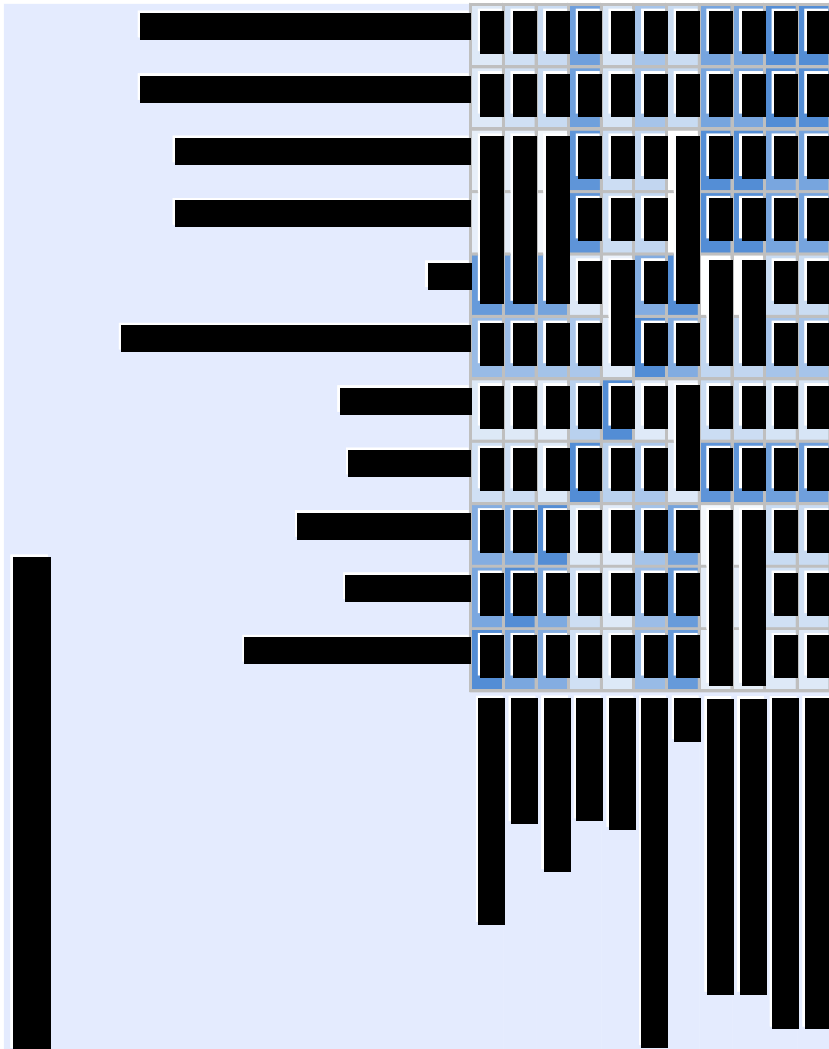
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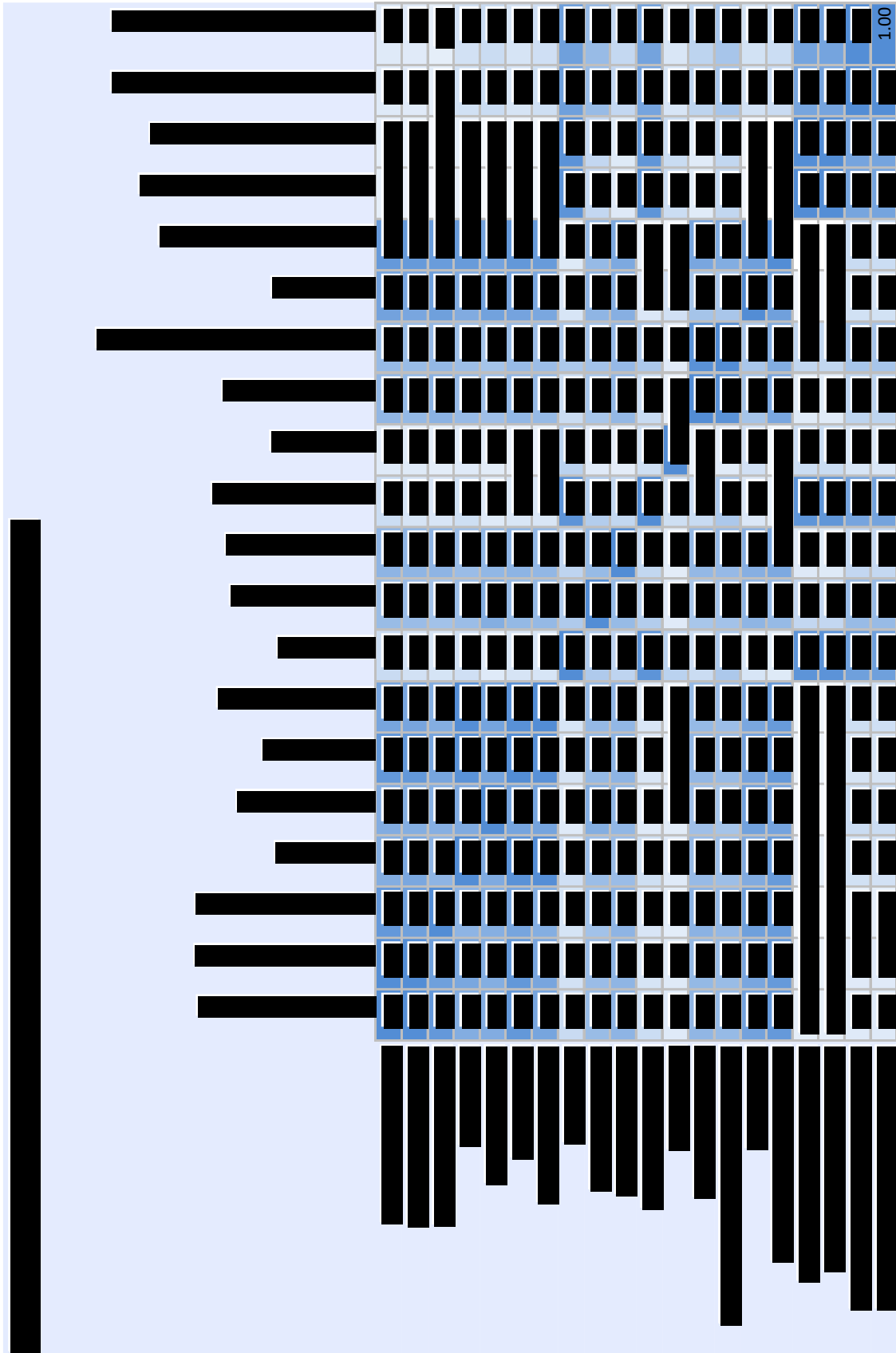
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Appendices

Appendix A - Data Summary

Appendix A2 - Enhanced survey data & mapping to regular survey

Appendix B - Data quality

Appendix C - Glossary of terms

Appendix A - Data Summary

STRS Ohio

| Plan Info | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Contact | Lynn Hoover | Lynn Hoover | Lynn Hoover | Lynn Hoover | Lynn Hoover |
| Type of fund (corporate, public, other) | Public | Public | Public | Public | Public |
| Total fund size (mils) as at December 31 | 72,888.7 | 78,304.0 | 71,661.0 | 70,756.0 | 73,655.0 |
| Asset-class level holdings provided on survey are: year end or average? | Year End | Year End | Year End | Year End | Year End |
| Total return for year ended | -1.89% | 15.76% | 8.03% | 2.33% | 7.83% |
| Is the return net or gross? | Net of all investment costs | Net of all investment costs | Net of all investment costs | Net of all investment costs | Net of all investment costs |
| Total fund policy or benchmark return | -2.04% | 15.35% | 8.00% | 1.71% | 8.26% |

| Ancillary Data | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---------------|---------------|---------------|---------------|---------------|
| What is your hedging policy for: Foreign Holdings | 50% | 50% | 50% | 50% | 50% |
| What were your actuarial fees in 000s? | 219 | 513 | 266 | 247 | 244 |
| How many plan members/beneficiaries do you have: | | | | | |
| Active? | 192,365 | 193,141 | 195,440 | 189,731 | 194,451 |
| Active (no-accrual)? | 138,075 | 139,533 | 135,738 | 135,215 | 134,844 |
| Retired? | 157,422 | 158,039 | 157,938 | 158,116 | 152,208 |
| Other? | 18,416 | 18,403 | 17,627 | 17,453 | 17,036 |
| What type of plan(s) do you have? | Final Average | Final Average | Final Average | Final Average | Final Average |
| To what extent are your retired members' benefits indexed to inflation? | | | | | |
| Contractual % | 0% | 0% | 0% | 0% | 0% |
| If the indexation is subject to a cap, describe the cap | 0% | 0% | 2% per year, | 2% per year, | 2% per year, |
| What % of the plan's liabilities pertain to retired members? | 72% | 73% | 74% | 75% | 72% |
| Actuarial valuation assumptions for funding purposes: | | | | | |
| Liability discount rate | 7.5% | 7.5% | 7.8% | 7.8% | 7.8% |
| Salary progression rate | 3.0% | 3.0% | 3.5% | 3.5% | 3.5% |
| What was your actuarial assumption for expected rate of return? | 7.5% | 7.5% | 7.8% | 7.8% | 7.8% |

| | | | | |
|---------------------------|------|------|--|-------|
| | 2014 | 20.8 | MSCI World xUS 50% Hedged Net | 0.8 |
| Stock - Emerging | 2018 | 4.8 | MSCI Emerging Market net | -14.6 |
| | 2017 | 5.0 | MSCI Emerging Market Net | 37.3 |
| | 2016 | 5.2 | MSCI Emerging Market net | 11.2 |
| | 2015 | 5.2 | MSCI Emerging Market net | -14.9 |
| | 2014 | 5.2 | MSCI Emerging Market Net | -2.2 |
| Stock - ACWI x U.S. | 2018 | | International Blended Benchmark | -12.1 |
| | 2017 | | International Blended Benchmark | 23.4 |
| | 2016 | | International Blended Benchmark | 6.4 |
| | 2015 | | International Blended Benchmark | -2.8 |
| | 2014 | | International Blended Benchmark | 0.2 |
| Stock - Global | 2018 | | MSCI ACWI net | -9.4 |
| | 2017 | | MSCI ACWI net | 24.6 |
| | 2016 | | MSCI ACWI net | 7.9 |
| | 2015 | | MSCI ACWI net | -2.4 |
| | 2014 | | MSCI ACWI Net | 4.2 |
| Fixed Income - U.S. | 2018 | 21.0 | Fixed Income Blended (Jul 1 2017) | 0.1 |
| | 2017 | 20.0 | Fixed Income Blended (Jul 1 2017) | 3.9 |
| | 2016 | 18.0 | Barclays Universal for total FI (Barclays Aggregate Index not appropriate for US FI segment) | 3.9 |
| | 2015 | 18.0 | Barclays Universal for total FI (Barclays Aggregate Index not appropriate for US FI segment) | 0.4 |
| | 2014 | 18.0 | Barclays Universal for total FI (Barclays Aggregate Index not appropriate for US FI segment) | 5.6 |
| Fixed Income - Emerging | 2018 | | Barclays Emerging Market | -2.5 |
| | 2017 | | Barclays Emerging Market | 8.2 |
| | 2016 | | Barclays Emerging Market | 9.9 |
| | 2015 | | Barclays Emerging Market | 1.3 |
| | 2014 | | Barclays Emerging Market | 4.8 |
| Fixed Income - High Yield | 2018 | | Barclays US Corp High Yield | -2.1 |
| | 2017 | | Barclays US Corp High Yield | 7.5 |
| | 2016 | | Barclays US Corp High Yield | 17.1 |
| | 2015 | | Barclays US Corp High Yield | -4.5 |
| | 2014 | | Barclays US Corp High Yield | 2.5 |
| Cash | 2018 | 1.0 | US 90 day T bill | 1.9 |
| | 2017 | 1.0 | US 90 day T bill | 0.9 |
| | 2016 | 1.0 | US 90 day T bill | 0.3 |
| | 2015 | 1.0 | US 90 day T bill | 0.1 |
| | 2014 | 1.0 | US 90 day T bill | 0.0 |
| Global TAA | 2018 | | Custom (Alternative Investment Actual Return) | 11.8 |
| | 2017 | | Custom (Alternative Investment Actual Return) | 12.2 |
| | 2016 | | Custom (Alternative Investment Actual Return) | 5.3 |
| | 2015 | | Custom (Alternative Investment Actual Return) | 6.1 |
| | 2014 | | Custom (Alternative Investment Actual Return) | 6.1 |
| Hedge Funds | 2018 | | Custom (Alternative Investment Actual Return) | 11.8 |
| | 2017 | | Custom (Alternative Investment Actual Return) | 12.2 |
| | 2016 | | Custom (Alternative Investment Actual Return) | 5.3 |
| | 2015 | | Custom (Alternative Investment Actual Return) | 6.1 |
| | 2014 | | Custom (Alternative Investment Actual Return) | 13.5 |
| REITs | 2018 | | Your REIT benchmark | -4.6 |
| | 2017 | 1.5 | Your REIT benchmark | 5.2 |
| | 2016 | 1.5 | Your REIT benchmark | 8.5 |
| | 2015 | 1.5 | Your REIT benchmark | 3.2 |
| | 2014 | 1.5 | Your REIT benchmark | 30.1 |
| Infrastructure | 2018 | | Custom (Alternative Investment Actual Return) | 11.8 |
| | 2017 | | Custom (Alternative Investment Actual Return) | 12.2 |
| | 2016 | | Custom (Alternative Investment Actual Return) | 5.3 |
| | 2015 | | Custom (Alternative Investment Actual Return) | 6.1 |
| | 2014 | | Custom (Alternative Investment Actual Return) | 13.5 |
| Real Estate ex-REITs | 2018 | 10.0 | NCREIF NPI | 6.7 |
| | 2017 | 8.5 | NCREIF NPI | 7.0 |
| | 2016 | 8.5 | NCREIF NPI | 8.0 |
| | 2015 | 8.5 | NCREIF NPI | 13.3 |
| | 2014 | 8.5 | NCREIF NPI | 11.8 |
| Natural Resources | 2018 | | Custom (Alternative Investment Actual Return) | 11.8 |
| | 2017 | | Custom (Alternative Investment Actual Return) | 12.2 |
| | 2016 | | Custom (Alternative Investment Actual Return) | 5.3 |
| | 2015 | | Custom (Alternative Investment Actual Return) | 6.1 |
| | 2014 | | Custom (Alternative Investment Actual Return) | 13.5 |
| Private Credit | 2018 | | Custom (Alternative Investment Actual Return) | 11.8 |
| | 2017 | | Custom (Alternative Investment Actual Return) | 12.2 |
| | 2016 | | | |
| | 2015 | | | |
| | 2014 | | | |
| Diversified Private | 2018 | | Custom (Alternative Investment Actual Return) | 11.8 |
| | 2017 | | Custom (Alternative Investment Actual Return) | 12.2 |
| | 2016 | | Custom (Alternative Investment Actual Return) | 5.3 |

Appendix A Data Summary - Assets, Returns and Costs: Public Market

STRS Ohio

(Default costs are highlighted with blue shading. See page 7 for more details)

| Asset Class | | Year | Asset (\$millions) | Return % | Cost (\$000) | | | | |
|------------------------|------|----------|--------------------|----------|------------------|-----------|-----------|-------|-----|
| | | | | | Internal & Other | Base Fees | Perf Fees | Total | Bps |
| Stock - U.S. Large Cap | | | | | | | | | |
| Internal Active | 2018 | 8,586.9 | -6.09 | 12,687.9 | | | 12,687.9 | 13.2 | |
| | 2017 | 10,622.7 | 21.38 | 12,590.5 | | | 12,590.5 | 12.0 | |
| | 2016 | 10,342.4 | 10.22 | 11,243.9 | | | 11,243.9 | 10.9 | |
| | 2015 | 10,308.3 | -0.14 | 11,794.0 | | | 11,794.0 | 10.9 | |
| | 2014 | 11,364.0 | 11.74 | 10,645.4 | | | 10,645.4 | 9.5 | |
| Internal Passive | 2018 | 9,004.0 | -3.08 | 72.8 | | | 72.8 | 0.1 | |
| | 2017 | 9,544.3 | 22.97 | 72.1 | | | 72.1 | 0.1 | |
| | 2016 | 8,868.0 | 11.34 | 64.0 | | | 64.0 | 0.1 | |
| | 2015 | 8,672.3 | 2.36 | 40.6 | | | 40.6 | 0.0 | |
| | 2014 | 8,757.0 | 13.28 | 38.5 | | | 38.5 | 0.0 | |
| External Active | 2018 | 905.6 | -7.20 | 210.7 | 2,309.6 | | 2,520.3 | 23.7 | |
| | 2017 | 1,220.9 | 23.29 | 226.9 | 2,466.3 | | 2,693.2 | 23.8 | |
| | 2016 | 1,046.3 | 9.78 | 186.0 | 2,233.7 | | 2,419.7 | 23.6 | |
| | 2015 | 1,003.0 | 2.45 | 179.9 | 2,168.3 | | 2,348.3 | 23.7 | |
| | 2014 | 981.0 | 13.11 | 147.0 | 2,055.0 | | 2,202.0 | 23.8 | |
| Stock - U.S. Small Cap | | | | | | | | | |
| Internal Active | 2018 | 684.6 | -10.05 | 323.5 | | | 323.5 | 4.2 | |
| | 2017 | 842.2 | 13.70 | 346.3 | | | 346.3 | 4.2 | |
| | 2016 | 824.9 | 22.03 | 257.6 | | | 257.6 | 3.2 | |
| | 2015 | 778.8 | -2.44 | 293.3 | | | 293.3 | 3.6 | |
| | 2014 | 844.0 | 6.45 | 155.0 | | | 155.0 | 2.1 | |
| External Active | 2018 | 1,068.3 | -8.82 | 104.9 | 9,437.5 | | 9,542.4 | 81.9 | |
| | 2017 | 1,262.6 | 24.33 | 74.6 | 9,642.9 | | 9,717.5 | 77.3 | |
| | 2016 | 1,252.0 | 14.77 | 54.0 | 8,861.7 | | 8,915.7 | 75.8 | |
| | 2015 | 1,101.3 | -1.24 | 203.3 | 8,895.4 | | 9,098.7 | 81.2 | |
| | 2014 | 1,140.0 | 3.79 | 200.8 | 9,386.0 | | 9,586.8 | 75.8 | |
| Stock - EAFE | | | | | | | | | |
| Internal Active | 2018 | 4,915.3 | -11.91 | 2,968.2 | | | 2,968.2 | 5.6 | |
| | 2017 | 5,663.8 | 20.07 | 3,597.2 | | | 3,597.2 | 6.4 | |
| | 2016 | 5,589.9 | 4.49 | 3,292.2 | | | 3,292.2 | 5.9 | |
| | 2015 | 5,658.2 | 1.84 | 2,892.7 | | | 2,892.7 | 5.2 | |
| | 2014 | 5,523.7 | 1.01 | 2,429.2 | | | 2,429.2 | 4.3 | |
| External Active | 2018 | 5,120.4 | -11.31 | 205.8 | 19,125.7 | | 19,331.5 | 35.1 | |
| | 2017 | 5,881.0 | 24.11 | 241.7 | 19,869.7 | | 20,111.5 | 35.5 | |
| | 2016 | 5,463.5 | 5.58 | 214.5 | 18,582.3 | | 18,796.8 | 34.2 | |
| | 2015 | 5,529.7 | 5.63 | 194.7 | 19,934.8 | | 20,129.5 | 35.7 | |
| | 2014 | 5,761.7 | 1.59 | 162.2 | 19,588.0 | | 19,750.2 | 34.9 | |
| Stock - Emerging | | | | | | | | | |
| Internal Active | 2018 | 2,131.9 | -11.13 | 3,183.9 | | | 3,183.9 | 14.1 | |
| | 2017 | 2,382.3 | 32.16 | 2,696.7 | | | 2,696.7 | 12.1 | |
| | 2016 | 2,061.8 | 14.55 | 2,571.8 | | | 2,571.8 | 13.1 | |
| | 2015 | 1,856.3 | -10.54 | 2,578.4 | | | 2,578.4 | 14.1 | |
| | 2014 | 1,810.0 | -2.42 | 2,261.3 | | | 2,261.3 | 12.9 | |
| External Active | 2018 | 903.8 | -15.07 | 252.2 | 5,777.8 | | 6,029.9 | 59.0 | |
| | 2017 | 1,139.1 | 31.36 | 263.3 | 6,401.6 | | 6,664.9 | 61.4 | |
| | 2016 | 1,030.7 | 12.63 | 256.1 | 5,834.4 | | 6,090.6 | 62.4 | |
| | 2015 | 920.4 | -13.75 | 280.4 | 5,317.9 | | 5,598.3 | 56.2 | |
| | 2014 | 1,073.0 | 0.39 | 274.1 | 6,245.0 | | 6,519.1 | 61.2 | |
| Stock - ACWI x U.S. | | | | | | | | | |
| Internal Active | 2018 | 2,704.6 | -10.91 | 468.3 | | | 468.3 | 1.6 | |
| | 2017 | 3,211.2 | 24.22 | 475.0 | | | 475.0 | 1.5 | |
| | 2016 | 2,988.9 | 9.11 | 433.9 | | | 433.9 | 1.5 | |
| | 2015 | 2,730.5 | -1.78 | 439.9 | | | 439.9 | 1.6 | |
| | 2014 | 2,775.0 | 0.47 | 415.2 | | | 415.2 | 1.5 | |

Appendix A Data Summary - Assets, Returns and Costs: Public Market

STRS Ohio

(Default costs are highlighted with blue shading. See page 7 for more details)

| Asset Class | | Year | Asset (\$millions) | Return % | Cost (\$000) | | | | |
|---------------------------|------------------|------|--------------------|----------|------------------|-----------|-----------|---------|------|
| | | | | | Internal & Other | Base Fees | Perf Fees | Total | Bps |
| Stock - Global | External Active | 2018 | 1,106.3 | -14.01 | 20.0 | 5,474.0 | | 5,494.0 | 43.5 |
| | | 2017 | 1,418.8 | 23.41 | 20.4 | 6,121.7 | | 6,142.1 | 46.1 |
| | | 2016 | 1,243.3 | 4.09 | 18.6 | 5,445.3 | | 5,463.8 | 44.6 |
| | | 2015 | 1,206.1 | 1.97 | 17.5 | 5,022.1 | | 5,039.7 | 45.9 |
| | | 2014 | 990.0 | | 7.7 | 1,993.0 | | 2,000.7 | 38.5 |
| Fixed Income - U.S. | Internal Active | 2018 | 546.9 | -9.63 | 488.3 | | | 488.3 | 8.3 |
| | | 2017 | 634.2 | 24.07 | 495.3 | | | 495.3 | 8.5 |
| | | 2016 | 536.0 | 8.83 | 452.5 | | | 452.5 | 6.9 |
| | | 2015 | 778.8 | -1.24 | 457.4 | | | 457.4 | 5.8 |
| | | 2014 | 788.0 | 3.71 | 422.9 | | | 422.9 | 5.5 |
| Fixed Income - Emerging | Internal Active | 2018 | 12,171.5 | 0.27 | 3,465.9 | | | 3,465.9 | 2.7 |
| | | 2017 | 13,081.7 | 3.46 | 3,304.9 | | | 3,304.9 | 3.0 |
| | | 2016 | 8,787.2 | 2.71 | 2,465.8 | | | 2,465.8 | 2.7 |
| | | 2015 | 9,726.0 | 1.01 | 2,552.2 | | | 2,552.2 | 2.5 |
| | | 2014 | 11,082.0 | 5.55 | 2,538.8 | | | 2,538.8 | 2.2 |
| Fixed Income - High Yield | External Active | 2018 | 750.1 | -4.04 | 143.1 | 3,475.7 | | 3,618.7 | 46.3 |
| | | 2017 | 813.7 | 10.82 | 156.3 | 3,435.7 | | 3,592.0 | 46.3 |
| | | 2016 | 737.3 | 15.81 | 130.4 | 3,180.6 | | 3,311.0 | 45.1 |
| | | 2015 | 731.4 | 1.11 | 130.5 | 3,586.6 | | 3,717.1 | 46.6 |
| | | 2014 | 864.0 | 2.01 | 113.8 | 3,742.0 | | 3,855.8 | 48.7 |
| Cash | External Active | 2018 | 728.2 | -2.33 | 144.3 | 3,160.8 | | 3,305.1 | 41.9 |
| | | 2017 | 849.1 | 7.74 | 165.3 | 3,146.4 | | 3,311.7 | 40.4 |
| | | 2016 | 792.0 | 17.30 | 155.0 | 3,666.2 | | 3,821.3 | 43.8 |
| | | 2015 | 953.9 | -4.03 | 178.5 | 4,427.6 | | 4,606.1 | 42.2 |
| | | 2014 | 1,229.0 | 2.49 | 150.8 | 4,185.0 | | 4,335.8 | 41.3 |
| Global TAA | Internal Active | 2018 | 1,002.8 | 1.98 | 299.0 | | | 299.0 | 2.2 |
| | | 2017 | 1,699.9 | 0.77 | 285.8 | | | 285.8 | 1.7 |
| | | 2016 | 1,679.5 | 0.48 | 266.0 | | | 266.0 | 1.8 |
| | | 2015 | 1,274.8 | 0.08 | 268.6 | | | 268.6 | 1.4 |
| | | 2014 | 2,480.0 | 0.09 | 265.9 | | | 265.9 | 0.9 |
| REITs | Internal Passive | 2018 | 958.1 | -7.17 | 1,666.5 | | | 1,666.5 | 64.0 |
| | | 2017 | 365.3 | -7.17 | 96.2 | 2,306.4 | | 2,402.6 | 31.1 |
| | | 2016 | 741.8 | 10.52 | 36.8 | 1,334.7 | | 1,371.5 | 23.8 |
| | | 2015 | 412.0 | 8.44 | 26.5 | 1,191.4 | - | 1,217.9 | 30.6 |
| | | 2014 | 383.8 | -2.20 | 12.0 | 678.1 | - | 690.1 | 36.0 |
| REITs | Internal Passive | 2018 | 1,156.5 | -4.60 | 106.4 | | | 106.4 | 0.9 |
| | | 2017 | 1,117.2 | 5.21 | 94.3 | | | 94.3 | 0.8 |
| | | 2016 | 1,262.4 | 8.78 | 89.1 | | | 89.1 | 0.7 |
| | | 2015 | 1,166.2 | 3.21 | 226.4 | | | 226.4 | 2.0 |
| | | 2014 | 1,098.0 | 30.47 | 16.5 | | | 16.5 | 0.3 |

Appendix A Data Summary - Assets, Returns and Costs: Private Market and Hedge Fund

STRS Ohio

(Default costs are highlighted with blue shading. See page 5 for more details)

| Asset Class | Year | NAV (\$mils) | Fee Basis (\$mils) | Return | Cost (\$000) | | | | | | |
|-----------------------------------|------|-----------------|--------------------------|---------|---------------------|--------------|---------------|-------------------------|-------------------------|----------|--------------|
| | | | | | Internal & Other | Base Fees | Perf. Fees | Underlying Base Fees | Underlying Perf Fees | Total | Total bps |
| Infrastructure | | | | | | | | | | | |
| Fund of Funds | 2018 | 58.2 | 13.2 | -3.1 | 8.6 | 370.4 | 506.2 | 347.6 | 506.2 | 726.7 | 131.6 |
| | 2017 | 68.4 | 97.2 | 1.9 | 12.9 | 459.7 | 351.7 | 766.8 | 1,626.6 | 1,239.5 | 137.8 |
| | 2016 | 107.5 | 82.7 | 5.3 | 12.5 | 495.9 | 426.0 | 1,320.8 | 1,267.2 | 1,829.2 | 220.1 |
| | 2015 | 105.5 | 83.6 | 5.6 | 12.9 | 501.4 | 637.0 | 1,945.9 | 821.9 | 2,460.3 | 268.0 |
| | 2014 | 100.0 | 100.0 | 17.7 | 11.7 | 506.0 | 252.0 | 1,249.0 | 414.0 | 1,766.7 | 176.7 |
| Natural Resources | | | | | | | | | | | |
| Internal Active | 2018 | | | | | | | | | | |
| | 2017 | | | | | | | | | | |
| | 2016 | 375.8 | 375.8 | -3.4 | 298.4 | | | | | 298.4 | 7.2 |
| | 2015 | 455.9 | 455.9 | 3.0 | 169.0 | | | | | 169.0 | 3.8 |
| Co-Investment | 2018 | 154.8 | 154.8 | 11.5 | 24.3 | | | | | 24.3 | 1.6 |
| | 2017 | 149.4 | 149.4 | -34.4 | 39.7 | | | | | 39.7 | 5.3 |
| LP | 2018 | 360.4 | 510.0 | 11.5 | 56.9 | 5,691.0 | 2,090.3 | | | 5,747.9 | 110.1 |
| | 2017 | 549.4 | 652.7 | -34.4 | 69.4 | 6,832.0 | 2,885.0 | | | 6,901.4 | 111.1 |
| | 2016 | 604.6 | 589.4 | -3.4 | 66.1 | 6,439.0 | 4,926.2 | | | 6,505.1 | 114.7 |
| | 2015 | 478.1 | 544.8 | 3.0 | 56.7 | 7,659.5 | 2,238.5 | | | 7,716.2 | 149.0 |
| | 2014 | 351.0 | 491.0 | 9.2 | 40.8 | 5,014.0 | 1,687.5 | | | 5,054.8 | 112.7 |
| Real Estate ex-REITs | | | | | | | | | | | |
| Internal Active | 2018 | 5,764.4 | 5,764.4 | 7.9 | 17,795.5 | | | | | 17,795.5 | 32.1 |
| | 2017 | 5,315.0 | 5,315.0 | 5.9 | 17,182.4 | | | | | 17,182.4 | 30.9 |
| | 2016 | 5,794.6 | 5,794.6 | 9.1 | 16,632.4 | | | | | 16,632.4 | 29.3 |
| | 2015 | 5,554.9 | 5,554.9 | 13.0 | 16,561.4 | | | | | 16,561.4 | 30.9 |
| | 2014 | 5,177.0 | 5,177.0 | 14.8 | 14,191.5 | | | | | 14,191.5 | 28.7 |
| LP | 2018 | 882.5 | 1,419.8 | 13.2 | 481.0 | 14,030.0 | 5,525.9 | | | 14,511.0 | 101.7 |
| | 2017 | 990.6 | 1,434.8 | 8.6 | 464.1 | 17,650.0 | 5,940.9 | | | 18,114.1 | 122.3 |
| | 2016 | 1,131.1 | 1,526.4 | 13.5 | 447.4 | 17,431.8 | 6,098.0 | | | 17,879.2 | 114.4 |
| | 2015 | 1,008.5 | 1,599.0 | 11.0 | 443.5 | 17,938.0 | 10,592.0 | | | 18,381.5 | 122.5 |
| | 2014 | 1,009.0 | 1,401.0 | 18.0 | 378.9 | 24,652.0 | 9,546.5 | | | 25,030.9 | 163.0 |
| Diversified Private Equity | | | | | | | | | | | |
| Internal Active | 2018 | 318.5 | 318.5 | 19.9 | 319.6 | | | | | 319.6 | 8.0 |
| Co-Investment | 2018 | 328.7 | 328.7 | 4.7 | 88.1 | | | | | 88.1 | 3.0 |
| Fund of Funds | 2018 | | | | | | | | | | |
| | 2017 | | | | | | | | | | |
| | 2016 | | | | | | | | | | |
| | 2015 | | | | | | | | | | |
| | 2014 | 527.0 | 1,123.0 | 18.9 | 155.0 | 5,367.0 | 3,718.5 | 7,965.0 | 6,633.0 | 13,487.0 | 124.2 |
| LP | 2018 | 1,591.4 | 3,653.5 | 19.9 | 511.7 | 25,682.0 | 26,112.8 | | | 26,193.7 | 95.7 |
| | 2017 | 100.6 | 240.3 | 19.3 | 39.7 | 3,903.4 | 1,807.9 | | | 3,943.1 | 158.6 |
| | 2016 | 97.0 | 257.0 | 6.8 | 27.7 | 2,715.0 | 1,258.3 | | | 2,742.7 | 165.1 |
| | 2015 | 60.3 | 75.3 | 9.9 | 11.8 | 1,429.9 | 892.7 | | | 1,441.6 | 191.5 |
| | 2014 | 2,893.0 | 6,288.0 | 18.9 | 783.7 | 94,765.2 | 38,002.8 | | | 95,548.9 | 158.3 |
| Hedge Funds | | | | | | | | | | | |
| External Active | 2018 | 1,636.3 | 1,636.3 | 0.6 | 255.1 | 26,478.9 | 12,406.2 | | | 39,140.1 | 239.0 |
| | 2017 | 1,638.9 | 1,638.9 | 5.6 | 290.8 | 26,980.9 | 22,775.2 | | | 50,046.9 | 274.8 |
| | 2016 | 2,003.9 | 2,003.9 | 5.0 | 336.8 | 32,054.3 | 22,495.0 | | | 54,886.1 | 271.5 |
| | 2015 | 2,039.1 | 2,039.1 | 1.2 | 319.6 | 35,310.0 | 9,973.0 | | | 45,602.6 | 223.0 |
| | 2014 | 2,050.0 | 2,050.0 | 5.1 | 234.7 | 32,279.0 | 22,798.0 | | | 55,311.7 | 305.9 |
| Private Credit | | | | | | | | | | | |
| Internal Active | 2018 | 94.8 | 94.8 | -0.2 | 73.7 | | | | | 73.7 | 7.8 |
| | LP | 2018 | 837.3 | 1,286.2 | 4.7 | 190.2 | 12,745.0 | 5,138.6 | | | 12,935.2 |
| | 2017 | 417.3 | 791.1 | 6.0 | 113.7 | 10,045.7 | 4,712.1 | | | 10,159.4 | 128.4 |
| LBO | | | | | | | | | | | |
| Fund of Funds | 2018 | 991.2 | 1,015.8 | 19.9 | 183.0 | 6,314.4 | 3,703.1 | 10,166.8 | 18,608.2 | 16,664.2 | 141.8 |

Appendix A Data Summary - Assets, Returns and Costs: Private Market and Hedge Fund

STRS Ohio

(Default costs are highlighted with blue shading. See page 5 for more details)

| Asset Class | Year | NAV (\$mils) | Fee | | Cost (\$'000) | | | | | | | | |
|----------------------|-----------------|-----------------|-------------------|---------|---------------------|--------------|---------------|-------------------------|-------------------------|----------|--------------|----------|-------|
| | | | Basis (\$mils) | Return | Internal & Other | Base Fees | Perf. Fees | Underlying Base Fees | Underlying Perf Fees | Total | Total bps | | |
| Venture Capital | LP | 2017 | 860.4 | 1,334.1 | 19.3 | 793.8 | 6,706.6 | 3,151.1 | 10,951.9 | 16,464.3 | 18,452.4 | 148.5 | |
| | | 2016 | 715.2 | 1,151.7 | 6.8 | 653.0 | 6,701.6 | 2,754.0 | 8,310.5 | 13,632.1 | 15,665.1 | 159.9 | |
| | | 2015 | 661.8 | 808.1 | 9.9 | 603.7 | 5,965.6 | 2,377.6 | 11,206.1 | 10,520.9 | 17,775.4 | 184.1 | |
| | | 2018 | 3,589.2 | 5,672.8 | 19.9 | 1,068.0 | 58,116.0 | 66,235.5 | | | 59,184.0 | 103.6 | |
| | | 2017 | 2,778.2 | 5,382.0 | 19.3 | 791.4 | 70,745.7 | 55,268.1 | | | 71,537.1 | 158.8 | |
| | | 2016 | 2,510.6 | 3,630.2 | 6.8 | 638.4 | 52,604.7 | 50,104.9 | | | 53,243.2 | 152.8 | |
| | | 2015 | 2,550.5 | 3,337.4 | 9.9 | 573.9 | 51,062.2 | 47,243.1 | | | 51,636.1 | 154.7 | |
| | Fund of Funds | LP | 2018 | 329.8 | 341.4 | 18.5 | 61.3 | 1,492.4 | 887.6 | 4,721.3 | 4,319.6 | 6,275.0 | 191.4 |
| | | | 2017 | 262.0 | 314.2 | 13.3 | 75.3 | 1,206.9 | 739.8 | 4,794.2 | 2,934.7 | 6,076.4 | 206.3 |
| | | | 2016 | 231.3 | 275.0 | 3.1 | 72.6 | 1,677.4 | 655.2 | 4,391.9 | 2,686.3 | 6,141.9 | 225.4 |
| | | | 2015 | 205.5 | 270.0 | 11.9 | 55.0 | 1,562.2 | 506.3 | 3,664.6 | 3,611.6 | 5,281.8 | 240.1 |
| | | | 2014 | 132.0 | 170.0 | 17.9 | 35.3 | 1,126.0 | 312.0 | 2,824.0 | 2,090.4 | 3,985.3 | 234.4 |
| | | | 2018 | 1,166.9 | 1,908.8 | 18.5 | 405.9 | 16,328.0 | 15,264.3 | | | 16,733.9 | 102.8 |
| | | | 2017 | 1,052.4 | 1,486.4 | 13.3 | 251.7 | 25,222.7 | 11,703.3 | | | 25,474.4 | 193.9 |
| Other Private Equity | Internal Active | 2016 | 178.3 | 178.3 | 6.8 | 25.9 | | | | | 25.9 | 1.4 | |
| | | 2015 | 192.4 | 192.4 | 9.9 | 50.0 | | | | | 50.0 | 0.7 | |
| | | 2014 | 1,145.0 | 1,145.0 | 13.5 | 142.9 | | | | | 142.9 | 1.3 | |
| | | 2017 | 229.5 | 229.5 | 19.3 | 168.4 | | | | | 168.4 | 8.3 | |
| | | 2018 | | | | | | | | | | | |
| | Co-Investment | LP | 2017 | 605.3 | 605.3 | 6.0 | 193.3 | | | | | 193.3 | 2.9 |
| | | | 2016 | 705.2 | 705.2 | 4.0 | 33.7 | | | | | 33.7 | 0.5 |
| | | | 2015 | 648.6 | 648.6 | 2.4 | 8.7 | | | | | 8.7 | 0.3 |
| | | | 2017 | 1,239.7 | 2,474.6 | 6.0 | 347.9 | 23,549.0 | 12,341.8 | | | 23,896.9 | 131.6 |
| | | | 2016 | 1,323.7 | 1,948.1 | 4.0 | 344.1 | 25,265.0 | 11,853.2 | | | 25,609.1 | 148.8 |
| LP | 2015 | 1,095.3 | 1,494.6 | 2.4 | 345.1 | 19,370.8 | 11,448.9 | | | 19,715.9 | 107.2 | | |
| | 2014 | 722.0 | 2,185.0 | 13.5 | 293.3 | 10,511.0 | 7,458.0 | | | 10,804.3 | 57.4 | | |

Appendix A - Data Summary: Oversight, Custodial and Other Costs

STRS Ohio

| Oversight, Custodial and Other Costs | | | |
|---|------|---------|-------|
| | | 000s | bps |
| Oversight of the fund assets ¹ | 2018 | 4,964.8 | 0.7bp |
| | 2017 | 4,812.2 | 0.6bp |
| | 2016 | 4,578.3 | 0.6bp |
| | 2015 | 4,539.4 | 0.6bp |
| | 2014 | 3,804.1 | 0.5bp |
| Custodial total | 2018 | 2,292.9 | 0.3bp |
| | 2017 | 2,412.3 | 0.3bp |
| | 2016 | 2,090.0 | 0.3bp |
| | 2015 | 2,149.9 | 0.3bp |
| | 2014 | 1,673.0 | 0.2bp |
| Audit | 2018 | 168.5 | 0.0bp |
| | 2017 | 168.3 | 0.0bp |
| | 2016 | 165.9 | 0.0bp |
| | 2015 | 158.3 | 0.0bp |
| | 2014 | 136.0 | 0.0bp |
| Other (legal etc) | 2018 | 510.6 | 0.1bp |
| | 2017 | 477.4 | 0.1bp |
| | 2016 | 418.1 | 0.1bp |
| | 2015 | 374.8 | 0.1bp |
| | 2014 | 339.0 | 0.0bp |
| Total | 2018 | 7,936.8 | 1.0bp |
| | 2017 | 7,870.1 | 1.0bp |
| | 2016 | 7,252.3 | 1.0bp |
| | 2015 | 7,222.4 | 1.0bp |
| | 2014 | 5,952.1 | 0.8bp |

| Summary of All Asset Management Costs | | | |
|---------------------------------------|------|-----------|--------|
| | | 000s | bps |
| Investment Management Costs | 2018 | 294,876.6 | 39.0bp |
| | 2017 | 331,483.1 | 44.2bp |
| | 2016 | 293,532.4 | 41.2bp |
| | 2015 | 288,192.6 | 39.9bp |
| | 2014 | 328,574.0 | 45.0bp |
| Oversight, Custodial & Other Costs | 2018 | 7,936.8 | 1.0bp |
| | 2017 | 7,870.1 | 1.0bp |
| | 2016 | 7,252.3 | 1.0bp |
| | 2015 | 7,222.4 | 1.0bp |
| | 2014 | 5,952.1 | 0.8bp |
| Total | 2018 | 302,813.4 | 40.1bp |
| | 2017 | 339,353.2 | 45.3bp |
| | 2016 | 300,784.7 | 42.2bp |
| | 2015 | 295,415.0 | 40.9bp |
| | 2014 | 334,526.2 | 45.9bp |

1. Oversight includes the salaries and benefits of executives and their staff responsible for overseeing the entire fund or multiple asset classes and the fees / salaries of the board or investment committee. All costs associated with the above including fees / salaries, travel, director's insurance and attributed overhead should be included.

Appendix A - Data Summary: Overlays

STRS Ohio

| Overlays | | | | | | | Overlays | | | | | | | | |
|----------|------------------------|---------------------|--------------------|------------------|--------------------|------------------|------------------------|---------------------|--------------------|------------------|-------------------|-------------------|--------------|--------------------|------------------|
| | Notional amount (mils) | Market value (mils) | Profit/Loss (000s) | % of Cost (000s) | % of Notion. (bps) | Duration (years) | Notional amount (mils) | Market value (mils) | Profit/Loss (000s) | Base fees (000s) | Perf. fees (000s) | Over-sight (000s) | Total (000s) | % of Notion. (bps) | Duration (years) |
| | 2018 | 4,275.9 | -20.9 | 325.6 | 0.7 | | 4,818.0 | -5.8 | | | | 162.8 | 162.8 | 0.3 | |
| | 2017 | 5,243.5 | -39.1 | 330.2 | 0.6 | | 4,726.6 | -39.8 | | | | 165.1 | 165.1 | 0.4 | |

Appendix A - Data Summary: Comments and defaults

As discussed with you during the data confirmation process, the following defaults and footnotes are applicable to your data:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] fee to enable comparisons of the total cost of different implementation styles. This default is not included in your total fund cost or in benchmark analysis.

- 2018 - Venture Capital - LP: A default of 146 bps (on NAV) was applied to the lp performance fee to [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

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[Redacted] fee because you did not provide support for the unusually low cost of 99 bps (44.8 million).

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Data after the mapping process from enhanced survey to regular is shown below. The below data is used through the rest of this report.

| Investment Costs by Asset Class and Style (\$000s) | | | | | | | | | | |
|--|----------|--------|------------------|--------------------|-----------------|---------------|--------------------|---------|------------|-----|
| | Internal | | External Passive | | External Active | | | Total | | |
| | Passive | Active | Fees | Monitoring & Other | Base Fees | Perform. Fees | Monitoring & Other | 000s | % of Total | |
| Stock - U.S. Large Cap | 73 | 12,688 | | | 2,310 | | 211 | 15,281 | 5% | |
| Stock - U.S. Small Cap | | 323 | | | 9,437 | | 105 | 9,866 | 3% | |
| Stock - EAFE | | 2,968 | | | 19,126 | | 206 | 22,300 | 7% | |
| Stock - Emerging | | 3,184 | | | 5,778 | | 252 | 9,214 | 3% | |
| Stock - ACWI x U.S. | | 468 | | | 5,474 | | 20 | 5,962 | 2% | |
| Stock - Global | | 488 | | | | | | 488 | 0% | |
| Fixed Income - U.S. | | 3,466 | | | | | | 3,466 | 1% | |
| Fixed Income - Emerging | | | | | 3,476 | | 143 | 3,619 | 1% | |
| Fixed Income - High Yield | | | | | 3,161 | | 144 | 3,305 | 1% | |
| Cash | | 299 | | | | | | 299 | 0% | |
| Infrastructure - FoFs | | | | | 370 | 506 | 9 | 379 | 0% | |
| REITs | 106 | | | | | | | 106 | 0% | |
| Real Estate ex-REITs | | 17,796 | | | | | | 17,796 | 6% | |
| Real Estate ex-REITs - LP | | | | | 14,030 | 5,526 | 481 | 14,511 | 5% | |
| Natural Resources - LP | | | | | 5,691 | 2,090 | 57 | 5,748 | 2% | |
| Hedge Funds | | | | | 26,479 | 12,406 | 255 | 26,734 | 9% | |
| Global TAA | | 1,667 | | | 2,306 | | 96 | 4,069 | 1% | |
| Private Credit | | 74 | | | 12,745 | 5,139 | 190 | 13,009 | 4% | |
| Diversified Private Equity | | 320 | | | 25,682 | 26,113 | 512 | 26,513 | 9% | |
| LBO | | | | | 58,116 | 66,236 | 1,068 | 59,184 | 20% | |
| LBO - FoFs | | | | | 6,314 | 3,703 | 183 | 6,497 | 2% | |
| LBO - FoFs | | | | | 10,167 | 18,608 | | 10,167 | 3% | |
| Venture Capital | | | | | 16,328 | 15,264 | 406 | 16,734 | 6% | |
| Venture Capital - FoFs | | | | | 1,492 | 888 | 61 | 1,554 | 1% | |
| Venture Capital - FoFs | | | | | 4,721 | 4,320 | | 4,721 | 2% | |
| Overlay Programs | 326 | | | 163 | | | | 488 | 0% | |
| Total investment management costs - Internal & Monitoring | | | | | | | | 48,807 | 16% | |
| Total investment management fees (excluding performance in private assets) | | | | | | | | 233,204 | 77% | |
| Total investment management costs | | | | | | | | 39.0bp | 294,877 | 97% |

| Oversight, Custodial & Other Asset Related Costs (\$000s) | | | | | |
|---|--|--|-------|-------|----|
| Oversight of the Fund | | | 4,965 | 2% | |
| Trustee & Custodial | | | 2,293 | 1% | |
| Audit | | | 168 | 0% | |
| Other | | | 511 | 0% | |
| Total oversight, custodial & other costs | | | 1.0bp | 7,937 | 3% |

| | | | |
|---------------------------------|--------|---------|------|
| Total cost for STRS Ohio | 40.1bp | 302,813 | 100% |
|---------------------------------|--------|---------|------|

* Default cost used. Refer to Appendix A.

Costs in blue come from the following page.

Costs in purple are from a two-step process shown over the next two pages.

Appendix A - Data Summary - Enhanced Survey Mapping to Regular Survey

| Activity | Cost per Enhanced Survey | # of FTE | Step 1: Attribution of Oper. & Support | Cost with Attribution |
|--|--------------------------|--------------|--|-----------------------|
| Front Office | | | | |
| Currency hedge (from internal developed) | 349 | 1.0 | 139 | 488 |
| external alternative investments | 2,367 | 3.9 | 544 | 2,911 |
| internal active large & mid cap | 9,274 | 26.0 | 3,625 | 12,899 |
| internal active small cap | 150 | 2.0 | 279 | 428 |
| internal alternative investments | 111 | 2.3 | 321 | 432 |
| internal developed | 2,094 | 7.8 | 1,080 | 3,174 |
| internal emerging | 2,704 | 5.3 | 732 | 3,436 |
| internal fixed income | 2,777 | 7.0 | 976 | 3,753 |
| internal Global ex US (ACWI ex US) | 349 | 1.0 | 139 | 488 |
| internal global quant | 349 | 1.0 | 139 | 488 |
| Internal liquidity reserves | 160 | 1.0 | 139 | 299 |
| internal passive domestic equity | 45 | 0.2 | 28 | 73 |
| internal real estate (directly held) | 12,219 | 40.0 | 5,576 | 17,796 |
| internal real estate indirect | 342 | 1.0 | 139 | 481 |
| internal reit | 79 | 0.2 | 28 | 106 |
| internal TAA | 1,653 | 0.1 | 14 | 1,667 |
| Total front office | 35,020 | 99.7 | 13,899 | 48,919 |
| Governance, Operations and Support | | | | |
| Board, CEO & assistants re: investments (A) | 1,051 | 2.0 | 279 | 1,329 |
| CIO, Investment strategy, asset allocation (B) | 2,659 | 7.0 | 976 | 3,635 |
| Oversight of the fund per regular CEM survey (A + B) | | | | 4,965 |
| Custodial fees | 2,293 | | n/a | 2,293 |
| Internal audit | 168 | 1.0 | n/a | 168 |
| Legal services | 511 | 2.0 | n/a | 511 |
| Risk management | 269 | 0.4 | -269 | 0 |
| Performance reporting and data management | 2,495 | 3.0 | -2,495 | 0 |
| Investment operations, exc. private markets | 615 | 4.0 | -615 | 0 |
| Investment operations, private markets | 154 | 1.0 | -154 | 0 |
| Compliance | 180 | 1.0 | -180 | 0 |
| Information technology | 7,683 | 41.0 | -7,683 | 0 |
| Public relations & internal communication | 275 | 2.0 | -275 | 0 |
| Finance, external reporting & tax | 794 | 3.0 | -794 | 0 |
| Human resources | 383 | 3.0 | -383 | 0 |
| Building, utilities & office services | 2,248 | 16.0 | -2,248 | 0 |
| Other investment and support | 59 | 8.0 | -59 | 0 |
| Total cost excluding external manager fees | 56,856 | 194.1 | 0 | 56,856 |

How CEM mapped the above costs to the regular survey

CEM attributed both front office and back office costs to the CEM asset classes by style using the following methodology:

Step 1 - CEM attributed operations and support costs to front office & oversight pro rata based on FTE.

Step 2 - CEM attributes the fully loaded cost (shown in green) to all of the CEM asset classes that the team manages (see next page). The attribution preserves the relative cost ratios versus the CEM universe for each of the asset classes that the team manages.

Appendix A - Data Summary - Enhanced Survey Mapping of Internal Teams

| Front Office | Cost with Attribution from Step 1 | Responsibilities by CEM asset class | Step 2 Attribution to Asset Classes |
|---------------------------------------|-----------------------------------|--|-------------------------------------|
| Currency hedge (from internal develop | 488 | Passive Derivatives/Overlays - Currency | 326 |
| external alternative investments | 2,911 | Monitoring Passive Derivatives/Overlays - Currency | 163 |
| | | Infrastructure | 9 |
| | | Monitoring LP Natural Resources | 57 |
| | | Monitoring Hedge Funds | 255 |
| | | Monitoring Global TAA | 96 |
| | | Monitoring LP Diversified Private Equity | 512 |
| | | Venture Capital | 61 |
| | | Monitoring LP Venture Capital | 406 |
| | | LBO | 183 |
| | | Monitoring LP LBO | 1,068 |
| | | Private Credit | 74 |
| | | Monitoring LP Private Credit | 190 |
| internal active large & mid cap | 12,899 | Stock - U.S. Large Cap | 12,688 |
| | | Monitoring Stock - U.S. Large Cap | 211 |
| internal active small cap | 428 | Stock - U.S. Small Cap | 323 |
| | | Monitoring Stock - U.S. Small Cap | 105 |
| internal alternative investments | 432 | Natural Resources | 24 |
| | | Diversified Private Equity | 88 |
| | | Diversified Private Equity | 320 |
| internal developed | 3,174 | Stock - EAFE | 2,968 |
| | | Monitoring Stock - EAFE | 206 |
| internal emerging | 3,436 | Stock - Emerging | 3,184 |
| | | Monitoring Stock - Emerging | 252 |
| internal fixed income | 3,753 | Fixed Income - U.S. | 3,466 |
| | | Monitoring Fixed Income - Emerging | 143 |
| | | Monitoring Fixed Income - High Yield | 144 |
| internal Global ex US (ACWI ex US) | 488 | Stock - ACWI x U.S. | 468 |
| | | Monitoring Stock - ACWI x U.S. | 20 |
| internal global quant | 488 | Stock - Global | 488 |
| Internal liquidity reserves | 299 | Cash | 299 |
| internal passive domestic equity | 73 | Passive Stock - U.S. Large Cap | 73 |
| internal real estate (directly held) | 17,796 | Real Estate ex-REITs | 17,796 |
| internal real estate indirect | 481 | Monitoring LP Real Estate ex-REITs | 481 |
| internal reit | 106 | Passive REITs | 106 |
| internal TAA | 1,667 | Global TAA | 1,667 |
| Total Front Office | 48,919 | | 48,919 |

Front Office team costs, including allocated operations and support costs (see prior page), are attributed to the asset classes managed or overseen by the team. These attributions, shown in purple, are then inserted back into the regular survey.

Appendix A - Data Summary - Enhanced Survey Definitions

Costs - Attribute 100% of costs excluding manager fees and transaction costs including:

- (i) **Salaries and benefits** of FTE
- (ii) **General & administrative:** travel, supplies, staff education, publications and reference materials, etc.
- (iii) **Consulting** and other third party fees

FTE - Includes full time permanent salaried employees, include the FTE of long and short term contract individuals dedicated to your organization that are working onsite or working full-time for your fund on a project or in a role supervised by your staff. Do not include FTE at external consultants or service providers if they are not being supervised by your staff, even if they are dedicated to serving your organization.

Activity Definitions

1. **Front Office** consists of investment-decision making staff, including traders, analysts, portfolio managers and staff selecting and monitoring external managers, their immediate assistants and their management below the CIO level. Include third party fees for advice at the asset-class or security level such as manager search consultants, private equity consultants, and investment specific legal and due diligence fees that are not treated as transaction costs.

Does NOT include:

- (i) External manager fees. These are collected separately on the holdings tabs.
- (ii) Costs that relate to activities defined as Governance, Operations and Support in the table such as: board consultants, CIO, asset allocation and risk policy consultants, or other services (such as building, utilities and office services, information technology and human resources).

a. Board, CEO & assistants re: investments: Include only the proportion of the costs (fees paid to Board directors, travel, director insurance, CEO and CEO's direct assistants) equal to their proportion of time spent on investments and investment governance support. Exclude time spent on non-investment activities such as benefit administration, sales, marketing, new product development.

b. CIO, Investment strategy, asset allocation: Include 100% of CIO FTE and costs including his/her direct assistants, total fund asset allocation strategy, tactical deviations from the mix, economic political or other research, etc.

c. Risk management: Developing and implementing risk controls for operational and investment risk including surplus risk, factor exposures, credit, counterparty, etc. Excludes the cost of IT/IS risk systems. These belong in IT/IS.

d. Internal Audit: Independent review of business processes. Excludes external auditor fees. These belong in Finance, external reporting & tax.

e. Responsible investing, corporate governance: Policy setting and coordination across asset classes for sustainable, socially and/or environmentally responsible investing, and for corporate governance.

f. Client account management: Client service & reporting related to investing client assets, including client Board meetings, strategic client advice (ALM, risk, client portfolio construction).

g. Custodial fees: should be reported gross before any reductions relating to securities lending or other revenues credited against fees.

h. Data, valuation & performance analytics: Valuation and performance measurement of securities, funds, portfolios, risk, compliance, client reporting and other analysis and reporting. Include costs of data, dealing with data vendors and cleaning data.

Appendix A - Data Summary - Enhanced Survey Definitions (page 2)

i. Investment operations: Listed security operations including trade settlement, custodial bank monitoring and reconciliation, cash management and corporate actions, private asset class, derivatives and swap administration, COO. If the COO or CFO is responsible for multiple activities (i.e., Valuations and performance analytics, investment operation and finance) then split their FTE between the activities based on time spent.

j. Compliance: Monitoring, training on and dealing with regulatory infractions. Includes securities and pension regulation. Excludes compliance related to benefit administration.

k. IT/IS systems: IT management and strategy, architecture, data center, database and application management and maintenance, development, user services, network, telecommunications, etc. Also include the costs of purchasing and maintaining the following systems/software applications: portfolio management, risk management, trade processing/order execution management, compliance monitoring, performance analytics, fund accounting system. Exclude the pro rata portion that relates to non-investment activities such as benefit administration, sales, marketing, new product development.

l. Public relations and internal communication: External communication with entities such as regulators and media. Internal communication to staff. Excludes member and employer communication, marketing and sales.

m. Finance, external reporting & tax: Financial statements, external auditor fees, general accounting, budgeting, tax reporting, procurement and accounts payable. CFO. If the CFO or COO is responsible for multiple activities (i.e., finance and IT) then split their FTE between the activities based on time spent.

n. Legal services: General counsel, corporate secretary, legal counsel of any kind, even those specializing in real estate or private equity, paralegals, legal assistants and all FTE involved in legal analysis and advice. Investment related legal fees and costs, such as the legal fees to close private equity transactions, should be included under 'Front Office' if not treated as a transaction cost. Exclude amounts that pertain to non-investment activities such as benefit administration.

o. Human resources: Human resources staff and consulting, including recruitment, training, career development, induction, disciplinary action, developing HR policies and procedures, etc.
Exclude: Amounts that relate to non investment activities such as benefit administration and both severance and recruitment fees and activity specific training (these should be included in the Front Office Cost Centers table).

p. Building, utilities and office services: Building occupancy costs including rent, lease, amortization of leaseholds and depreciation of buildings, office services such as reception, mailroom, cleaning and maintenance, building insurance, utilities. Include satellite offices. Exclude the pro rata portion that relates to non-investment activities such as benefit administration, sales, marketing, new product development.

Appendix B - Data quality

The value of the information contained in these reports is only as good as the quality of the data received. CEM's procedures for checking and improving the data include the following.

Improved survey clarity

Twenty years of feedback from survey participants has led to improved definitions and survey clarity. In addition to immediate feedback from participants, CEM has hosted user workshops to solicit additional feedback and to resolve issues, such as trade-offs between more information and effort on the part of participants.

Computer and desktop verification

Survey responses are compared to norms for the survey universe and to each sponsor's prior year data when available. This typically results in questions generated by our online survey engine as well as additional follow-up to clarify responses or with additional questions.

In addition to these procedures, data quality continues to improve for the following reasons:

Learning curve

This is CEM's 28th year of gathering this data and experience is teaching the firm and the participants how to do a better job.

Growing universe

As our universe of respondents continues to increase in size, so does our confidence in the results as unbiased errors tend to average themselves out.

Any suggestions on how to further improve data quality are welcome.

Currency Conversions

For reports where either the peer group or report universe includes funds from multiple countries, we have converted the returns back to the base currency of the fund we prepared the report for. For example, for a Euro zone fund with peers from the U.S. we converted U.S. returns to Euro based on the currency return for the year using December 31 spot rates.

Appendix C - Glossary of terms

Average cost

- Calculated by dividing actual annual costs by the average of beginning and end-of-year holdings. If beginning-of-year holdings are not available, they are estimated using end-of-year holdings before the effect of this year's return on investment.

Benchmark return

- Rate of return on a portfolio of investable assets (such as the S&P500) designated as the benchmark portfolio against which the fund measures its own performance for that asset class.

F statistics

- Measure of the statistical significance of the regression coefficients taken as a group. Generally, regression equations with 5 coefficients and sample sizes greater than 20 are statistically significant if its F statistic is greater than 3.

Global TAA

- Fully funded segregated asset pool dedicated to active asset allocation.

Impact coefficient

- Estimate of the impact on the dependent variable in a regression of a change in the value of a given explanatory variable

Level of significance

- Degree to which sample data explains the universe from which they are extracted.

N-year peers

- Subset of peer group that have participated in our study for at least the consecutive n years.

Oversight of the fund

- Resources devoted to the oversight of the fund.

Overlay

- Derivative based program (unfunded other than margin requirements), designed to enhance total portfolio return (such as a tactical asset allocation program) or to achieve some specific mandate such as currency hedging.

Passive proportion

- Proportion of assets managed passively, i.e., indexed to broad capital market benchmarks or dedicated to replicate market benchmarks.

Policy mix

- Reflects long-term policy or target asset weights. Policy asset mix is often established by a fund's investment committee or board and is determined by such long term considerations as liability structure, risk tolerance and long term capital markets prospects.

Policy return

- The return you would have earned if you had passively implemented your policy mix decision through your benchmark portfolios. Your policy return equals the sum of your policy weights multiplied by your asset class benchmarks for each asset class.

R squared (coefficient of determination)

- The percentage of the differences in the dependent variable explained by the regression equation. For example, an R squared of 1 means 100% of the differences are explained and an R squared of 0 means that none of the differences are explained.

Value added

- the difference between your total actual return and your policy return. It is a measure of actual value produced over what could have been earned passively.

From: Jonathan Spring <JSpring@truenp.com>
Sent: Wednesday, April 29, 2020 1:30 PM
To: Treneff, Nick <TreneffN@strsoh.org>
Subject: Full CEM report

Dear Nick,

Could you please email me the most recent full CEM investment report for STRS?

Thank you very much,

Jonathan Spring

From: Nelson, Joy <nelsonjl@strsoh.org>
Sent: Thursday, May 7, 2020 5:03 PM
To: JSpring@truenp.com
Cc: Treneff, Nick <TreneffN@strsoh.org>; Stein, Bob <steinr@strsoh.org>
Subject: RE: Full CEM report

Dear Mr. Spring,

Attached please find the records responsive to your request made to Nick Treneff on April 29, 2020. Please note that CEM has redacted certain information it deems to be trade secret under Ohio law.

Sincerely,

Joy L Nelson, CRM
Records and Documentation Administration Manager
State Teachers Retirement System of Ohio

Items sent:

2018 CEM Final Report DB_Redacted.pdf

The High Cost of Secrecy

Preliminary Findings of Forensic Investigation of State Teachers
Retirement System of Ohio, Commissioned by Ohio Retired
Teachers Association

Benchmark Financial Services, Inc., June 2021

The High Cost of Secrecy

Preliminary Findings of Forensic Investigation of
State Teachers Retirement System of Ohio,
Commissioned by Ohio Retired Teachers
Association

I. Executive Summary

• Lack of Transparency

Transparency in government has long been acknowledged in America as essential to a healthy democracy. On the federal level, the Freedom of Information Act opens up the workings of government to public scrutiny, giving citizens information they need to evaluate and criticize government decision-making.

All 50 states also have public records laws which allow members of the public to obtain documents and other public records from state and local government bodies. The Ohio Public Records Act is built on the United States' historical position that the records of government are "the people's records."

Key Findings:

STRS has long abandoned transparency; legislative oversight of the pension has utterly failed; Wall Street has been permitted to pocket lavish fees without scrutiny; investment costs and performance may have been misrepresented; and failure to monitor conflicts may have undermined the integrity of the investment process, as billions that could have been used to pay retirement benefits promised to teachers have been squandered.

Transparency is also critical to the prudent management of trillions of dollars invested in America's state and local government pensions. Indeed, the single most fundamental defining characteristic of our nation's public pensions is *transparency*. Of all pensions globally, our public pensions—securing the retirement security of nearly 15 million state and local government workers, funded by workers and taxpayers—are required under our public records laws to be the most transparent.

Public pensions primarily invest government workers' retirement savings in securities and funds which are regulated on the federal and state level. Our nation's securities laws require that securities issuers and fund advisers register with regulators, disclose financial and other significant information to *all* investors, including public pensions, as well as prohibit deceit, misrepresentations, and other fraud. The statutorily mandated disclosure information is commonly provided in the form of prospectuses, offering memoranda, annual reports, performance reviews and other documents.

Absent full disclosure by investment firms to pension boards and staffs, these individuals cannot fulfill their fiduciary duty to diligently safeguard pension assets. Full disclosure of investment information by the pension to the public is necessary for the stakeholders to understand the investment program, as well as evaluate whether pension fiduciaries are prudently performing their duties.

Thus, in public pension matters, we are concerned with two levels of transparency:

First, under state public records laws, all of the workings of the pension must be open to full public scrutiny, including, but not limited to, investments.

Second, under the securities laws, issuers and investment advisers must fully disclose material information to pensions, boards and staffs regarding pension investments.

Alarming, our investigation reveals that the State Teachers Retirement System of Ohio (STRS) has long abandoned transparency, choosing instead to collaborate with Wall Street firms to eviscerate Ohio public records laws and avoid accountability to stakeholders. Predictably, billions that could have been used to pay teachers' retirement benefits have been squandered over time as transparency has ceased to be a priority.

- **Litigation Regarding Denial of Public Records Request**

On February 19, 2021, we filed a request pursuant to Ohio Revised Code Section 149.49, et seq. for an opportunity to inspect or obtain copies of public records related to the pension's investment managers, investment consultants, performance compliance auditor, investment cost monitor, financial auditor, and custodians, as well as board and staff.

The *overwhelming majority* of the most critical disclosure information we requested was *summarily* denied. That is, STRS simply permitted the investment firms involved to unilaterally

determine whether the information we sought on behalf of stakeholders had to be disclosed under Ohio law. Not surprising, most firms granted the opportunity to oppose public scrutiny of their financial dealings with STRS, chose to do so.

Most disturbing, *not a single* prospectus or offering document required to be provided to *all investors* under our nation's securities laws was provided to us in response to our public records request.

As a result of the extensive denials of important public records requests, it is impossible for STRS stakeholders to evaluate the investment strategies, performance, fees, risks, and conflicts of interest related to the pension's investment portfolio. Accordingly, on May 21, 2021, we filed a complaint for writ mandamus with the Supreme Court of Ohio seeking certain STRS public records we have been denied.

The lack of cooperation by STRS is all-the-more surprising given that STRS is well-aware that this forensic review of the pension was commissioned, as well as paid for, by tens of thousands of participants, with the stated objective of improving management and oversight of the pension. Pension fiduciaries solely concerned with the best interests of participants and beneficiaries should welcome, not oppose, a free independent review by nationally recognized experts in pensions. Further, given the profound fiduciary breaches and disclosure concerns stakeholders (and even STRS's own commissioned experts) have long raised, it is clear STRS could

benefit from an independent review by experts—this time not of its own choosing.

Tellingly, in the pension's Mission & Vision statement; Current Strategic Goals; Overview of STRS and Its Impact on the State; Statement of Investment Objectives and Policy; and Statement of Fund Governance, the word “transparency” does not appear *even once*. There is not a single mention of any transparency requirements, no discussion the benefits of transparency and no commitment to it.

In our opinion, transparency, which would add not a single dollar of cost to the pension, would (through exposure) swiftly cure all that ails it—excessive fees, reckless risk-taking, unaddressed conflicts of interest, gross mismanagement and potential malfeasance.

- **Failure of Legislative Oversight**

While the Ohio Retirement Study Council (ORSC) was created by the Ohio Legislature to provide legislative oversight of Ohio's statewide public pension systems and is statutorily required to commission an independent fiduciary performance audit and actuarial audit at least every 10 years of each state pension, it has been approximately 15 years since the last such audits of STRS.

When statutorily mandated, critical audits designed to protect the integrity of a \$90 billion retirement plan are not commissioned, and delayed year-after-year, it is inexcusable. An investigation into the failure to audit by

ORSC—as well as STRS's failure to demand such audit results—is warranted, in our opinion.

Any mismanagement or malfeasance which could have been exposed years earlier through timely audits has been allowed to persist, potentially resulting in great risk and cost to the plan. Worse still, the last fiduciary performance audit of STRS revealed multiple serious deficiencies which have never been addressed over the past 15 years.

The ORSC failure to audit is especially troubling because it indicates a lack of diligent legislative oversight potentially impacting *all* \$203 billion in Ohio public pensions and over 2 million citizens. Further, the fiduciary audit for Ohio Public Employees Retirement System was not performed by an independent auditor (as required under applicable law) and was three years late; the Ohio Police & Fire Pension Fund is only now requesting proposals for the fiduciary audit due 2016; and the actuarial audit of the Ohio State Highway Patrol Retirement System is 21 years overdue.

Clearly, legislative oversight has been compromised *for decades*.

- **Failure to Address Serious Deficiencies Identified in Last Fiduciary Performance Audit**

Among the many concerns raised in the 2006 Fiduciary Performance Audit of the pension were: STRS staff was the underlying source of all performance data and benchmarks (i.e., returns were not calculated by an independent third

party); the Investment Policy Statement (IPS) did not include a plan in the event of active management underperformance; the IPS did not include a Total Fund Benchmark definition; the IPS did not include the source of performance data; whether, as represented to the auditor, the alternatives benchmark of “actual” performance was part of the staff incentive compensation program; the size of internal audit staff and absence of auditors; lack of input from other members of committee (non-Chair) in committee agendas; personal trading policy; and reporting and governance of external consultants and investment staff.

Two of the most serious deficiencies identified in the Fiduciary Performance Audit report and recommendations 15 years ago remain unaddressed to this day:

1. Use of actual performance for benchmarking alternative investments since 2002; and
2. Conflicts of interest involving external investment consultants.

With respect to STRS’s so-called alternative investment “benchmark,” it should be obvious that *actual* performance of an investment or strategy cannot be considered a benchmark since it does not provide a point of reference against which the investment or strategy can be compared. Actual performance does not clearly define expectations and success. *In our decades of professional experience, we have never seen actual performance proposed as a benchmark.*

Despite the recommendation in 2006 that the Russell 2000 or Russell 3000 plus 500 basis points would be an appropriate policy benchmark for the alternatives program, STRS has continued for the past 15 years to use the actual return of the pension's alternatives as the benchmark for the one-year period. As a result, it is impossible for the pension's alternatives to underperform on a one-year basis.

For the longer 5-year period, the alternative investments blended relative return objective is in two parts by policy: Russell 3000 Index plus 1 percent for Private Equity and Russell 3000 minus 1 percent for Opportunistic /Diversified.

In our opinion, this longer-term benchmark for alternatives is equally absurd. Not only is the Private Equity benchmark far too low given the greater risks related to private equity investing (Russell 3000 plus 1 percent, versus plus 5 percent as recommended by the Fiduciary Performance Audit), with respect to Opportunistic /Diversified we have never seen *underperforming* a readily achievable index rate of return (Russell 3000 *minus* 1 percent) proposed as an appropriate benchmark.

It is irrational, in our opinion, for a pension to set as a goal for its highly speculative alternative investments, such as hedge funds (or any other investments for that matter), to significantly *underperform* a public markets index, i.e., to *intentionally lose money*.

According to the Cliffwater report for June 30, 2019, STRS Ohio alternative returns "fall behind" Relative Return

Objectives across *all periods* “due to the very strong performance of public US stocks across all periods.” In our opinion, a more accurate assessment would be that the alternatives have **massively underperformed** the Relative Return objectives across all periods. For example, over the last 10 years alternatives returned 9.79 percent vs. 14 percent for the Relative Return Objective; for the last 5 years alternatives returned 6.66 percent versus 9.97 percent.

Use of the recommended Russell 3000 plus 500 basis points as the benchmark would reveal that since the 2006 fiduciary audit (not including the massive underperformance in the 5 years prior to the audit), the Alternatives have dramatically underperformed, 8.26 percent versus 11.91 percent.

The alternatives underperformance losses for the period amount to **\$8.6 billion or \$2.5 million per trading day for 14 years. Restoring the COLA benefit would cost less than \$1 million (\$890,000) per day.** For additional perspective, total active teacher contributions since the 2006 Fiduciary Audit amount to approximately \$18 billion. \$8.6 billion alternative investment underperformance equates to \$61,000 per retired teacher.

With respect to the pension’s then-external investment consultant, in 2006 it was recommended that due to conflicts of interest pervasive in the investment consulting industry and the potential for related harm, the consultant’s contract with STRS should be amended to require the firm to provide annual disclosure of its business relationships with all

investment managers or other providers of investment services. This contractually-required disclosure should include information on the specific amounts paid to the consultant by those investment managers employed by STRS and on the specific services provided to those managers. To date, it appears STRS has failed to receive the disclosure recommended in 2006 regarding external consultant compensation received from STRS investment managers.

- **Failure to Monitor and Fully Disclose Investment Fees and Expenses**

It is well established that sponsors of retirement plans have a fiduciary duty to ensure that the fees their plans pay money managers for investment advisory services are reasonable.

The shift by public pensions into more complex so-called “alternative” investment vehicles, such as hedge, private equity and venture funds, as well as fund of funds, has brought dramatically higher investment fees which are much more difficult for pensions to monitor.

Most disturbing, a recent internal review by the SEC found that more than half of about 400 private-equity firms it examined charged unjustified fees and expenses without notifying investors.

Thus, pensions which choose to gamble in asset classes—such as private equity funds, specifically cited by regulators for frequently charging bogus fees in violation of the federal securities laws—must establish *heightened safeguards* to ensure that all fees paid to, or collected by, such managers

are properly reviewed and determined to be legitimate, as well as fully disclosed to participants.

CEM Investment Benchmarking is a private Canadian company which STRS retains to annually analyze the pension's investment costs and performance. In our opinion, the summary disclosure provided by STRS regarding CEM's findings annually may, at a minimum, be so incomplete as to be misleading.

Disclosure of the full CEM report, not merely the Executive Summary or Key Takeaways section, is necessary for pension stakeholders to form a complete understanding of CEM's findings. We note that in Pennsylvania and South Carolina, unlike Ohio, there is recognition that the public deserves to see the entire CEM report, not just select passages.

It is our understanding (from interviews with CEM staff) that STRS staff provides the firm with *all* of the data regarding the pension's investment costs and performance, which CEM analyzes.

"The analysis is as accurate as possible based upon fees as reported to us by our clients (emphasis added)," says CEM.

However, CEM has advised us:

- Pensions *may not know* the costs of all their investments;
- Pensions may *decline* to provide CEM with *known* cost information which pensions are not "overly comfortable with;"

- CEM *does not independently collect* any cost information from investment managers which might verify or contradict the fees, as reported by pension clients; and
- Cost and performance *estimates* created by CEM have been utilized with respect to many STRS investments over the years.

The full findings in the CEM reports appear to conflict with the summary findings publicly stated by STRS and raise additional concerns in our opinion.

For example, the 2018 report we reviewed initially states in the Key Takeaways section of the Executive Summary that the pension's 5-year net total return of 6.25 percent was in the top quartile and above the fund's 6.09 percent 5-year policy return. The 5-year net value added was 0.16 percent.

However, CEM later in the report says that the pension *underperformed* its 5-year policy return, producing a *negative* value added. A negative net value added means that the pension did not benefit from active management, i.e., STRS would have earned **over \$400 million more annually, or over \$2 billion for the five-year period** by simply passively indexing its investments according to its policy mix.

Key Takeaways also states that the pension's investment cost of 40.1 basis points was below its benchmark cost of 54.5 basis points which suggests that the fund was low cost compared to its peers., i.e., was low cost because it paid less

than its peers for similar services and had a lower cost for implementing its style.

The report later states that the investment costs were \$279.1 million or 36.9 basis points and \$302.8 million or 40.1 basis points when hedge fund performance fees and private equity base management fee offsets were added. However, it is disclosed that transaction costs and private asset performance fees were not included in the latter total. Further in the report, performance fees of \$160.8 million are estimated by CEM in 2018.

We note with great emphasis that this performance fee figure is a mere *estimate* provided by CEM.

In our opinion, if, in connection with the analysis—during the data confirmation process—CEM and STRS discussed the disturbing fact that certain investment management costs were unknown to STRS, or, worse still, known but not provided for some reason, the sole acceptable, prudent course would have been to scrutinize any unknown costs more thoroughly and then demand disclosure of all costs, as opposed to continuing to invest billions in the highest-cost, highest-risk, most opaque assets blithely ignorant of (or concealing) the true costs—using problematic median default estimates as support for the strategy.

Again, pension fiduciaries have a legal duty to monitor all investment and other costs for reasonableness—not merely guess, or estimate, what those costs might be.

Use of median default estimates in managing an \$90 billion plan securing the retirement of hundreds of thousands of

state teachers fails to meet applicable fiduciary standards, in our opinion.

When performance fees of \$160.8 million are added in, the revised fee total rises from \$279.1 million, then \$302.8 million to **\$463.6 million or 61.3 basis points**, versus the 40.1 basis points noted in the Key Takeaways. This cost is significantly *greater* than the fund's benchmark cost of 54.5 basis points, suggesting that STRS was *high cost* compared to its peers, i.e., *paid more* than peers for similar services and had a *higher cost* for implementing its style. Again, these findings appear to be strikingly different from those publicly touted by STRS.

However, it appears that even the \$463.6 million estimated total cost is *incomplete*.

In 2020, CEM concluded that pensions are reporting, at best, only half of their investment management costs. In our opinion and based upon forensic investigations we have undertaken, there is ample reason to believe the total fees are nearly **double** what the pension is reporting, amounting to almost **\$1 billion** annually.

To put the hidden, unreported fees—alone—into context, they amount to \$2.75 million per school day, and **more than twice the \$210 million required to pay STRS COLAs annually.**

We note with great emphasis that since STRS external investment managers are permitted to withdraw their fees from pension accounts in the absence of any diligent

monitoring by STRS, *the risk of looting, i.e., illegitimate withdrawals, is dangerously high*, in our opinion.

In conclusion, there is no point in debating the true all-in investment costs since the pension has long-acknowledged to CEM it either does not know what its costs are, or knows but refuses to disclose, and CEM does not independently collect any cost information from STRS's investment managers. Absent an accounting and full transparency, pension stakeholders can never be certain of the true costs; with scrutiny, the true costs can be precisely determined and publicly disclosed, consistent with applicable fiduciary duties—restoring financial integrity to the pension.

An exhaustive investigation into all past payments to investment managers should be immediately undertaken, as well as recovery pursued with respect to any illegitimate payments, in our opinion. Finally, disclosure of historic costs should be adjusted to correct any past underreporting or errors.

- **\$143 Million In Fees Paid to Wall Street for Doing Nothing**

As of June 30, 2020, the pension had unfunded alternative investment capital commitments totaling \$7,152,101,083.

It is common practice for private equity and other alternative investment funds to seek to charge investment management fees on “committed capital.” In other words, after the investor makes a capital commitment to a fund, management fees are charged on the entire commitment

amount, regardless of whether the capital is actually drawn or invested. Paying fees on committed, uninvested capital results in exponentially greater fees on assets under management on a percentage basis.

Fees on committed, uninvested capital amount to paying managers for *doing nothing*—no service whatsoever is provided in exchange for the lavish fees. In our opinion, such fees add insult to injury since these types of investment funds already charge exponentially higher fees than traditional stock and bond managers.

Not surprising, a growing minority of savvy institutional investors, unlike STRS, resist paying fees to investment managers based upon their capital commitments.

Assuming STRS pays fees of 2 percent on total unfunded commitments, this amounts to an annual waste of approximately **\$143 million**—enough to restore the COLA benefit to **2 percent**.

- **Potentially Misleading GIPS Compliance Verification**

Since 2006, STRS has regularly announced in press releases and on its website that its “performance was verified by ACA Performance Services and was in compliance with the CFA Institute Global Investment Performance Standards (GIPS), widely considered to be the best standard for calculating and presenting investment performance.”

We note that STRS is one of only a handful of pensions to comply with GIPS standards. While GIPS compliance may present some perceived marketing advantage to a pension, such as STRS, under intense scrutiny, it is extremely rare (and problematic in our opinion) for asset owners to incorporate GIPS principles in their own performance reporting to oversight boards, governing bodies and plan beneficiaries.

Further, it is disputable whether GIPS standards are “best practice” or acceptable for retirement plan fiduciaries. That is, standards which the asset management industry is comfortable *voluntarily* adopting likely will fail to be rigorous enough to meet the heightened standards applicable to fiduciaries charged with safeguarding retirement plan assets.

GIPS compliance can be helpful to certain investment managers in their marketing. However, alternative investment managers are overwhelmingly *not* GIPS compliant. Thus, it is not at all clear that GIPS compliance verification for a pension, such as STRS, which invests at least 27 percent of its assets in approximately 170 alternative investments that are unlikely to be GIPS compliant provides any meaningful benefit to stakeholders. On the other hand, the risk that GIPS compliance representations may be mischaracterized by pensions, or misunderstood by stakeholders seems very real, in our opinion.

Finally, we note ACA is currently embroiled in a controversy regarding exaggerated investment returns at Pennsylvania’s \$64 billion public school employees pension

fund which is being investigated by the Federal Bureau of Investigation. In that matter, ACA is insisting that it was hired “only to spot-check the math.”

- **Failure to Monitor External Consultant Conflicts of Interest**

The 2006 Fiduciary Performance review recommended, given potential conflicts of interest pervasive in the investment consulting industry, that STRS’s contract with its then-investment consultant be amended to require the firm to provide annual disclosure of its business relationships with all investment managers, or other providers of investment services. This contractually-required disclosure should include information from the consultant on the specific amounts paid to the consultant by those investment managers employed by STRS and on the specific services provided to those managers.

STRS subsequently replaced its then-investment consultant and retained two new investment consultants. Both agreements with the new investment consultants require the full disclosure—as recommended 15 years ago—of all business relationships with investment managers and service providers, as well as specific amounts paid to the investment consultants by STRS investment managers. However, it appears full disclosure of conflicted payments has not been made to STRS.

If true, then both consultants may be in breach of their contracts with the fund. In our opinion, by failing to

adequately monitor conflicts of interests involving STRS investment consultants which could potentially undermine the integrity of the pension's investment decision-making process, the board may have breached its fiduciary duty to safeguard assets and exposed the fund to enormous risks. Further, the board may have permitted the investment consultants to enrich themselves by the amounts of such manager payments, at the expense of the pension.

Finally, the current agreements with external investment consultants provide that they will maintain professional liability insurance coverage in the amount of only \$5 million. In our opinion, this amount of insurance seems woefully inadequate to protect the \$90 billion public pension from potential investment consultant negligence or malfeasance, particularly given that the Government Accountability Office has estimated consultant conflicts can result in 1.3 percent lower returns.

If true, external investment consultant conflicts of interest may have cost STRS over **\$1 billion** annually or approximately **\$20 billion** over a ten-year period with compounding. Since the estimated cost of conflicts may nearly equal the unfunded liability of the pension, an investigation may reveal that "but for" the conflicts the pension could be nearly fully funded.

- **Need for Heightened ERISA Fiduciary Standards and Fiduciary Liability Insurance for Board**

The contracts involving the two investment consultants to the fund stipulate that in addition to the fiduciary obligations imposed by Ohio law, these firms agree to adhere to the standard of care imposed by Title 1 of the Employee Retirement Income Security Act of 1974 and any and all other applicable federal and state laws. ERISA's heightened fiduciary standards provide additional important protections to pensions generally lacking under state law. On the other hand, the STRS board is not similarly required to comply with ERISA fiduciary standards. In our opinion, there is no good reason why the investment consultants should be held to higher fiduciary standards than the board; further, board compliance with ERISA standards can only improve management of the pension.

Finally, in response to our request for information regarding any fiduciary liability insurance obtained by STRS, we were provided with documents indicating the fund had coverage in the amount of \$10 million with Hudson Insurance Company and \$10 million with Federal Insurance Company. In addition, the pension has an excess liability policy in the amount of \$5 million with RLI Insurance Company. In our opinion, this level of coverage is absurdly low and offers virtually no protection for a \$90 billion pension. Virtually any fiduciary breach may result in actual damages amounting to hundreds of millions of dollars.

For example, STRS recently disclosed it had lost more than half a billion dollars on a private equity investment in Panda Power Funds. From 2011 to 2013, State Teachers Retirement

System of Ohio invested \$525 million with Panda but the investment is now valued at zero.

In summary, our forensic investigation of STRS identified the following grave concerns:

- 1) STRS has long abandoned transparency, choosing instead to collaborate with Wall Street to eviscerate Ohio public records law;
- 2) Legislative oversight of the pension has utterly failed;
- 3) The pension has failed to address significant deficiencies identified in the last Fiduciary Performance audit—15 years ago;
- 4) Wall Street has been permitted to pocket lavish investment fees without scrutiny, including \$143 million in fees for doing nothing;
- 5) Disclosure of investment costs and performance may have been misrepresented;
- 6) Representations regarding GIPS Compliance Verification may have been misleading to the public;
- 7) Failure to monitor external consultant conflicts of interest may have undermined the integrity of the pension's investment decision-making process and resulted in significant losses;
- 8) Board compliance with heightened ERISA fiduciary standards is not required and fiduciary liability insurance coverage is woefully inadequate.

Billions that could have been used to pay retirement benefits promised to teachers have been squandered.

END EXECUTIVE SUMMARY

II. Preface

U. S. Supreme Court Justice Brandeis once famously said, “Sunshine is the best disinfectant.” In other words, transparency ensures that public officials act visibly and understandably, and report on their activities to the populace.

Transparency in government has long been acknowledged in America as essential to a healthy democracy. On the federal level, the Freedom of Information Act opens up the workings of government to public scrutiny, giving citizens information they need to evaluate and criticize government decision-making.

All 50 states also have public records laws which allow members of the public to obtain documents and other public records from state and local government bodies.¹ The Ohio Public Records Act is built on the United States’ historical position that the records of government are “the people’s records.”²

Likewise, transparency is critical to the prudent management of trillions of dollars invested in America’s state and local government pensions. Indeed, the single most fundamental defining characteristic of our nation’s public pensions is *transparency*. Of all pensions globally, our public

¹ <http://foiadvocates.com/records.html>

² Ohio Open Records Law, Ohio Revised Code § 149.43

pensions—securing the retirement security of nearly 15 million state and local government workers, funded by workers and taxpayers—are required under our public records laws to be the most transparent.

In the words of CEM Benchmarking, the firm STRS relies upon to evaluate its investment costs and performance:

“Far beyond the moral imperative that recognizes transparency “is the right thing to do” there is plenty of evidence that shows how greater transparency leads to better outcomes, including:

1. Improved decision making. Transparency and accountability go hand in hand.
2. Clarity of purpose that comes from simplifying and communicating complex issues.
3. Improved relationships with a broad spectrum of stakeholders including beneficiaries, plan sponsors, regulators, suppliers, and concerned citizens.
4. Improved stewardship. After all, management's duty is to do their best to the benefit of their stakeholders.³

- **State and Federal Securities Laws Also Demand Transparency**

Public pensions primarily invest government workers retirement savings in securities and funds which are regulated on the federal and state level. Our nation's securities laws require that securities issuers and fund advisers

³ <https://cembenchmarking.com/gptb.html>

register with regulators, disclose financial and other significant information to *all* investors, including public pensions, as well as prohibit deceit, misrepresentations, and other fraud. The statutorily mandated disclosure information is commonly provided to all investors in the form of prospectuses, offering memoranda, annual reports, performance reviews and other documents.

Absent full disclosure by investment firms *to pension boards and staffs*, these individuals cannot fulfill their fiduciary duty to diligently safeguard pension assets. Registration status, regulation, governance, investment strategies, performance, fees, risks, and conflicts of interest, cannot be monitored unless adequately disclosed to pension officials.

Full disclosure of investment information by the pension *to the public* is necessary for the stakeholders to understand the investment program, and, equally important, evaluate whether pension fiduciaries are prudently performing their duties.

Thus, in public pension matters, we are concerned with two levels of transparency:

First, under state public records laws, all of the workings of the pension must be open to full public scrutiny, including, but not limited to, investments.

Second, under the securities laws, issuers and investment advisers must fully disclose material information to pensions, boards and staffs.

It is axiomatic that, at a minimum, investment information which must be disclosed to *all investors*, including but not limited to public pensions, under the federal and state securities laws must be provided to stakeholders in public pensions subject to public records disclosure requirements. After all, pension stakeholders are the “investors” whose money is at risk.

To allow investment firms and public pension officials to use state public records laws to thwart securities disclosure requirements, concealing potential fraud and mismanagement from stakeholders, regulators and law enforcement, would make no sense. Indeed, public pension stakeholders should enjoy the *enhanced disclosure* and other benefits powerful, large institutional investor fiduciaries routinely negotiate—disclosure above and beyond that provided to ordinary retail investors.

Alarming, our investigation reveals that the State Teachers Retirement System of Ohio (STRS) has long abandoned transparency, choosing instead to collaborate with Wall Street firms to eviscerate Ohio public records laws and avoid accountability to stakeholders. Predictably, billions have been squandered as transparency has ceased to be a priority.

- **Denial of Public Records Requests**

On February 19, 2021, we filed a request pursuant to Ohio Revised Code Section 149.49, et seq. for an opportunity to inspect or obtain copies of public records related to the

pension's investment managers, investment consultants, performance compliance auditor, investment cost monitor, financial auditor, and custodians, as well as board and staff. As noted throughout this report, the *overwhelming majority* of the most critical disclosure information we requested was *summarily* denied. That is, STRS repeatedly simply permitted the investment firms involved to unilaterally determine whether the information we sought on behalf of stakeholders had to be disclosed under Ohio law. Not surprising, most firms granted the opportunity to oppose public scrutiny of their financial dealings with STRS, chose to do so.

More disturbing, included in key investment services contracts which were provided to us, we discovered identically-worded confidentiality provisions (apparently drafted by STRS) indicating that both parties agreed the services provided in connection with the contract were confidential; agreed to hold such confidential information in the strictest confidence; agreed to release it only to authorized parties on a need-to-know basis, or as required by law; provided, however, that each party gave the other prior timely notice of such disclosure to enable the other to challenge such disclosure.⁴

According to Section 3307.14 of the Ohio Revised Code, the Board and other fiduciaries of the pension must discharge

⁴ The STRS contracts provide that the party challenging disclosure bears the sole cost and expense.

their duties with respect to the funds *solely* in the interest of the participants and beneficiaries.

These contractual provisions drafted by STRS, which facilitate challenges to disclosure pursuant to state public records laws do not, in our opinion, in any way benefit the pension, its participants or beneficiaries.

If STRS, consistent with its fiduciary duties, was committed to transparency in compliance with applicable law, its contracts with investment vendors should include provisions which unequivocally state the precise opposite of what they say today, i.e., that the parties agree all information related to the contract is disclosable under applicable public records law. Further, any investment firm unwilling to operate in a fully transparent manner, consistent with applicable public records law, must be considered ineligible to manage public monies or otherwise contract with the pension.

Most disturbing, as discussed further below, *not a single* prospectus or offering document required to be provided to *all investors* under the nation's securities laws has been provided to us in response to our public records requests.

As a result of the extensive denials of our most important public records requests, it is impossible for STRS stakeholders to evaluate the investment strategies, performance, fees, risks, and conflicts of interest related to the pension's investment portfolio. Accordingly, as described more fully below, on May 21, 2021, a complaint for writ mandamus was filed in the Supreme Court of Ohio seeking certain STRS public records.

The above noted lack of cooperation by STRS is all the more surprising given that STRS is well-aware that this forensic review of the pension was commissioned, as well as paid for, by participants, with the stated objective of improving management and oversight of the pension. Pension fiduciaries legally solely concerned with the interests of participants and beneficiaries should welcome, not oppose, a free independent review by nationally recognized experts in pensions. Further, given the profound fiduciary breaches and disclosure concerns stakeholders (and even STRS's own commissioned experts) have long raised, it is clear STRS could benefit from an independent review by experts—this time not of its own choosing.

Tellingly, in the pension's Mission & Vision statement; Current Strategic Goals; Overview of STRS and Its Impact on the State; Statement of Investment Objectives and Policy; and Statement of Fund Governance, the word “transparency” does not appear *even once*. There is not a single mention of any transparency requirements, no discussion the benefits of transparency and no commitment to it.⁵

These key documents refer to such laudable goals as partnering with members to help build retirement security; strengthening relationships with members, employers and

⁵Suggested amendments to Board Policies dated December 19, 2019 by Board member Wade Steen recommended that the Purpose of the fund be supplemented to state, “Build an organizational culture that inspires a high level of professionalism and performance, *and trust through transparency* (emphasis added).” It is our understanding that Steen's proposed amendment may have been rejected because it suggested the pension was not already transparent.

other stakeholders; developing communication themes and channels to enhance STRS's reputation with key audiences; providing educational programs that partner with members on financial wellness and preparing for a secure retirement; and fostering and maintaining a culture of professionalism, service orientation and ethical business practices. Of course, absent transparency none of the aforementioned goals is achievable.

Furthermore, the stated goals of prudent and efficient management of assets, exceptional financial performance, mitigation of risk and cost effectiveness all necessitate full transparency, as detailed more fully throughout this report. Again, according to STRS's own expert, CEM Benchmarking, "greater transparency leads to better outcomes."

Conversely, our forensic investigations reveal that greater secrecy inevitably leads to fraud, mismanagement and waste.

In our opinion, transparency, which would add not a single dollar of additional cost to the pension would (through exposure) swiftly cure all that ails it—excessive fees, reckless risk-taking, unaddressed conflicts of interest, mismanagement and potential malfeasance.

III. Introduction

Founded in 1920, STRS is a statewide retirement system that provides pension, disability, survivor, and health care benefits to licensed teachers and other faculty members employed in the public schools of Ohio or any school, college,

university, institution, or other agency controlled, managed and supported, in whole or in part, by the state of Ohio or any political subdivision thereof. STRS serves more than 500,000 active, inactive and retired Ohio public educators. STRS had investment assets of \$91.7 billion (as of April 30, 2021), making it one of the largest public pension funds in the U.S. For the fiscal year ended June 30, 2020, the funded ratio of the pension—the value of assets compared to actuarial accrued liabilities—was 77.4 percent. The unfunded actuarial liability of the pension is \$22.3 billion.

Federal pension law (Pension Protection Act of 2006)⁶ designed to address alarming funding problems encountered by many multiemployer corporate pensions establishes three categories (or zones) of plans: (1) Green Zone for healthy; (2) Yellow Zone for endangered; and (3) Red Zone for critical. These categories are based upon the funding ratio of plan assets to plan liabilities. In general, Green Zone plans have a funding ratio greater than 80 percent, Yellow Zone plans have a funding ratio between 65 percent and 79 percent, and Red Zone plans are less than 65 percent funded. Each plan's actuary must certify the plan status every year and participants and employers must to be notified of the status of the plan. Each Yellow Zone plan must adopt a funding improvement plan designed to increase its funding percentage and Red Zone plans must adopt rehabilitation plans designed to allow the plans to emerge

⁶ <https://www.govinfo.gov/content/pkg/PLAW-109publ280/pdf/PLAW-109publ280.pdf>

from critical status within 10 years. *Under the federal scheme, at 77.4 percent funded, STRS is in the Yellow Zone for endangered.*

The investment return assumption used by STRS is 7.45 percent. The actuary for the plan has stated that this is a “relatively aggressive” rate.⁷

According to the National Association of State Retirement Administrators (NASRA), a public fund survey found that 96 percent of surveyed public pension plans have lowered investment rate of return assumptions since 2010, with reductions resulting in a decline in the average return assumption from 7.52 percent in fiscal year 2017 to 7.2 percent in fiscal year 2020.⁸ The Pew Charitable Trusts has estimated that the median 20-year investment return for a typical public pension portfolio will be far lower than these optimistic assumptions, at 6.4 percent.⁹ If the net pension liability were calculated using a discount rate which is one percentage point lower than the current assumption—at approximately the same rate estimated by Pew—the current underfunding would soar to \$34.45 billion.

⁷ https://www.strsoh.org/_pdfs/annual-reports/Actuarial_Valuation_2020.pdf

⁸ NASRA Issue Brief: Public Pension Plan Investment Return Assumptions Updated February 2020, available at <https://www.nasra.org/files/Issuepercent20Briefs/NASRAInvReturnAssumptBrief.pdf>

⁹ https://www.pewtrusts.org/-/media/assets/2018/09/statepublicpensionfundsinvestmentpracticesandperformance-2016dataupdate_chartbook.pdf

The Retirement Board which provides fiduciary oversight for the pension is composed of 11 members as follows: five elected contributing members; two elected retired members; an investment expert appointed by the governor; an investment expert appointed jointly by the speaker of the Ohio House of Representatives and the Ohio Senate president; an investment expert appointed by the treasurer of state; and the superintendent of public instruction or his designated investment expert. Board members serve without compensation and the fund's day-to-day operations are managed by an executive director, three deputy executive directors and seven senior officers. More than 100 associates actively manage system investments daily. STRS staff manages approximately 70 percent of the system's investments. The remaining 30 percent is invested by external money managers.

The Ohio Retirement Study Council (ORSC) was created by the Ohio Legislature to provide legislative oversight of Ohio's statewide public pension systems (Systems). As of January 1, 2019, the five state retirement systems had combined assets of approximately \$203 billion with approximately 675,000 active contributing members, 1,075,000 inactive members, and 475,000 beneficiaries and recipients. The ORSC is comprised of three senators, three representatives and three governor's appointees.

The ORSC is statutorily required to have conducted by an independent auditor at least once every ten years a fiduciary performance audit of each of the Systems and

actuarial audits of the Systems. The purpose of a fiduciary performance audit is to critically review and evaluate the organizational design, structure and practices of the Systems. An actuarial audit provides an independent review of the Systems' consulting actuary. The ORSC also reviews the annual operating budgets for each of the Systems. In addition, the ORSC hires its own independent investment consultant to perform the statutorily required semi-annual performance review of the policies, objectives and criteria of the Systems' investment programs.

- **Lack of Fiduciary and Actuarial Audits**

Despite the statutory requirement of an independent fiduciary performance audit and actuarial audit at least every 10 years mentioned above, it has been approximately 15 years since the last such audits of STRS commissioned by ORSC.

When statutorily mandated, critical audits designed to protect the integrity of a \$90 billion retirement plan are not commissioned, and delayed year-after-year, it is inexcusable. An investigation into the failures to audit—by ORSC, as well as STRS's failure to demand such audit results—is warranted, in our opinion.

Any mismanagement or malfeasance which could have been exposed years earlier through timely audits has been allowed to persist, potentially resulting in great risk and cost to the plan. Worse still, as discussed below, the last fiduciary

performance audit revealed multiple serious concerns which have never been addressed over the past 15 years.

The ORSC failure to audit is especially troubling because it indicates a lack of diligent legislative oversight potentially impacting *all* \$203 billion in Ohio public pensions and over 2 million citizens. Further, the fiduciary audit for Ohio Public Employees Retirement System was not performed by an independent auditor¹⁰ (as required under applicable law) and was three years late; the Ohio Police & Fire Pension Fund is only now requesting proposals for the fiduciary audit due 2016; and the actuarial audit of the Ohio State Highway Patrol Retirement System is 21 years overdue.¹¹

¹⁰ <https://www.thenews-messenger.com/story/news/2019/11/12/damschroder-aon-hewitt-audit-reveals-ohio-blew/2561261001/>

¹¹ The only 10-year actuarial review for STRS available on the ORSC website is dated Nov. 6, 2009. That review is limited to “the July 1, 2008 Actuarial Pension Valuation report for the State Teachers Retirement System of Ohio (STRS), and the January 1, 2009 Actuarial OPEB Valuation report for STRS.” It does not cover 10-years of valuation reports. In addition to the two valuation reports noted, the 2009 actuarial review report considered one 5-year experience review—a Powerpoint presentation prepared by Pricewaterhouse Coopers for the period 2003-2008. It also considered a 4-year experience review for the period 2003-2007 prepared by Buck Consulting. There should be included in this report another 5-year actuarial review for the period 1998-2002. An acknowledgement letter from STRS to the actuary dated October 30, 2009 states the next 5-year experience review was scheduled for 2013, but such a report is not on ORSC’s website.

Only one 5-year actuarial investigation report is available on the ORSC website. It is dated March 3, 2017 and covers the period July 1, 2011 through June 30, 2016. Assuming that this 5-year actuarial investigation is the first one conducted after the 2009 report mentioned above, STRS failed to conduct any 5-year actuarial investigation that includes the period July 1, 2008 to June 30, 2011. Of course, this period was in the middle of the Great Recession. The 2009 10-year report discussed above references a 5-year actuarial investigation that was concluded by Pricewaterhouse Coopers in 2008. However, based on the 2009 10-year report,

Clearly, legislative oversight has been compromised for decades.

- **Ohio Retired Teachers Association Commissioned Forensic Review**

Through a grassroots donation campaign that began on October 28, 2020, The Ohio Retired Teachers Association (ORTA) engaged Benchmark Financial Services, Inc. (“Benchmark”) to conduct an independent expert forensic review of STRS on behalf of participants. According to ORTA, the decision to engage in this project was driven by a lack of trust between retirees and those managing their pension system.

Most objectionable was the loss of a promised Cost of Living Adjustment (COLA) in 2013 with no resumption in sight.¹² In 2013, STRS did not pay the annual COLA; in 2014, 2015 and 2016 the COLA was reduced from the promised 3 percent to 2 percent. In 2017, the COLA benefits were reduced to zero supposedly “to preserve the fiscal integrity of the retirement system.” With approximately \$7 billion paid out in annual pension benefits, elimination of the 3 percent COLA saved the pension approximately \$210 million annually.

Pricewaterhouse Coopers did not issue a full written report. It merely created a Powerpoint presentation. It is not available on either ORSC’s website or STRS’s website.

¹² STRS retirees were promised an annual cost of living increase (COLA) at the time of their retirement. This promise was also codified in Ohio law (ORC 3307.67).

When pressed for answers by ORTA, STRS leadership has simply stated the pension will only consider providing any COLA after it has reached a funding level of 85 percent. The problem is, ORTA notes, in over 100 years of existence STRS has rarely been at funding level of 85 percent or above and has not been at such level in the past decade.

At the same time that retirees were experiencing a loss of promised benefits, active teachers saw an increase of 40 percent in their contributions to STRS. Active teachers also witnessed an increase in the number of years required to receive full retirement benefits. These changes resulted in many teachers paying more, working longer, and not receiving the level of benefits previously promised.

Finally, while benefits to retirees were slashed, active teachers required to pay more and receive less, the STRS board voted to increase salaries and pay nearly \$10 million in performance incentives for the STRS investment staff. The performance incentives have been paid annually, despite no clear benchmarks for earning these so-called “bonuses.”

Lack of transparency, as well as the benefit reductions described above has created a lack of trust between retirees and their pension system.

Benchmark has conducted a high-impact, limited preliminary forensic review of the pension. The purpose of a high-impact limited forensic review is to readily identify, at a reduced cost, deficiencies which, in our opinion, if

addressed, would significantly improve investment management and performance results.

As noted earlier, our requests for key documents from the pension were overwhelmingly rejected. As a participant-funded review, we had limited opportunity to communicate with or interview people directly associated with the board. We held a limited number of telephone interviews with various investment services providers. Nevertheless, we believe that our expert findings are credible and our recommendations, if followed, would result in significant improvements. In the likely event that STRS or its vendors disagree with our opinions, and are willing to fully disclose all the relevant documents, we welcome the opportunity to review the totality of the relevant information. We reserve the right to change our findings in the event that additional information should be forthcoming.

This report should be read and evaluated with several caveats in mind. First, many of the subjects addressed in this report are inherently judgmental and not susceptible to absolute or definitive conclusions. We assumed the information we were provided, whether by the service providers or STRS is accurate, and could be relied upon. We were not hired to detect or investigate fraud, concealment or misrepresentations and did not attempt to do so. We were not hired to, and did not attempt to conduct a formal or legal investigation or otherwise to use judicial processes or evidentiary safeguards in conducting our review. Our findings and conclusions are based upon our extensive

review of limited documents, the limited interviews we conducted with the board and others associated with STRS, independent analysis, and our experience and expertise. This Report does not and is not intended to provide legal advice. Although the report considers various legal matters, our analysis, findings and recommendations are not intended to provide legal interpretations, legal conclusions or legal advice. For that reason, action upon such matters should not be taken without obtaining legal advice addressing the appropriate statutory or regulatory interpretation and legal findings regarding such matters. Finally, our observations are necessarily based only on the information we considered as of and during the period we performed our review.

IV. Last Fiduciary Performance Audit

In 2004, Independent Fiduciary Services, Inc. (“IFS”) was directed by ORSC to conduct a Fiduciary Performance audit of STRS and in December 2006, the firm presented its Final Report.¹³

Among the concerns raised in the lengthy IFS report were: STRS staff was the underlying source of all performance data and benchmarks (i.e., returns were not calculated by an independent third party); the Investment Policy Statement (IPS) did not include a plan in the event of active management underperformance; the IPS did not include a Total Fund Benchmark definition; the IPS did not include the

¹³ The specific details, scope and depth of the review are defined by the July 21, 2004 Agreement, and the September 14, 2005 Amendment, between the ORSC and IFS. <http://www.orsc.org/Assets/Reports/19.pdf>

source of performance data; whether, as represented to IFS, the alternatives benchmark of “actual” performance was part of staff incentive compensation program; the size of internal audit staff and absence of auditors; lack of input from other members of committee (non-Chair) in committee agendas; personal trading policy; and reporting and governance of external consultants and investment staff.

Two serious deficiencies identified in the Fiduciary Performance Audit report and recommendations 15 years ago remain unaddressed to this day:

1. Use of actual performance for benchmarking alternative investments; and
2. Conflicts of interest involving external investment consultants.

- **Lack of Benchmark for Alternative Investments**

Pension fiduciaries have a legal duty to exercise care and skill in the management and investment of plan assets. Acting in the best interests of the plan and the plan participants, a pension fiduciary has the duty to protect and preserve trust assets and, generally, to make the assets productive. In making investment decisions and managing plan assets, the fiduciary must exercise reasonable care, skill and caution. The fiduciary should consider broad investment factors, such as: current economic conditions, effects of inflation or deflation, alternative investment opportunities, expected returns on income and capital, the need for liquidity versus preservation of capital, the production of

income, diversification of investments, and more. In sum, the trustee has a duty to continually observe and evaluate investments to ensure that they are consistent with the purpose of the plan, current economic conditions, and the needs of active and retired participants.

Pension fiduciaries establish investment “benchmarks” as standards against which the performance of investment managers or asset allocation decisions can be measured. Generally, broad market stock and bond indexes are used for this purpose. Absent a benchmark to measure an investment manager or asset allocation decision against, there is the danger that fiduciaries will be misled by absolute returns. Allocating pension assets without established benchmarks amounts to gross mismanagement because the fiduciaries have set no standards for evaluating the performance results.

Ohio Revised Code 3307.15 Investment and Fiduciary Duty of Board (B) states that “the board shall adopt in regular meeting, policies, objectives, or criteria for the operation of the investment program that include asset allocation targets and ranges, risk factors, asset class *benchmarks (emphasis added)*, time horizons, total return objectives, and performance evaluation guidelines.”

“Further, when reporting on the performance of investments, the board shall comply with the performance presentation standards established by the CFA Institute.”

CFA Institute Global Investment Performance Standards are ethical standards for calculating and presenting investment performance based on the principles of fair representation and full disclosure. According to CFA, one important element in the fair representation of investment performance is the choice of a benchmark. Several provisions of the GIPS standards focus on benchmarks. The GIPS standards require firms to select an appropriate total return benchmark for each composite and pooled fund, if an appropriate benchmark is available, and to present benchmark performance in GIPS Reports. The GIPS standards define a benchmark as a *point of reference* (emphasis added) against which the composite or pooled fund's returns or risks are compared. Properly used, a benchmark should be a focal point when evaluating a strategy. The thoughtful choice of a benchmark will enhance the performance evaluation of the investment strategy by clearly defining expectations and success, says CFA.

With respect to STRS's so-called alternative investment "benchmark," it should be obvious that *actual* performance of an investment or strategy cannot be considered a benchmark since it does not provide a point of reference against which the investment or strategy can be compared. Actual performance does not clearly define expectations and success. *In our decades of professional experience, we have never seen actual performance proposed as a benchmark.*

In 2006, IFS noted that the STRS Custom Benchmark for Alternatives was equal to the *actual* performance of the Alternatives program over time. Apparently STRS, said IFS, decided in 2002 to use the actual return of the Fund's Alternatives program on a quarterly basis until an appropriate and adequate benchmark for the Alternatives program was agreed upon and implemented. IFS recommended that the Russell 2000 plus 500 basis points, the Russell 3000 plus 500 basis points or the Wilshire 5000 plus 500 basis points, would be appropriate policy benchmarks for this program. The premium over the market index is designed to account for additional risks involved with private equity such as the high rates of failure of portfolio investments, illiquidity factors (concerning both the relevant investment vehicles in which the pension may invest as well as the actual underlying portfolio investments) and other issues, which add risks to investing in the private markets that are included within the pension's Alternatives program.

We agree with IFS's recommended benchmarks, as well as the rationale for demanding a 500-basis point "risk premium" above the index.

When compared against such benchmarks, long term performance of Alternatives "is not very impressive over the three and five-year periods and demonstrated that the current Alternatives program could likely be improved," observed IFS in 2006. In fact, STRS Alternatives underperformance against the Russell 2000 plus 500 basis

points was at that time **massive**—.5 percent versus 10.70 percent.

IFS observed that the IPS stated that the Alternatives program had an objective of earning at least 5 percent net of fees above domestic public equity markets over very long-time horizons and that the pension was not benchmarking its alternatives program as outlined in the IPS in its quarterly reports.

Despite the recommendation by IFS in 2006 that the Russell 2000 or Russell 3000 plus 500 basis points would be appropriate policy benchmark for the Alternatives Program, STRS has continued for the past 15 years to use the actual return of the pension's Alternatives program as the benchmark for the one-year period. As such, it is impossible for the pension to underperform on a one-year basis.

For the longer 5-year period, the alternative investments blended relative return objective is in two parts by policy: Russell 3000 Index plus 1 percent for Private Equity and Russell 3000 minus 1 percent for Opportunistic /Diversified.

In our opinion, this longer-term benchmark for alternatives is equally absurd. Not only is the Private Equity benchmark far too low given the greater risks related to private equity investing (Russell 3000 plus 1 percent, versus plus 5 percent as recommended by the Fiduciary Performance Audit), with respect to Opportunistic /Diversified we have never seen *underperforming* a readily achievable index rate of return

(Russell 3000 *minus* 1 percent) proposed as an appropriate benchmark.

It is irrational for a pension to set as a goal for its highly speculative alternative investments, such as hedge funds (or any other investments for that matter), to significantly *underperform* a public markets index, i.e., to *intentionally lose money*.

According to the Cliffwater report for June 30, 2019, STRS Ohio Alternative returns “fall behind” Relative Return Objectives across *all periods* “due to the very strong performance of public US stocks across all periods.” In our opinion, a more accurate assessment would be that the Alternatives have **massively underperformed** the Relative Return objectives across all periods. For example, over the last 10 years Alternatives returned 9.79 percent vs. 14 percent for the Relative Return Objective; for the last 5 years Alternatives returned 6.66 percent versus 9.97 percent.

Use of the IFS recommended Russell 3000 plus 500 basis points as the benchmark would reveal that since the 2006 fiduciary audit (not including the massive underperformance in the 5 years prior to the audit), the Alternatives have dramatically underperformed, 8.26 percent versus 11.91 percent.

The alternatives underperformance losses for the period amount to **\$8.6 billion or \$2.5 million per trading day for 14**

years.¹⁴ Restoring the COLA benefit would cost less than \$1 million (\$890,000) per day.

For additional perspective, total active teacher contributions since the 2006 Fiduciary Audit amount to approximately \$18 billion. \$8.6 billion alternative investment underperformance equates to \$61,000 per retired teacher.

- **External Investment Consultant Conflicts of Interest**

With respect to the pension's then-external investment consultant, Russell, IFS recommended that due to conflicts of interest pervasive in the investment consulting industry and the potential for related harm, "Russell's contract with STRS should be amended to require Russell to provide annual disclosure of its business relationships with all investment managers or other providers of investment services. This contractually-required disclosure should include information from Russell on the specific amounts paid to Russell by those investment managers employed by STRS and on the specific services provided to those managers."

While the pension, when it subsequently hired Callan and Cliffwater as its external investment consultants to replace Russell, included the above recommended disclosure obligations in its contracts with these firms, it appears that STRS has never received disclosure regarding the specific amounts paid to the two firms by those investment

¹⁴ Calculation input is 252 trading days per year.

managers employed by STRS, detailing the specific services provided to those managers.

V. Fiduciary Duty to Ensure Investment Fees and Expenses Are Reasonable

Unlike most other industries, the fees money managers charge institutional and retail investors for *comparable* investment services vary astronomically.

Passive, or index investment management services, can be purchased by institutional investors for 1 basis point (one one-hundredth of a percent) or even “for free.”¹⁵ Active managers, who attempt to beat the market by stock-picking, may charge pensions fees that are 100 times greater (1 percent). Alternative investment managers, including hedge, venture and private equity, may charge asset-based, performance and other fees amounting to approximately 8 percent-- 800 times greater fees than indexing.

Paying higher fees for active traditional or alternative asset management does not guarantee and, in fact, negatively correlates to superior investment performance. Indeed, the overwhelming majority of active managers fail to outperformance market indexes over time net of fees. The higher the fees, the greater the drag on investment returns.

¹⁵ Certain index managers will manage large accounts at no cost, in exchange for securities lending income related to the portfolio.

A 2013 report by the Maryland Public Policy Institute and the Maryland Tax Education Foundation which examined the investment fees and investment performance of state pension funds concluded:

“State pension funds, including Maryland, have succumbed for years to a popular Wall Street sales pitch: “active money management beats the market.” As a result, almost all state pension funds use outside managers to select, buy and sell investments for the pension funds for a fee. The actual result — a typical Wall Street manager underperforms relative to passive indexing — is costly to both taxpayers and public sector employees.

For example, **the top ten states — in terms of Wall Street fees — had a lower pension fund investment performance — over the last five fiscal years — than the bottom ten states** (emphasis added) ... State pension funds should consider indexing. Indexing fees cost a state pension fund about 3 basis points yearly on invested capital vs. 39 basis points for active management fees (or 92 percent less) ... By indexing most of their portfolios, we conclude the 46 state funds surveyed could save \$6 billion in fees annually, while obtaining similar (or better) returns to those of active managers.”¹⁶

It is well established that sponsors of public and private retirement plans have a fiduciary duty to ensure that the fees their plans pay money managers for investment advisory services are reasonable. Fees paid for such retirement plan investment services have always been an important consideration for ERISA retirement plan fiduciaries. Further, in recent years such fees have come under increased scrutiny because of class action litigation,

¹⁶ Wall Street Fees, Investment Returns, Maryland and 49 Other State Pension Funds by Jeff Hooke and John J. Walters, July 2, 2013.

Department of Labor regulations, and congressional hearings.

According to the Department of Labor:

“Plan fees and expenses are important considerations for all types of retirement plans. As a plan fiduciary, you have an obligation under ERISA to prudently select and monitor plan investments, investment options made available to the plan’s participants and beneficiaries, and the persons providing services to your plan. Understanding and evaluating plan fees and expenses associated with plan investments, investment options, and services are an important part of a fiduciary’s responsibility. This responsibility is ongoing. After careful evaluation during the initial selection, you will want to monitor plan fees and expenses to determine whether they continue to be reasonable in light of the services provided.”

State and local government pensions are exempt from ERISA and are governed by state law. However, because ERISA and state law protections both stem from common law fiduciary and trust principles, best practices for public pensions are frequently similar to those found in ERISA.

At the outset, sponsors of public, as well as private retirement plans must take steps to understand the sources, amounts, and nature of the fees paid by the plan, as well as the related services performed for such fees. After all, a plan sponsor cannot determine the reasonableness of fees paid without a comprehensive understanding of the plan’s services and fees.

Whether a plan’s fees are reasonable depends upon the facts and circumstances relevant to that plan. The plan

sponsor must obtain and consider the relevant information and then make a determination supported by that information.

The shift by public pensions into more complex so-called “alternative” investment vehicles, such as hedge, private equity and venture funds, as well as fund of funds, has brought dramatically higher investment fees which are more much more difficult for pensions to monitor. Disclosed fees, as a percentage of assets, have increased by about 30 percent over the past decade, as use of alternative assets has more than doubled since 2006.

In addition, public funds are paying more than \$4 billion annually in unreported fees associated with alternative investments, according to Pew Charitable Trusts. The hidden costs of private equity investments – which include carried interest, monitoring costs, and portfolio company fees – were not reported as investment expenses among most of the 73 large public funds Pew examined, according to a 2017 report from the non-profit group.¹⁷

According to Pew:

“Accounting and disclosure practices also vary widely among pension plans and have not kept pace with increasingly complex investments and fee structures, underscoring the need for additional public information on plan performance and attention to the effects of investment fees on plan health. Full and accurate reporting of asset

¹⁷ [https://www.institutionalinvestor.com/article/b1505qslc30c6x/the-bill-for-hidden-private-equity-fees-\\$4-billion](https://www.institutionalinvestor.com/article/b1505qslc30c6x/the-bill-for-hidden-private-equity-fees-$4-billion)

allocation, performance, and fee details is essential to determining public pension plans' ability to pay promised retirement benefits. With more than \$3.6 trillion in assets—and the retirement security of 19 million current and former state and local employees at stake—sound and transparent investment strategies are critical.”¹⁸

Finally, and most disturbing, a recent internal review by the United States Securities and Exchange Commission found that a majority of certain alternative investment managers, private-equity firms, inflate fees and expenses charged to companies in which they hold stakes, raising the prospect of a wave of sanctions against managers (including potentially some of the dozens of private equity managers STRS invests in), by the agency.

More than half of about 400 private-equity firms that SEC staff examined charged unjustified fees and expenses without notifying investors.

“The private-equity model lends itself to potential abuse because it’s so opaque, according to Daniel Greenwood, a law professor at Hofstra University in New York and author of a 2008 paper entitled “Looting: The Puzzle of Private Equity.” The attraction of the funds is that the managers have broad discretion, which also means that investors have a hard time knowing what the managers are doing, he said.”

¹⁸

https://www.pewtrusts.org/~/media/assets/2017/04/psrs_state_public_pension_funds_increase_use_of_complex_investments.pdf

According to another expert cited in the article, “The industry is going to be forced into change because, frankly, when your big investors are *public plans and other money that’s run by fiduciaries* (emphasis added), you can’t afford as a business matter to be deemed to be engaging in fraud. Fraud doesn’t sell very well.”¹⁹

Accordingly, pensions, such as STRS which choose to gamble in asset classes, such as private equity funds, specifically cited by regulators for charging bogus fees in violation of the federal securities laws must establish *heightened safeguards* to ensure that all fees paid to such managers are properly reviewed and determined to be legitimate, as well as fully disclosed to participants.

- **CEM Benchmarking Analysis of Investment Costs and Performance**

CEM Investment Benchmarking is a private Canadian company which STRS retains to annually analyze the pension’s investment costs and performance. CEM is neither registered with the US Securities and Exchange Commission as an investment adviser nor as a broker-dealer.²⁰

According to the Summary of the Oversight of STRS Ohio:

CEM Investment Benchmarking annually presents a report to the board comparing STRS Ohio’s investment costs and performance to those of

¹⁹ Bogus Private-Equity Fees Said Found at 200 Firms by SEC, Bloomberg News, April 7, 2014.

²⁰ The firm’s website states, “Benchmarking pension and sovereign wealth funds is all we do. We do not manage assets.”

our peers. The report consistently shows STRS Ohio's performance ranks in the top 25 percent of our peer group and our investment costs are low compared to our peers.

In our opinion, the above summary disclosure by STRS regarding CEM findings may, at a minimum, be so incomplete as to be potentially misleading. Disclosure of the full 136-page CEM report, not merely the Executive Summary or Key Takeaways section, is necessary for pension stakeholders to form a complete understanding of CEM's findings.

The information CEM provides to pensions, their stakeholders and other investors globally relates to the investment performance and cost of \$15 trillion in participating assets. CEM acknowledges:

"We provide our clients with objective, actionable benchmarking insight into how to maximize value for money in investments and pension administration."

And:

"Our reports and insights provide actionable insights and are used strategically as well as to help meet fiduciary responsibilities."

In other words, both pensions and stakeholders rely upon CEM findings, as disclosed, in evaluating and executing investment strategies. The cost information the firm provides is intended to, and does, impact investment vehicle selection because costs are understood to materially impact performance.

For this reason, we believe it is appropriate for legislators, regulators, law enforcement and pension stakeholders to examine whether the investment cost and other information disclosed to pension stakeholders by the firm and its pension clients is accurate, as well as fully and fairly presented.

We requested the following information from STRS related to CEM:

1. Please provide all contracts between STRS and CEM Benchmarking.
2. Please provide all reports and analysis produced by CEM Benchmarking related to STRS's investment management fees, costs and expenses.
3. Please provide all reports and analysis produced by CEM Benchmarking related to alternative investments.

We received the following response from STRS:

Concerning the above items, I must note that much of your request is overly broad and fails to satisfy the requirement of public records law that you specifically and particularly identify the records that you are seeking. Under Ohio law, a requestor has the duty to "identify the records.....wanted with sufficient clarity." *State ex rel. Dillery v. Icsman (2001) 92 Ohio St.3d 312, 314.*

A public office is not required to conduct research or otherwise "seek out and retrieve those records which would contain the information of interest to the requester". *State ex rel. Fant v. Tober (8th Dist., April 28, 1993), No. 63737, 1993 Ohio App. LEXIS 2591 at *4; aff'd (1993), 68 Ohio St. 3d 117.* To the extent that you have requested records containing specific information, rather than identifying the specific records you seek, your request is inappropriate under applicable legal standards. If

there are specific records you would like to request, please identify those with sufficient clarity.

That said, in the interest of openness, this office has voluntarily made an effort to identify readily available public records that are responsive to items two and three and we are providing the five reports we believe to be responsive.

Again, to the extent there are additional records you seek related to any of these items, please identify those records with sufficient clarity.

CEM Benchmarking's explanation of their redactions is:

"The redactions have been made in line with the definition of "Trade secret" as defined in Ohio Code 1333.61 Uniform trade secrets act definitions as follows:

(D) "Trade secret" means information, including the whole or any portion or phase of any scientific or technical information, design, process, procedure, formula, pattern, compilation, program, device, method, technique, or improvement, or any business information or plans, financial information, or listing of names, addresses, or telephone numbers, that satisfies both of the following:

(1) It derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

(2) It is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

We have redacted our cost data as well as certain formulas and methods used in the preparation of the report. The information that has been redacted is not publicly available and is only provided to our paying clients. The redacted cost data has been provided to us by our clients and forms our proprietary cost database. This data and

database is not available from other public sources and forms the basis for our analysis. It is key to our business model that the data not be publicly released. Note that I have not redacted return information since 1) much of this data could be gleaned from publicly available sources (CAFRs) and is not core to our product."

We are still reviewing the remaining requests, and will follow up with additional records and/or clarifications regarding the records you seek.

Again, we do not believe it is appropriate for STRS to simply defer to investment service providers regarding whether information sought from the pension pursuant to Ohio public records laws should be provided to the public.

Apparently, all redactions were made or demanded by CEM and STRS neither confirms nor disputes CEM's rationale for its redactions. Conspicuously redacted from the reports were the identities of the public pension funds that CEM chose as STRS's peers for cost and performance comparison. CEM also redacted data about STRS's performance, including investment costs, external money manager fees, and performance information on STRS's investments. CEM offers no explanation as to how it can claim that STRS's own internal data can be CEM's trade secret.

In our opinion, STRS should be facilitating, not thwarting, transparency and compliance with Ohio public records laws. Accordingly, on May 21, 2021, we filed a complaint for writ mandamus with the Supreme Court of Ohio seeking the STRS public records related to CEM.

We have not been provided with a copy of the contract between STRS and CEM. However, the pension discloses that for the past five years it has paid the firm \$75,000 per year for its services.²¹ The contract which defines the obligations of the parties, the terms and scope of engagement should be made available in order to permit the public to scrutinize the methodology followed by the firm, as well as evaluate the firm's findings.

For example, it is our understanding (from interviews with CEM staff) that STRS staff provides the firm with *all* of the data regarding the pension's investment costs and performance, which CEM analyzes. Indeed, CEM acknowledges above that "the redacted cost data has been provided to us by our clients and forms our proprietary cost database."

"The analysis is as accurate as possible based upon fees as *reported to us by our clients* (emphasis added)," says CEM.

However, CEM has advised us:

- Pensions *may not know* the costs of all their investments;
- Pensions *may decline* to provide CEM with *known* cost information which pensions are not "overly comfortable with;"
- CEM does not *independently collect* any cost information from investment managers which might

²¹ <https://checkbook.ohio.gov/Pensions/STRS.aspx>

- verify or contradict the fees as reported by pension clients; and
- Cost and performance *estimates* created by CEM have been utilized with respect to many STRS investments.

In response to our public records request, we received from STRS an Investment Cost Effectiveness Analysis for the 5-year periods ending December 31, 2015, 2017, 2018 and 2019. The documents were *redacted* at the request of CEM as indicated earlier.

The CEM reports we were provided state that the information contained therein is proprietary and confidential and may not be disclosed to third parties without the express written mutual consent of both CEM and STRS. While the reports repeatedly state that the most meaningful comparisons for returns, value added and cost performance are to “your custom peer group,” it is noted: “To preserve client confidentiality, given potential access to documents as permitted by the Freedom of Information Act, we do not disclose your peers’ names in this document.” In other words, information which is critical for assessing the value of the peer group analysis has been intentionally withheld from the document to avoid potential disclosure of said information to the public under applicable state law.

In our opinion, there is no valid reason a single U.S. public pension, let alone a “custom peer group” of 17 such funds (with assets ranging from \$47.4 billion to \$227.7 billion) should

agree to provide in-depth, “sensitive”²² financial information related to perhaps \$1 trillion in public assets to a private investment services company—for purposes of analyses supposedly prepared for the benefit of, and certainly paid for by, the U.S. funds—and further agree to withhold the details of said analyses from pension stakeholders.²³ After all, the information provided to CEM relates to stakeholder money.

We note that at least one other state pension, South Carolina, has released its entire 136-page CEM analysis to the public.²⁴ Thus, it appears any supposed concerns regarding the proprietary and confidential nature of information contained in CEM analyses are not insurmountable.

We further note that the December 2018 Final Report and Recommendations of the Public Pension Management and Asset Investment Review Commission of the Commonwealth of Pennsylvania which was charged with comprehensively reviewing the investment operations of the Commonwealth’s two largest public retirement funds, with the goal of identifying efficiencies and best practices in

²² CEM’s website states that the information it collects from pensions is “sensitive.”

²³ CEM claims 166 U.S. pension funds participate in its database. The median U.S. fund had assets of \$8.6 billion and the average U.S. fund had assets of \$24.2 billion. Total participating U.S. assets were \$4.0 trillion.

²⁴ The South Carolina report released to the public includes much of the same information redacted from the STRS report.

<https://www.rsic.sc.gov/PDFs/2017.12.31percent20CEMpercent20REPORT.pdf>

pension fund management recommended that the two pensions collaborate on a detailed CEM administrative and investment cost benchmarking analysis, *and make the detailed report(s) available to the public (not only the Executive Summary).*²⁵

In Pennsylvania and South Carolina, unlike Ohio, there is recognition that the public deserves to see the entire CEM report, not select passages.

In our opinion, failure to disclose names of funds in the custom peer group renders the peer analysis unauditable. Indeed, stakeholders cannot even be certain that disclosure of the names in the custom peer group was made to, as well as understood and accepted by, the board consistent with the board's fiduciary duties.²⁶ To further complicate matters, CEM notes—without explanation—that the STRS peer group may change from year-to-year.

Paradoxically, according to CEM itself, *"in every other country in the world, pensions—such as Canada's largest pension, the \$221 billion Ontario Teachers' Pension Plan—willingly disclose their custom peer groups (emphasis added)."* Only American public pensions, subject to

²⁵

<https://www.psers.pa.gov/About/Investment/Documents/PPMAIRCpercent202018/2018-PPMAIRC-FINAL.pdf> Pg. 4.

²⁶ Board members we have interviewed indicate disclosure of peers' names in the custom peer group has not been made to the board. If true, the board cannot possibly evaluate whether the peer group analysis is appropriate, consistent with its fiduciary duties.

expansive state open records laws, demand secrecy, says CEM.

In summary, if favorable summaries of CEM analyses are to be happily announced to U.S. public pension stakeholders—for the American public to rely upon—then there should be no hesitancy in disclosing the underlying data and documents supporting those conclusions. Further, as discussed below, the full findings in the CEM report appear to conflict with the summary findings publicly stated by STRS and raise additional concerns in our opinion. At a minimum, public review of the *complete* CEM report is, in our opinion, critical to understanding the findings and assessing its credibility.

In support of our views regarding the importance of transparency, we note with great emphasis that CEM says the following in its report: “The value of the information contained in these reports is only as good as the quality of the data received.” If the public cannot see the underlying data, then it is impossible to assess its validity. However, we believe that the value of the CEM reports is also heavily dependent upon the quality of the analysis and extensive use of cost estimates supplied by CEM, not merely the quality of the data provided by pensions such as STRS.

CEM’s website unequivocally states that “Transparency Matters.”

Says CEM's Mike Heale: "Trust is a critically important success factor. Transparency builds trust. Transparency is the right thing to do and the smart thing to do."²⁷

Indeed, CEM offers a custom Transparency Benchmarking Service for funds which it claims "helps funds speed up the implementation of transparency best practices and builds a great foundation for transparency leadership in our industry."

On the other hand, the firm's website includes numerous assurances to clients regarding confidentiality.²⁸

Preaching transparency while promising confidentiality is problematic, in our opinion.

The unredacted 2018 report initially states in the Key Takeaways section of the Executive Summary that the pension's 5-year net total return of 6.25 percent was in the top quartile and above the fund's 6.09 percent 5-year policy return. The 5-year net value added was 0.16 percent. As noted by CEM, "Total returns, by themselves, provide little insight into the reasons behind relative performance.

²⁷ <https://cembenchmarking.com/gptb.html>

²⁸ "The information that CEM collects from clients is sensitive and we are very careful about how we handle it. Your data will be treated in the same confidential manner as data received from all other clients who participate in our surveys. Data collected from you may be used for benchmarking and research, but only in a manner that preserves confidentiality by combining your responses with many others. CEM may disclose your fund's inclusion by name in its client reports if your fund is part of the peer group used as the basis for the report. This disclosure will not be linked to your data or results. From time to time, CEM may provide access to the data on an unnamed basis, and under a strict confidentiality agreement, for academic research."

Therefore, we separate total return into its more meaningful components: policy return and value added.” Policy return is the return a pension would receive if it passively invested its assets i.e., bought appropriate index funds. Value added indicates the extra return provided by active management.

A footnote later in the report discloses that “to enable fairer comparisons, the policy returns for all participants except your fund were adjusted to reflect private equity benchmarks based on lagged, investable public-market indices.²⁹ If CEM used this same adjustment for your fund, your 5-year policy return would be 6.8 percent, 0.7 percent higher than the pension’s actual 5-year policy return of 6.1 percent. Mirroring this, the 5-year total fund net value added of 0.16 percent would be 0.7 percent lower” or, by our estimate, -0.54 percent.

In other words, a fairer comparison (says CEM)—not included in the Key Takeaways—reveals that the pension *underperformed* its 5-year policy return, producing a *negative* value added—the very two components of the pension’s total return which CEM claims are more meaningful. A negative net value added means that the pension did not benefit from active management, i.e., STRS would have earned **over \$400 million more annually, or over \$2 billion for the five-year period** by simply passively indexing

²⁹ As discussed elsewhere, the fund has continued to use its actual returns as its private equity benchmark for approximately 15 years—a “benchmark” it is impossible for the pension to underperform—despite the recommendation in a 2006 Fiduciary Performance Report to change to an appropriate benchmark.

its investments according to its policy mix. These findings are strikingly different from those announced by STRS, in our opinion.³⁰

Key Takeaways also states that the pension's investment cost of 40.1 basis points was below its benchmark cost of 54.5 basis points which suggests that the fund was low cost compared to its peers., i.e., was low cost because it paid less than its peers for similar services and had a lower cost for implementing its style.

The report later states that the investment costs were \$279.1 million or 36.9 basis points and \$302.8 million or 40.1 basis points when hedge fund performance fees and private equity base management fee offsets were added. However, it is disclosed that transaction costs and private asset performance fees were not included in the latter total.

The report indicates that CEM excluded external private asset performance fees and all transaction costs from the pension's total cost because "only a limited number of participants were able to provide complete data." In other words, either most of the 17 unnamed U.S. public pensions

³⁰ Similarly, the 2017 report states in the Key takeaways section that the pension's 5-year total return of 10.1 percent met the fund's 5-year policy return of 10.1 percent, and that the 5-year net value added was 0.0 percent. Later the report discloses, "to enable fairer comparisons, the policy returns for all participants except your fund were adjusted to reflect private equity benchmarks based on lagged, investable public-market indices. If CEM used this same adjustment for your fund, your 5-year policy return would be 10.7 percent, 0.6 percent higher than your actual 5-year policy return of 10.1 percent. Mirroring this, your 5-year total fund net value added would be 0.6 percent lower." That is, the fund underperformed its policy return and had a net value added of -.6 percent. Again, a negative net value added means that the pension did not benefit from active management.

included in the custom peer group failed to diligently monitor the complete fees paid related to these high-cost, high-risk opaque investments, i.e., did not know the complete costs, or the pensions were aware of the complete fees but refused to disclose them—either of which would serve to reduce each pension and the group's overall costs reported to CEM.

In Appendix A, performance fees of \$160.8 million are estimated by CEM in 2018. We note with great emphasis that this figure is a mere *estimate* provided by CEM, as an accommodation to its pension clients and without confirmation from the investment managers. In our opinion, the default fees (which are based upon pension reported medians) are likely underestimates.

Appendix A- Data Summary: Comments and defaults, is an extensive list of base and performance fee default cost estimates applied by CEM to 75 of the pension's investments over the period either because (according to CEM):

1. STRS did not provide cost information to CEM; or
2. STRS failed to provide support for the unusually low-cost information reported to CEM; or
3. To enable CEM comparisons of the total cost of different implementation styles.

These base and performance fee default costs are significant—some in excess of 2 percent.

Unlike the base fee estimates, the performance fee estimates “are not included in the pension's total fund cost

or in benchmark analysis," says CEM. It is unclear to us why the default costs are not included. Obviously, failure to include the significant performance fee default costs in the pension's total fund cost or in benchmark analysis—for whatever reason—serves to make the pension appear lower cost and more competitively managed.

In our opinion, if, during the data confirmation process CEM and STRS discussed the disturbing fact that certain investment management costs were unknown to STRS, or, worse still, known but not provided for some reason, the sole acceptable, prudent course would have been to scrutinize any unknown costs more thoroughly and demand full disclosure of all costs, as opposed to continuing to invest billions in the highest-cost, highest-risk, most opaque assets blithely ignorant of (or concealing) the true costs—using problematic median default estimates as support for the strategy.

Again, pension fiduciaries have a legal duty to monitor all investment and other costs for reasonableness—not merely guess, or estimate, what those costs might be.

Use of median default estimates in managing a \$90 billion plan securing the retirement of hundreds of thousands of state teachers fails to meet applicable fiduciary standards, in our opinion.

True costs are *always* ascertainable and should *always* be used in order to safeguard assets. Further, for STRS to represent to pension stakeholders that it is aware of and

diligently monitoring investment costs while secretly admitting to CEM it is failing to perform its oversight duties is unconscionable, in our opinion.

When performance fees of \$160.8 million are added in, the revised fee total rises from \$279.1 million, then \$302.8 million to **\$463.6 million or 61.3 basis points**, versus the 40.1 basis points noted in the Key Takeaways. This cost is significantly *greater* than the fund's benchmark cost of 54.5 basis points, suggesting that STRS was *high cost* compared to its peers, i.e., *paid more* than peers for similar services and had a *higher* cost for implementing its style. Again, these findings appear to be strikingly different from those announced by STRS.

However, it appears that even the \$463.6 million estimated total cost is *incomplete*.

In 2015, CEM concluded that the difference between what pensions reported as expenses and what they actually charged investors averaged at least two percentage points a year. And this estimate, CEM acknowledged, was probably low.³¹ CEM has stated private equity fund of funds costs average over 5 percent. Professor Ludovic Phalippou, at the Saïd School of Business at Oxford, found that the average private equity buyout fund charged more than 7 percent in fees each year.³²

³¹ https://www.cembenchmarking.com/Files/Documents/CEM_article_-_The_time_has_come_for_standardized_total_cost_disclosure_for_private_equity.pdf

³² https://papers.ssrn.com/sol3/papers.cfm?abstract_id=999910

More recently, in 2020, CEM concluded that pensions are reporting, at best, only half of their investment management costs.³³

“Our research indicates that, at best, only half of true total investment management costs are included in asset owner financial statements. Across the industry this means an enormous amount of costs actually incurred go unreported. Tens of billions of dollars are not reported by asset owners.”

“We believe our estimate that 49 per cent of costs go unreported in financial statements of annual reports is conservative and the extent of under-reporting is likely to be higher across the entire industry.”

Our forensic investigations routinely uncover fees related to alternative funds and fund of funds in the 7-10 percent range.³⁴ Our 2014 forensic investigation of the \$87 billion State Employees’ Retirement System of the State of North Carolina revealed that the pension paid undisclosed fees approximately \$500 million, in addition to the \$500 million in fees it disclosed.³⁵

³³ <https://www.top1000funds.com/2020/11/asset-owners-report-half-of-all-costs/>

³⁴ <https://www.forbes.com/sites/edwardsiedle/2012/06/26/jp-morgan-hedge-fund-of-funds-out-of-this-world-fees-and-egregious-conflicts/?sh=61def7b72e50>

³⁵ https://www.seanc.org/assets/SEANC_Pension_Investigation_Highlights_Recommendations.pdf

In our opinion, there is ample reason to believe the total fees are nearly **double** what the pension is reporting, amounting to almost **\$1 billion** annually.

To put the hidden, unreported fees into context, they amount to \$2.75 million per school day and **more than twice the \$210 million required to fund STRS COLAs annually.**

We note with great emphasis that since STRS investment managers may withdraw their fees from pension accounts in the absence of any diligent monitoring by STRS, *the risk of looting, i.e., illegitimate withdrawals, is dangerously high, in our opinion.*

In conclusion, there is no point in debating the true all-in investment costs. Absent an accounting and full transparency, pension stakeholders can never be certain of the true costs; with scrutiny, the true costs can be precisely determined and publicly disclosed, consistent with applicable fiduciary duties—restoring financial integrity to the pension.

As CEM notes in a private equity whitepaper, cost disclosure and transparency can lead to better decisions. Says CEM:

“Clearly there currently are challenges with collecting full private equity costs, but the exercise can yield benefits beyond improved disclosure and transparency. Understanding true costs can lead to lower costs through negotiation with managers. Additionally, understanding costs may lead to more efficient investment vehicle selection because high costs will materially impact private equity performance.”

In conclusion, there is never any justification for a pension to fail to demand full disclosure of fees from investment managers since failure to understand true costs may lead to less efficient investment vehicle selection and negatively impact performance.

An exhaustive investigation into all past payments to investment managers should be immediately undertaken, as well as recovery pursued with respect to any illegitimate payments, in our opinion. Finally, disclosure of historic costs should be adjusted to correct any past underreporting or errors.

VI. Fees On Committed, Uninvested Capital

According to the Quarterly Alternative Investment Report, as of June 30, 2020, the pension had unfunded alternative investment capital commitments in the following amounts:

Total Private Equity
\$4,308,715,233

Total Opportunistic/Diversified
\$2,843,385,850

Total Unfunded Commitments
\$7,152,101,083

It is common practice for private equity and other alternative investment funds to charge investment management fees on “committed capital.” In other words, after the investor makes a capital commitment to a fund, management fees are charged on the entire commitment

amount, regardless of whether the capital is actually drawn or invested. Paying fees on committed, uninvested capital results in exponentially greater fees on assets under management on a percentage basis.

For example, imagine STRS contractually agrees (commits) to invest \$100 million (capital) in a fund over the next ten years, but only actually deposits \$10 million into the fund early on. If the fee is 2 percent annually on committed capital (including the uninvested amount of \$90 million), STRS will be charged fees of 2 percent annually on \$100 million or \$2 million, not 2 percent of \$10 million or \$200,000—even though the manager is only actually handling (investing) \$10 million of the pension’s assets initially. Note that in the example, 2 percent on “committed, uninvested capital” equates to an astronomical fee of 20 percent of the \$10 million actually invested initially.

In 2017, reportedly 91 percent of private equity managers demanded investors pay fees *today* on money investors had committed to invest over time, say, over the *next 10 years*.³⁶ Fees on committed, uninvested capital amount to paying managers for *doing nothing*—no service whatsoever is provided in exchange for the lavish fee. In our opinion, such fees add insult to injury since these types of investment funds

³⁶ <https://www.pionline.com/article/20170725/INTERACTIVE/170729897/fees-on-committed-capital-the-norm-in-private-equity-funds>

already charge exponentially higher fees than traditional stock and bond managers.³⁷

Not surprising, unlike STRS, a growing minority of savvy institutional investors resist paying fees to investment managers based upon their capital commitments.

According to CEM, fees on committed capital generally range from 1.56 percent to 2 percent. Assuming STRS pays fees of 2 percent on total unfunded commitments, this amounts to an annual waste of approximately **\$143 million**—enough to restore the COLA to 2 percent.

As discussed extensively earlier, it is unclear whether STRS monitors or knows the full fees—including fees on committed, uninvested capital—it pays investments managers and whether those fees are fully disclosed.

VII. ACA Compliance Group Independent Investment Performance Examination and Verification

Since 2006, STRS has regularly stated in press releases and on its website that its “performance was verified by ACA Performance Services and was in compliance with the CFA Institute Global Investment Performance Standards (GIPS), widely considered to be the best standard for calculating and presenting investment performance.”³⁸

³⁷ <https://www.forbes.com/sites/edwardsiedle/2019/05/01/when-money-managers-get-paid-handsomely-for-doing-nothing/?sh=759f1a085866>

³⁸ <https://www.strsoh.org/publications/newsletters/actives/finance.html>

According to a November 12, 2020 letter from Nick Treneff, STRS Communication Services Director, STRS was “one of the first asset owners to voluntarily adopt what is widely considered industry best practice for investment performance reporting and presentation — the Global Investment Performance Standards (GIPS), developed by the CFA Institute.”

“We are currently *one of only five* U.S. pension plans that comply with these standards and have done so each year since 2006 as verified by an independent third-party, ACA Compliance Group. ACA completed *rigorous testing and validation* of the STRS Ohio total fund performance calculation inputs, resulting return and reporting and shared that STRS Ohio complies with the *industry’s most stringent* reporting practices (emphasis added).”

Introduced in 1999, the GIPS standards are universal, voluntary standards based on the fundamental principles of full disclosure and fair representation of investment performance. The GIPS standards are administered globally by CFA Institute and have been adopted by 1,700+ firms in more than 47 markets around the world, including some or all of the assets of the 24 of the top 25 asset management firms.

STRS rightly states that it is one of only a handful of pensions to comply with GIPS standards. While many traditional investment managers secure GIPS compliance as a marketing tool, it is extremely rare (as well as problematic, in our opinion) for asset owners to incorporate GIPS principles in their own performance reporting to oversight boards,

governing bodies and plan beneficiaries. It has been noted that with increased public scrutiny of some asset owners, such public pensions, GIPS compliance verification may be reassuring to stakeholders that the asset owner is following universal standards and best practices related to performance calculation.³⁹ That is, GIPS compliance may present some perceived marketing advantage to a pension, such as STRS, under intense scrutiny.⁴⁰

To be clear, GIPS standards are *voluntary* asset management *industry* standards—standards which *the industry* agrees are “best practice” or acceptable. Whether GIPS standards are “best practice” or acceptable for retirement plan fiduciaries is an entirely different matter. That is, standards which the asset management industry is comfortable *voluntarily* adopting likely will fail to be rigorous enough to meet the heightened standards applicable to fiduciaries charged with safeguarding retirement plan assets.

We requested the following documents from STRS related to ACA Compliance:

1. Please provide all contracts between the STRS and ACA Compliance.
2. Please provide any documents regarding potential conflicts of interest at ACA.

³⁹ <https://www.diligend.com/manager-claim-of-gips-compliance-does-it-really-matter/>

⁴⁰ We note that GIPS Compliance began in 2006 when the pension emerged from its last Fiduciary Performance Review.

3. Please provide any due diligence documents regarding litigation, regulatory or disciplinary matters involving ACA.
4. Please provide any disclosure by ACA of compensation arrangements with STRS investment managers.
5. Please provide documents related to any review by the STRS Board conflicts of interest at ACA.
6. Please provide any disclosure providing the actual dollar amounts of compensation received by ACA from STRS investment managers.
7. Please provide all reports related to STRS GIPS compliance and investment performance produced by ACA.

STRS responded:

Concerning items 2-7, I must note that much of your request fails to satisfy the requirement of public records law that you specifically and particularly identify the records that you are seeking. Under Ohio law, a requestor has the duty to "identify the records.....wanted with sufficient clarity." *State ex rel. Dillery v. Icsman (2001) 92 Ohio St.3d 312, 314.*

A public office is not required to conduct research or otherwise "seek out and retrieve those records which would contain the information of interest to the requester". *State ex rel. Fant v. Tober (8th Dist., April 28, 1993), No. 63737, 1993 Ohio App. LEXIS 2591 at *4; aff'd (1993), 68 Ohio St. 3d 117.* To the extent that you have requested records containing specific information, rather than identifying the specific records you seek, your request is inappropriate under applicable legal standards. If there are specific records you would like to request, please identify those with sufficient clarity.

That said, in the interest of openness, this office has voluntarily made an effort to identify readily available public records that are responsive and have found no records we believe to be responsive to #2-6, and we are providing all 6 reports we believe to be responsive to Item

#7. Again, to the extent there are additional records you seek, please identify those with sufficient clarity.

The reports provided by STRS included a Service Agreement effective January 8, 2015 which provides the fee for the initial engagement was \$49,000. As to ACA's role, the Agreement warns:

Because ACA will not perform a detailed inspection of all of Client's books and records, communications, and transactions, there is a risk that material issues or deficiencies, fraudulent activity, misappropriation of assets, or violations of law, which may exist, will not be detected during the course of performing the Services. In addition, and due to the characteristics of fraud, a properly planned and performed verification or performance examination may not detect fraudulent activity, misappropriation of assets, or violations of law. ACA will promptly report to Client any fraudulent activity relating to Client that comes to ACA's attention during the course of performing the Services. Client acknowledges that it is ultimately responsible for the adequacy of its policies and procedures for complying with the GIPS standards as well as the calculation and presentation of any Asset Classes.

ACA does not offer legal or accounting services, nor does it provide substitute services for those provided by legal counsel or certified public accountants. If ACA provides forms or other documents to Client, the provision of such documents should not be deemed to constitute any form of legal advice. Although ACA's work may involve analysis of accounting and financial records, this engagement is not an audit of Client in accordance with generally accepted auditing standards, nor is it a review of the internal controls of Client in accordance with any authoritative accounting literature or other accounting standards.

The other reports we were provided include Verification and Performance Examination Reports for the periods from July 1, 2005 through June 30, 2015; for the periods from July 1, 2006 through June 30, 2016; for the periods from July 1, 2007 through June 30, 2017; for the periods from July 1, 2008 through June 30, 2018; for the period ended June 30, 2019; and for the period ended June 30, 2020.

The Verification and Performance Examination Report for the period ended June 30, 2020, states that the firm's management "is responsible for compliance with the GIPS standards and the design of its policies and procedures and for the Total Firm's compliant presentation." Also, it is stated "This report does not relate to or provide assurance on any composite compliant presentation of the Firm other than the Firm's Total Fund" and "The Total Fund Composite includes all individual portfolios that are combined into one aggregate portfolio for GIPS compliance purposes."

The Accompanying Notes to the ACA Report indicate that the actual asset allocation of the pension as of June 30, 2020 included Real Estate 9.7 percent and Alternative Investments 17.6 percent.

With respect to real estate, the ACA Report states "Due to the nature of real estate investments, all private real estate is valued using market-based inputs that are comparable but subjective in nature due to the lack of widely observable inputs." Also, "Internally managed direct real estate investments are valued by an external appraiser once every

three years and by an internal valuation quarterly. Valuations of externally managed commingled real estate funds are determined by the underlying investment manager quarterly, with supporting financial statements when available.”

With respect to alternative investments ACA states, “Due to the nature of alternative investments, substantially all investments in this asset class are valued using market-based inputs that are comparable but subjective in nature due to the lack of widely observable inputs.” Also, “Alternative investments are valued by the underlying investment manager with supporting financial statements generally on a quarterly basis.”

As the above statements regarding the pension’s real estate and alternative investments (comprising at least approximately 27 percent of the portfolio) indicate, there is *substantial uncertainty* regarding the value of these assets. While industry and GIPS standards may permit these managers to unilaterally, subjectively value such assets they manage, such valuations cannot be considered credible by asset owners. After all, the managers are subject to a profound conflict of interest in establishing portfolio values since they are compensated on the value of those assets through asset-based fees.

Thus, for the pension to proudly state, “ACA completed rigorous testing and validation of the STRS Ohio total fund performance calculation inputs, resulting return and

reporting and shared that STRS Ohio complies with the industry's most stringent reporting practices," is potentially misleading to stakeholders, in our opinion. At a minimum, it is inaccurate to state that there has been "rigorous testing and validation" of the real estate and alternative investment values. Whether STRS or the real estate and alternative managers comply with voluntary asset management industry reporting practices which may or may not be "most stringent" is irrelevant.

Further, we note that GIPS compliance is not the norm for alternative investment managers. As Justin Guthrie, Head of Performance Services at ACA Compliance Group was recently quoted saying:

When it comes to traditional fixed income and equity mandates, nearly 80 percent of firms are GIPS-compliant. But, in sharp contrast, that statistic for alternative asset managers is less than 5 percent. In an age where institutional investors demand increased transparency across asset classes, I believe private equity firms, hedge funds and the real estate investment industry will find themselves changing their tune around voluntary compliance ahead of the updated 2020 GIPS standards coming in effect. We've seen first-hand from our client base that institutional investors are demanding GIPS compliance as a part of the RFP and overall due diligence process from alternative managers, which is precisely why the GIPS executive committee has been working hard to reorient the standards to accommodate a wide array of asset classes.

The world of private equity would particularly benefit from the broad adoption of the GIPS standards, as the industry faces a lack of standardized methodologies and consistency for the presentation of IRR results. There has been much concern around lines of credit and

how private equity firms disclose performance results, including differences in the MOIC calculation as well as treatment of affiliated capital- the 2020 GIPS standards provide a framework for consistency, and prevent the comparison of apples to oranges when it comes to reporting results to investors.”⁴¹

Guthrie’s statements above suggest that ACA is largely in the business of providing GIPS compliance verification services to traditional asset managers. Few alternative asset managers (less than 5 percent, says Guthrie), and even fewer still pensions (only 5, says STRS), seek GIPS compliance services.

Based upon statements by ACA that less than 5 percent of alternatives managers are GIPS compliant, it seems likely that most of STRS’s approximately 170 alternative investment funds are *not* GIPS compliant.

With respect to Guthrie’s statement that “institutional investors are demanding GIPS compliance as a part of the RFP and overall due diligence process from alternative managers,” we asked the pension in a public records request for all RFPs related to asset management services (traditional, as well as alternative assets) to determine whether all managers were required to demonstrate GIPS compliance in connection with any due diligence undertaken by the pension. The RFPs we were provided in response to our public records request related to traditional active managers. It appears that alternatives managers are

⁴¹ <https://www.valuewalk.com/2019/01/gips-compliance-alt-asset-managers/>

hired without the issuance of an RFP. The RFPs we were provided included the following question:

Discuss whether the firm is GIPS® compliant. If so, state whether and for how long the firm has been verified, the name of your verifier, and provide a copy of your most recent verification letter. If not, state why.

In short, it appears that STRS does not require GIPS compliance of any of its asset managers—even those hired pursuant to an RFP.

We note that Ohio Revised Code 3309.15 governing the investment and fiduciary duties of the Board states:

If the board contracts with a person, including an agent or investment manager, for the management or investment of the funds, the board shall require the person to comply with the global investment performance standards established by the chartered financial analyst institute, or a successor organization, when reporting on the performance of investments.

It appears that compliance with the above statutory requirement may not be enforced.

Based upon this response and our experience, we have no reason to believe that pensions (which are increasingly relying upon alternative investments) are demanding, or the alternative investment managers are themselves voluntarily embracing GIPS compliance standards. While GIPS compliance may assist managers in their marketing, it is not at all clear that GIPS compliance verification for public pensions which invest heavily in alternatives investments (which are generally not GIPS compliant) provides any

meaningful benefit to stakeholders, in our opinion. On the other hand, the risk that STRS GIPS compliance representations may be mischaracterized by pensions, or misunderstood by stakeholders seems very real.

Finally, we note ACA is currently embroiled in a controversy regarding exaggerated investment returns at Pennsylvania's \$64 billion public school employees pension fund which is being investigated by the Federal Bureau of Investigation. According to an article in *The Inquirer*:

Another issue concerns an outside consultant, ACA Group of New York, which was hired to check the calculation and whether its review was deliberately handcuffed.

Before the board reversal, pension officials said repeatedly in official documents that ACA had verified the number. ACA then pushed back, insisting that it was hired only to spot-check the math.⁴²

VIII. External Investment Consultants

At this time, the Retirement Board retains two investment consulting firms. Callan is the full retainer consultant overseeing general investment matters, the liquid asset classes (equity and fixed income) and real estate. With respect to investment consulting services, Callan advises the Board on matters such as asset allocation, investment strategy, and investment performance benchmark selection for all asset classes; provides annual investment performance reviews (including real estate and alternative

⁴² <https://www.inquirer.com/business/psers-pension-fbi-pa-probe-subpoenas-20210516.html?outputType=amp>

investments), quarterly performance reports including direct cost estimates to arrive at a net active management return for each period, a review for the Board at least once every three years of the quality and capabilities of STRS's internal investment management organization, and annual investment and educational seminars for the Board.

Cliffwater LLC, is a full retainer non-discretionary⁴³ investment consultant specializing in alternative investments which provides review and comment on the alternative investment strategy; upon request, but in no event more than once during the initial three year contract term, conducts a review of STRS's alternatives investment operations; participates in STRS educational activities and seminars; upon request, assists STRS staff with the design and implementation of its hedge fund program, including recommending and monitoring hedge funds.

As discussed earlier, the 2006 Fiduciary Performance review recommended, given potential conflicts of interest pervasive in the investment consulting industry, that the then-consultant Russell's contract with STRS be amended to require Russell to provide annual disclosure of its business relationships with all investment managers or other providers of investment services. This contractually-required disclosure should include information from Russell on the specific amounts paid to Russell by those investment managers

⁴³ The Cliffwater Investment Advisor Agreement repeatedly specifically states that the firm is a non-discretionary adviser; for whatever reason, the Callan Agreement does not specify whether Callan is either a discretionary or non-discretionary adviser.

employed by STRS and on the specific services provided to those managers, said IFS.

As detailed below, our review indicates that STRS has replaced Russell and entered into investment advisory agreements with two new investment consultants. Both agreements with the new investment consultants require the full disclosure—as recommended 15 years ago—of all business relationships with investment managers and service providers, as well as specific amounts paid to the investment consultants by STRS investment managers. However, it appears STRS has not received full disclosure of conflicted payments.

If true, then both consultants may be in breach of their contracts with the fund. In our opinion, by failing to adequately monitor conflicts of interests involving STRS investment consultants which could potentially undermine the integrity of the pension's investment decision-making process, the board may have breached its fiduciary duty to safeguard assets and exposed the fund to enormous risks. Further, the board may have permitted the investment consultants to enrich themselves by the amounts of such manager payments, at the expense of the pension.

- **History of Regulatory Concerns Regarding Pension Investment Consultant Conflicts of Interest**

“Pension investment consultants” provide advice to pension plans and their trustees with respect to such matters as: (1) identifying investment objectives and restrictions; (2)

allocating plan assets to various objectives; (3) selecting money managers to invest plan assets in ways designed to achieve objectives; (4) negotiating investment advisory fees with managers; (5) monitoring performance of money managers and making recommendations for changes; and (6) selecting other service providers, such as custodians, administrators and broker-dealers.

Many pension plans rely heavily on the expertise and guidance of their pension consultants in helping them to manage pension plan assets. Public pensions, in particular, rely heavily on their pension consultants since these funds generally have lay boards that lack investment expertise.

In late 2003, the staff of the SEC following a recommendation for a high impact pension initiative requested from Benchmark announced an inquiry into conflicts of interest involving investment consultants to pensions, including allegations of “pay to play” practices.

“Pay to play” in the pension context refers to the common practice of investment consultants who are retained on a non-discretionary basis to provide independent objective advice regarding investment managers, requiring or encouraging managers to direct or pay trading commissions and/or other compensation to them in order to be recommended to pension clients.

When consultants recommend managers based upon their willingness to pay compensation to the consultant, as opposed to on the investment merits, they engage in self-

dealing and breach their fiduciary duty to place client interests ahead of their own. Substantial harm in the form of excessive risk and fees, as well as diminished investment returns has been found to result. The SEC staff examined the divergent sources of consultant compensation and the related conflicts; whether such amounts and conflicts were properly disclosed; and whether pensions were being harmed by such practices.

On May 16, 2005 the staff of the SEC's Office of Compliance Inspections and Examinations issued a report which, in part, concluded that conflicts of interest were pervasive and disclosure practices lacking in the investment consulting industry.⁴⁴

On June 1, 2005 the SEC and U.S. Department of Labor issued a publication entitled "Guidance Addressing Potential Conflicts of Interest Involving Pension Consultants." To encourage the disclosure and review of more and better information about potential conflicts of interest, the DOL and SEC took the unusual step of developing and issuing a set of questions to assist plan fiduciaries in evaluating the objectivity of the recommendations provided, or to be provided, by a pension consultant. That is, a form of questionnaire was provided for plan sponsors to use in their

⁴⁴ Staff Report Concerning Examinations Of Select Pension Consultants May 16, 2005, The Office of Compliance Inspections and Examinations, U.S. Securities and Exchange Commission.

dealings with their consultants and for consultants to voluntarily make available.⁴⁵

As the DOL noted at that time:

“Findings included in a report by the staff of the U.S. Securities and Exchange Commission released in May 2005 ..., raise serious questions concerning whether some pension consultants are fully disclosing potential conflicts of interest that may affect the objectivity of the advice they are providing to their pension plan clients... SEC staff examined the practices of advisers that provide pension consulting services to plan sponsors and trustees. These consulting services included assisting in determining the plan’s investment objectives and restrictions, allocating plan assets, selecting money managers, choosing mutual fund options, tracking investment performance, and selecting other service providers. Many of the consultants also offered, directly or through an affiliate or subsidiary, products and services to money managers. Additionally, many of the consultants also offered, directly or through an affiliate or subsidiary, brokerage and money management services, often marketed to plans as a package of “bundled” services. The SEC examination staff concluded in its report that the business alliances among pension consultants and money managers can give rise to serious potential conflicts of interest under the Advisers Act that need to be monitored and disclosed to plan fiduciaries.”

Most significantly, conflicts of interest at investment consulting firms were found to result in *substantial financial*

⁴⁵ Selecting and Monitoring Pension Consultants, Tips for Plan Fiduciaries, U.S. Department of Labor, May 2005.

harm to plans by the Government Accountability Office in a 2007 report.⁴⁶ Benchmark assisted GAO in its review.

In its report, the GAO took the extraordinary step of quantifying the harm a conflicted adviser to a plan can cause. "Defined Benefit plans using these 13 consultants (with undisclosed conflicts of interest) had annual returns generally 1.3 percent lower ... in 2006, these 13 consultants had over \$4.5 trillion in U.S. assets under advisement," the report stated.

As one observer noted, "That's a \$58.5 billion reduction in returns. And this was only a small sample of the pension-consulting universe."⁴⁷

If the GAO estimates are correct, investment consultant conflicts of interest could cost an \$90 billion pension, such as STRS, over \$1 billion annually or approximately **\$20 billion** over a ten-year period with compounding. As mentioned elsewhere, the unfunded actuarial liability of the pension is \$22.3 billion. *Thus, the estimated cost of conflicts nearly equals the unfunded liability, or, alternatively stated, "but for" the conflicts the pension would be nearly fully funded.*

Failure to disclose conflicted sources of compensation and the amounts of such compensation among these trusted advisers to sponsors of retirement plans, as well as the

⁴⁶ Defined Benefit Pensions: Conflicts of Interest Involving High Risk or Terminated Plans Pose Enforcement Challenges, GAO, June 28, 2007.

⁴⁷ Four-year SEC probe of pension consultants barely yields slap on wrist, Boston.com, October 2, 2007

potential economic harm to pensions resulting from such conflicted advice, has been well documented by the SEC, DOL and GAO. In summary, awareness of conflicts of interest involving pension consultants has grown and for well over a decade plan sponsors, unlike STRS, have acknowledged a duty to investigate such conflicts.

Ironically, while disclosure of conflicts of interest in the pension consulting industry has improved over the past 15 years, the conflicts have grown to be more significant than ever. Today, many consultants derive far greater revenue from conflicted revenue streams than from providing objective advice on a non-discretionary basis.

As mentioned earlier, the SEC staff in 2005 found that many investment consultants offer, directly or through an affiliate or subsidiary, products and services to money managers that can give rise to serious potential conflicts of interest under the Advisers Act that, at a minimum, need to be monitored and disclosed to plan fiduciaries.⁴⁸

The three most common and controversial investment consultant conflict scenarios relate to:

1. Consultants with securities brokerage affiliations;
2. Educational and/or consulting services sold to investment managers; and

⁴⁸ Staff Report Concerning Examinations Of Select Pension Consultants May 16, 2005, The Office of Compliance Inspections and Examinations, U.S. Securities and Exchange Commission.

3. Marketing of discretionary asset management services by consultants retained on a non-discretionary basis.

- **Pension Consultants with Affiliated Brokerages**

Pension consultant gatekeepers may offer either directly or through their subsidiaries and affiliates securities trading and other services to the very money managers they recommend to pension clients. The securities commissions consultants with affiliated brokerages earn from managers may be significantly greater than the compensation received for providing pensions with supposedly objective advice regarding these managers.

There is a risk that these payments from managers to consultants may not only undermine the integrity of the advice consultants provide to pensions but also result in underperformance if assets are allocated to investment managers based upon willingness to pay, as opposed to investment merit. Further, commission payments from money managers to investment consultants can result in excessive consulting, brokerage and investment management fees.

For example, in March 31, 2000, a KPMG Performance and Operational Review of the Metropolitan Government of Nashville and Davidson County's pension investments determined that the PaineWebber investment consulting contracted fee was excessive. The fee the \$1.3 billion pension was contractually obligated to pay for consulting services was \$788,747, as opposed to an average fee for similar public funds which ranged from \$92,000 to \$163,000.

However, PaineWebber actually earned a total of \$1,408,773 in commissions for the year. Similarly, investment manager fees were higher than fees paid by other similar public funds.

Benchmark's subsequent investigation of the PaineWebber compensation scheme on behalf of the Nashville pension revealed significant additional fiduciary breaches, compensation and excessive fees.

We subsequently investigated this same investment consultant after he left PaineWebber and joined Morgan Stanley on behalf of the City of Chattanooga pension fund.

In June 2005 the Atlanta District Office of the SEC concluded an examination of the Nashville Branch Office of Morgan Stanley. The SEC review of the pension consulting arrangement between Morgan Stanley and the City of Chattanooga public pension fund revealed that Morgan Stanley failed to fully and fairly disclose all material facts concerning its conflicts of interest, including its compensation agreements in violation of Section 206 of the Investment Advisers Act of 1940.

The SEC concluded that the disclosures made by Morgan Stanley were not sufficiently detailed in order to allow its client to evaluate investment manager recommendations and to give its informed consent to Morgan Stanley's conflicts of interest. Further, SEC determined that Morgan Stanley had failed to disclose to the pension the conflicts of interest related to the firm's financial adviser (broker) compensation program, including indirect "perks."

On July 20, 2009, the SEC instituted public administrative and cease-and-desist proceedings against the pension consultant, who, according to the SEC, was a member of Morgan Stanley's Chairman's Club, comprised of the firm's top 175 financial advisers, and ranked among the firm's top 25 financial advisers in revenue.⁴⁹

PaineWebber and Morgan Stanley both entered into settlements with the public pension funds of the cities of Nashville (\$10 million) and Chattanooga (\$6 million) in matters involving pension consultant conflicts of interest and pay-to-play.⁵⁰

In 2009, following meetings with Benchmark, the SEC entered a cease and desist order against Merrill Lynch regarding the investment consulting services the firm provided to over 100 public pension clients in Florida. According to SEC:

From at least 2002 through 2005, Merrill Lynch, through its pension consulting services advisory program, breached its fiduciary duty to certain of the firm's pension fund clients and prospective clients by misrepresenting and omitting to disclose material information. Merrill Lynch's pension fund clients came to it seeking advice in developing appropriate investment strategies and in selecting money managers to manage the assets entrusted to their care. In providing such advice, Merrill Lynch failed to disclose the facts creating the material conflict of interest in recommending clients use directed brokerage to pay hard dollar fees, and in recommending the use of Merrill Lynch's transition

⁴⁹ <https://www.sec.gov/litigation/admin/2010/34-61278.pdf>

⁵⁰ Morgan Stanley Settles Chattanooga Suit, fundfire.com, March 24, 2006.

management desk. In addition, Merrill Lynch made misleading statements.... regarding its manager identification process.⁵¹

Following the SEC action, approximately 70 Florida public pensions settled a class action lawsuit against the firm for \$8.5 million in 2012.⁵²

- **Callan**

We have reviewed the Investment Advisor Agreement between STRS and Callan effective July 1, 2015, as well as the June 1, 2016 first amendment related to an asset liability study and the May 2018 amendment renewing the Agreement for an additional three-year term, for full retainer investment consulting services to report directly to the Board for general investment matters, the liquid asset classes (equity and fixed income) and the real estate asset class.

The annual fee stated in the Agreement is \$431,756, multiplied by the change in the CPI-U as of June 2015, however, in no event will the annual fee ever be less than the amount payable for fiscal year 2016. (Ironically, while the pension has eliminated cost of living adjustments to participants, at least this vendor has not been impacted.)

The Agreement indicates that Callan agrees to adhere to the standard of care and conduct required of a fiduciary under Chapter 3307 of the Ohio Revised Code, Title 1 of the

⁵¹ <https://www.sec.gov/litigation/admin/2009/ia-2834.pdf>

⁵² <https://www.law360.com/articles/333752/merrill-lynch-pays-8-5m-to-settle-pension-plan-action>

Employee Retirement Income Security Act of 1974 and any and all other applicable federal and state laws. We note that, ERISA, the comprehensive federal law that sets minimum standards to protect pension participants, generally does not cover plans established or maintained by government entities; however, many public pensions have adopted ERISA's heightened fiduciary requirements.

Under ERISA, fiduciaries are required to discharge their duties solely in the interest of plan participants and beneficiaries and for the exclusive purpose of providing benefits and defraying reasonable expenses of administering the plan. Fiduciaries are generally prohibited from profiting from plan transactions and investigations to ensure compliance with such legal prohibitions are required of plans. Thus, under ERISA, at a minimum Callan is required to disclose, and the board is required to investigate, any conflicted compensation arrangements.

With respect to confidentiality, the Agreement states that both parties acknowledge that confidential material and information may come into the possession or knowledge of each party in connection with the agreement and if disclosure of such information may be required by law, each party will nevertheless give timely notice of such disclosure to enable the other party to challenge such disclosure.

In our opinion, as a public pension, STRS contracts should not include contractual provisions which attempt to thwart public disclosure under applicable law. To the best of our

knowledge, there is no benefit to the pension or its stakeholders from enabling any party to challenge public disclosure required by law. On the other hand, as mentioned earlier (according to STRS expert CEM Benchmarking), transparency and public accountability lead to better outcomes. In our opinion, this provision is yet another example of STRS abandoning its transparency obligations in apparent pursuit of alternate goals.

The Agreement provides that Callan will maintain professional liability insurance coverage in the amount of only \$5 million. In our opinion, this amount of insurance seems woefully inadequate to protect the \$90 billion public pension from potential investment consultant negligence or malfeasance, particularly given that GAO estimates consultant conflicts can result in billions of losses over time.

We note that in recent years large, deep-pocketed consultants have abandoned public defined benefit plans, as the legal risks of advising severely underfunded pensions mount. For example, in 2010, investment consultant Mercer departed from providing services to public pensions after paying \$500 million to settle a lawsuit brought by the Alaska Retirement Management Board. A year earlier, the firm had agreed to pay Milwaukee County \$45 million to settle a negligence lawsuit filed by Milwaukee's pension board. Mercer's decision affected \$240 billion in public assets under advisement.

Mercer's loss reportedly was Callan's gain. Callan's President Greg Allen noted at the time that, "from the standpoint of a plaintiff's lawyer, interest in litigation is driven partly by the size of the potential settlement and, therefore, the bigger the insurance policy, or the deeper the pockets of the parent company, the larger the potential settlement. Small firms with small policies are relatively unattractive targets, Allen said."⁵³ In other words, Callan's small insurance policy and lack of other financial resources is a strategic advantage in dealing with problematic public pensions.

As mentioned below, in 2006, Callan agreed to pay the city of San Diego \$4.5 million to settle a lawsuit that claimed Callan was negligent in advising the \$4.6 billion San Diego City Employees' Retirement System. While City Attorney Michael Aguirre had been seeking more than \$50 million in damages in the suit, the case was settled for the amount of the remaining insurance. Had the STRS Board conducted an adequate due diligence review of Callan, both the limited insurance policy and the San Diego settlement should have emerged as concerns.

With respect to conflicts of interest, the Agreement states that Callan shall not receive any remuneration in connection with transactions involving the fund unless disclosed in writing in advance; Callan has disclosed in writing those actual and potential conflicts of interest that could be reasonably expected to affect the objectivity of the firm or its

⁵³ <https://www.ai-cio.com/news/mercer-abandons-public-pension-plans/>

employees in fulfilling their duties to STRS and will update STRS promptly in the event of any additional, actual or potential conflicts of interest. Also, Callan will provide annual disclosure of its business relationships with all investment managers or other providers of investment services employed by STRS Ohio. This disclosure will include information on the specific services provided and the specific amounts paid to Callan.

We note with particular emphasis, the contract prohibits Callan receiving any remuneration in connection with transactions unless disclosed in advance both as to specific services and specific amounts. Callan is compelled to disclose—regardless of whether the pension asks or not.

In light of the 2006 Fiduciary Performance recommendations regarding conflicts of interest involving STRS investment consultants and the above conflicts of interest prohibitions and disclosure obligations in the Agreement between the fund and Callan, we requested from the pension the following information:

1. Please provide all contracts between the STRS and Callan Associates.
2. Please provide any documents relating to potential conflicts of interest at Callan.
3. Please provide any documents prepared or received as part of STRS's due diligence documents regarding litigation, regulatory or disciplinary matters involving Callan.
4. Please provide all documents related to compensation arrangements by Callan with the STRS investment managers.

5. Please provide documentation related to any review by the STRS Board of potential conflicts of interest at Callan.
6. Please provide any disclosure(s) providing the actual dollar amounts of compensation received by Callan from each of the STRS investment managers.
7. Please provide all asset allocation reports, investment manager recommendations, investment performance and other reports related to STRS produced by Callan.

In response, we received the Investment Advisor Agreements and Amendments previously discussed, as well as 24 Investment Measurement Service Quarterly Reviews from 2015 through 2020.⁵⁴

STRS responded:

Concerning items 2-7 of the Documents relating to Callan... I must note that much of your request fails to satisfy the requirement of public records law that you specifically and particularly identify the records that you are seeking. Under Ohio law, a requestor has the duty to “identify the records.....wanted with sufficient clarity.” *State ex rel. Dillery v. Icsman (2001) 92 Ohio St.3d 312, 314.*

A public office is not required to conduct research or otherwise “seek out and retrieve those records which would contain the information of interest to the requester”. *State ex rel. Fant v. Tober (8th Dist., April 28, 1993), No. 63737, 1993 Ohio App. LEXIS 2591 at *4; aff'd (1993), 68 Ohio St. 3d 117.* To the extent that you have requested records containing specific information, rather

⁵⁴ Note: The Callan Reviews beginning around 2018 state: “Information contained herein includes confidential, trade secret and proprietary information. Neither this Report nor any specific information contained herein is to be used other than by the intended recipient for its intended purpose or disseminated to any other person without Callan’s permission.” In our opinion, there are no trade secrets or proprietary information in these reports—other than possibly the investment management firms which make conflicted payments to Callan. Despite this footnote disclosure, neither Callan nor STRS withheld these documents from us.

than identifying the specific records you seek, your request is inappropriate under applicable legal standards. If there are specific records you would like to request, please identify those with sufficient clarity.

That said, in the interest of openness, this office has voluntarily made an effort to identify readily available public records that are responsive and we are providing all 24 reports we believe to be responsive to Item #7, and responsive in part to #2-6 of the section on Documents relating to Callan.

We note that each of the 24 Quarterly Reviews the pension provided to us include in their final pages a list of approximately 200 investment managers that pay Callan fees for “educational, consulting, software, database or reporting products and services.” As mentioned earlier, the SEC has long been concerned that payments from investment managers may undermine the objectivity of investment consultant recommendations which, according to GAO, may adversely impact pension performance.

Notably, neither the Callan Quarterly Reviews nor any other document provided by STRS in response to our request for information disclose the *specific services* provided and the *specific amounts* of compensation received by Callan from each of STRS investment managers—disclosure which the 2006 Fiduciary Performance review recommended and which the contract between Callan and STRS requires in advance. Absent disclosure of actual dollar amounts and services provided, fiduciaries to a pension cannot effectively evaluate the potential harm to the fund, as

well as benefit to the consultant, related to the conflict.

We note that in the past Callan routinely provided *greater disclosure* regarding the types of services different asset managers purchased from the firm. A List of Managers We Do Business With 9/30/06 includes approximately 220 investment managers and separates those managers who purchase educational services from those who purchase consulting services. Approximately half of the managers listed purchase both services. The document also discloses that BNY is the exclusive broker in those instances where a manager chooses to pay Callan's fees through brokerage commissions.

The 2015 Callan Reviews include a List of Managers That Do Business With Callan that also listed approximately 200 investment managers and separates those managers who purchase educational services from those who purchase consulting services. Approximately half of the managers listed purchase both services. It is also noted that "Clients should also be aware that Callan maintains an asset management division, the Trust Advisory Group (TAG). TAG specializes in the design, implementation and on-going management of multi-manager portfolios for institutional investors. Please refer to Callan's ADV Part 2A for a complete listing of TAG's portfolios. We are happy to provide clients with more specific information regarding TAG, including detail on the portfolios it oversees."

Beginning in 2016, the List of Callan Investment Manager Clients no longer indicates the type of services managers purchase from Callan.

The Callan Reviews also indicate, “Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients.” Again, the contract between STRS and Callan requires Callan to disclose compensation—regardless of whether the client asks—and prohibits any undisclosed compensation.

- **SEC Cease and Desist Regarding Callan Brokerage Affiliate**

In 1998, Callan sold Alpha Management Inc. (“Alpha”), its affiliated broker-dealer, to BNY ESI & Co., Inc., a subsidiary of the Bank of New York. As a part of that transaction, Callan and BNY entered into a Services Agreement wherein BNY agreed to pay Callan a specified amount per year for eight years, 1998 through 2006. A portion of the annual payment was contingent on BNY’s generating gross brokerage commissions above a certain minimum threshold from Callan clients. The minimum threshold was based on Alpha’s brokerage commissions earned in 1998.

Pursuant to the provisions of the Services Agreement, Callan was required to inform its retirement plan clients that BNY was its preferred broker should the clients elect to pay for Callan’s services through directed brokerage. Callan sent

annual letters to its retirement plan clients informing them of this option. Similarly, Callan agreed to inform its investment manager clients that BNY was its exclusive broker should the clients elect to pay for Callan's services with brokerage commissions. Callan sent annual letters to its investment manager clients informing them of this option. While the annual letters to the retirement plan and investment manager clients referenced the fact that Callan had sold Alpha to BNY, the letters failed to disclose that Callan was receiving compensation from BNY that depended on a certain level of commissions being generated by Callan clients.

As a registered investment adviser, Callan was required to file amendments to SEC registration statements known as Form ADV Part II at least annually. Between 1999 and 2005, Callan's Form ADV Part II stated that Callan was obligated by the terms of the Services Agreement to inform its plan sponsor clients that BNY was its preferred broker and investment manager clients that BNY was its exclusive broker if the client chose to pay Callan's fees through soft-dollar or directed brokerage arrangements. Callan further reported that, "[a]ccording to the terms of the transaction, BNY ESI makes periodic fixed payments to Callan each year." The SEC concluded that the characterization of BNY's payments to Callan as "fixed" was misleading in that a material portion of each annual payment was contingent upon BNY's receipt of a minimum threshold of Callan client brokerage business.

The SEC found Callan willfully violated Section 207 of the Advisers Act and ordered Callan to cease and desist from committing or causing any violations and any future violations of Section 207 of the Advisers Act.⁵⁵

According to its current Form ADV filed with SEC, “Callan has no soft-dollar arrangements with any broker and only accepts checks from brokers as payment for its hard-dollar client fees.”

- **Callan Educational and Consulting Services Sold to Investment Managers**

According to its current Form ADV filed with SEC:

Callan provides research and educational services to investment managers and receives compensation from them for those services. Some of those investment managers are evaluated or recommended by Callan to its other clients. Callan recognizes there is a potential conflict between Callan's interest in receiving compensation from investment managers and Callan's obligation to provide objective advice to our advisory clients who work with those managers. Callan has adopted certain policies and practices designed to prevent such conflicts, including the policies set forth in its Code of Ethical Responsibility, disclosure policies, roles of its oversight committees, and separation of the areas of business, including separate personnel, revenue streams, and compensation arrangements. Among other policies, Callan is committed to ensure it does not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other non-discretionary or discretionary advisory clients. Callan informs its investment manager clients of this

⁵⁵ <https://www.sec.gov/litigation/admin/2007/ia-2650.pdf>

policy at the start of a contractual relationship. Callan also routinely informs all clients of our manager client relationships, including disclosing the existence of its business relationships with investment managers on request. Callan also discloses these manager relationships in annual mailings, as part of each applicable manager search, and in the quarterly performance evaluation reports provided to fund sponsor clients. Fund sponsor clients can also request specific information regarding the fees, if any, paid to Callan by the managers employed by their fund. Per Callan policy, information requests regarding fees are handled by Callan's Compliance Department.

We note that while the above disclosure clearly states Fund sponsor clients can request specific information regarding the fees, if any, paid to Callan by the managers employed by their fund, we were provided by no documents in response to our request for information related to compensation arrangements between Callan and fund managers. Thus, we conclude that STRS has never requested information regarding such potentially conflicted payments and Callan has never provided such information to STRS, as required by the contract between Callan and STRS.

According to its current Form ADV filed with SEC, Callan's "Institutional Consulting Group (ICG) provides investment manager clients with research, education, performance measurement, and database and analytical tools that help them better serve the needs of institutional investors." Institutional managers pay Callan up to approximately \$135,000 annually, with a median payment of \$60,000.

According to its current Form ADV filed with SEC:

Callan's educational services are available to our clients, including asset owners, investment managers, and financial intermediaries through the Callan Institute and the Center for Investment Training ("Callan College"). The Callan Institute functions as an education institution servicing clients and our employees by independently analyzing trends in the industry via research communications and conference programs. The "Callan College," featuring sessions offered over several days throughout the year and on a customized basis, provides investment fiduciaries and their advisers with basic- to intermediate-level of classroom-style instruction on prudent investment practices. Each line of business, coupled with our client education services, contributes to the overall strength and stability of the organization, and fits well within our mission of helping institutional investors achieve their investment objectives. The firm maintains policies to ensure each division is compliant with our business, governance, ethics, and oversight practices.

The Form ADV further states "While the suite of services for each business line is individually priced, there is one set of services that spans all client types—our educational services. Fees for these services are up to \$3,500 per person, per session for "Callan College" and up to \$60,000 per organization per year for the Callan Institute." According to the firm's website, there are 3,129 attendees to Callan events.⁵⁶

As mentioned earlier, recent Callan STRS Quarter Reviews indicate approximately 200 managers that pay Callan for educational, consulting, software, database or reporting products and services. Assuming an average payment of

⁵⁶ <https://www.callan.com/callan-institute/>

\$60,000, the firm earned approximately \$12 million annually from managers for such services. Assuming, as in years past, half of all managers purchased both research and educational services, the firm may have earned \$18 million from managers. These are estimates; only Callan knows the actual amounts it earns from the investment managers it recommends.

STRS investment managers who, according to Callan, pay compensation to Callan at 6/30/2020 include the following 23 firms:

1. Stone Harbor LP
2. Wellington
3. Fidelity
4. Fortress
5. Genesis Asset Managers
6. GCM Grosvenor
7. Intech Investment Management
8. Invesco
9. JP Morgan
10. Lazard Asset Management
11. MFS Investment Management
12. Neuberger Berman
13. PIMCO
14. Goldman Sachs
15. Alliance Bernstein
16. AQR Capital
17. Ares Management
18. Blackrock
19. Chartwell Investment Partners
20. Wells Fargo
21. PGIM

- 22. TCW Group
- 23. BNY Mellon

In our opinion, clearly the annual payments Callan receives from asset managers are an important source of revenue.

- **Hawaii State Auditor Investigation**

According to The New York Times:

A 2002 audit of Hawaii's pension fund found that its consultant, Callan Associates, had recommended 16 money managers over time -- and 14 of them were paying Callan for marketing advice and other services. "The consultant's objectivity could be suspect," said the state auditor, Marion M. Higa, calling for further scrutiny. She noted that the Hawaii fund's overall five-year investment performance "ranks in the bottom 5 to 15 percent nationwide."

A Callan spokeswoman said that Hawaii's trustees stood by Callan after the audit, issuing a statement calling it "a highly regarded investment advisory firm with an unblemished reputation for integrity." In a statement, Callan said that it kept its various business lines separate and that it told all money managers that they would not win preferential treatment from Callan's pension consultants by buying other Callan services.⁵⁷

- **San Diego City Employees Retirement System Settlement**

In 2006, Callan agreed to pay the city of San Diego \$4.5 million to settle a 2005 lawsuit that claimed Callan was negligent in advising the \$4.6 billion San Diego City Employees' Retirement System. City Attorney Michael Aguirre

⁵⁷ Concerns Raised Over Consultants to Pension Funds, The New York Times, March 21, 2004

had been seeking more than \$50 million in damages in the suit, filed in California Superior Court in August 2005. The complaint stated Callan engaged in professional negligence and included allegations that the consulting firm recommended its clients hire money managers that attended Callan's educational forums.⁵⁸

- **Teachers' Retirement System of the State of Illinois**

This case brought on behalf of participants and beneficiaries alleged that between 2002 and 2006 Callan was a party to a contract with the Teachers' Retirement System of the State of Illinois under which Callan was to provide investment advice and consulting services to the TRS Board of Trustees. The contract covering these services explicitly acknowledged Callan's role as a fiduciary. Callan's responsibilities included evaluating and recommending investment policies; assisting in the development of policies, procedures, and guidelines for the investment program; making recommendations for asset allocation; maintaining a database of investment managers; evaluating the work of investment managers; and recommending the hiring, firing and retention of each investment manager. Despite Callan's role as a "gatekeeper" and its obligations as a fiduciary to TRS, Callan was paid consulting fees, membership dues and tuition payments from investment managers for Callan services. Callan simultaneously carried out its contractual duties in seeking, evaluating and recommending potential

⁵⁸ <https://www.pionline.com/article/20061211/PRINT/612110708/callan-san-diego-reach-4-5-million-settlement>

investment managers for TRS some of whom were Callan's clients. This acceptance of funds from investment managers who hoped to obtain or retain a contract with TRS was a conflict of interest in violation of Callan's obligations as a fiduciary to TRS under the Illinois Pension Code, according to the complaint.

As noted in the complaint, "According to Callan's responses to a Department of Labor and United States Securities and Exchange Commission questionnaire, fees collected from investment managers through offerings such as the Callan Investments Institute and Callan College account for a significant percentage of Callan's annual revenue. In 2005, Callan noted that it derived 30 percent of its revenue from investment manager consulting services."

- **Cliffwater**

We have reviewed a redacted investment advisory agreement between STRS and Cliffwater LLC effective July 1, 2015, as well as the May 10, 2018 first amendment renewing the agreement for an additional three-year term, for full retainer non-discretionary investment consulting services to report directly to the Board for alternative investments. Concerning the redacted Investment Advisor Agreement from Cliffwater, the firm states:

"the redacted portions are exempted from disclosure under R.C. 149.43(A)(1)(v) of the Public Records Act as "records the release of which is prohibited by state or federal law," in particular, that they are trade secrets.

The compensation provisions of the Investment Advisor Agreement constitute a trade secret that contains proprietary commercial and financial information of Cliffwater. The compensation provisions are **virtually unknown** outside of the business or by employees and others involved in the business. Cliffwater takes extensive measures to maintain the confidentiality of the information in these compensation provisions and it would be *virtually impossible* for others to properly acquire or duplicate this information. In addition, Cliffwater's competitors would obtain a significant advantage over Cliffwater if they had access to the information in the compensation provisions schedule as they could modify their own bids to defeat Cliffwater in the marketplace." (emphasis added)

In our experience, the compensation provisions of Cliffwater's contracts are hardly "virtually unknown," or "virtually impossible for others to properly acquire." To the contrary, investment consulting contracts in the public pension context, including Cliffwater's, are routinely disclosed in full in response to public records requests.⁵⁹

⁵⁹ See discussion in IFS 2006 STRS Fiduciary Performance Audit regarding investment consultant fees, pgs. 138-140. For example: "Several points of reference allow us to compare consultant fees. First, a nationally recognized survey of 37 state public employee pension funds that voluntarily pooled their cost data, showed that consultant fees averaged \$559,000 per year, with a median fee of \$320,000. Funds that relied primarily on internal asset management tended to pay dramatically lower consulting fees. The average internally managed fund paid an average of \$177,000, with the median fund paying \$169,000." And: "Separately, according to the 2005 Greenwich Associates survey of pension plan sponsors, the mean investment consulting fee for public funds with over \$5 billion is \$379,000." Finally: "With respect to private equity specialty consultants, the peer group paid from \$750,000 to \$2,248,000, with an average fee of \$1,196,000." Clearly, in 2006 STRS's retained expert did not consider investment consultant fees "trade secrets" exempt from disclosure and public review.

As noted in our forensic investigation of the Employee Retirement System of Rhode Island, the pension's contract with Cliffwater was disclosed in full to the public:

Pursuant to an agreement dated April 4, 2011, Cliffwater LLC serves as the non-discretionary alternative asset class investment consultant to the Fund. The contract between the Fund and Cliffwater states that the total annual compensation to Cliffwater of \$450,000 shall be paid in "hard dollars," i.e., an annual cash fee. Further, the consultant is precluded from accepting any fees, commissions, or other forms of compensation from any other party or source, whether direct or indirect, in connection with or relating to its services under the contract.⁶⁰

Further we note, the compensation provisions of Callan's contract with STRS were fully disclosed to us—despite any supposed "significant advantage" over Callan such disclosure might provide to Cliffwater.

Cliffwater provides extensive information in its SEC Form ADV Part II filings with the SEC—as required under the federal securities laws—of its different compensation arrangements. The firm warns potential clients:

"Since Cliffwater provides its services for clients with different fee structures, Cliffwater may have an incentive to favor client accounts for which it receives a fee based on assets under advisement or management, as applicable."

In short, according to Cliffwater, clients should be aware of how the firm is paid and any potential related dangers related to the compensation arrangement. If Cliffwater

⁶⁰ <https://www.providencejournal.com/article/20131017/NEWS/310179861>

compensation is a “trade secret” under public record laws, then full disclosure to public pension stakeholders under the federal securities laws has been thwarted. In our opinion, there is no justification for providing *less disclosure* to participants in public pensions that are Cliffwater clients than ordinary retail investors would receive.

We also note, CEM Benchmarking (STRS’s consultant for investment cost and performance measurement) has advised us that, included in its Global Transparency Benchmark process which measures whether pensions are disclosing what they do and how they generate value for stakeholders clearly, completely and concisely, is the following question: Is the amount spent on external consultants disclosed?

Apparently, CEM also believes that transparency requires disclosure of fees paid to consultants, such as Cliffwater.⁶¹

Finally, we note that while STRS deferred to Cliffwater in denying our public record request for contractual compensation information, STRS *already discloses* to the public that Cliffwater has been paid consulting fees of \$250,000 annually each of the past five years.⁶² In summary, Cliffwater’s representations that the compensation provisions in its contracts are “virtually unknown” and “virtually impossible” to properly acquire are preposterous.

⁶¹ <https://www.top1000funds.com/global-pension-transparency-benchmark-methodology/>

⁶² <https://checkbook.ohio.gov/Pensions/STRS.aspx>

The contract indicates that Cliffwater agrees to adhere to the standard of care and conduct required of a fiduciary under Chapter 3307 of the Ohio Revised Code, Title 1 of the Employee Retirement Income Security Act of 1974 and any and all other applicable federal and state laws. Under ERSIA, fiduciaries are generally prohibited from profiting from plan transactions and investigations to ensure compliance with such legal prohibitions are required of plans. Thus, at a minimum Cliffwater is required to disclose, and the board is required to investigate, any such compensation arrangements.

The Cliffwater contract includes the very same confidentiality provision included in the Callan contract, which leads us to believe the provision was not only agreed to by STRS but drafted by the plan. In our opinion, this provision is yet another example of STRS abandoning transparency for alternate purposes.

The contract provides that Cliffwater will maintain professional liability insurance coverage in the amount of only \$5 million. Again, in our opinion, this amount of insurance seems woefully inadequate to protect the \$90 billion public pension from potential investment consultant negligence or malfeasance, particularly given that GAO estimates consultant conflicts can result in billions of losses over time and, as mentioned earlier, the city of San Diego pension settled its \$50 million claim against Callan for a mere \$4.5 million due to limited insurance coverage.

Due diligence of Cliffwater by the STRS Board should have revealed the limited insurance policy.

With respect to conflicts of interest, the contract states that Cliffwater shall not receive any remuneration in connection with transactions involving the fund unless disclosed in writing in advance; Cliffwater has disclosed in writing those actual and potential conflicts of interest that could be reasonably expected to affect the objectivity of the firm or its employees in fulfilling their duties to STRS and will update STRS promptly in the event of any additional, actual or potential conflicts of interest. Also, Cliffwater will provide annual disclosure of its business relationships with all investment managers or other providers of investment services employed by STRS Ohio. This disclosure will include information on the specific services provided and the specific amounts paid to Cliffwater.

In light of the 2006 Fiduciary Performance recommendations regarding conflicts of interest involving STRS investment consultants and the above conflicts of interest prohibitions and disclosure obligations in the contract between the fund and Cliffwater, we requested from the pension the following information:

1. Please provide all contracts between STRS and Cliffwater.
2. Please provide any documents regarding potential conflicts of interest at Cliffwater.

3. Please provide any due diligence documents regarding litigation, regulatory or disciplinary matters involving Cliffwater.
4. Please provide any disclosure by Cliffwater of compensation arrangements with the fund's investment managers.
5. Please provide documents related to any review by the STRS Board conflicts of interest at Cliffwater.
6. Please provide all asset allocation reports, investment manager recommendations, investment performance and other reports related to STRS produced by Cliffwater.
7. Please provide any disclosure requesting or providing the actual dollar amounts of compensation received by Cliffwater from the pension's investment managers.

STRS responded:

Concerning items 2-5 and 7, I must note that much of your request fails to satisfy the requirement of public records law that you specifically and particularly identify the records that you are seeking. Under Ohio law, a requestor has the duty to "identify the records.....wanted with sufficient clarity." *State ex rel. Dillery v. Icsman (2001) 92 Ohio St.3d 312, 314.*

A public office is not required to conduct research or otherwise "seek out and retrieve those records which would contain the information of interest to the requester". *State ex rel. Fant v. Tober (8th Dist., April 28, 1993), No. 63737, 1993 Ohio App. LEXIS 2591 at *4; aff'd (1993), 68 Ohio St. 3d 117.* To the extent that you have requested records containing specific information, rather than identifying the specific records you seek, your request is inappropriate under applicable legal standards. If there are specific records you would like to request, please identify those with sufficient clarity.

That said, in the interest of openness, this office has voluntarily made an effort to identify readily available public records that are responsive and we are providing the report we believe to be responsive.

Again, to the extent there are additional records you seek related to any of these items, please identify those records with sufficient clarity.

We are still reviewing the remaining requests, and will follow up with additional records and/or clarifications regarding the records you seek.

Since we received no documents from STRS specifically related to questions 2-5 and 7, we must assume for purposes of this report, they simply do not exist. With respect to item 6, STRS later responded:

I must note that much of your request fails to satisfy the requirement of public records law that you specifically and particularly identify the records that you are seeking. Under Ohio law, a requestor has the duty to "identify the records.....wanted with sufficient clarity." *State ex rel. Dillery v. Icsman (2001) 92 Ohio St.3d 312, 314.*

A public office is not required to conduct research or otherwise "seek out and retrieve those records which would contain the information of interest to the requester". *State ex rel. Fant v. Tober (8th Dist., April 28, 1993), No. 63737, 1993 Ohio App. LEXIS 2591 at *4; aff'd (1993), 68 Ohio St. 3d 117.* To the extent that you have requested records containing specific information, rather than identifying the specific records you seek, your request is inappropriate under applicable legal standards. If there are specific records you would like to request, please identify those with sufficient clarity.

That said, in the interest of openness, this office has voluntarily made an effort to identify readily available public records that are responsive and we are providing the 20 reports we believe to be responsive.

Again, to the extent there are additional records you seek related to any of these items, please identify those records with sufficient clarity.

We are still reviewing the remaining requests, and will follow up with additional records and/or clarifications regarding the records you seek.

None of the 20 Cliffwater reports provided include any disclosure whatsoever regarding conflicts of interest at Cliffwater, or compensation paid by money managers to Cliffwater.

- **Cliffwater Origins**

According to published reports, Stephen L. Nesbitt, the founder of Cliffwater, resigned from Wilshire Associates February, 2004, "after declining a reduction in responsibilities."⁶³

At this time, the nation was reeling from revelations of multiple scandals involving the mutual fund industry. Money Magazine stated that it had "learned that one of the world's leading investment firms -- Wilshire Associates of Santa Monica -- was engaged for years in massive rapid-fire trading of mutual funds that raises disturbing questions about ethics and conflicts of interest."⁶⁴

In addition to Wilshire's fast-trading scheme, which the SEC was looking into, a second area of investigation targeting several major investment consulting firms, including Wilshire, emerged at this time.

The variety of questionable payments from investment managers to consulting firms that were in a position to

⁶³ Nesbit Leaves Wilshire Associates, HedgeWorld.com, February 11, 2004.

⁶⁴ The Great Fund Ripoff, Money Magazine, September 22, 2003.

recommend them to their big institutional clients was described as "pay-to-play" arrangements. Wilshire was one of at least seven pension consulting firms that received a letter from the Securities and Exchange Commission in 2004 as part of an examination of pension consultant practices, compensation and disclosure.

According to Pensions & Investments:

"Mr. Nesbitt quit after he lost the consulting post in a reorganization in which Julia Bonafede was named senior managing director of consulting. Mr. Nesbitt was offered the funds management position but resigned instead, and Michael J. Napoli Jr. was named managing director of that division. Funds management handles manager-of-managers outsourcing; private equity, including venture capital and leveraged buyouts; and hedge fund selection."

The restructuring was done by Chief Executive Officer Dennis Tito and the board of directors.

"In light of the SEC's recent focus on consulting firms, the Wilshire board determined that in order to strengthen the ethical walls and eliminate the possible appearance of conflicts of interest, it was necessary to separate the funds management and consulting divisions and have them headed by different executives," Mr. Tito said in an e-mail response to questions from Pensions & Investments.

The firm also has been swept up in the mutual fund market-timing scandal, with the SEC reportedly reviewing Wilshire's trading practices. The firm has said it has not violated any laws. "Wilshire was contacted by the SEC as a part of its investigation of the mutual fund industry and cooperated fully," Mr. Tito said."⁶⁵

⁶⁵ Nesbitt Walks When Wilshire Takes Away Consulting Role: SEC probe spurs firm to separate consulting and asset management sides, Pensions & Investments, February 9, 2004.

While Nesbitt represented in a September 25, 2003 letter to David Russ, Treasurer of the University of California that Wilshire used a double “Chinese Wall” to separate the firm’s proprietary mutual fund trading from the selection of money managers it recommended to pensions, according to a highly critical study authored by Charles Schwartz, Professor Emeritus, University of California, Berkeley, Nesbitt himself was in charge of the two divisions at Wilshire that the Chinese Wall he referred to was supposed to separate.

- **Cliffwater Consulting Services Sold to Investment Managers**

Cliffwater’s Form ADV disclosures regarding compensation received from investment advisers has changed over time but has always been confusing, in our opinion.

Prior to May 10, 2013, Cliffwater’s Form ADV stated, “Other than for services provided to clients which are investment advisers, Cliffwater does not receive fees or any other compensation from investment managers or other service providers it recommends or selects for its clients.” This disclosure language seemingly indicated that the firm received compensation from investment managers or other service providers it recommended or selected for its clients.

Cliffwater’s Form ADV was amended May 10, 2013 (at a time we were asking questions in connection with a review of the Employee Retirement System of Rhode Island) to state:

“Cliffwater does not receive fees or any other compensation from investment managers or other service providers for fund selections and

recommendations made to its clients. Separately, Cliffwater receives fees for its standard advisory services provided to a small number of clients who are investment managers that offer products and services to their investors. Cliffwater will advise a client in the limited instances where an affiliation exists between a fund selected or recommended for the client's portfolio and one of Cliffwater's investment manager clients."

This new disclosure language appeared to indicate that while Cliffwater received compensation from money managers and may have recommended or selected investment managers who paid the firm compensation, any such fees or compensation received by Cliffwater from managers *was not for fund recommendation or selection*.

Cliffwater's Form ADV disclosure regarding receipt of manager compensation has continued to evolve and currently states:

Cliffwater does not receive fees or any other compensation from investment advisers or other service providers for fund selections and recommendations made to its clients.

Cliffwater has a small number of clients who are investment advisers or who are affiliated with investment advisers. Cliffwater provides advisory services to these clients similar to the advisory services it provides to its other clients and, accordingly, receives standard advisory fees from these investment adviser or investment adviser-affiliated clients. Some of these clients or their affiliates offer products and services to their own clients or to investors in funds that they manage. In the limited circumstances in which an affiliation exists between a fund selected or recommended for a client's portfolio and one of Cliffwater's investment adviser or investment adviser-affiliated clients, Cliffwater will advise the client of the affiliation and will endeavor to ensure that any such recommendation or selection is made in the best interests of the client. In addition, Cliffwater may have a commercial relationship with an investment manager who advises on a fund selected or recommended for a client's portfolio. For example, Cliffwater has

engaged, and may engage in the future, such a manager to advise or sub-advise on one or more pooled investment vehicles that Cliffwater may sponsor and/or advise. In these limited circumstances, Cliffwater will endeavor to ensure that any such recommendation or selection is made in the best interests of the client. For the avoidance of doubt, as stated above, Cliffwater does not receive fees or any other compensation from investment advisers or other service providers for fund selections and recommendations made to its clients.

In our opinion, where Cliffwater above states, in a conflict situation, it “will endeavor to ensure that any such recommendation or selection is in the best interests of the client” is highly problematic. As a fiduciary to the pension, Cliffwater has a duty to ensure, *beyond merely endeavoring to ensure*, the conflicted recommendation or selection is in the best interest of the client. For example, if Cliffwater has a commercial relationship with an investment manager that advises an investment vehicle Cliffwater sponsors that is more favorable than the relationship STRS has with said manager, then, in our opinion, Cliffwater would have a fiduciary obligation to, at a minimum, advise STRS of the terms of the more favorable relationship.

Since Cliffwater’s current Form ADV disclosure indicates the firm will advise a client where an affiliation exists between a fund selected or recommended for the client’s portfolio and one of Cliffwater’s investment manager clients, we requested from STRS any documents related to any such disclosure by Cliffwater. As noted earlier, none of the Cliffwater documents provided by STRS in response to our public records request include any information regarding compensation paid by money managers to Cliffwater.

In conclusion, Cliffwater's disclosed receipt of compensation from money managers it recommends or selects (regardless of whether any such compensation is, in Cliffwater's opinion, in exchange for any recommendations or selections), requires that a pension fiduciary relying upon the firm for independent advice regarding investment managers review any such compensation arrangements and evaluate any potential danger to the pension. Regardless of whether STRS asks for such information, the contract between Cliffwater and the pension requires full disclosure.

However, none of the 20 Cliffwater reports provided provide any disclosure whatsoever regarding conflicts of interest at Cliffwater or compensation paid by money managers to Cliffwater.

- **Cliffwater Litigation**

According to published reports, Blueprint Capital Advisors is suing current and past members of the New Jersey Division of Investment (DOI), BlackRock Alternative Advisors, and Cliffwater. The suit filed in federal court alleges racial discrimination, theft of intellectual property and trade secrets, retaliation, and unlawful interference with Blueprint's business with the state of New Jersey by BlackRock Alternative Advisors, a unit of the world's largest asset manager, BlackRock Inc.

Under the guise of performing "due diligence" into Blueprint, the DOI, and its consultant Cliffwater, demanded that Blueprint open its books and share hundreds of pages of

research, financial models, vendor lists, and investment strategies that comprised the FAIR program, the suit states.

The lawsuit alleges that the DOI and Cliffwater then sent confidential and proprietary information about Blueprint's FAIR program to BlackRock, mentioning that firm has an overwhelmingly White executive management and workforce.⁶⁶

- **Cliffwater Discretionary Asset Management Services**

Cliffwater serves as an investment consultant to STRS, on a non-discretionary basis, reviewing and recommending investment advisors to manage, on a discretionary basis, the pension's assets. A conflict of interest may arise where a non-discretionary investment consultant also manages assets on a discretionary basis. For example, the consultant may recommend itself to actually manage client assets or may advantage discretionary clients at the expense of nondiscretionary since the cost of discretionary services is generally higher. While Cliffwater's Form ADV indicates the firm does manage significant assets on a discretionary basis, it does not appear that the firm manages any STRS assets on a discretionary basis. Whether Cliffwater's discretionary asset management services may potentially disadvantage STRS would require additional research.

⁶⁶ <https://www.nj.com/news/2020/06/black-owned-firm-sues-after-nj-official-allegedly-says-state-is-not-a-fan-of-investing-with-minority-owned-companies.html>

IX. Fiduciary Status of Board Members and Fiduciary Liability Insurance

According to Section 3307.14 of the Ohio Revised Code, the members of the state teachers retirement board shall be the trustees of the funds. The board shall have full power to invest the funds. The board and other fiduciaries shall discharge their duties with respect to the funds solely in the interest of the participants and beneficiaries; for the exclusive purpose of providing benefits to participants and their beneficiaries and defraying reasonable expenses of administering the system; with care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims; and by diversifying the investments of the system so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so.

As noted elsewhere, the contracts involving the two investment consultants to the fund, Callan and Cliffwater, provide that in addition to the fiduciary obligations imposed by Ohio law, these two firms agree to adhere to the standard of care imposed by Title 1 of the Employee Retirement Income Security Act of 1974 and any and all other applicable federal and state laws. On the other hand, the STRS board is not required to comply with ERISA fiduciary standards.

ERISA's heightened fiduciary standards provide additional important protections to pensions generally lacking under state law. In our opinion, there is no good reason why the investment consultants should be held to higher fiduciary standards than the board; further, board adherence to ERISA standards can only improve management of the pension.

Section 3307.10 (B) of the Ohio Revised Code provides the Board may secure insurance coverage designed to indemnify board members and employees for their actions or conduct in the performance of official duties, and may pay required premiums for such coverage from the expense fund.

In response to our request for information regarding any fiduciary liability insurance obtained by STRS, we were provided with documents indicating the fund had coverage in the amount of \$10 million with Hudson Insurance Company and \$10 million with Federal Insurance Company. In addition, the pension has an excess liability policy in the amount of \$5 million with RLI Insurance Company. In our opinion, this level of coverage is absurdly low and offers virtually no protection for a \$90 billion pension. Virtually any fiduciary breach may result in actual damages amounting to tens or hundreds of millions of dollars.

For example, STRS recently disclosed it had lost more than half a billion dollars on a private equity investment in Panda Power Funds. From 2011 to 2013, State Teachers Retirement

System of Ohio invested \$525 million with Panda but the investment is now valued at zero.⁶⁷

In conclusion, our forensic investigation of STRS identified the following grave concerns:

- 1) STRS has long abandoned transparency, choosing instead to collaborate with Wall Street to eviscerate Ohio public records law;
- 2) Legislative oversight of the pension has utterly failed;
- 3) The pension has failed to address significant deficiencies identified in the last Fiduciary Performance audit—15 years ago;
- 4) Wall Street has been permitted to pocket lavish investment fees without scrutiny, including \$143 million in fees for doing nothing;
- 5) Disclosure of investment costs and performance may have been misrepresented;
- 6) Representations regarding GIPS Compliance Verification may have been misleading to the public;
- 7) Failure to monitor external consultant conflicts of interest may have undermined the integrity of the pension's investment decision-making process and resulted in significant losses;
- 8) Board compliance with heightened ERISA fiduciary standards is not required and fiduciary liability insurance coverage is woefully inadequate.

⁶⁷ <https://www.thenews-messenger.com/story/news/2021/04/14/damschroder-stand-your-ground-move-pension-policy/7187844002/>

Billions that could have been used to pay retirement benefits promised to teachers have been squandered.

END REPORT

About Benchmark Financial Services, Inc.

Benchmark Financial Services, Inc., uses cutting-edge financial forensics, coupled with whistleblower insights, to investigate abuses in the money management industry. The firm has pioneered forensic investigations of asset management and has investigated in excess of \$1 trillion globally.

Benchmark was founded in 1999 by Edward "Ted" Siedle. Ted is an American attorney, investment banking and securities industry professional, and longtime Forbes writer. The media has referred to him as "the Sam Spade of Money Management," "the Financial Watchdog," "the Pension Detective" and "the Equalizer."

Ted is the nation's leading expert in forensic investigations of money managers and pensions, focusing upon excessive and hidden investment fees and risks, conflicts of interest and wrongdoing. Prior investigations include the state of Rhode Island, state of North Carolina, the Alabama State Employees' Pension, Wal-Mart, Cities of Nashville, Chattanooga and Jacksonville, Towns of Jupiter and Longboat Key, Caterpillar, Boeing, Northrup Grumman, John Deere, Bechtel, ABB, Edison, Shelby County, Tennessee, Fidelity Investments, JP Morgan, Sanford Bernstein, Banco Santander, US Airways Pilots Pension and New York State Teamsters Pension.

Ted was named as one of the 40 most influential people in the U.S. pension debate by Institutional Investor Magazine for 2014 and 2015.

In 2018, Ted secured the largest CFTC whistleblower award in history-- \$30 million and in 2017, he secured the largest SEC whistleblower award-- \$48 million—both related to a \$367 million JP Morgan Chase settlement that charged the bank with failing to disclose certain conflicts of interest to some of its wealth management clients. In 2016, he obtained the first whistleblower award from the State of Indiana on behalf of a client.

Ted is the co-author of *Who Stole My Pension?* along with Robert Kiyosaki, author of the international bestseller, *Rich Dad, Poor Dad*, and the author of *How to Steal A Lot of Money—Legally*.



STATE TEACHERS
RETIREMENT SYSTEM
OF OHIO

STRS Ohio Response to Benchmark Financial Services (BFS) Report

Aug. 19, 2021

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EXECUTIVE SUMMARY

On June 7, 2021, Benchmark Financial Services released a report (the “BFS Report”) titled “Preliminary findings of forensic investigation of the State Teachers Retirement System of Ohio” (“STRS Ohio” or the “Retirement System”). STRS Ohio provided an initial response to the BFS Report on June 11 and is now providing this more thorough and detailed analysis for discussion with the State Teachers Retirement Board (the “Board”) at its meeting on August 19, 2021.

Although the BFS Report title states it is a “forensic investigation” and ORTA referred to it as the “forensic audit,” the BFS Report is neither a forensic investigation nor a forensic audit. A forensic audit or investigation is an examination of a company’s financial records to derive evidence which can be used in a court of law or legal proceeding for the purpose of uncovering criminal behavior such as fraud or embezzlement. The AICPA has issued a “Statement on Standards for Forensic Services” effective January 1, 2020 to govern forensic services provided by certified professional accountants (CPAs).

However, it is important to note that the BFS Report’s author (“Author”) is neither an accountant nor auditor. He is not bound by the professional standards of the Governmental Accounting Standards Board, the American Institute of CPAs, or the Actuarial Standards Board. Though an attorney, his services do not constitute legal advice and he is therefore not bound by legal and ethical standards otherwise applicable to attorneys in the practice of law. He has no contractual or fiduciary duty to STRS Ohio or its participants as a whole, and therefore was free to draw whatever conclusions support his agenda and brand. Finally, and most importantly, we would note that **the BFS Report does not make any specific allegations of fraud or criminal conduct against the system**, and on page 37 states, in part, as follows:

“We were not hired to detect or investigate fraud, concealment or misrepresentations and did not attempt to do so. We were not hired to, and did not attempt to conduct a formal or legal investigation or otherwise to use judicial processes or evidentiary safeguards in conducting our review.”

The BFS Report contains numerous misstatements and allegations which are unsupported by evidence. Many of the conclusions in the BFS Report are offered with little support other than the Author’s opinions. In fact, the phrase “in our opinion” is used approximately 60 times throughout the BFS Report.

The purpose of this detailed analysis is to provide evidence which accurately describes the investment and operational practices of STRS Ohio. In short, we will provide facts to support the following, which refute the eight “findings” or allegations contained in the BFS Report:

- STRS Ohio is committed to the principles of transparency and complies with its obligations under the Ohio Public Records Act.
- Appropriate oversight exists under Ohio law to govern STRS Ohio. STRS Ohio financial statements are audited on an annual basis by an independent public accounting firm, under the oversight of the Ohio Auditor of State. STRS Ohio reports regularly to the Ohio Retirement Study Council (“ORSC”) with regard to system investments and operations. The Retirement System’s assets are custodied with the Ohio Treasurer of State.
- Recommendations from the 2006 IFS Fiduciary Audit were appropriately reviewed and addressed by the State Teachers Retirement Board and staff in early 2007.
- Investment fees are appropriately scrutinized. STRS Ohio does not pay lavish fees to Wall Street for “doing nothing.”
- Investment costs and performance are accurately reported by the Retirement System.
- STRS Ohio is required by law under Ohio Revised Code (“ORC”) 3307.15(B) to report its investment performance in compliance with the performance presentation standards established by CFA Institute (known as the GIPS® standards). There are no false or misleading representations made by STRS Ohio regarding GIPS® Compliance.
- Investment consultant conflicts of interest are adequately disclosed and considered.
- The Board complies with the fiduciary standards stated in ORC 3307.15, which mirror the ERISA fiduciary standards, and the system maintains adequate fiduciary liability insurance.

STRS Ohio did not commission the BFS Report but did give the report a serious examination and is issuing the analysis that follows to address the Author’s unsupported criticisms.

I. STRS OHIO'S COMMITMENT TO TRANSPARENCY

As an Ohio public pension system, STRS Ohio is subject to the Ohio Public Records Act and is fully committed to the principles of transparency. The Retirement System takes seriously its responsibility to provide public documents in accordance with the requirements and limitations of applicable law and responds to about 100 such requests each year.

Earlier this year STRS Ohio received the "Highest Achievement in Open and Transparent Government Award," the highest possible rating from the Ohio Auditor of State's office. This rating was awarded to only 14% of the more than 2,800 audited entities. STRS Ohio was recognized for best practices in six areas in this first year of the StaRS (Star Rating System), which included an audit of public record compliance during the annual financial statement audit of the system. STRS Ohio is committed to its process for responding to public records requests and treats all requests in a consistent manner, regardless of whether a request is from a member, a commercial entity, the general public, or a third party representing specific interests. STRS Ohio complies with its obligations under the Ohio Public Records Act.

A. February 2021 Public Records Request

STRS Ohio believes it is important to resolve any confusion around the underlying public records request sent by the Author's counsel, Marc Dann ("Counsel") dated February 19, 2021 (the "February 2021 Public Records Request"), as inaccurate information has been spread on this topic by the BFS Report Author. STRS Ohio received a single letter, dated February 19, 2021, requesting 45 categories of documents. Over a period of three months, from February to May 2021, STRS Ohio sent 24 emails and a thumb drive to Counsel, amounting to 812 documents and over 22,000 pages. In almost every email, STRS Ohio notified Counsel that many of the requests were overly broad, and that while the system was providing various documents believed to be responsive, Counsel needed to identify with specificity (as required by Ohio law) any additional records being sought.

Since February 19, 2021, STRS Ohio has received only one email from Counsel about this request, and that communication merely sought to confirm the appropriate STRS Ohio contact for another request. BFS had multiple opportunities to clarify but never attempted to do so. Again, negotiation and clarification are necessary to help identify, locate, and deliver requested records in the event of an ambiguous or overly broad request. Instead of providing clarification and/or revising the February 2021 Public Records Request, Counsel decided to simply file two public records mandamus actions in the Ohio Supreme Court, all while publicly making baseless accusations about a purported "lack of transparency" from STRS Ohio. Both cases remain in litigation.

For example, the BFS Report states on page 27, "Not a single prospectus or offering document required to be provided to all investors under the nation's securities laws has been provided to BFS in response to its public records request(s)." First, STRS Ohio was never asked for a

prospectus document. In fact, the word “prospectus” does not appear anywhere in the February 2021 Public Records Request. Second, the request for “offering documents” was overly broad. The use of terms such as “any and/or all” in a public records request are indicative of an overly broad request that may be considered improper under Ohio law. Courts have found a request to be overly broad when it seeks what amounts to a complete duplication of a major category of a public office’s records, for example a duplication of all records having to do with a particular topic, or all records of a particular type.

Forty-three of the forty-five categories of documents listed in the February 2021 Public Records Request included the words “any” and/or “all.” Despite that fact, in the majority of responses STRS Ohio provided documents believed to be responsive and asked repeatedly for further clarification about the particular records being requested. Additionally, STRS Ohio provided Counsel with a link to the 2020 *Annual Comprehensive Financial Report*, one of many reports found on the public STRS Ohio website (www.strsoh.org), in a good faith effort to provide additional information about STRS Ohio’s investments, external managers, and how it maintains and organizes its records. Again, STRS Ohio did not receive any further communications from BFS or its Counsel.

In the two instances in the February 2021 Public Records Request where the category description did *not* include the words “any” and/or “all,” STRS Ohio provided all ten responsive documents to the Requestor without needing further clarification.

Within the BFS Report (pages 3-4), the author references the February 2021 Public Records Request, claiming, “The overwhelming majority of the most critical disclosure information we requested was summarily denied. That is, STRS simply permitted the investment firms involved to unilaterally determine whether the information was sought on behalf of stakeholders had to be disclosed under Ohio law. Not surprisingly, most firms granted the opportunity to oppose public scrutiny of their financial dealings with STRS, chose to do so.”

This statement regarding outside investment firms is completely inaccurate. In short, STRS Ohio complied with its obligations under the Ohio Public Records Act in responding to the February 2021 Public Records Request. The vast majority of the February 2021 Public Records Request was overly broad and improper pursuant to ORC 149.43. Even so, STRS Ohio made a good faith effort to respond by both providing over 800 responsive documents and repeatedly requesting clarifications for requests that were too broad to understand, as required by ORC 149.43(B)(2)(B).¹

Trade Secrets — The Ohio Public Records Act contains several dozen exemptions to the definition of “public record.” For example, ORC 149.43(A)(1)(v) provides for the protection of “records the release of which is prohibited by state or federal law” and is often referred to as

¹ ORC 149.43(B)(2)(B) states: “If a requester makes an ambiguous or overly broad request or has difficulty in making a request for copies or inspection of public records under this section such that the public office or the person responsible for the requested public record cannot reasonably identify what public records are being requested, the public office or the person responsible for the requested public record may deny the request but shall provide the requester with an opportunity to revise the request by informing the requester of the manner in which records are maintained by the public office and accessed in the ordinary course of the public office's or person's duties.

the “catch-all” exemption which prohibits such records from release by a public office. This catch-all exemption includes the Uniform Trade Secrets Act, with trade secrets defined in ORC 1333.61(D). Under the law in Ohio (and almost every other state), an entity may assert a claim to preclude trade secret information from disclosure, and a public office cannot release such information without the consent of the entity asserting the protection.

B. Mediation/Additional Disclosures

The Author issued a statement on July 15, 2021, regarding a confidential mediation session held in the second of the two lawsuits filed in the Ohio Supreme Court related to the February 2021 Public Records Request. As STRS Ohio respects the legal process and rules outlined by the Ohio Supreme Court, we will not be making a statement about the confidential mediation process.

That said, STRS Ohio can separately acknowledge that it has released six unredacted documents to the Author in July 2021, upon obtaining the consent of its vendors CEM and Cliffwater, who initially made redactions due to valid trade secret assertions. As stated above, STRS Ohio, as a public office, may withhold or redact specific records that are covered by an exemption to the Ohio Public Records Act, provided the Retirement System gives an explanation and relevant legal authority.

In the February 2021 Public Records Request, the Author requested the following: “Please provide all reports and analysis produced by CEM Benchmarking related to STRS’s investment management fees, costs, and expenses,” and “Please provide all reports and analysis produced by CEM Benchmarking related to alternative investments.” While noting that the request was overly broad, STRS Ohio identified five reports it believed to be responsive. CEM provided an explanation and relevant legal authority for the redactions it made to protect proprietary formulas and methodologies it deemed to be trade secret. STRS Ohio then provided the redacted five reports and explanation on April 8, 2021.

The BFS Report, on page 58, identified another client of CEM (South Carolina Retirement System Investment Commission) that had posted on its website a CEM report that was similar to the reports provided by STRS Ohio. While efforts to maintain secrecy is important to the evaluation of a trade secret, the law does not require that a trade secret be completely unknown to the public in its entirety. However, STRS Ohio, with CEM’s consent, provided unredacted copies of the five reports in July 2021 in an effort to support transparency since the Author identified the publicly available report from another pension system, as well as publicly stated he had already viewed the full unredacted STRS Ohio CEM reports (Fundfire article dated July 1, 2021).

The other unredacted document provided by STRS Ohio in July 2021 was the Cliffwater Investment Adviser Agreement, in which Cliffwater had asserted trade secret protection over provisions surrounding its compensation structure. In the BFS Report, pages 109-111, the Author identified that the primary compensation paid by STRS Ohio to Cliffwater was already

provided to the Ohio Checkbook by STRS Ohio and questioned the validity of Cliffwater's trade secret assertion. Ultimately, Cliffwater agreed to release the unredacted compensation provision of the Agreement.

Finally, it should be reiterated that the six documents referenced in this section had previously been provided in redacted form by STRS Ohio in April 2021.

C. Mistaken Assertions

The Author asserts that "all of the workings of the pension must be open to full public scrutiny, including, but not limited to, investments." Not only is this unrealistic, but it directly conflicts with public records laws. As stated earlier, the Ohio Public Records Act contains dozens of exemptions excluding documents as "public record." These exemptions exist to protect both individuals and entities from detrimental disclosures. Otherwise, any Ohio public entity would be required to release personally identifiable information (PII), documents relating to security, trade secrets, and other information that is imperative to remain confidential. To state that a private entity must compromise and lose the value of its trade secrets in order to do business with any public office is untenable. Without these exemptions, information technology or investment firms would not risk doing business with government entities for fear that their valuable trade secrets could be disclosed to competitors. To deny public institutions the benefit of these private resources and opportunities would be detrimental to the interests of the public as a whole. FOIA and state public records laws have exemptions specifically to avoid this outcome. STRS Ohio has made a good faith effort to fulfill its transparency obligations within these confines.

On page 55, the BFS Report alleges that STRS Ohio "deferred" to CEM regarding whether information sought from the system should be provided to the public. This is inaccurate. CEM made a valid trade secret assertion in accordance with Ohio law, and STRS Ohio respected the legal rights of CEM to make such an assertion. Once a trade secret assertion is made, a public entity may not provide the unredacted records in question. The BFS Report also stated on page 55 that peer fund information and STRS Ohio data had been redacted from the CEM reports. This is also untrue. No peer information was redacted from the reports, and all data provided by STRS Ohio to CEM could be found in Section 7 (for the 2017, 2018 and 2019 reports) or Section 8 (2015 and 2016 reports), in sections titled "Data Summary."

The Author states, "Federal and state securities laws demand transparency." Indeed, many laws and regulations governing investment advisers and investment managers make an abundance of information public through regular filings with state securities regulators and/or the U.S. Securities and Exchange Commission. STRS Ohio and the public have had, and continue to have, broad access to the information in these filings. Those entities regulate managers accordingly, and the number or type of records that STRS Ohio may maintain on any investment does not directly correlate to that ongoing oversight and regulation.

The Author further states, “Any investment firm unwilling to operate in a fully transparent manner, consistent with applicable public records law, must be considered ineligible to manage public monies or otherwise contract with the pension.” The important phrase here is **“consistent with applicable public records laws.”** Firms contracting with STRS Ohio are made aware that STRS Ohio is subject to the Ohio Public Records Act and agree to comply with applicable laws. That said, there are valid exemptions to those laws, such as the exemption for trade secrets. The Ohio legislature has enacted dozens of exemptions over the years, and the Ohio Supreme Court has even developed factors to consider when evaluating a trade secret claim in a public records lawsuit.

The BFS Report alleges that there are “profound fiduciary breaches and disclosure concerns stakeholders have long raised.” However, like many other allegations in the BFS Report, the Author provides no examples of fiduciary breaches or disclosure concerns. Buzzwords and inflammatory language are unnecessarily used.

The BFS Report criticizes that the word “transparency” is not contained in the governing policies of STRS Ohio. As STRS Ohio is statutorily created under ORC 3307, the system is governed by the laws of the State of Ohio. As a public office, the Retirement System is subject to the Ohio Public Records Act and Open Meetings Laws. The system publishes many documents, including board materials, on its public website. As the Author himself noted, hundreds of STRS Ohio related documents are also available on the ORSC website. STRS Ohio annual expenses are published online on the Ohio Checkbook website. Beginning in February 2021, STRS Ohio began to record its board meetings and livestreams the meetings on its website. These actions and obligations do far more to promote transparency than simply saying you are transparent. It should be noted that the Ohio Public Records Act does not use the word “transparent,” yet its intent and requirements are wholly to promote transparency.

D. BFS Opaque “Transparency”

The Author has written similar reports on public pensions, and a lack of transparency appears to be a consistent theme throughout (in addition to underperformance, high fees, conflicts of interests, and risky alternative investments). His approach to this report and complaints about public records laws are not at all unique to STRS Ohio.

Disclaimers — In the interest of transparency, extensive disclaimers are buried in the center of the BFS Report on pages 37-38:

“This report should be read and evaluated with several caveats in mind. First, many of the subjects addressed in this report are inherently judgmental and not susceptible to absolute or definitive conclusions. We assumed the information we were provided, whether by the service providers or STRS is accurate, and could be relied upon. We were not hired to detect or investigate fraud, concealment or misrepresentations and did not attempt to do so. We werenot hired to, and did not attempt to conduct a

formal or legal investigation or otherwise to use judicial processes or evidentiary safeguards in conducting our review. Our findings and conclusions are based upon our extensive review of limited documents, the limited interviews we conducted with the board and others associated with STRS, independent analysis, and our experience and expertise. This report does not and is not intended to provide legal advice. Although the report considers various legal matters, our analysis, findings and recommendations are not intended to provide legal interpretations, legal conclusions or legal advice. For that reason, action upon such matters should not be taken without obtaining legal advice addressing the appropriate statutory or regulatory interpretation and legal findings regarding such matters. Finally, our observations are necessarily based only on the information we considered as of and during the period we performed our review.”

It is unconscionable for the Author to make repeated baseless allegations implying wrongdoing ***“in our opinion,”*** while also stating that BFS was not hired to detect or investigate fraud and did not attempt to do so.

II. OVERSIGHT

A. Ohio Retirement Study Council

The Ohio Retirement Study Council (ORSC) was created in 1968. ORSC is comprised of three members of the Ohio Senate appointed by the Senate president, three members of the Ohio House of Representatives appointed by the speaker of the House, and three governor's appointees. The executive directors of the five retirement systems, including STRS Ohio, are non-voting members of ORSC. The general purpose of ORSC is to advise and inform the state legislature on all matters relating to the benefits, funding, investment, and administration of the five statewide retirement systems. ORSC hires both a consulting actuary and an investment consultant. The consulting actuary conducts regular reviews independently of the systems' actuaries, including a review of the actuarial analysis required for all retirement legislation having any measurable financial impact on the systems. The independent investment consultant conducts a semiannual review of the policies, objectives, and criteria of the systems' investment programs.

As a part of its duties, ORSC studies all proposed changes to the public retirement laws and reports to the legislature on the probable costs, actuarial implications, and desirability as a matter of sound public policy (ORC 171.04(C)). Documents publicly available on the ORSC website, www.orsc.org, show that the council has regularly performed this duty over the years.

ORSC is also required every ten years to conduct an independent actuarial review of the annual actuarial valuations and quinquennial actuarial investigations prepared by each system (ORC 171.04(E)); and have conducted a fiduciary performance audit of each system (ORC 171.04(F)).

Earlier this year, prior to the release of the BFS Report, ORSC commenced the Request for Proposal (RFP) process for both the upcoming actuarial and fiduciary audits of STRS Ohio. At its August 2021 meeting, ORSC voted to approve the independent firms who will conduct the fiduciary and actuarial audits of STRS Ohio, both scheduled to begin later this year.

Reporting — STRS Ohio submits numerous reports to ORSC on an annual basis. These reports are presented during one of ORSC's scheduled public meetings and made publicly available on the ORSC website. The reports include:

- *Annual Comprehensive Financial Report (Annual Report)*, which includes audited financial statements and an opinion letter by a third-party financial audit firm
- Annual Actuarial Valuation Report, conducted by a third-party actuary firm
- Annual Internal Audit
- Annual Health Care Report
- Annual Disability Report
- Annual Budgets
- 30 Year Funding Plans (when required)

- Annual Iran/Sudan Divestment Report (note: this report is not required by statute but is submitted and presented as a matter of interest to ORSC)

Despite the oversight and availability of the resources outlined above, for its next premise the BFS Report attempts to establish a lack of oversight as a foundation and incorrectly states that “legislative oversight has been compromised for decades.”

B. 2006 IFS Fiduciary Audit

The BFS Report criticizes ORSC for being late to conduct its next fiduciary audit of STRS Ohio. The Chair of ORSC has publicly stated that he is committed to getting the audits back on schedule, and that delays have been a result of the multi-year pension reform legislation as well as the COVID pandemic. A fiduciary audit of each retirement system often takes several years to complete.

A fiduciary audit of STRS Ohio, commissioned by ORSC and conducted by Independent Fiduciary Services Inc. (“IFS”), was completed and presented to ORSC in December 2006 (the “IFS Fiduciary Audit”). The IFS Fiduciary Audit findings were discussed at State Teachers Retirement Board meetings held in both January and February 2007, at which time the Board voted to approve the staff analysis and recommendations as related to the IFS Fiduciary Audit. Although STRS Ohio appropriately addressed the recommendations, the BFS Report incorrectly asserts on pages 5-6 that the audit revealed multiple serious deficiencies which STRS Ohio has failed to address.

More information related to the 2006 IFS Fiduciary Audit will be provided in the Section III of this analysis.

C. Audits and Oversight of STRS Ohio

It would appear from reading the BFS Report that STRS Ohio does not undergo regular audit processes. The BFS Report states, “Any mismanagement or malfeasance which could have been exposed years earlier through timely audits has been allowed to persist, potentially resulting in great risk and cost to the plan.” It has been alleged that STRS Ohio has not had an audit performed in 15 years; however, that is simply not true.

It is important to note that in accordance with Ohio law, **each and every year** STRS Ohio undergoes an annual financial audit conducted by an independent accounting firm hired by the Ohio Auditor of State (currently Crowe LLC). STRS Ohio has consistently received a clean opinion that indicates the financial statements were presented fairly in accordance with generally accepted accounting principles (GAAP). The annual audited financials are reported in the *Annual Comprehensive Financial Report*. The 2017, 2018, 2019 and 2020 Annual Reports are currently available on the STRS Ohio website. Annual expense information can also be found

posted to the online Ohio Checkbook, while monthly expenses are available on the STRS Ohio website.

In addition to the ORSC oversight and annual financial audits performed on behalf of the State Auditor, the Ohio Treasurer serves as the custodian for STRS Ohio assets. The Retirement Board meets at least 10 times per year, and reviews investments, financials and other system operations on an ongoing basis, in addition to approving numerous governing policies for the system on an annual basis. Investment performance reports are provided to the Board on a monthly and/or quarterly basis. The Board also contracts with two investment advisers and an actuary, all of whom serve as fiduciaries to the system. Even outside of ORSC, STRS Ohio has numerous methods of oversight and review.

D. Use of Experts

STRS Ohio prudently works with expert consultants that have contractual and fiduciary obligations to the system in our efforts to develop effective long-term solutions. In addition, STRS Ohio appreciates the ongoing reviews conducted by the ORSC hired consultants for all five Ohio retirement systems.

STRS Ohio's expert consultants base their advice on research, analysis, and professional experience, similar to the consultants who conducted the ORSC fiduciary and actuarial audits. In fact, Milliman expressly stated on page 1 of the 2009 actuarial audit of STRS Ohio, "The reader should recognize that many of the issues that we reviewed and which we will discuss in this report are subject to opinion and professional preference. No two actuaries (or actuarial firms) are likely to use precisely the same methods and assumptions (and, therefore, arrive at precisely the same conclusions) when presented with the exact same problem and set of historical facts. The recommendations of one consultant do not necessarily invalidate the recommendations of another."

E. Pension Protection Act of 2006

The BFS Report references the fact that the Pension Protection Act of 2006 (PPA) established three zones of risk for pension plans and further states that STRS Ohio is in the yellow zone for "endangered" (see BFS Report pages 30-31). First, the PPA does not apply to STRS Ohio as a governmental plan. Second, STRS Ohio is governed by Ohio law. ORC 3307.512 requires that the Board establish a period of not more than thirty years to amortize the system's unfunded actuarial accrued pension liabilities. If, in any year, the amortization period exceeds thirty years, the Board must submit a report indicating how the Board will reduce the amortization period to not more than thirty years. STRS Ohio submitted those reports to the ORSC in 2003, 2004, 2005, 2006, 2007, 2009, 2011, 2013 and 2014.

F. Actuarial Audits and Experience Reviews

STRS Ohio is the subject of multiple actuarial experience reviews and/or audits, performed pursuant to ORC 3307.51 and ORC 171.04(E), respectively. The BFS Report alleges on page 34 that the most recent ORSC actuarial audit completed by Milliman in November 2009 did not cover ten years of valuation reports. To the contrary, ORC 171.04(E) states:

“[The ORSC shall] have prepared for each system by an independent actuary, at least once every ten years, an actuarial review of the actuarial valuations and quinquennial actuarial investigations prepared under sections 145.22, 742.14, 3307.20, 3309.21, and 5505.12 of the Revised Code, including a review of the actuarial assumptions and methods, the data underlying the valuations and investigations, and the adequacy of each system's employee and employer contribution rates to amortize its unfunded actuarial pension liability, if any, and to support the payment of benefits authorized by Chapter 145., 742., 3307., 3309., or 5505. of the Revised Code.”

The statute does not require that the ORSC actuarial audit review cover any set period of time, such as ten years of valuations.

The Author did not make public records requests of STRS Ohio for any actuarial-related materials or reports. He instead relied on information he found (or did not find) on the ORSC website. While the ORSC website does contain a large number of STRS Ohio reports and information generally, it does not appear to contain all of them. Over the time period referenced in the BFS Report, STRS Ohio has directly conducted the following multi-year **actuarial experience reviews**:

| | |
|--------------------|--|
| 7/1/1998–6/30/2003 | 5-year experience review performed by Mellon |
| 7/1/2003–6/30/2007 | 4-year experience review performed by Buck |
| 7/1/2003–6/30/2008 | 5-year experience review performed by PWC |
| 7/1/2008–6/30/2011 | 3-year experience review performed by PWC |
| 7/1/2011–6/30/2016 | 5-year experience review performed by Segal |

Further, the BFS Report states, “STRS failed to conduct any 5-year actuarial investigation that includes the period July 1, 2008-June 30, 2011.” This is simply not true. As shown above, STRS Ohio had a three-year review performed by PWC during that period. ORC 3307.51(B) states that STRS Ohio shall have an actuarial investigation prepared “at such times as the state teachers retirement board determines, and *at least once* in each quinquennial period.” STRS Ohio is commencing its next actuarial review under 3307.51(B) this fall for the period of July 1, 2016–June 30, 2021, which will be conducted by Cheiron, the Board’s independent actuary.

Finally, it should be reiterated that ORSC issued RFPs in May 2021, and at its August 2021 meeting ORSC voted to approve the independent firms who will conduct the actuarial and fiduciary audits of STRS Ohio, both scheduled to begin later this year.

A. Background of the 2006 IFS Fiduciary Audit

Independent Fiduciary Services, Inc. (IFS) was initially engaged in 2004 by ORSC to conduct a fiduciary audit of STRS Ohio pursuant to ORC 171.04(F). The IFS Fiduciary Audit was completed and presented to ORSC in December 2006. Subsequently, the IFS Fiduciary Audit findings were discussed at State Teachers Retirement Board meetings held in both January and February 2007, at which time the Board voted to approve the staff analysis and recommendations as related to the Audit.

In the executive summary of the IFS Fiduciary Audit, IFS noted, “the results of this review demonstrate that STRS is generally in line with best practices with regard to much of its overall governance, administration and management of its investment program.” It was further noted, “STRS governance policies and rules are impressively comprehensive and they cover all of the significant aspects of governance a sophisticated public pension fund requires.”

As a result of the IFS Fiduciary Audit, there were a total of 85 recommendations made by IFS. In response, STRS Ohio staff prepared a thoughtful and detailed response to each and every recommendation. Again, these responses were reviewed with the Board in January and February 2007, with the Board ultimately voting to approve the staff analysis and recommendations as presented with the amendments offered.

Of the 85 total IFS recommendations, 14 of those recommendations directly addressed the pension oversight responsibilities of ORSC and were noted as needing to be addressed by ORSC directly. Additionally, nine other recommendations required further consideration and/or action by ORSC, the State Treasurer’s Office, and/or the Legislature, and were related to requirements for the Ohio Treasurer to select, contract with, manage and terminate custodial relationships on behalf of the pension systems.

The majority of the IFS recommendations were accepted by the Board in STRS Ohio’s response. Some of these items had already been fully addressed and implemented prior to the release of the IFS Fiduciary Audit in December 2006, and all were addressed with comments and an actual or proposed implementation date. Only 10 of the recommendations were marked as “disagree,” and detailed reasoning was provided as to why STRS Ohio did not agree with the IFS recommendations in those areas and therefore would not be implementing any changes at that time.

B. False allegations regarding a “failure to address serious deficiencies in last fiduciary performance audit”

It should be noted that the 2006 IFS Fiduciary Audit did not find any “serious deficiencies.” For clarity, the purpose of a fiduciary performance audit (according to the most recent RFP issued by ORSC in May 2021 for the STRS Ohio audit) is “to identify areas of strengths and weaknesses in STRS, compare STRS operations with best practices of other public pension plans, and make recommendations for improvement.” As stated above, the 2006 IFS Fiduciary Audit recommendations for improvement were reviewed and evaluated by the STRS Ohio staff, Board and experts to determine whether the recommendations should be accepted or in the alternative provide support for current practices.

The BFS Report attempts to establish that STRS Ohio has failed to “address serious deficiencies” identified in the 2006 IFS Fiduciary Audit. In particular, the author lists two “serious deficiencies,” and then includes a list of other items, some of which were included as recommendations and others which were not discussed in the IFS Fiduciary Audit at all. Again, it is important to reiterate that the State Teachers Retirement Board reviewed and discussed the recommendations and staff responses at its January and February 2007 Board meetings and approved the staff analysis and recommendations. **All IFS recommendations, whether or not accepted for implementation, were certainly “addressed” over 14 years ago by the Board and staff. The BFS Report is completely inaccurate to suggest otherwise.**

1. Alternative Investments Benchmarks

The BFS Report incorrectly asserts that STRS Ohio did not address the alternative investment benchmarking recommendation from the 2006 IFS audit.

As noted above, all recommendations in the 2006 IFS Fiduciary Audit were addressed in a response reviewed and approved by the Board in early 2007. However, the first of the two “serious deficiencies” alleged to remain unaddressed by the BFS Report relates to use of actual performance for benchmarking the alternative investments component of the total fund benchmark since 2002. The BFS Report both inaccurately and imprecisely describes how STRS Ohio alternative investments are benchmarked (as well as the historical context related to alternative investment benchmarking policies). The Author attempts to leverage the inaccurate representation of STRS Ohio alternative investment benchmarking to make inaccurate and misleading comparative returns calculations.

In the IFS Fiduciary Audit, Recommendation A16 (p.104) stated as follows:

“IFS recommends the Fund consider formally adopting a new benchmark to benchmark risk and performance in the Alternative program and to better reflect the benchmarking process outlined in the IPS such as the Wilshire 5000, Russell 3000 or Russell 2000 small cap index, plus an additional risk premium of 500 basis points to compensate the Fund

for additional risk in the private equity markets which is being assumed. The Cambridge Associates Private Equity and Venture Capital benchmarks could also be utilized.”

STRS Ohio investments staff, the Frank Russell Company (the Board’s consultant at the time) and the Board carefully considered the IFS Report recommendations which were initially discussed with the Board during the January 31, 2007, Special Retirement Board meeting.

The response of STRS Ohio, as approved by the Board in February 2007, was that this recommendation would not be implemented due to the following rationale:

“In the latest IPS [Investment Policy Statement], Alternative Investments are targeting a spread of 300 basis points over the Russell 3000 over the long term. Also the 2005 Asset Liability Study establishes a 270 basis points spread over public equities. With respect to benchmarking, IFS seems to agree that the informal three-pronged method used by STRS Ohio to evaluate the performance of this asset class and the manager selection skill of the Fund staff is appropriate but recommends that a relative return benchmark for Alternative Investments be added at the total fund level. We disagree, as does the Board’s investment consultant, because (1) a valid benchmark should be unambiguous, investable, appropriate and specified in advance; (2) available peer group “benchmarks” suffers from survivor bias and small sample sizes; (3) IFS has not shown why the informal method of evaluation is not effective; and (4) short-term Alternative Investment returns could generate serious attribution problems for the total fund. Using Alternative Investment’s actual returns in the total fund benchmark puts proper focus on the ability of the asset class to enhance absolute returns over the long term.”

Therefore, while the total fund benchmark was not changed as a result of the IFS Fiduciary Audit, the recommendation was appropriately reviewed and addressed by the Board, staff and investment consultant Frank Russell Company at that time. Moreover, the Board has approved the use of the alternative investments actual return as a component of the total fund benchmark in connection with every Statement of Investment Objectives and Policy (“SIOP”) from 2002 until the most recent SIOP adopted by the Board at its March 2021 meeting.

As noted in the above response, STRS Ohio’s decision to maintain the alternative investments actual return was based on several factors commonly used to evaluate the appropriateness of performance benchmarks. The BFS Report asserts, however, that the Board’s past decisions on this point were flawed, even suggesting that the benchmark violated ORC 3307.15, which requires the board to comply with the performance presentation standards established by the CFA institute (the CFA Institute Global Investment Performance Standards (GIPS®)). While the Author is entitled to his opinion, his assertion that the benchmark was inconsistent with CFA Institute guidance, the GIPS® standards or Ohio law is false.

CFA Institute Guidance on Benchmarks – The Research Foundation of the CFA Institute published *A Primer for Investment Trustees*² that established criteria for judging performance benchmarks:

1. Unambiguous – the benchmark should be clearly understood by all parties in the investment program.
2. Investable – the benchmark should represent an investable alternative; that is, the trustees could choose to hold the benchmark rather than hire the particular manager.
3. Measurable – the benchmark’s rate of return should be readily calculable.
4. Appropriate – the benchmark should reflect the manager’s typical risk characteristics and areas of expertise.
5. Specified in advance – the benchmark must be specified prior to the evaluation period and known to all interested parties.
6. Owned – the benchmark should be acknowledged and accepted as an appropriate accountability standard by the party responsible for the performance.

Several benchmark criteria identified by CFA Institute were cited in STRS Ohio’s 2007 response to the IFS recommendation. These criteria were properly considered by the Board and its consultants and further evidence the appropriateness of the Board’s decisions on this matter.

GIPS® Standards Benchmark Requirements – For GIPS® compliance purposes, an asset owner must include benchmark returns only when there is an appropriate benchmark that reflects the investment mandate, objective, or strategy of the composite. The GIPS® standards acknowledge that there may be instances when there may not be an appropriate benchmark. Also, it is not uncommon for managers of alternative investments to determine that there is no appropriate benchmark for a given strategy. Interpretive guidance in the GIPS® Standards Handbook states:

“Although there is typically an appropriate benchmark for traditional strategies, it is more common for asset owners with alternative investment strategies to determine that no appropriate benchmark for the alternative strategy exists.”

The GIPS® Standards Handbook provides the following sample disclosure:

“Because the composite’s strategy is absolute return where investments are permitted in all asset classes, no benchmark is presented because we believe that no benchmark that reflects this strategy exists.”

² Source: *A Primer for Investment Trustees*, Bailey, Phillips & Richards; Research Foundation of the CFA Institute January 2011.

As noted in STRS Ohio's response to the IFS Fiduciary Audit, there are challenges in selecting an appropriate benchmark for the alternative investment asset class for shorter time periods. Based on the advice of investment consultants over the years, including its current consultants Callan and Cliffwater, STRS Ohio used the actual alternative investment return for the total fund blended benchmark through June 30, 2021.

As discussed in Section VI of this Response, STRS Ohio's compliance with the GIPS® standards undergoes annual verifications and performance examinations from a third-party verification firm. No GIPS® compliance-related issues regarding this benchmark have been raised in the decade-plus that STRS Ohio has undergone such verifications and performance examinations. In short, the use of the alternative investments actual return within the total fund benchmark neither conflicts with the GIPS® standards nor violates Ohio law.

February 2021 Benchmark Review — The State Teachers Retirement Board reviewed benchmarks with Callan at its December 2020 and February 2021 meetings. At the February 2021 meeting, Callan presented on the performance benchmarks across all asset classes and recommended that the board retain its benchmarks in the areas of Domestic Equity, International Equity, Fixed Income, and Real Estate. Callan recommended that the Board adopt a new set of performance benchmarks at the asset class and total fund level for each of the major components of the alternative investments asset class (private equity, opportunistic and diversified).

Callan stated that due to the nature of private market securities, there are no benchmarks that meet all criteria provided in the CFA Institute's *A Primer for Investment Trustees*. They recommended that STRS Ohio adopt alternative investment portfolio benchmarks that incorporate the following traits:

- Consistency between the asset class itself and the asset class component of the Total Fund Composite.
- Reflective of the investment strategy adopted by STRS Ohio for the asset class.
- Reflective of the investment opportunity set and overall risk and return profile of the asset class.
- Reduces tracking error between the benchmark and the STRS Ohio portfolio.

At the February 2021 Board meeting, Callan recommended, and the Board adopted, the following Private Markets Fund Benchmarks for the Alternative Investments Asset Class and Total Fund Blended Benchmark and the incorporation of those benchmarks, effective July 1, 2021:

- Private Equity — Cambridge Associates Private Equity and Venture Capital Index
- Opportunistic Portfolio — Cambridge Associates Private Credit Index

- Diversified Portfolio — HFRI Fund of Funds Composite Index

Alternative Investments Benchmarking Conclusion – All benchmarks are reviewed and adopted by the Board on a regular basis and are incorporated into policies such as the SIOP adopted annually by the Board. At the time of the 2006 IFS Fiduciary Audit, the Board, after consultation with staff and its investment consultant, DID address the recommendation with regard to use of actual performance for the alternative investment benchmark, but did NOT agree that a change in the alternative investment benchmark was necessary. Use of the actual alternative investment asset class performance as a component of the total fund benchmark performance did not affect the relative return of the total fund either positively or negatively.

More than 14 years have elapsed since the IFS Fiduciary Audit recommendations were presented. The Board has continued to regularly review and adopt investment policies, which have included asset class benchmarks. Much in the world of investments, and particularly alternatives, has changed over the years since the IFS Fiduciary Audit was completed. There is an incredible amount of new information to consider and review when evaluating the current status of the STRS Ohio investment program and benchmarks. While STRS Ohio appropriately considered and addressed recommendations made in the IFS Fiduciary Audit in 2006, a review of any of those recommendations, without taking into account today’s information and changes, would be irrelevant.

As mentioned earlier in Section II, the next decennial fiduciary audit of STRS Ohio will be commenced later this year by ORSC. STRS Ohio looks forward to having new and updated expert reviews of its programs and operations and will once again consider any appropriate actions based on an updated review by a professional fiduciary expert.

2. The IFS audit recommendation related to conflicts of interest involving external investment consultants has also been addressed.

The second “serious deficiency” alleged by the BFS Report to be unaddressed was contained in the IFS Fiduciary Audit as recommendation A20 on page 144:

“Russell’s contract with STRS should be amended to require Russell to provide annual disclosure of its business relationships with all investment managers or other providers of investment services. This contractually-required disclosure should include information from Russell on the specific amounts paid by Russell by those investment managers employed by STRS Ohio and on the specific services provided to those managers.”

The Frank J. Russell Company (“Russell”) was the investment consultant to the Board at the time of the IFS report. STRS Ohio’s response to this recommendation, adopted by the Board in February 2007, was as follows:

“STRS Ohio’s current agreement with Russell provides comprehensive protections regarding conflicts of interest. These provisions include a requirement that Russell shall not receive any remuneration with respect to any transaction under the agreement except from STRS Ohio. Additionally, the agreement requires Russell to promptly disclose any potential conflicts of interest. The contract will be amended to reflect this annual disclosure recommendation.”

As indicated in the STRS Ohio response to the audit recommendations, this recommendation was accepted and implemented in March 2007. Additionally, the disclosure requirements were subsequently incorporated into the contracts with the Board’s current investment advisers, Callan and Cliffwater, as well.

The following contractual provisions are included in the current STRS Ohio investment adviser agreements, as related to conflicts of interest:

- A. [Investment Adviser] will act with respect to any transaction arising from or pertaining to this Agreement, or involving any interest of STRS Ohio, only under this Agreement and shall not receive any remuneration in connection with such transaction except under this Agreement or as may be determined by mutual agreement of STRS Ohio and [Investment Adviser] in writing in advance.
- B. [Investment Adviser] has disclosed in writing those actual and potential conflicts of interest that could be reasonably expected to affect the objectivity of the firm or its employees in fulfilling their duties to STRS Ohio and will update STRS Ohio promptly in the event of any additional, actual or potential conflicts of interest.
- C. [Investment Adviser] will provide annual disclosure of its business relationships with all investment managers or other providers of investment services employed by STRS Ohio. This disclosure will include information on the specific services provided and the specific amounts paid to [Investment Adviser].

On page 45 of the BFS Report, the Author concedes that STRS Ohio did indeed include these provisions, as recommended by IFS, in its investment adviser agreements with Callan and Cliffwater. The BFS Report goes on to further state that “it appears that STRS has never received disclosure regarding the specific amounts paid to the two firms by those investment managers, detailing the specific services provided to those managers.”

While the latter statement will be addressed in greater detail in Section VII of this analysis, a few key points are worthy of note here. First, STRS Ohio knows the names of each Callan money manager client, the types of services they could receive from Callan, and the range of fees they could be charged. Callan discloses the names of those clients to the Retirement Board on a quarterly basis. Further, Callan’s policies and procedures are specifically designed to segregate pension consulting services from money manager services. Finally, both Callan and Cliffwater

provide extensive conflicts disclosure in their Forms ADV, which are filed at least annually with the U.S. Securities and Exchange Commission (SEC).

As mentioned earlier, the role of STRS Ohio consultants is discussed in greater detail throughout this analysis, and potential conflicts of interest are further addressed in Section VII.

C. The BFS Report contains a list of other topics and alleges they remain unaddressed. These topics, to the extent they were included in a recommendation in the 2006 IFS Fiduciary Audit, were appropriately addressed by STRS Ohio.

Finally, pages 6-7 the BFS Report simply list nine items as some of the “concerns raised in the IFS Report” without further context or explanation. These concerns were either (i) inaccurately- or mis-identified, (ii) addressed by STRS Ohio and resolved/implemented or (iii) were simply not included or referenced in the IFS Fiduciary Audit at all.

Since the BFS Report did not provide any additional context, we reiterate that as a result of the IFS Fiduciary Audit, there were a total of 85 recommendations made by IFS. STRS Ohio prepared responses to address each and every recommendation. Again, these responses were reviewed with the Board in January and February 2007, with the Board ultimately voting to approve the staff analysis and recommendations as presented with the amendments offered.

The majority of IFS recommendations were accepted in staff’s response. Some items had even already been addressed and implemented prior to the release of the IFS Fiduciary Audit in December 2006, and all were addressed with comments and an actual or proposed implementation date. Only 10 of the recommendations were marked as “disagree,” and detailed reasoning was provided as to why the system would not be implementing any changes at that time. The IFS Fiduciary Audit and recommendation responses were reviewed and approved by the STRS Ohio Board in February 2007. **Any assertion that the recommendations from the IFS Fiduciary Audit remain unaddressed more than 14 years later is simply inaccurate.**

In conclusion, the overall findings of the IFS Fiduciary Audit were generally positive and all recommendations were appropriately reviewed by the STRS Ohio Board in 2007. The executive summary of the IFS Fiduciary Audit stated, “The results of this review demonstrate that STRS is generally in line with best practices with regard to much of its overall governance, administration and management of its investment program.” It was further noted, “STRS governance policies and rules are impressively comprehensive and they cover all of the significant aspects of governance a sophisticated public pension fund requires.”

IV. ALTERNATIVE INVESTMENTS FEES AND PERFORMANCE

The BFS Report incorrectly asserts that STRS Ohio pays \$143 million annually to managers who perform no services and has suffered billions in losses due to alternative investments. These claims misstate STRS Ohio's investment costs and misrepresent our alternative investment benchmarks and returns.

A. STRS Ohio Does Not Pay \$143 Million Annually in Fees on Unfunded Committed Capital

The BFS Report incorrectly asserts that STRS Ohio pays private fund managers \$143 million annually to do nothing. This claim misrepresents both the amount of management fees STRS Ohio pays on committed capital and the purpose of those fees.

Committed Capital — Investors in private equity funds typically agree to invest a certain amount over a specified period (commonly called the commitment period). Assets committed and not yet funded are referred to as *unfunded committed capital*, and assets already funded are referred to as *invested capital*.

- For example, an investor agrees to commit \$10 million over five years. The timing of those payments would depend on the investment opportunities the fund's manager chose to pursue and the terms of the partnership agreement governing the investment. If the investor funded \$2 million of its commitment in the first year, it would have \$2 million in invested capital and \$8 million in unfunded committed capital, with four years remaining in its commitment period.

The BFS Report correctly notes that it is common practice for private equity funds to charge management fees on unfunded committed capital during the fund's investment period. The BFS Report incorrectly asserts, however, that management fees on unfunded committed capital amount to money for nothing.

Management Fees on Committed Capital — Management fees are intended to compensate a fund manager for its investment services performed for the fund.³ These services include actions taken with respect to both invested capital (e.g., managing portfolio companies in which the fund has invested) and unfunded committed capital (e.g., seeking new investment opportunities consistent with the fund's mandate). Both types of services are necessary for the fund to achieve its overall objectives:

³ Per the Institutional Limited Partners Association ("ILPA"), an advocacy group for limited partners like STRS Ohio, management fees are "used to provide the partnership with resources such as investment and clerical personnel, office space and administrative services required by the partnership."

- Private fund managers actively seek investments during the investment period, which requires travel, marketing, research, and due diligence. Funding these activities requires upfront capital from limited partners and the manager.
- Successful private fund managers acquire companies at reasonable prices and successfully grow these companies, and then sell at a profitable value. The work they perform begins well before a decision is made to buy a company. Management fees on committed capital during an investment period help to align the interests of the manager and its investors by incentivizing the manager to pursue the best opportunities at the best times, rather than rushing into deployment.
- The vast majority of funds that charge management fees on committed capital are not eligible to draw such fees after the investment period has ended. Moreover, in nearly all circumstances, management fees — as well as invested capital — are returned to investors before private fund managers are entitled to a share of any profits (described in greater detail in section V of our response).

In short, the BFS Report’s suggestion that private fund managers perform no investment services until capital has been deployed is simply not true. Moreover, STRS Ohio approaches private funds as long-term investments, whose performance is best measured over the life of the investment, not based on point-in-time expense calculations that give an incomplete view of the fund’s investment process. Management fees are part of that assessment, as are strategy execution, risk management, and return on investment.

STRS Ohio’s Actual Fees on Committed Capital — The BFS Report claims that STRS Ohio pays \$143 million in fees annually on unfunded committed capital. This number — based on the Author’s own calculation — is grossly inaccurate and misleading. First, it inaccurately assumes that STRS Ohio pays a management fee of 2% on all committed capital. Second, it disregards the various strategies STRS Ohio employs to achieve its alternative investments objectives.

As reported in CEM Benchmarking Inc.’s 2019 Investment Cost Effectiveness Analysis, a copy of which was provided to the Author, STRS Ohio’s total investment management costs for calendar year 2019 were \$290.4 million. Of this amount, approximately \$174.7 million were related to alternative investments. To suggest that \$143 million, or 82% of total alternative investment costs, were attributable to fees on unfunded committed capital is incorrect.

Actual management fees paid on unfunded committed capital during calendar year 2019 were \$59 million, or 34% of total alternative investment costs. This amount is based on unfunded committed capital of approximately \$7.9 billion, resulting in an average fee rate of 0.8%, far below the 2% rate assumed by the BFS Report.

Additionally, only 65% of STRS Ohio’s alternative investments commitments are contractually eligible to charge management fees on committed capital. The remaining 35% (typically credit-related managers) charge management fees only on invested capital. STRS Ohio has significantly increased its allocation to credit strategies over the past several years, reducing the percentage of committed capital eligible for management fees. We expect this trend to continue as we further expand our credit strategies going forward.

More broadly, STRS Ohio is committed to lowering fees and managing alternative investments expenses through increased allocations to direct and co-investments, for which managers do not typically receive management fees or carried interest, and by aggressively negotiating fees on commitments where such fees are eligible.

B. The BFS Report Uses Inaccurate Benchmarks and Performance in Support of False Claims

The BFS Report makes a series of unsupported claims about STRS Ohio’s alternative investments performance. These claims misrepresent STRS Ohio alternative investment benchmarks and returns.

STRS Ohio Alternative Investment Benchmarks — STRS Ohio uses benchmarks to measure performance at both the asset class level and the total fund level. As discussed in Section III of this Response, the BFS Report included several inaccurate assertions regarding STRS Ohio’s alternative investment benchmarks, including its use of the alternative investments actual return as a component of the total fund benchmark. While the Author may disagree with the Board’s choice of benchmarks, his comparison of STRS Ohio alternative investment returns to benchmarks not adopted by the Board is misleading. **Specifically, the assertion that comparisons to the *Russell 3000 plus 500 basis points* reveal “losses” of \$8.6 billion or \$2.5 million per trading day over 14 years is completely inaccurate.**

First, *Russell 3000 plus 500 basis points* is not the STRS Ohio alternative investments component of the total fund benchmark, nor does it accurately reflect the return expectations, volatility, or risk characteristics of the alternative investment asset class, particularly over shorter periods. Using it as a benchmark for alternative investments returns, therefore, serves no more value than comparing to a credit index or global markets index. As demonstrated by its asset mix and investment strategies, the objective of the alternative investments asset class is to offer competitive returns with increased diversification and reduced volatility over the long term.

Second, the portfolio characteristics of STRS Ohio alternative investments have evolved significantly over the past fourteen years. Allocations to liquid alternatives, direct and co-investments, and credit investments have changed the asset mix from its predominantly private equity/venture capital origins to a more diverse portfolio with exposure to multiple asset

classes. Accordingly, the criteria that led the Board's investment consultants in 2007 to recommend against adopting *Russell 3000 plus 500 basis points* as a component of the total fund benchmark are even more applicable today. This fact was reinforced during the February 2021 board meeting, when the Board adopted new alternative investments benchmarks that did not include the Russell 3000, or any other public equities benchmarks.

Finally, underperformance relative to any index, let alone an index that does not serve as its benchmark, does not equate to "losses." While hindsight bias may cause one to conclude that pension assets should have been invested exclusively in equities over the past decade, experience tells us otherwise. STRS Ohio's asset mix policy is designed specifically to manage risk and achieve returns over the long-term while incorporating diversification. Alternative investments are a key component of this strategy. Moreover, STRS Ohio's alternative investment returns have exceeded total fund returns over the past one, five, 10 and 20 years ended June 30, 2021, further demonstrating their positive impact on total fund performance.

V. DISCLOSURE OF INVESTMENT COSTS AND PERFORMANCE

The BFS Report alleges that STRS Ohio may have misrepresented its investment costs and performance. As discussed below, the Author misapplies or misstates information from CEM Benchmarking Inc. (CEM), as well as industry practices and standards, to make his spurious claims.

A. CEM Benchmarking

CEM is a private company that aggregates data from participating pension plans to compare various plan-level metrics, including investment costs. CEM receives data from approximately 300 large global institutional investors, including about 150 of the most prominent U.S. pension plans. STRS Ohio has been providing its investment costs and fees to CEM since the 1990s.

CEM Report — CEM prepares an annual Investment Cost Effectiveness Analysis report (CEM Report) for each participating plan, including STRS Ohio, which offers investment cost comparisons and cost benchmarking based on CEM’s aggregate data. STRS Ohio and other participating plans report their investment fees and costs annually using CEM’s best cost practices. CEM aggregates reported data and applies its own methodologies to facilitate meaningful comparisons among peer funds.

- CEM is not charged with independently calculating STRS Ohio’s costs, nor does STRS Ohio rely on CEM for its calculation of performance or analysis of returns.
- Both the Board’s investment consultant (Callan) and ORSC’s investment consultant (RVK) provide extensive rankings and comparisons on STRS Ohio’s absolute and relative/value-add investment performance.
- STRS Ohio complies with the GIPS® standards in connection with its reporting of investment performance and undergoes annual verifications and performance examinations from a third-party verifier (ACA Group).

B. BFS Report Erroneously Claims STRS Ohio Underperformed by \$400 Million Annually

The BFS Report incorrectly asserts that STRS Ohio lost over \$400 million annually from 2014 to 2018 due to active management. This assertion misapplies CEM data regarding STRS Ohio’s policy return.

STRS Ohio Policy Return — The 2018 CEM Report cited in the BFS Report provides a comparison of STRS Ohio’s policy return to its net total fund return. The policy return, also called the Total Fund Blended Benchmark, is the return the fund could expect to earn by

investing in its benchmarks according to its asset mix policy adopted by the Board. STRS Ohio provides its policy returns to CEM in connection with STRS Ohio's annual reporting of investment costs and related data.

- STRS Ohio's policy returns reported in the 2018 CEM Report correctly reflected STRS Ohio's Board-approved benchmarks, including its alternative investments component benchmark, which was the alternative investments actual return. As stated in the CEM Report, STRS Ohio had a 5-year policy return of 6.09%, which CEM compared to STRS Ohio's 5-year net total fund return of 6.25% to arrive at a net value added of 0.16% due to active management.

Substitute PE Benchmark — In the 2018 CEM Report, CEM also noted that had it substituted its own private equity benchmarking calculation (Substitute PE Benchmark) for the Board-approved alternative investments benchmark used in STRS Ohio's policy return, the resulting policy return would have been 0.7% higher than STRS Ohio's policy return, with a corresponding reduction in net value added by management. The Substitute PE Benchmark is not the benchmark adopted by the Board. Rather, it was developed by CEM for comparative purposes only, since there is little consistency among pension plans with respect to private equity benchmarks.

The BFS Report incorrectly asserts that STRS Ohio's policy return should use the Substitute PE Benchmark rather than STRS Ohio's actual alternative investments benchmark. This argument is flawed for two reasons. First, and most obviously, STRS Ohio's alternative investments benchmark is, by definition, the benchmark approved by the Board and reflected in its SIOP, Annual Comprehensive Financial Report, and annual GIPS® compliant presentations. Using any other benchmark, including the Substitute PE Benchmark, would not accurately reflect STRS Ohio's policy return. Second, as explained in more detail below, the Substitute PE Benchmark does not meet the definition of an acceptable or appropriate benchmark for STRS Ohio's alternative investments.

- The Substitute PE Benchmark is not a publicly available or trackable benchmark. CEM developed the Substitute PE Benchmark only as a tool for comparison purposes and did not intend it as a recommendation of suitability as a policy benchmark for STRS Ohio or any other pension plan.
- The beginning and ending periods used for the Substitute PE Benchmark are not known until well after the close of the measurement period, making the benchmark impossible to measure during the measurement period, implement and know in advance.
- The beginning and ending periods used in the Substitute PE Benchmark are different than STRS Ohio's beginning and ending periods.

- Moreover, CEM’s Substitute PE Benchmark was developed using high-level, aggregate performance data from its clients. The Substitute PE Benchmark is not intended to represent the capitalization, geography, size, sector, and other important details of STRS Ohio’s actual portfolio composition.

As reported in its executive summary, CEM correctly stated that STRS Ohio’s net total fund return exceeded its policy return over the five-year period ended December 2018. Contrary to the BFS Report’s claims, CEM used STRS Ohio’s actual policy return and Board-approved benchmarks to report the total fund net value added. This information is neither inaccurate nor misleading.

C. BFS Report Misstates CEM Information Regarding STRS Ohio Costs

The BFS Report overstates STRS Ohio’s investment costs and falsely suggests that STRS Ohio was secretly concealing cost information. The Author’s misstatements appear to stem from a misunderstanding of CEM’s role — which is to compare costs among retirement systems using CEM’s proprietary assumptions and formulas, not to calculate performance — and more importantly, that STRS Ohio reports alternative investment performance net of all carried interest, management fees and fund expenses.

STRS Ohio Total Investment Management Cost — STRS Ohio’s total investment management costs in calendar year 2018 were \$279,069,000. STRS Ohio provided this cost information to CEM, which correctly reported our actual investment cost as \$279.1 million or 36.9 basis points. The CEM Report notes that this figure excludes carried interest. This is because carried interest is not an investment cost.

- **Carried Interest** – Carried interest is not a fee. Rather, it is a profit-sharing agreement between a fund’s general partner and limited partners (e.g., STRS Ohio) that entitles the general partner to share in the fund’s profits to the extent they exceed the capital invested by its limited partners — including investment costs, fees and partnership expenses — plus (in most cases) an additional annual return hurdle or “preferred return” owed to the limited partners.
 - Because the general partner is not entitled to receive a carried interest, or share of profits, until it generates a specified return to investors, this arrangement serves to align the interests of investors and managers.
 - Carried interest is typically not awarded to a general partner until an investment (or fund) is monetized, and investors do not pay carried interest out of their own cash flows.

- **Governmental Accounting Standards Board (GASB) accounting standards have not prescribed that carried interest should be reported as an investment fee or expense.**⁴

CEM Adjusted Investment Costs — The 2018 CEM Report provides, for peer group comparative purposes only, an adjusted investment cost for STRS Ohio of \$302.8 million or 40.1 basis points. This figure adds hedge fund carried interest and certain management fee offsets,⁵ which are already reflected in the net asset value and are deducted before STRS Ohio reports its investment performance, to our total investment costs and is therefore not representative of STRS Ohio’s actual total investment costs. CEM reports that this adjusted investment cost is 14.5 basis points lower than STRS Ohio’s peer median benchmark cost of 54.5 basis points and that STRS Ohio is a low-cost fund. As stated previously, CEM’s role is to compare costs among pension funds. CEM does not calculate STRS Ohio investment performance.

- **STRS Ohio Peer Median Benchmark Cost** — As described in the CEM Report, STRS Ohio’s peer median benchmark cost is an estimate of what our cost would be given our actual asset mix and the median costs our peers pay for similar services. In short, it applies the peer group implementation costs to the STRS Ohio actual asset mix.

BFS Report Misrepresents STRS Ohio Investment Cost — The BFS Report states, incorrectly, that STRS Ohio’s actual investment costs are \$463.6 million or 61.3 basis points. To arrive at this erroneous figure, the BFS Report essentially double counts a hypothetical carried interest by adding STRS Ohio’s CEM-adjusted investment cost (\$302.8 million) and CEM’s estimate of carried interest attributed to STRS Ohio investments (\$160.8 million). CEM’s estimate of carried interest (which CEM calls performance fees) is based on its proprietary methodology and is not intended to reflect the actual carried interest attributable to STRS Ohio investments. The BFS Report then concludes, incorrectly, that STRS Ohio’s investment cost was actually “significantly greater than the fund’s benchmark cost of 54.5 basis points, suggesting that STRS was *high cost* compared to its peers.”

- **In addition to comparing numbers that do not reflect STRS Ohio’s actual investment costs, this conclusion ignores that CEM’s benchmark cost calculations, whether for STRS Ohio or any peer fund, do not include carried interest.** Thus, based on an apples-to apples comparison, CEM’s adjusted costs for STRS Ohio were actually 14.5 basis points below its peer median benchmark cost.

In summary, despite the BFS Report’s contention, CEM correctly calculates STRS Ohio’s 14.5 basis points net cost effectiveness relative to our peers. When the Author deducts CEM’s default performance fees from STRS Ohio’s reported net returns — which are always presented

⁴ Current GASB guidance, Statement GASB 67, Section 26 indicates that investment-related costs should be reported as investment expense if they are separable from (a) investment income and (b) the administrative expense of the pension plan.

⁵ Management fee offsets include monitoring, transaction, and other portfolio company related expenses paid to the investment manager that are offset against fund level management fees.

net of all management fees, fund expenses and carried interest — he is double-counting these fees. The BFS report further suggests — without any support — that STRS Ohio fees equal \$1 billion. This claim is grossly misleading and appears intended only to muddy the waters around fee transparency.

D. STRS Ohio has a Robust Fee Monitoring Process

In addition to the fact that STRS Ohio reports alternative investment performance net of all management fees, fund expenses and carried interest, the Retirement System has dedicated considerable time and resource over the past several years to developing and implementing fee monitoring procedures to obtain all fees and costs as well as ensure that all fees and costs directly invoiced or subtracted from the investment by fund managers are proper.

Alternative Investment Fee Transparency — In 2015, STRS Ohio began an initiative to enhance private fund transparency to allow STRS Ohio to better assess compliance with underlying agreements, obtain specific data from our managers in the most cost-efficient manner, and maintain strong working relationships with our managers to meet long-term return objectives.

- Most private fund managers are SEC-registered and subject to SEC examination. These managers have audited financial statements and must comply with fair value standards.
 - Fund valuations are typically audited by credible, nationally recognized audit firms and must adhere to applicable accounting standards. Financial audits require that, to be GAAP compliant, fair value of assets must be determined pursuant to a specific accounting standard known as FASB ASC Topic 820.
- STRS Ohio requests information semi-annually from its managers regarding its proportionate share of management fees (gross, offsets and net) and other fund expenses, as well as carried interest attributed to STRS Ohio investments.
- STRS Ohio requests information annually from managers about findings from SEC and other regulatory examinations.

Other steps taken by STRS Ohio to improve its fee monitoring capabilities include:

- **ILPA (Institutional Limited Partners Association)** — STRS Ohio partnered with ILPA in their fee transparency initiative and helped guide a new fee reporting template that was launched for increased transparency and consistency. Staff encourages our general partners to adopt the ILPA fee template and presses for its inclusion in our limited partnership agreement side letters.

- **Additional Staff** — In 2018, STRS Ohio added a new position to the Finance department with specific responsibility to review and monitor the fees and costs associated with STRS Ohio’s limited partnership funds to expand on the existing review and monitoring that was in place. This position, the Alternative Investment Fund Manager, also works cohesively with investment teams and stays abreast of fee monitoring and reporting best practices.
- **External Audit Firm** — STRS Ohio’s fee monitoring process is discussed annually with the external audit firm as part of their overall financial statement audit. No audit firm recommendations or modifications to the opinion have been received, and the audit firm has obtained support and performed testing on the expenses as part of the financial statements and related notes to the financial statements.

BFS Report’s False Claim Regarding Withdrawal of Fees — The BFS Report claims “with great emphasis that ... STRS investment managers may withdraw their fees from pension accounts in the absence of any diligent monitoring by STRS.” This statement is simply not true. STRS Ohio investment managers cannot withdraw fees from pension accounts. Payment of management fees for alternative investment and real estate follows a multi-step internal process. Direct management fees for separate account external managers are authorized for payment by the Ohio Treasurer of State following a standardized, multi-step internal process.

E. Proper Disclosure of Investment Fees and Expenses

Despite the BFS Report’s contention, STRS Ohio discloses investment fees and expenses in compliance with industry standards.

Net returns for alternative investments and external real estate — STRS Ohio’s total fund return and net total fund return are inherently net of external management fees and costs, as well as carried interest attributable to alternative investments and real estate, because these items are subtracted from the underlying investment *prior* to calculating its net asset value. Disaggregating and separately reporting these items would have no effect on the investment return, market value and net investment income reported in the financial statements.

- The BFS Report’s claim of unreported carried interest fees is not accurate. **When the Author deducts CEM’s default performance fees from STRS Ohio’s reported returns — which are always presented net of all management fees, fund expenses and carried interest — he is double-counting these fees.** Again, carried interest is already reflected in the net asset value, net investment income and performance return.
- Net total fund returns are a requirement per the GIPS® standards, and STRS Ohio has presented net total fund returns annually since 2008, which included ten years of

performance history from 1999 to 2008. Net total fund returns and expanded disclosures have also been added throughout our internal, external and other Board reporting in a best faith effort to increase awareness and transparency around this information.

Annual Financial Statements/GAAP/GASB Compliance — With respect to fully disclosing investment fees and expenses, investment fees are properly reported in STRS Ohio’s financial statements in accordance with generally accepted accounting principles and comply with the Governmental Accounting Standards Board (GASB). STRS Ohio’s financial statements are audited, and a financial audit is performed each year by an external audit firm, currently Crowe LLP, under the oversight of the Ohio Auditor of State. The last audit released, for the fiscal year 2020, was completed by CliftonLarsonAllen LLP.

Board’s Investment Consultant Performance Reporting — The Board’s consultant provides a trustee summary report that includes performance and investment management cost information through each quarter and month-end.

- The **total fund return**, which is the net return for alternative investments and external real estate after all external investment management fees and costs, carried interest and other fund expenses are deducted, and gross return for all other assets, has consistently been reported since the trustee summary report was first developed.
- Additionally, a **net total fund return** is also reported on the trustee summary report, which is the total fund return less all other remaining internal and external investment management fees and costs on all assets.

ORSC Investment Consultant Reporting — ORSC’s investment consultant (currently RVK) reports semi-annually on investment performance and fee information of the five Ohio pension funds.

- Investment fees reported in RVK’s semi-annual investment performance report, as well as investments fees reported in the ORSC annual budget report, follow ORSC’s prescribed method applicable to all five retirement systems.
- While fee reporting for ORSC budget reporting includes brokerage commissions, they are not considered an investment expense for annual financial reporting, GASB and GIPS® purposes. **Importantly, investment returns are always reported net of commissions.**
- Investment costs and fees are reported to ORSC on a frequent basis in addition to investment performance.

VI. COMPLIANCE WITH THE GIPS® STANDARDS

The assertion that STRS Ohio's compliance with the GIPS® standards is problematic or misleading is not credible. The GIPS® standards are considered industry best practice for calculating and reporting investment performance. Moreover, compliance with the GIPS® standards is an effective way of demonstrating STRS Ohio's compliance with legal requirements and a natural extension of the importance the Retirement System places on the calculation of performance.

A. GIPS® Standards for Reporting Performance

STRS Ohio is subject to ORC 3307.15(B), which provides, in part:

When reporting on the performance of investments, the board shall comply with the performance presentation standards established by the CFA institute.⁶

CFA Institute's performance presentation standards are known as the CFA Institute Global Investment Performance Standards (GIPS®). Compliance with the GIPS® standards, which STRS has undertaken for more than a decade, is the most effective way to demonstrate the Board's commitment to its legal and fiduciary obligations.

Origin of the GIPS® Standards — Prior to the GIPS® standards, the lack of reporting uniformity made it difficult for asset owners like pension funds to compare results across managers: calculations could differ, presentation of results could differ and, importantly, results were often cherry-picked by managers to exclude underperforming accounts. CFA institute developed the GIPS® standards specifically so that asset owners and their stakeholders could rely on the results presented by its managers and make proper comparisons. While compliance with the GIPS® standards remains voluntary, institutional asset managers have largely complied due to demand from asset owners. Twenty-four of the top 25 asset managers worldwide claim compliance for all or a part of their business. But compliance is not limited to asset managers. Some of the largest and most influential asset owners in the world, including CalPERS, Norges Bank, CalSTRS, and Saudi Central Bank (SAMA), have also chosen to comply with the GIPS® standards; many of these entities hold significant alternative and/or real estate assets.

Compliance by Pension Funds — Contrary to the BFS Report's opinion, pension fund compliance with the GIPS® standards is not a marketing tool, nor was the Ohio legislature's adoption of CFA Institute's performance presentation standards a gimmick. Compliance with the GIPS® standards demonstrates a commitment to adhere to the highest ethical principles

⁶ CFA Institute is a global, not-for-profit professional organization that provides investment professionals with finance education. It aims to promote the highest standards of ethics, education, and professional excellence in the global investment industry.

and global best practices for the reporting of investment performance. Pension funds that voluntarily comply with the GIPS® standards are required to establish robust investment performance policies and procedures, and compliance allows a pension fund’s board to be confident that the performance data presented to the board is consistent and transparent. In addition, pension funds claiming compliance may choose to undergo annual verification by a third-party verification firm.

B. External GIPS® Standards Verification and Performance Examination

ACA Group — For more than a decade, STRS Ohio annually has undergone both a verification and a performance examination. A verification tests an asset owner’s policies and procedures for complying with the GIPS® standards’ requirements for calculating and presenting performance. A performance examination goes a step further and includes rigorous calculation and testing of investment performance. The verification and performance examination are conducted annually by ACA Group (ACA), a third-party verification firm. ACA is generally regarded as the industry leader, with the largest team in the world providing GIPS® standards verification and performance examination services.

ACA’s testing verifies that STRS Ohio has both complied with key requirements of the GIPS® standards and designed the Retirement System’s policies and procedures to calculate and present performance in compliance with the GIPS® standards. **ACA also performs rigorous testing and validates the calculation of STRS Ohio’s total fund performance and the accuracy of the reporting of that performance. In addition to recalculating the returns or the “math,” ACA independently tests and validates the inputs to performance — the market values and cash flows — to third-party sources and documents.** If any policy is not in compliance or if a practice does not follow the documented policy, ACA would conclude noncompliance with the GIPS® standards and would withhold from issuing a verification opinion.

- **ACA Verification Follows Same Standards Used by CPA Audit Firms** — Any firm that is hired to conduct a verification or performance examination must conduct its engagement in accordance with the requirements of the GIPS® Standards for Verifiers. A CPA audit firm in the U.S. that is hired to conduct a GIPS® standards verification or performance examination engagement is required to conduct the engagement in accordance with, among other requirements, AT-C Section 105, *Concepts Common to all Attestation Engagements*, and AT-C Section 205, *Examination Engagements*, and to issue reports in compliance with the AICPA Statement of Position 20-1, which directly refers the CPA firm to the GIPS® Standards for Verifiers. **The level of assurance provided by a GIPS® standards verification or performance examination is analogous to the level of assurance provided in a financial statement audit.** Similarities between GIPS® standards

verification and performance examination engagements and financial statement audits include the following:

- Management representations are provided in both types of engagements, and both types of engagements result in opinion letters.
- Both engagements carry with them liability for the person or group that opines, and there is no difference in the degree of liability.
- Under AICPA attestation standards, which address providing assurance on information other than financial statements, the term examination is used, and not “audit.” A GIPS® standards verification or performance examination engagement is considered an examination engagement under AICPA guidance. **It is understood throughout the industry that a GIPS® standards verification or performance examination is the same type of engagement as a financial statement audit because both provide reasonable assurance.**

Nonetheless, the BFS Report contends that STRS Ohio’s compliance with the GIPS® standards is flawed due to (1) the valuation of less liquid alternative assets, and (2) the use of external investment managers that do not claim GIPS® compliance. These baseless criticisms reflect a fundamental misunderstanding of the GIPS® standards.

C. Valuation of Less Liquid Assets

STRS Ohio Valuation Policy — STRS Ohio’s asset mix includes allocations to real estate and alternative investments. Unlike stocks traded on an exchange, real estate and alternative investment assets cannot be valued based on daily market prices. Consistent with industry practice, STRS Ohio has adopted valuation policies governing the valuation of less liquid assets. These valuation policies have been vetted with our consultants, external audit firm and external performance verification firm. STRS Ohio’s valuation policies use a fair value methodology that complies with the GIPS® standards and GASB fair value standards (presented in Note 7 of the Fiscal 2020 Comprehensive Annual Financial Report).

Audit Review — STRS Ohio’s valuation policies and monthly performance procedures are provided to the external financial audit firm (Crowe LLC) and external performance verification firm (ACA).

- **ACA Verification** — STRS Ohio’s valuation policies and procedures are reviewed and tested by ACA during its annual GIPS® standards verification and performance examination. In connection with its review, ACA conducts testing to determine that real estate assets are valued using market-based inputs that are comparable but subjective in nature, and that alternative investment assets are valued by the

underlying investment manager with supporting financial statements. These methods of valuing less liquid assets are consistent with STRS Ohio's valuation policy, the GIPS® standards and GASB fair value standards.

Alternative Investment Valuations — Despite STRS Ohio's rigorous valuation policies, procedures and oversight noted above, the BFS Report's Author further maligns STRS Ohio's performance reporting by positing that alternative asset valuations received from general partners simply cannot be trusted, implying that general partners are free to make up their own numbers. To arrive at this conclusion, he mischaracterizes the fund valuation process and ignores the considerable checks and balances in place to ensure fair valuations:

- **Fiduciary Duty** — General Partners have fiduciary duties to their limited partners. Falsifying valuations would violate their contractual and legal obligations, subjecting them to both legal and regulatory liability.
- **Regulatory Oversight** — The vast majority of STRS Ohio's alternative investments managers are registered with the SEC and are therefore subject to SEC oversight. Broadly speaking, most U.S. private capital managers were forced to register with the SEC as part of the 2010 Dodd-Frank Act.⁷
- **Third-Party Audits** — Fund valuations are typically audited by credible, nationally recognized audit firms and must adhere to applicable accounting standards. In addition, STRS Ohio's external audit firm and external performance verification firm review select alternative investment valuations in connection with annual testing.
- **LPAC Oversight** — Fund valuations are typically reviewed by limited partner advisory committees (LPACs), which act as a check on the general partner. STRS Ohio actively seeks inclusion on LPACs when negotiating investment opportunities and reviews fund valuation policies as part of its due diligence.
- **Alignment** — Management fees are typically structured to not incentivize managers to inflate unrealized valuations. Management fees are typically charged on committed capital (as is common in private equity investment periods), on invested capital (as is common in some credit strategies or after the investment period for private equity funds) and/or on the cost basis of investment assets (as is common in senior credit strategies), and carried interest (profit sharing arrangement with general partner) is only paid on realized results.

Importantly, STRS Ohio's alternative investments portfolio is over 20 years old, with tens of billions in cumulative invested capital across thousands of line-items. During this time, STRS Ohio has observed the full maturation of numerous funds and would have been able to detect if there were material differences between unrealized valuations and realized valuations in those funds. Our experience has shown this not to be the case.

⁷ Exemptions from SEC registration are available to investment advisers that advise exclusively venture capital funds and advisers solely to private funds with less than \$150 million in assets under management.

Real Estate Valuations — STRS Ohio’s valuation policy for real estate valuations complies with the GIPS® standards’ valuation requirements and the GASB fair value standards. STRS Ohio real estate assets undergo periodic third-party valuations in accordance with the Retirement System’s valuation policy.

Whether real estate or alternative investments, the Author ignores the fundamental reality that there is no purely objective method (e.g., daily market quotes) for pricing less liquid assets. While quick to disparage widely followed investment and accounting standards developed to improve the reliability of fair market valuations, he offers no alternatives. Pension funds, oversight boards and other stakeholders, however, need practical solutions. Compliance with the GIPS® standards is an important part of that solution.

D. GIPS® Compliance by External Asset Managers

The BFS Report makes several false assertions regarding the applicability of the GIPS® standards to external managers.

External Investment Manager Requirements — Contrary to assertions in the BFS Report, STRS Ohio may hire external managers that do not claim compliance with the GIPS® standards without jeopardizing the Retirement System’s own compliance. Under the GIPS® standards, external managers are not required to be compliant for the asset owner itself to comply. However, an asset owner retains responsibility for its claim of compliance for all its assets, including those managed by external managers. If an asset owner places reliance on information from external managers, it must ensure that the records and information provided by the external manager meet the requirements of the GIPS® standards. This is one of the tasks STRS Ohio performs during its external manager due diligence process. That said, the vast majority of STRS Ohio’s public market external managers do claim GIPS® compliance.

- **ORC 3309.15 Does Not Apply** — The BFS Report incorrectly states that STRS Ohio is subject to ORC 3309.15, which requires external managers to comply with the GIPS® standards. This provision is from ORC Chapter 3309, which applies to the School Employees Retirement System, not STRS Ohio. ORC Chapter 3307, which governs STRS Ohio, includes no such requirement for external managers.
- **External Investment Managers do not Calculate Performance for STRS Ohio** — It is important to note that STRS Ohio calculates performance internally, with oversight and verification from our external auditors and ACA, rather than relying on external manager performance calculations. Thus, whether an external investment manager claims compliance with the GIPS® standards is less important than whether information provided by the manager adheres to the requirements of the GIPS® standards, to the extent STRS Ohio relies on that information for its own performance calculations.

- **No RFP Process for Alternative Investments** — The BFS Report seems to confuse the difference between hiring an external manager pursuant to an investment management agreement, as STRS Ohio does for certain public market portfolios, and investing in an alternative investment fund. When investing in alternative investment funds, STRS Ohio does not retain the fund’s manager to provide investment management services to the Retirement System. Rather, it chooses to invest in the fund itself. Accordingly, there is no RFP process related to the fund or manager. Rather, STRS Ohio performs due diligence on the potential investment opportunity, including an extensive analysis of the fund’s manager.

In summary, STRS Ohio has valuation and performance policies that cover all asset classes including those with external managers. The Retirement System does not rely on external managers to calculate our performance. Moreover, valuations of investments are supported by third-party independent sources: custodians appointed by the Ohio Treasurer of State, third-party valuation services, and real estate third-party valuation appraisers as examples.

E. Internal Procedures Governing Performance

In addition to compliance with the GIPS® standards, STRS Ohio’s calculations and reporting of performance benefits from procedures and governance.

Segregation of Performance Reporting — STRS Ohio has extensive internal controls, segregation of duties, and established policies and procedures for verifying and reporting proper fair value of investments, including positions and prices, cash flows, and performance returns that encompass each asset class and total fund. The segregation of duties and responsibilities between Investments and Finance, as well as key controls within our investment systems, are integral to this process. STRS Ohio’s investment accounting and performance team reports to the chief financial officer and operates independently from the Investments department.

- Prior to the 2006 fiduciary audit, Russell (the Board’s investment consultant at that time) undertook a review of the STRS Ohio performance measurement system and reported the system was robust and accurate to generally accepted industry standards. In its report, Russell stated, “The system allows a level of quality control that is unlikely to be found with an external provider.”
- In its 2006 fiduciary audit, IFS reviewed the STRS Ohio performance measurement system and observed, “Based on IFS’ evaluation of the Fund’s investment performance measurement and reporting process, IFS believes the investment performance measurement process is sufficiently independent, objective and reliable and the overall process is satisfactory to support performance based incentive compensation decisions by members of Fund staff or the Board.”

External Financial Audit — STRS Ohio undergoes an external financial audit each year with its independent, third-party auditing firm (for the current year Crowe LLP, previously CliftonLarsonAllen LLP) under the oversight of the Ohio Auditor of State. The audit covers financial reporting, including the investment asset values and net investment income reported in the financial statements. Additionally, performance return disclosures, as required per GASB 68 and 75 in the Required Supplementary Information for Pensions and OPEB, are part of the annual comprehensive financial report and the external audit firm applies certain limited procedures in accordance with auditing standards on this information.

Internal Audit — Internal Audit, which reports directly to the Board’s audit committee, performs annual review of investment performance-based incentives and audits the various investment areas on a rotational basis.

Board’s Investment Consultants Report on Performance — The Board’s independent investment consultant presents investment performance quarterly to the Board. Additionally, an investment consultant specializing in alternative investments presents investment performance results semi-annually. This provides an additional level of oversight and routine review of performance information.

ORSC’s Investment Consultant Reports on Performance — ORSC’s independent investment performance consultant (currently RVK) presents a semi-annual report on the five Ohio public pension funds. This report and oversight review has been in place since 1999.

VII. CONSULTANT CONFLICTS OF INTEREST

The BFS Report alleges that STRS Ohio has failed to monitor external consultant conflicts of interest, resulting in billions of dollars in losses. This extraordinary claim does not stand up to scrutiny.

A. Misapplication of GAO Findings

The BFS Report includes assertions regarding investment consultant conflicts of interests (see pg. 87 of the BFS Report). Citing a 2007 report by the Government Accountability Office (GAO Report), the BFS Report states (emphases in original):

Most significantly, conflicts of interest at investment consulting firms were found to result in *substantial financial harm* to plans by the Government Accountability Office in a 2007 report. Benchmark assisted the GAO in its review.

In its report, the GAO took the extraordinary step of quantifying the harm a conflicted adviser to a plan can cause. "Defined Benefit plans using these 13 consultants (with undisclosed conflicts of interest) had annual returns generally 1.3 percent lower ... in 2006, these 13 consultants had over \$4.5 trillion in U.S. assets under advisement," the report stated.

If the GAO estimates are correct, investment consultant conflicts of interest could cost an \$90 billion pension, such as STRS, over \$1 billion annually or approximately **\$20 billion** over a ten-year period with compounding. As mentioned elsewhere, the unfunded actuarial liability of the pension is \$22.3 billion. *Thus, the estimated cost of conflicts nearly equals the unfunded liability, or, alternatively stated, "but for" the conflicts the pension would be nearly fully funded.*

The BFS Report's assertion that STRS Ohio has suffered annual losses exceeding \$1 billion due to investment consultant conflicts of interest reflects a gross misunderstanding or mischaracterization of the findings of the GAO Report.

The GAO Report concluded, in summary:

A conflict of interest typically exists when someone in a position of trust, such as a pension consultant, has competing professional or personal interests. Though data are limited on the prevalence of conflicts involving plan fiduciaries and consultants, a 2005 SEC staff report (SEC Staff Report) examining 24 registered pension consultants identified 13 that failed to disclose significant conflicts. The GAO's analysis found that, in 2006, these 13 consultants had over \$4.5 trillion in U.S. assets under advisement. The

GAO also analyzed a sample of ongoing DB plans associated with the 13 consultants that, as of year-end 2004, had total assets of \$183.5 billion and average assets of \$155.3 million. Additional sample analysis showed that the DB plans using these 13 consultants had annual returns generally 1.3 percent lower than those that did not. Because many factors can affect returns, and data as well as modeling limitations limit the ability to generalize and interpret the results, this finding should not be considered as proof of causality between consultants and lower rates of return, although it suggests the importance of detecting the presence of conflicts among pension plans. Whether specific financial harm was caused by a conflict of interest is difficult to determine without a detailed audit.

The BFS Report misstates or fails to disclose several significant facts that would help to put the potential applicability of the GAO Report's findings into proper context.

- 1) The presence of a conflict of interest did not, in itself, result in a breach of fiduciary duty. Rather, the GAO Report's findings related solely to pension consultants that were found to have had significant disclosure issues.
- 2) Most of the conflicts identified by the GAO are not applicable to STRS Ohio.
- 3) The pension consulting industry has undertaken positive steps to improve conflicts disclosure since the SEC's findings in 2005.
- 4) The GAO Report acknowledged a number of concerns expressed about its findings, including its methodology and generalizations of results.

These items are each discussed in greater detail below:

1. Presence of a conflict of interest does not equal breach of fiduciary duty.

Despite the BFS Report Author's contention, the GAO Report did not find that the presence of pension consultant conflicts of interest resulted in "substantial financial harm" to pension plans. Rather, the GAO's findings suggested that DB plans advised by consultants *with significant disclosure issues* underperformed plans advised by consultants that adequately disclosed their conflicts of interest. Further, the GAO Report fully acknowledged that a conflict does not itself constitute a breach of fiduciary duty. **In other words, where there was adequate disclosure of conflicts by plan consultants, the GAO found no negative correlation with plan performance.**

In support of its findings, the GAO compared the returns of a sampling of DB plans advised by 13 investment consultants found by the SEC to have failed to disclose significant conflicts and 11 investment consultants found to have had less significant disclosure issues. Plans advised only by consultants with significant disclosure problems were found to have returned 1.2% to 1.3% less annually than plans advised by the other consultants over the five-year period from

2000-2004. The GAO did not find significant differences in the returns of plans advised by both types of consultants.

The BFS Report's contention that STRS Ohio's consultants do not adequately disclose their conflicts is not supported by the facts. As the BFS Report acknowledges, Callan and Cliffwater provide extensive disclosure of conflicts of interest in their Forms ADV (the Form ADV is a mandatory disclosure document filed at least annually by all SEC-registered investment advisers). In addition, Callan discloses a list of money manager clients to STRS Ohio quarterly. These disclosures make clear the types of services Callan could provide to money manager clients and the costs of those services. As stated in the BFS Report, anyone reading Callan's Form ADV can determine both the median amount and maximum amount of compensation Callan could receive from its money manager clients (*see* pg. 109 of the BFS Report). Moreover, as discussed below, both the manner in which STRS Ohio uses consulting services and the processes in place with those consultants further mitigate potential conflicts of interest.

2. Many of the conflicts identified in the GAO Report are not applicable to STRS Ohio.

The GAO Report focused on a sampling of private sector DB plans with average assets of \$155.3 million. (By comparison, STRS Ohio manages over \$90 billion in assets — more than 500 times this size.) These smaller sized plans lack internal management capabilities and are often overseen by employees of the company whose work with the DB plan is ancillary to their other professional responsibilities. Accordingly, the GAO noted that “pension plans and their fiduciaries often rely on consultants and other service providers to assist them in plan administration and asset management, which include selecting money managers and monitoring money managers' performance and brokerage transactions.” (*see* GAO Report, Background section, para. 3). As described in the GAO Report, consultant involvement in brokerage selection and trade allocation often resulted in potential conflicts of interest relating to directed brokerage, soft dollar arrangements, and use of affiliated brokers. In addition, the GAO expressed concern that consultants would only recommend money managers that pay them fees. Private sector DB plan fiduciaries with little experience in asset management, the GAO surmised, would be quick to embrace these recommendations, particularly if they did not receive adequate disclosure of potential conflicts.

Like most large public sector pension systems, STRS Ohio does not fit the private employer DB plan model. Rather, STRS Ohio is a sophisticated institutional investor that exists solely for the purpose of managing and administering a pension plan. To accomplish this, STRS Ohio employs a robust investment staff that manages approximately 70% of system assets internally. The Board's investment consultants, Callan and Cliffwater, do not provide, and are not relied on to provide, the broader range of services typically delivered to smaller private sector DB plans. A review of the Callan and Cliffwater Investment Advisor Agreements provided to the Author pursuant to his public records request shows that Callan's and Cliffwater's services are focused primarily on strategy-level consulting to the Board. They are not involved in brokerage

selection, trade allocation, or other execution-related functions. In addition, their role in manager selection is more limited due to the involvement of STRS Ohio's internal investment staff. Callan's role for external equity and fixed income managers is limited to narrowing RFP submissions to a select group of the most qualified, and while Cliffwater advises on alternative investments selected by STRS Ohio investment staff, it does not recommend funds or managers other than hedge funds, which represent a dwindling fraction of the overall alternative investments portfolio. Likewise, while Callan and Cliffwater monitor and report on money manager performance to the Board, STRS Ohio's investment staff also perform extensive ongoing due diligence and monitoring of money manager performance. This level of internal expertise and management, combined with the more limited scope of external consulting services, is a far cry from the management structure of the average DB plan included in the GAO's sampling.

3. The pension consulting industry has undertaken positive steps to improve conflicts disclosure since the SEC's findings in 2005.

The SEC Staff Report examined pension consultant data gathered from January 1, 2002, to November 30, 2003. Based on data gathered nearly twenty years ago, SEC staff found that certain conflicts possessed by the 24 pension consultants it examined were not disclosed in their Forms ADV. These undisclosed conflicts included:

- 1) Two pension consultants had brokerage referral arrangements with unaffiliated broker-dealers.
- 2) Nine pension consultants employed advisory representatives that were also registered representatives of a broker-dealer and were typically compensated with commissions paid on trades placed by the client through the consultant's affiliated broker-dealer firm.
- 3) Of the 19 consultants or their affiliates that provided products/services to money managers, three provided no disclosure of these other services and 16 provided only limited disclosure (i.e., the disclosure did not state that these services could cause a conflict and/or provide sufficient information to enable a reasonable person to discern the potential harm; for example, only one consultant made client-specific disclosure that it had provided products and services to the same money managers it was recommending to the client).

In addition to failures in disclosure, the SEC found that many consultants did not maintain procedures addressing how they prevent or manage conflicts of interest or the disclosure of conflicts to clients. The SEC noted, however, that since kicking off its sweep, several pension consultants had indicated they had taken steps to eliminate or mitigate conflicts of interest, including by closing or selling business lines that provided services to money managers, or

creating information barriers between consulting and other business lines. The GAO Report reiterated this point:

Following up on its examinations of 24 pension consultants, in late 2005, SEC staff subsequently sought to determine what steps these firms had taken to address the findings from the earlier examinations. According to SEC staff, in general, most pension consulting firms it had examined had taken positive steps to reevaluate, revise, and implement changes to their policies and procedures. Specifically, pension consultants implemented policies and procedures to insulate their advisory activities from other activities, including for example, creating separate reporting lines and firewalls between employees that perform these separate functions, and considering employee compensation and incentives. In addition, SEC staff said that most consultants they examined had updated their policies and procedures to improve their disclosure of material conflicts of interest to pension plan clients and potential clients. Many pension consultants the SEC staff examined also reviewed and improved their policies and procedures to prevent conflicts of interest with respect to brokerage commissions, gifts, gratuities, entertainment, contributions, and donations provided to clients or received by money managers.

As previously noted, Callan and Cliffwater provide extensive conflicts disclosure in their Forms ADV. Callan's disclosure describes the types of services provided to money managers as well as the fees for those services. In addition, Callan's Form ADV describes the procedures Callan has adopted to segregate its pension consulting activities from services provided to money managers. One of the ways Callan maintains separation between business lines is by walling off money manager fee data from its pension consulting staff. This ensures that pension consulting staff decisions do not take into account the actual revenue Callan receives from specific money managers. In order to maintain this wall, Callan does not publicly disclose specific fee amounts received from money manager clients. Doing so would provide its pension consulting staff with access to the very information it seeks to segregate. Nonetheless, as the noted in the BFS Report, Callan's pension clients have sufficient information to determine the range of fees paid by money managers and may request specific fee information by money manager if desired. The incremental value of such information is significantly diminished by the facts that:

- 1) STRS Ohio already knows the names of each Callan money manager client (the list includes over 200 firms, many of which are large, well-known entities with extensive track records), the types of services they could receive from Callan, and the range of fees they could be charged;
- 2) Callan's policies and procedures are specifically designed to segregate pension consulting services from money manager services;
- 3) While Callan assists in the screening of prospective money managers (which often number 50 to 100 during the RFP process) by narrowing RFP submissions to a select

group of the most qualified, STRS Ohio's internal investment staff maintains sole responsibility for selecting and interviewing finalists and for making the ultimate selection based on their own due diligence and analysis⁸; and

- 4) STRS Ohio relies on its internal investment staff, in addition to Callan, to perform ongoing monitoring of money managers.

Likewise, Cliffwater discloses conflicts of interest in its Form ADV, including potential conflicts associated with its clients' affiliates. Moreover, certain criminal, regulatory (including action taken by the SEC) and civil judicial action is required to be disclosed on the Form ADV; neither Callan nor Cliffwater have any such matters to report, respectively. While the SEC expressed concerns about the adequacy of pension consultant disclosures in 2005 (based on its sampling of firms in 2002–2003), the extensive disclosures provided in Callan's and Cliffwater's Forms ADV and the absence of regulatory or judicial action in the fifteen years following the SEC Staff Report suggest that neither firm poses the types of disclosure concerns raised in the SEC Staff Report and the GAO Report.

1. The GAO Report acknowledged concerns with its findings.

In a written response to the GAO Report dated June 25, 2007, the Employee Benefits Security Administration (EBSA)⁹ expressed the following concerns regarding the GAO's findings:

Concerns about the GAO's Econometric Analysis:

Due to the unusually short review period for the draft report, we have been unable to confirm the validity of the GAO's novel methodology. The results are provocative, as they suggest that the exclusive use of "conflicted" consultants may lead to substantially lower returns on a plan's investments. However, because of our concerns regarding the novelty of the methods and the potential weaknesses in the data (some of which are cited by GAO statisticians in the draft report), the Department feels that peer review of this analysis would have been useful in evaluating these concerns. As the GAO notes, the non-random data sample used "limits the ability to generalize the results." Our additional statistical concerns include the rather skewed data sets (described in the report as "the imbalance between the large number of plans associated exclusively with conflicted consultants and the small number of those that were not"), the mixing of "conflicted" and "non-conflicted" consultants in groups labeled "non-conflicted," and the use of an estimate for the critical variable of investment returns. Statistical

⁸ The BFS Report identifies 23 managers retained by STRS Ohio that were also listed as money manager clients of Callan. Of these firms, one was terminated by STRS Ohio in 2019 and nine manage alternative investments or real estate, for which Callan has no role in manager selection. In addition, STRS Ohio currently has four external equity and fixed income managers that are not money manager clients of Callan.

⁹ The ESBA is an agency within the U.S. Department of Labor that offers information and assistance on private sector employer-sponsored retirement benefit and health benefit plans.

descriptions of all the variables, by consultant type, would help facilitate a better assessment of the validity and implications of the report's findings.

In response to EBSA's concerns, the GAO included the following disclosure in Appendix II of its report:

Limitations of Our Econometric Model:

Like many statistical analyses, the results should be interpreted with care. Although the panel data provides many advantages and can produce more valid and efficient estimates, drawing causal inferences is still difficult. Even with control variables and the fixed-effects models there are a number of threats to the validity of our results. First, although the fixed-effects estimator is robust to the omission of any relevant time-invariant variables, if there are time-varying differences that have been omitted the result could be biased. Although the analysis controlled for plan size, funding level, the performance of asset markets and other key variables, other unknown, omitted factors could still influence the results of our analysis or account for the differences in estimated returns. There may be additional biases resulting from the vector decomposition procedure used to obtain the fixed-effect estimates. Second, the existence of statistical relationship is not in and of itself, enough to assert causality. Fixed-effects, while strengthening the validity of model's parameters, do not completely solve the problem of drawing causal inferences. Third, the use of the 5500 data could lead to measurement error in the dependent variable (plan returns). We assume that any errors are random and therefore do not impact the validity of the parameter estimates. Similarly, although we were careful in identifying and reviewing the plans associated with the two types of pension consultants any error, random or non-random, would impact the parameter estimates. Moreover, we used a potentially unrepresentative sample of pension consultants to identify the pension plans included in our investigation that therefore limits the ability to generalize the results. A few pension consultants that had significant conflicts of interest that impacted their activity could very well drive the observed negative relationship. Further, the imbalance between the large number of plans associated exclusively with conflicted consultants and the small number of those that were not raise additional statistical issues and limits the ability to generalize the results. Lastly, given the short time period analyzed, it could be possible that some plans' return were abnormally low due to their investment strategies, and would have higher returns had the time period analyzed been lengthened.

Clearly, the GAO Report did not conclude that pension consultant conflicts of interest caused lower rates of return, much less specify a formula for calculating the amount of such "losses", as the BFS Report suggests.

Taking into account the breadth of conflicts disclosure provided by Callan and Cliffwater, the nature of the consulting services they provide — and don't provide — to STRS Ohio, the structure and responsibilities of STRS Ohio's internal investment staff vis-à-vis the selection and monitoring of external managers, and the flaws inherent in the GAO Report's methodology, there is no reasonable basis for concluding that STRS Ohio has lost any funds, much less \$1 billion annually, as a result of consultant conflicts. Outside of its misapplication of GAO findings, the BFS Report offers no other data or information to support this extraordinary claim.

B. Past Claims Involving Consultants

The BFS Report dedicates several pages to a handful of past legal and regulatory matters involving Callan. Below is additional information provided by Callan regarding each of these matters:

The report highlights four past legal and regulatory matters related to Callan, all of which were settled over a decade ago, and have been fully disclosed to both clients and prospects. This section provides a brief discussion of each matter including a description of its conclusion.

As a general comment, Callan has never engaged in pay-to-play practices (as the Report insinuates), nor has it ever been the subject of an adverse regulatory ruling or a legal settlement where it was found to have engaged in pay-to-play practices.

Hawaii State Audit, 2002: In 2002, the Hawaii state auditor engaged a competitor of Callan to conduct an audit of the Hawaii Employees Retirement System pension plan. Callan was the general consultant to the plan at the time. The audit was triggered by the plan's poor relative performance. The poor performance was largely the result of a strategic overweight to non-US equities, specifically Japan, put in place by the Board.

Among other things, the report raised concerns around the potential conflicts of interest created by the consultant's business model. Callan responded to these concerns directly and transparently with the Board. As the New York Times article (quoted in the Report) acknowledges, "Hawaii's trustees stood by Callan after the audit, issuing a statement calling it 'a highly regarded investment advisory firm with an unblemished reputation for integrity.'"

City of San Diego, 2006: In 2005, the City of San Diego filed a complaint against Callan alleging that San Diego City Employees Retirement System (SDCERS) had been damaged by Callan's negligent performance of its duties as SDCERS' investment consultant. SDCERS, who had been a Callan consulting client for over 20 years, was not a party to the suit.

In 2006, Callan and the City of San Diego agreed to resolve this complaint outside of court for an amount that was below Callan’s insurance policy limits. Importantly, the City of San Diego acknowledged that they “found no evidence that Callan engaged in any wrong-doing or unfair business practices in connection with the hiring of money managers.” In fact, SDCERS rebid the consulting relationship later in 2006, and after a competitive process, rehired Callan as their full-retainer consultant.

SEC order, 2006: In 2003, the SEC launched an examination into the practices of the investment consulting industry, which included Callan and most of the other large investment consulting firms.

In 2005, the SEC staff informed Callan that they believed some of its past disclosures describing our 1998 sale of Alpha Management (Callan’s former broker affiliate) to a subsidiary of the Bank of New York (“BNY”) were incomplete or misleading. Per communications Callan received from the SEC at that time, this was the only open issue they had related to this two-year examination.

When advised of the SEC’s concern regarding the disclosure in 2005 Callan immediately updated its Form ADV to enhance the disclosure and forwarded a copy of the form ADV to all clients. In 2006 the SEC concluded its examination and issued an order requiring Callan to cease and desist from committing or causing any violations and any future violations of Section 207 of the Advisers Act. Callan received no fine and no censure related to this matter.

Patrick Patt (Illinois State Teachers), 2009: in 2006, Callan was served with a complaint filed by Patrick Patt, a participant in the Illinois Teachers Retirement System (“ITRS”) defined benefit plan. Callan served as the real estate consultant to ITRS at the time. ITRS did not file the complaint nor were they a party to it. In June 2009, the parties reached a settlement, without any admission of liability by Callan, for significantly less than the anticipated litigation cost and well below Callan’s insurance policy limits. In the midst of these proceedings, of which ITRS was aware, ITRS rebid the Real Estate consulting relationship and rehired Callan Associates after a competitive process.

The BFS Report also dedicates several pages to Cliffwater’s background, focusing primarily on four items:

1. The BFS Report insinuates that Stephen Nesbitt, Cliffwater’s Chief Executive Officer, had issues with his previous employer. Cliffwater responds:

After approximately two decades of successfully leading the consulting division of Wilshire Associates, Mr. Nesbitt left Wilshire on his own accord to form Cliffwater. At the time of Mr. Nesbitt’s departure from Wilshire, Pension&Investments noted that he was “one of the country’s best-known investment consulting executives” (P&I February

9, 2004) and his former employer commended him for his expertise and contribution to the firm.

2. The BFS Report comments on Cliffwater's Form ADV disclosure regarding compensation it may receive from investment adviser clients. As previously noted, Cliffwater does not recommend funds or general partners for STRS Ohio's alternative investment asset class, outside of hedge funds, which represent a dwindling fraction of the overall alternatives portfolio. Further, Cliffwater has confirmed it has not received compensation from any hedge fund manager it has recommended to STRS Ohio.
3. The BFS Report attempts to summarize ongoing litigation filed by a money manager, Blueprint Capital Advisors, against the New Jersey Division of Investment, BlackRock Alternative Advisors, and Cliffwater. According to the BFS Report, the litigation involves, among other things, alleged theft of Blueprint's intellectual property and trade secrets. Interestingly, the BFS Report does not suggest that Blueprint should have waived all intellectual property and trade secret rights when it sought to provide services to a state entity. Cliffwater, and the other defendants, have moved to dismiss the entire case. The court has stayed all discovery pending a decision on the motions to dismiss.
4. The BFS Report discusses discretionary asset management services disclosed in Cliffwater's Form ADV, insinuating that Cliffwater may seek to recommend itself as a discretionary manager to STRS Ohio or somehow disadvantage STRS Ohio relative to its discretionary clients. In doing so, the BFS Report mischaracterizes Cliffwater's consulting services for STRS Ohio as "reviewing and recommending investment advisors to manage, on a discretionary basis, the pension's assets." As discussed above, while Cliffwater advises on alternative investments underwritten by STRS investment staff, Cliffwater does not recommend funds or managers outside of hedge funds, as this process is managed internally by STRS Ohio investment staff.

In summary, the above items, while seemingly designed to impugn, do not contribute meaningfully to the discussion of investment consultant conflicts.

VIII. ERISA FIDUCIARY STANDARDS AND FIDUCIARY LIABILITY INSURANCE

A. ERISA Fiduciary Standards

The BFS Report incorrectly asserts that the State Teachers Retirement Board does not adhere to ERISA-level fiduciary standards. The Report is further critical of STRS Ohio agreements with the Board's investment advisers which impose fiduciary obligations under Ohio law, as well as require the consultants to adhere to the standard of care under ERISA and any other applicable federal and state laws.

As a governmental plan, STRS Ohio is not subject to the provisions of ERISA. However, many state and governmental plans are subject to fiduciary standards based on those imposed by ERISA, and Ohio is no exception. The Ohio Revised Code language governing STRS Ohio generally mirrors ERISA and ORC 3307.15 specifically includes the ERISA fiduciary standards, including the duties of prudence, loyalty, exclusive benefit and diversification. Additionally, ORC 3307.181 closely mirrors ERISA's prohibited transaction provisions.

On page 123, the BFS Report recommends that the State Teachers Retirement Board adhere to the ERISA fiduciary standards to improve the management of the pension. As outlined above, the Board does indeed adhere to these standards, as required by Ohio law. New Board members receive information regarding their fiduciary duties during board orientation and the entire Retirement Board undergoes annual Fiduciary and Ethics Training sessions, typically at the November Board Education and Planning Session. The Retirement System periodically brings in outside consultants to present as well, such as earlier this year when attorneys from Groom Law provided an additional fiduciary training session at the March 2021 Board meeting. STRS Ohio staff and board members take their fiduciary roles seriously and continuing education is an important element of that role.

B. Fiduciary Insurance

The basic purpose of insurance is to provide a level of financial protection against reasonable loss and is a form of risk management used by both individuals and entities. Fiduciary insurance, also known as management liability insurance, protects an entity in the event of allegations or claims of breach of fiduciary duty.

BFS Report Allegations — On page 124, the BFS Report states that STRS Ohio's \$25MM in fiduciary liability insurance is "absurdly low and offers virtually no protection for a \$90 Billion pension. Virtually any fiduciary breach may result in actual damages amounting to tens or hundreds of millions of dollars." Unfortunately, the Author does not state what level of protection he *does* believe would be appropriate coverage; therefore, it is not possible for STRS Ohio to evaluate any perceived recommendation(s) in this area. It is also unclear what

insurance-related qualifications the Author has to form his opinions. It is important to note that a retirement system does not establish insurance policy limits based simply on the amount of total fund assets and would likely be criticized if it did insure in such a manner. In other words, it would be impossible to carry a \$90 billion fiduciary insurance policy.

The BFS Report cites ORC 3307.10(B), which states that “the Board may secure insurance coverage designed to indemnify board members and employees for their actions or conduct in the performance of official duties and may pay required premiums for such coverage from the expense fund.” However, the Author fails to reference ORC 3307.181 (E), which further states that “each fiduciary of the system shall be bonded or insured to an amount of not less than *one million dollars* for loss by reasons of fraud or dishonesty.” STRS Ohio’s current insurance coverage is more than sufficient to fulfill its obligations under Ohio law.

According to information provided in 2020 related to 40 peer group retirement systems, 24 of those systems, including STRS Ohio, maintain primary layer limits of \$10MM in fiduciary liability coverage. In determining its level of coverage, STRS Ohio relies on the information and analysis provided by its expert consultants.

Vendor Insurance — Further, the BFS Report states that the contractual insurance requirements (\$5MM) for the Callan and Cliffwater Investment Adviser Agreements are “woefully inadequate.” Again, no recommendation is provided as to what might be considered adequate coverage, and no evidence is provided to support the allegation that \$5MM is “woefully inadequate.” While Callan and Cliffwater both serve as fiduciaries in their roles as investment advisers for the Board, they serve in a non-discretionary capacity which means they do not make investment decisions. Those decisions are ultimately the responsibility of STRS Ohio, as directed by the policies set forth and adopted by the Board on an ongoing basis.

According to Board consultant Callan, in their experience, insurance coverage of \$5MM is well within industry standards for non-discretionary consulting contracts with large institutional investors like STRS Ohio. Callan has rarely seen a case where a large fund has required more than \$10MM in insurance coverage for a non-discretionary consulting relationship, and \$5MM is more common. As a practical matter, Callan currently carries \$10MM in insurance.

It is important to remember that the amount of insurance coverage maintained by a vendor does not define or limit what potential liability may exist. Each contract negotiation with a vendor involves an evaluation of potential risk, considering items such as vendor size, longevity, and reputation. Large vendors likely have substantial cash and other assets, in addition to insurance amounts, that could be used to pay a claim. The contractually required insurance coverage is just part of the overall amount that could be recovered by STRS Ohio in the event of a successful claim against a vendor. Finally, it should be noted that many contracts with STRS Ohio vendors and consultants do not contain monetary caps on vendor liability.

STRS Ohio Insurance Program — Since 2012, STRS Ohio has been a part of a group insurance purchase plan including Ohio Public Employees Retirement System, Ohio Deferred Compensation, School Employees Retirement System of Ohio and Ohio Highway Patrol Retirement System. The group members completed a joint RFQ/RFP process in 2012 and again in 2017. The group unanimously selected ARC Excess and Surplus LLC (ARC Excess) as their brokers of record to advise in all areas of the procurement and placement of Management (Fiduciary) Liability Insurance.

ARC Excess is a wholesale insurance broker established in 1986, with eight offices throughout the United States. Among other duties, ARC Excess provides advice to STRS Ohio regarding insurance coverage issues. The group insurance plan leverages the five insurance programs for better premiums and terms and conditions. However, each group member has its own individual brokerage contract and insurance policies that meet the needs of each individual system.

STRS Ohio also engages the professional services of a risk management consultant. The risk management consultant provides expertise and guidance to STRS Ohio in identifying risks, objectively reviewing the adequacy of protection, reasonableness of costs, insurance policy review, facilitate renewals and other related services. Our current consultant is Alpha Risk Management, who has been engaged in providing insurance and risk management consulting services for nearly 50 years.

Finally, STRS Ohio works with its management liability lines broker to consider and analyze exposures, industry insurance claims and settlements and peer group data in a detailed, thoughtful process. The analysis is completed annually at the time of our fiduciary insurance renewals. Ultimately, STRS Ohio considers the best available data to procure prudent fiduciary insurance limits in order to best protect the system.

CONCLUSION

As we have discussed throughout this analysis, the BFS Report includes numerous unsupported opinions and assertions related to STRS Ohio investments and operations. To be clear:

- STRS Ohio is committed to the principles of transparency and complies with its obligations under the Ohio Public Records Act.
- Appropriate oversight exists under Ohio law to govern STRS Ohio. STRS Ohio financial statements are audited on an annual basis by an independent public accounting firm, under the oversight of the Ohio Auditor of State. STRS Ohio reports regularly to ORSC with regard to system investments and operations. The Retirement System's assets are custodied with the Ohio Treasurer of State.
- Recommendations from the 2006 IFS Fiduciary Audit were appropriately reviewed and addressed by the State Teachers Retirement Board and staff in early 2007.
- Investment fees are appropriately scrutinized. STRS Ohio does not pay lavish fees to Wall Street for "doing nothing."
- Investment costs and performance are accurately reported by the Retirement System.
- STRS Ohio is required by law under ORC 3307.15(B) to report its investment performance in compliance with the performance presentation standards established by CFA Institute (known as the GIPS® standards). There are no false or misleading representations made regarding GIPS® Compliance.
- Investment consultant conflicts of interest are adequately disclosed and considered.
- The Board complies with the fiduciary standards stated in ORC 3307.15, which mirror the ERISA fiduciary standards, and the system maintains adequate fiduciary liability insurance.

For fiscal year 2021 (July 1, 2020–June 30, 2021), STRS Ohio's investment return was more than 29% and total investment assets as of June 30, 2021, exceeded \$94.8 Billion. As stated previously, STRS Ohio's investment performance consistently ranks among the top funds in the country, with a lower risk portfolio than most of our peers and low overall investment costs. We will continue to seek to increase efficiency and deliver positive results for the fund and for our membership.

STRS Ohio has an important year ahead as we begin various studies to help provide guidance on funding, investment return expectations and system operations.

These studies, all scheduled to commence this fall, include (1) an asset-liability study to help determine investment risk-return expectations and a sustainable asset mix; (2) an actuarial experience review to set reasonable economic and demographic assumptions for the retirement system; (3) a fiduciary audit, conducted under the oversight of the Ohio Retirement Study Council, to evaluate STRS Ohio's organizational design, structure and practices; (4) an actuarial audit, also conducted under the oversight of the Ohio Retirement Study Council, to provide an independent review of the Board's consulting actuary (Cheiron); and (5) our annual pension and health care valuation reports that provide a detailed look at the financial and actuarial health of the pension and health care funds. As always, STRS Ohio will continue to use our website, newsletters, social media and eUPDATE email news service to keep our members, retirees and other system stakeholders informed about the results of these studies and our next steps.

STRS Ohio was the first statewide, actuarially based teacher retirement system in the United States and has been a leading provider of retirement benefits and quality service to its members for more than a century. The Retirement System serves more than 500,000 active, inactive and retired educators. The State Teachers Retirement Board is composed of 11 members, all of whom are fiduciaries to the system and devote hundreds of volunteer hours in service to STRS Ohio. Likewise, the 500+ individuals on staff at STRS Ohio are committed to working every day for the benefit of the system's members and benefit recipients.

EXHIBIT 2 - Exhibit E

Ohio Teachers' Pension Has 'Abandoned Transparency,' Critics Say

A lack of transparency is key to the problems at the \$93.3 billion State Teachers Retirement System of Ohio, the pension's critics say.

By Bridget Hickey | July 1, 2021

A lack of transparency is key to the problems at the \$93.3 billion **State Teachers Retirement System of Ohio**, the pension's critics say.

Earlier this month, a report alleged that the pension had squandered "billions" on fees to Wall Street firms and may have misrepresented investment costs and performance, as reported. The study, which was commissioned by the **Ohio Retired Teachers Association**, an advocacy group formed to protect members' pensions, was authored by longtime investment industry critic and whistleblower **Edward Siedle**.

One of the Ohio pension's board members, **Wade Steen**, publicly backed Siedle's concerns in a letter dated June 17. "I wish I could say the staff are transparent, but they're not," he writes. "Most of my requests for information have been flat out ignored. I asked for the inputs to calculate our benchmarks, that was denied. I asked for the inputs to calculate staff bonuses, that was denied. I finally just asked for our historical returns by asset class, and even that was denied."

The pension did not produce "a single" prospectus or offering document in response to a freedom of information request, according to Siedle. The fund also failed to produce an unredacted copy of a report by CEM Benchmarking, which the pension has cited as proof its investment fee costs are lower than most of its peers, Siedle alleges. In the unredacted report, which Siedle says he has viewed, CEM allegedly states that it applied default cost estimates for base and performance fees to 75 of the pension's investments because the pension either did not provide the information to CEM, failed to provide support for the unusually low-cost information reported to CEM, or did not enable CEM comparisons of the total cost of different implementation styles. Siedle is suing the pension to obtain unredacted reports by CEM.

The pension "will not give that information to stakeholders, so it has to be deemed suspect," Siedle says in an interview. He added that his report is preliminary, due to the pension's failure to provide the necessary documents.

In a response, the pension says that "many of the conclusions in the report are offered with little support other than the author's opinion."

"The request we received was overly broad and did not identify specific records that were being sought," a spokesperson for the pension told FundFire, when asked why the fund did not provide any prospectuses or offering documents to Siedle. "We sought further clarification on all of the records

requests from Mr. Siedle and his attorney that were identified as overly broad.”

An unredacted version of the CEM report was not provided because Ohio public records law includes an exemption for trade secrets and CEM asserted trade secret protection, the spokesperson says.

Related Content

June 4, 2021

Ohio Teachers Accuse Pension of
'Squandering' Billions on Alts Costs

When asked about Steen's requests for information, the spokesperson told FundFire they were not aware of any requests by board members that were not fulfilled.

FundFire requested a copy of the historical returns by asset class, which Steen says he was denied, and

was provided with the document.

In domestic equity, the fund's gross returns were 7.87% over 1 year, 10.88% over 3 years, 10.36% over 5 years, and 13.73% over 10 years. Returns in the domestic equity portfolio were not provided net of fees. In real estate, the fund returned 2.28% over 1 year, 6.28% over 3 years, 7.35% over 5 years, and 11.16% over 10 years, net of fees.

The total fund returned 3.01% over 1 year, 6.44% over 3 years, 6.77% over 5 years, and 9.26% over 10 years, net of fees.

Contact the reporter on this story at bhickey@fundfire.com or 212-542-1248.

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EXHIBIT 4

STRS

Retired teachers fight to get pension documents

Laura Hancock - lhancock@cleveland.com

Pensioners haven't received cost-of-living hike in five years.

COLUMBUS — Retired Ohio public educators haven't received a cost-of-living adjustment for the past five years.

Unsatisfied with the pension system's answers as to why, a group of teachers hired a nationally renowned pension expert who has been battling the State Teachers Retirement System of Ohio for information to obtain a clearer picture about management and activity in the pension.

The fight could result in Ohio Supreme Court rulings and changes to state law that would force more disclosures and transparency from all five public employee retirement systems that serve 485,000 retired state officials.

However, no other retirement system has been as beset by strife lately as the teachers' pension.

The State Teachers Retirement System of Ohio, called by its acronym STRS and pronounced as "stirs," is one of the largest public pension funds in the U.S. It has just under \$100 billion in investment assets and serves about 500,000 working and retired public school educators.

STRS officials told retirees that they withheld cost-of-living adjustments from 2017 to 2022 to shore up cash for roughly three reasons:

The pension lost money after the recessions of 2001 and 2008. People live longer these days, and it needed more money to cover teachers' longer lifespans. The overall contributions from teachers and the state into the pension dropped from what was previously projected due to fewer people contributing to the fund or salaries being lower than expected, STRS spokesman Nick Treneff said.

But Robin Rayfield, executive director of the Ohio Retired Teachers Association, which represents about 20,000 retired teachers, questioned why these problems came to a head during the recent bull market.

"The stock market has never done better in the history of the stock market," he said.

Rayfield said that retirees had mapped out their futures with cost-of-living adjustments in their financial plans.

"I worry about those most elderly and most vulnerable," he said.

ENTER TED SIEDLE

Last year, the Ohio Retired Teachers Association raised \$75,000 through crowd fundraising to hire Edward Siedle, a Boca Raton, Florida, attorney who used to work for the Federal Trade Commission and now investigates the management of public pensions.

On Feb.19, 2021, Siedle said he requested a prospectus of every stock, bond and mutual fund in which the pension invests. Prospectuses are documents investors file with the U.S. Securities and Exchange Commission that show opportunities, risks and other financial details about an investment.

Siedle also asked for documents on the pension's "alternative investments," including hedge funds, venture capital, private equity and real estate. Alternative investments make up at least 27% of the pension's

investments, he said.

“They haven’t given us a single document,” he said. “Not one.”

STRS disputes that characterization.

“Over a period of three months, from February to May 2021, STRS Ohio sent 24 emails and a thumb drive to (the attorney representing Siedle) amounting to 812 documents and over 22,000 pages,” it said in a document responding to a preliminary report Siedle wrote.

STRS also said that the February 2021 public records request didn’t use the word “prospectus.” It said that the requests in most cases were overly broad. STRS employees provided Siedle with several links to financial reports on the STRS website so he could understand how its documents were maintained and organized and to amend his request to get the information he needed.

Sometimes, journalists and members of the public, when they get an understanding of how public information is maintained, reach out again to the state agency and amend their public records requests. Siedle never did that, STRS said.

Siedle said the documents produced were not what he requested.

“You don’t measure transparency by counting paper,” he said. “You give me 20,000 pages of documents I didn’t ask for. Then you make me go to court.”

Former Ohio Attorney General Marc Dann represents Siedle in a public records case before the Ohio Supreme Court. Dann is working on a contingency, meaning he will get paid if Siedle and the retired teachers are successful.

The first public records case Dann brought was against STRS and a Toronto, Canada, firm that helps STRS develop benchmarks to measure

how the various funds in the pension are performing compared to the market and similar funds.

Dann said that STRS and the firm ultimately turned over the benchmark after mediation. It is the first of what Dann anticipates will be several public records cases before the state's high court.

Dann has contemplated suing STRS over how it managed the funds.

"If I sue the pension, all they have to pay with is the money of the members, of the participants," Dann said. "That would be a circular enterprise. I think the remedy here is political in that the Legislature needs to put better guidelines and guardrails on STRS and other pension funds. The investment funds need to be more transparent."

FEES

Last June, Siedle sent the retired teachers a preliminary report about his findings. However, it won't be final until Siedle gets all the outstanding documents and can draw conclusions, he said.

The report identifies several potential fees that STRS may have paid to Wall Street for hundreds of millions of dollars, including a potential \$143 million that STRS might have paid investors to manage money that it hasn't received yet, he said.

Siedle determined that STRS has entered into agreements for alternative investments in which it only paid part of the total investment but has "committed" to pay the rest in the coming years. He said the total committed but not yet paid amount is \$7.1 billion.

It's relatively common for private equity and other alternative investments to charge investment management fees on that committed amount. He assumed that STRS paid 2% in fees on total unfunded commitments, which is an industry average. He said that totals \$143

million a year, or enough to restore the cost-of-living adjustment to 2%.

He noted that in 2014, the SEC announced research saying that there were too many “hidden fees” in private equity and other alternative investments that were unjustified.

Siedle suspects STRS is paying the fees since most pensions pay them. Only a minority of pensions have employees who are savvy enough to recognize they’re going to be saddled with those fees and to negotiate to eliminate them before they begin investing.

“There’s no question the staff has been complicit with Wall Street,” he said.

STRS, however, shot back in its response to Siedle that it is not paying Wall Street for “doing nothing.” With committed funds, fund managers watch investments and determine the best time for the investor to get in. This takes market research, travel and due diligence. These activities require upfront fees, it said.

“Actual management fees paid on unfunded committed capital during calendar year 2019 were \$59 million,” it said, or just 0.8% on the \$7.9 billion in uncommitted capital, below Siedle’s estimated 2%.

STRS said in its counter-report that this is just one of several allegations in Siedle’s report that aren’t supported by evidence.

STRS said it follows Ohio’s public records law, but there are exemptions under Ohio’s Uniform Trade Secrets Act. The act says business and financial information that generates independent economic value by generally not being known to others can be exempt from public records laws. An entity, such as a money manager, can assert a trade secret claim, and the public office cannot release the trade secret unless the entity consents.

PENSION OVERSIGHT

After Siedle released his report, he said that Ohio Auditor Keith Faber's office started an audit into the pension system. A spokeswoman for Faber confirmed an audit is ongoing.

STRS began cost-of-living adjustments in the 1970s. They were fixed at 3% a year until 2012 when they were reduced to 2%. Then in 2017, they went away, Treneff said.

In 2012, the Legislature passed a law that changed how the pension was managed, including allowing the STRS board the flexibility in determining the cost-of-living adjustment, Treneff said.

The board requested the changes in the bill, he said. STRS officials proposed the changes first with the Ohio Retired Teachers Association, the Ohio Education Association, the Ohio Federation of Teachers and others.

Before the 2012 changes, the pension had 58 cents for every dollar it expects to pay out in the future. Since then, the fund has rebounded to nearly 88%. Estimates showed that without the changes in 2012 and 2017, the pension would be about 57% funded, Treneff said.

The Ohio Retirement Study Council comprises members of the Legislature and board members of the five public pensions and oversees the five pensions. It's supposed to perform two audits every decade of each pension: an independent fiduciary performance audit, which studies how the pension's management, and an actuarial audit, which studies whether and how the plan can deliver on its promises to current and future retirees.

Rep. Brigid Kelly, a Cincinnati Democrat who sits on the Ohio Retirement Study Council, said the audits of the STRS pensions are underway.

“The fact that so many people felt compelled to spend their own hard-earned money in a study indicates there’s an issue,” she said. “I think transparency, especially when you talk about taxpayer money, is a good thing and a necessary thing.”