STATE OF VERMONT OFFICE OF THE STATE TREASURER



2019 ANNUAL REPORT

January 8, 2020

TO: Members of the General Assembly Honorable Phil Scott, Governor Citizens of Vermont

I am pleased to submit my ninth annual report as your State Treasurer. This report provides a summary of the accomplishments to date and the planned initiatives for the coming year. It is an understatement to say that I am proud of my team. They have worked extremely hard to provide key services in the most cost-effective manner feasible. They put the customer first whether it be a taxpayer, public employee, retiree, or citizen seeking their unclaimed property. The Treasurer's Office's accomplishments are also part of a partnership and collaborative effort. As you read through these pages you will see countless examples of joint efforts with the General Assembly and the Administration. The Treasurer's Office stands ready to work with you on new challenges.

In 2019, the General Assembly tasked the Treasurer's Office with a series of new initiatives including a recommendation for the financing of affordable housing, the Law Enforcement Retirement Benefits Study Committee, consultation on a report on the use of general obligation bonds for improvements to municipal telecommunications plants, and working with the Vermont Student Assistance Corporation (VSAC) on a student loan refinancing project. I look forward to submitting our work on these initiatives on January 15th, 2020.

Key highlights from 2019 include increased participation in VermontABLE, targeted local investment, additional funds for Other Post-employment Benefits (OPEB), and a record year in Unclaimed Property. In financial literacy, a record number of Vermont K-6 students participated in the Reading is an Investment program, while our financial education offerings were expanded to Vermont afterschool programs in 11 counties.

Additionally, the Boards of Trustees of the retirement systems, working with the Vermont Pension Investment Committee (VPIC) Chair, the employee groups, the Treasurer's Office, and the Administration conducted a first of its kind comprehensive risk assessment of the pension plans. This will be used to assist in assuring that the defined benefit plans continue incremental improvements to move to more secured funding at a lower cost to the taxpayer.

Clean water funding and financing has also been a priority for this office, and I am pleased to report that significant dollars were appropriated in 2019, and systems have been deployed for delivery of these dollars. I want to thank the General Assembly, the Administration, the Agency of Natural Resources, particularly Secretary Moore, and so many others for their efforts. As I have said many times, cleaning our waters now is the best value to the taxpayer. Deferring action down the road will only further impair this critical asset, requiring increased remediation at a greater cost to the taxpayer. Important steps were taken, and my office looks forward to continued effort on this important project.

Goals for 2020:

Pensions

The Treasurer's Office continues to work to achieve full funding of pensions and post-employment benefits and to lower the cost for the taxpayer. Savings and financing initiatives implemented since 2010 have saved tens of millions of dollars each year and are continuing to build, saving the taxpayer now an estimated \$1.5 billion through 2038 while preserving retirement security through the existing defined benefit programs. This effort, while not easy, is essential to the long-term health of the State.

Building off of the success of the Risk Assessment Project (referenced above), we will work with the members of the General Assembly, the Administration, the retirement boards, VPIC, and most importantly the employee groups, to develop recommendations and options arising out of that effort. This work group is expected to report results to the General Assembly with a focus on long-term recommendations. By working together, we can pay off the unfunded liability by 2038 and provide further financial security for the over 55,000 active, vested, and retired members who participate in our three defined benefit plans (state, teachers, municipal). We must remember that there are no quick fixes or short-cuts. Consistent funding,

prudent fiscal practices, and a collaborative approach is the sure-path to a fully-funded system.

Other Post-employment Benefits (OPEB)

Health care expenses for employees, retirees, and all Vermont citizens, remain a tremendous challenge. The Treasurer's Office works closely with the Administration and General Assembly to recommend funding for the state and teachers retiree health programs. Historically, the state has not funded these programs beyond the needed annual premium payments and has not prefunded these benefits. The Treasurer's Office continues to advocate for prefunding, which is the most costeffective way to fund these benefits, now and in the future.

FY 2019 was a significant step forward. The Budget Adjustment Act included funds to extinguish the loan for the Retired Teachers Health and Medical Benefit Fund. Having completed this step, we expect that the fund can now generate surpluses that can be used to accumulate dollars for funding future health care needs. This will put the OPEB fund on a path that could, with planned 2020 initiatives, get the plan on a path to prefunding. With certain statuory changes, this would reduce the teacher OPEB liability by as much as 40-45%. The Treasurer's Office expects to work with the Administration and the General Assembly to explore these options and make recommendations during the upcoming session.

Revised Uniform Unclaimed Property Act

The national Uniform Law Commission enacted, after a four-year period of research, public meetings, testimony, and negotiation, a Revised Uniform Unclaimed Property Act (RUUPA). This revision updates the law to conform with new technologies and financial instruments since 1995, when it was last updated. Vermont had a unique role in this effort as I served as one of two state advisors to the Uniform Law Commission representing the unclaimed property officials in the 50 states, Puerto Rico, the Virgin Islands and Canada.

In 2019, we worked with the House Commerce and Economic Development Committee and the bill was introduced. The proposed bill customizes the law for Vermont-specific issues, including the life insurance provisions adopted by the General Assembly in 2013. The Treasurer's Office will continue to work with the various subject matter committees to review this bill, and with various industry groups, associations, financial institutions, life insurers, and others to discuss specific provisions as the bill progresses.

Green Mountain Secure Retirement Plan

The Treasurer's Office and the Green Mountain Secure Retirement Board have been successful in developing the outlines of a program to provide an optional retirement program for small businesses (under 50 employees) that do not currently offer a retirement plan for their employees. Last year we reported that we were reluctantly deferring final action pending clarification and/or resolution of a proposed federal regulation and that we were working with the national Department of Labor to address these issues. We also submmitted proposed language to the General Assembly to provide potential options should the regulatory changes at the Federal level adversely impact the ability to offer such a program. This legislative fix gave us more flexibility moving forward.

Having resolved the federal regulatory issues and with the additional options available to it, the Board and the Treasurer's Office reissued an RFP for services. That process has resulted in the selection of a vendor and a framework, contingent upon successful negotiations, to move forward. We expect to have a program in place for businesses in the second quarter of the calendar year. This is an important step forward that will provide financial security for many employees of small businesses and promote economic development.

Debt Management, Fiscal Discipline, and Bond Ratings

The State's general obligation bond rating was downgraded in October 2018 by Moody's (Aa1, second highest rating), and by Fitch Ratings (AA+, second highest rating) in July 2019. S&P Global Ratings (AA+, second highest rat-

LETTER OF TRANSMITTAL

ing) remains unchanged. All three ratings include stable outlooks. Fitch's rating report echoed the same issues identified by Moody's in October of 2018 citing demographic challenges, an aging population, workforce, and the impacts these have on the economy and our long-term liabilities. While these reports identified valid challenges that are not unique to New England states, they are accompanied by many positive strengths unique to Vermont. These strengths build off of Vermont's reputation for fiscal discipline, conservative debt management, collaborative government, and innovation. The Treasurer's Office will continue to work collaboratively to address shared challenges.

A preliminary analysis found that the cost of the downgrade will vary based on interest rates and credit spreads between bonds rated at various levels. The potential cost impact of these rating changes, at least in the short-term and with the current interest rate environment, have been mitigated by the fact that Vermont's reputation is still strong. We still have the highest rated credit in New England, but it is not the time to settle for this. We need to work together to get back that triple-A rating. In the long run, that will save taxpayer dollars.

A working group was formed in order to research and recommend alternative ways to fund capital projects, rather than borrowing money. This group will specifically review the use and treatment of any bond premiums raised in the process of bond issuance, as well as the possible creation of strategies and funds to accumulate non-bond resources (PAYGO) to pay for projects, reducing interest and providing more dollars for needed capital projects. This group will conclude their work and report back to the full CDAAC Committee in the first quarter of calendar year 2020.

Conclusion:

I want to thank the Treasurer's Office staff for all the hard work they have done to successfully attain a record of excellence and accomplishment for all Vermonters. As I said at the outset, the Treasurer's Office has a great team, made up of hard working and innovative public employees. I want to especially thank my Deputy Treasurer, Michael Clasen, for his hard work and support.

The above accomplishments and priorities, along with others detailed within the report, cover a wide range of activities. In all our activities, we stress an overarching goal—to provide every Vermonter the opportunity for a lifetime of financial well-being. To do this we must offer innovative programs to address our diverse needs and at the same time continue to provide the best service and value to the Vermont taxpayer. We must remain vigilant in our efforts to support fiscal discipline, retirement security, local investment, economic prosperity, protection of our environment, and the health and safety of all Vermonters. We can only achieve this by working together to meet the needs of our citizens. Thank you for your past work with our Office in the spirit of collaboration. I look forward to continuing this joint effort in the year ahead and beyond.

Sincerely,

Beth Pearce

Beth Pearce State Treasurer

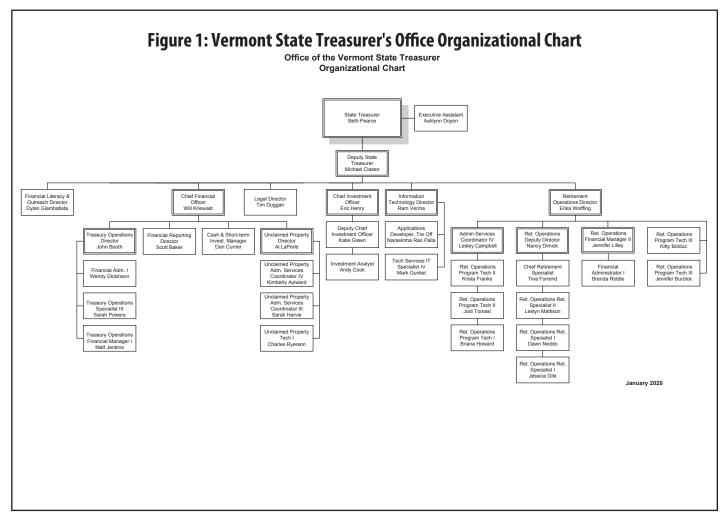
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Our Commitment	
to Vermonters	

The State Treasurer's Office manages money that belongs to all citizens of Vermont. The Treasurer and staff are committed to doing this efficiently, responsibly, and professionally. The Treasurer's office operates as a business, serving the needs of Vermonters while working to save the taxpayers money and earn the highest possible investment returns in its funds within acceptable risk parameters.

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The Treasurer's Office is comprised of a team of 36 professionals. The organizational chart and staff listing above are effective as of January 3, 2020.

Specific administrative and service duties of the Treasurer's Office as prescribed by State statutes include:

- Investment of State funds;
- Issuing all State bonds authorized by the General Assembly;
- Serving as the central bank for State agencies;
- Management of the State's cash balances, processing of checks, and the reconciliation of payroll and vendor checks;
- Safeguarding and return of unclaimed or abandoned financial property, which is held in trust by the State until the rightful owner can be located; and
- Administration of the State, Teachers' and Municipal defined benefit plans, the deferred compensation plan, and the defined contribution plans for State employees and participating municipalities.

Vermont Retirement Systems

<u>Overview</u>

The Treasurer's Office administers three statutorily defined benefit (DB) retirement plans that serve members of the Vermont State Employees' Retirement System (VSERS), Vermont State Teachers' Retirement System (VSTRS), and the Vermont Municipal Employees' Retirement System (VMERS). Each system is overseen by a Board of Trustees acting as the fiduciary of the funds held on behalf of active employees and retirees, and by statute the State Treasurer is a member of all three boards. The Retirement Division falls within the Office of the State Treasurer and consists of 14 staff members responsible for the administration of the three systems and benefit management.

There are two defined contribution (DC) plans set by statute, a State and a Municipal plan. The State DC plan is offered as an alternative to the DB plan for exempt (non-classified employees). An exempt employee may choose either plan. An employee's election is irrevocable. Approximately 30% of exempt State employees have elected DC, while the remaining chose to participate in the DB plan. In addition, there are four supplemental retirement plans administered by Prudential Retirement available to state, teacher and municipal employees depending on eligibility requirements. The Municipal DC plan was offered by 79 municipalities as of June 30, 2019.

VSERS and VSTRS offer health insurance to their retired members and cover a percentage of the premium based on the member's years of service at retirement. The premium is deducted from the retiree's monthly retirement allowance. The health care expenses for the two retirement systems totaled \$64.9 million in FY 2019, which was paid for by the State. VMERS does not offer a health insurance plan, but instead established a health retirement savings plan in FY 2008. All three systems offer retirees a dental plan, and premiums are paid 100% by the retiree.

Pensions

In order to fulfill the promise of paying members' future retirement benefits, each system has developed a funding plan. The primary objective of funding is to equitably allocate costs between generations of taxpayers and provide retirement security to members and retirees who therefore have the assurance their current and future benefits will be paid. The funds come from three sources: employee contributions, employer contributions, and investment income interest. Interest earned on investments from the retirement fund is the largest source of funds used to pay benefits. As more members approach retirement, employee life span lengthens, and health care expenses rise, it is anticipated that significant increases in benefit payouts will occur. These assumptions have been factored into the actuarially developed funding plan. All three boards select an independent actuary, Segal Consulting, to review and develop a funding plan. Segal Consulting uses several factors that impact the funding needs of the system, based on the direction adopted by the boards. Each board determines the actuarial method that will be used, and the assumptions relating to demographic, economic, and actual experience of the system. The interest rate assumption is set jointly by the respective board of trustees and the Vermont Pension Investment Committee (VPIC), based on advice by the actuary and the VPIC investment consultant. For VSERS and VSTRS, Segal Consulting makes a recommendation to the retirement boards in October of each year as to the amount that the state must contribute to keep the system on a funding plan. The recommendation is adopted by the Boards in the form of a recommendation to the Governor and the General Assembly for the amount that must be appropriated for the upcoming fiscal year. This recommendation is known as the Actuarially Determined Employer Contribution (ADEC). See Figure 2 on page 8 for the FY 2021 ADEC. For VMERS this need is expressed as recommended employer and employee contributions as a percent of payroll.

Separate annual valuations are done for funding purposes, based on the specific state funding plan and for standardized accounting purposes stipulated by the Government Accounting Standards Board (GASB) which issues statements to codify the accounting rules (for pensions these are primarily GASB 67 and 68). The GASB 67/68 valuations utilize slightly different assumptions and amortization periods for those assumptions. But the primary difference is that the accounting reports use a market value of assets rather than an actuarial value of assets that smooths volatility over a five-year period. The smoothing method makes more sense for budgeting, and GASB has acknowledged that funding and accounting

Figure 2: ADEC for FY 2021					
System	Funded Percentage	Actuarially Determined Employer Contribution (ADEC)			
VSERS (State)	70.70%	\$83.9 million (FY21)			
VSTRS (Teachers)	55.70%	\$135.6 million (FY21)			

are divorced under the GASB 67/68 statements. Moving forward, the report will only utilize funding valuations. The current funding status of the three retirement systems follow in Figure 3.

VSERS	2017	2018	2019
Actuarial Accrued Liability	\$ 2,511,372,455	\$ 2,661,608,857	\$ 2,779,965,523
Actuarial Value of Assets	\$ 1,793,794,733	\$ 1,881,804,847	\$ 1,964,500,825
Unfunded Liability	\$ 717,577,722	\$ 779,804,010	\$ 815,464,698
Funding Percentage	71.43%	70.70%	70.67%
VSTRS	2017	2018	2019
Actuarial Accrued Liability	\$ 3,282,045,614	\$ 3,379,553,748	\$ 3,505,319,267
Actuarial Value of Assets	\$ 1,779,592,227	\$ 1,866,120,413	\$ 1,950,859,980
Unfunded Liability	\$ 1,502,453,387	\$ 1,513,433,335	\$ 1,554,459,287
Funding Percentage	54.22%	55.22%	55.65%
VMERS	2017	2018	2019
Actuarial Accrued Liability	\$ 754,876,508	\$ 827,679,630	\$ 896,341,848
Actuarial Value of Assets	\$ 634,690,493	\$ 680,005,147	\$ 718,337,020
Unfunded Liability	\$ 120,186,015	\$ 147,674,483	\$ 178,004,828
Funding Percentage	84.08%	82.16%	80.14%

VSERS is currently 70.7% funded on an actuarial funding basis. It was fully funded prior to the Great Recession, which adversely impacted the plan. Changes in demographic (mortality assumptions) and interest rate assumptions, as well as workforce decisions (including two retirement incentives intended to lower operating budget costs, which had the effect of increasing pension costs) have adversely impacted the fund in recent years. In FY 2019, the primary cost drivers were

experience related to turnover, retirement, and investment loss.

VSTRS is currently 55.7% funded on an actuarial basis. The plan entered the Great Recession in a less favorable condition and was severely impacted by the national economic downturn. The funding level prior to the Great Recession was caused by several factors, including long-term underfunding of the plan, where considerably less than the actuary's recommended contribution was appropriated. Adding to the challenge was a practice by which health care premium payments were made from the plan, resulting in realized losses that further deteriorated its funded ratio. This situation was resolved in FY 2015 when health care was moved to a separate fund. Finally, as workforce changes are made through reorganization at the local level, those decisions have put additional pressures on the pension system.

2019 Highlights:

• In 2019, the Retirement Division undertook several new projects and initiatives in addition to the usual day to day operations of enrolling new members, calculating benefits, counseling, and making benefit payments.

Activity	2019	2018	2017	2016	2015	2014	2013	2012	201
Benefit Estimates	7,641	8,078	7,177	7,934	8,318	6,196	6,334	6,028	7,01
Individual Counseling	1,005	1,129	908	919	1,132	824	751	889	1,05
Retirement	1,100	1,250	967	1,054	1,118	1,081	1,082	1,068	1,00
Withdrawals	1,312	1,257	1,257	1,267	1,382	1,198	1,257	1,393	1,31
Deaths	449	478	349	335	463	329	377	349	37
Seminars	35	35	32	37	31	33	42	26	4
Seminar Attendance	868	797	776	809	872	752	1,243	783	1,00

- In 2017, the three Retirement Boards undertook a comprehensive review of the mortality assumptions for each Group within the Systems as required by State law. Segal Consulting completed the review and presented mortality changes that were ultimately adopted by the Boards of Trustees. The new mortality assumptions resulted in the generation of new survivorship and early retirement factors that were uploaded into the Retirement Division's Retirement Benefits Management System, Pension Gold, and tested extensively by staff before release into production effective June 1, 2019.
- The Retirement Division tested and implemented a new module within Pension Gold called Member Direct. Member Direct will allow both active and retired members to access their retirement account online. Currently, members must contact the retirement division to receive information about their defined benefit plan. This tool will ideally help alleviate the high call volume currently impacting the Retirement Division. The Office receives requests from its members for the ability to access financial information about their pension online. The tool was tested, put into production, and is currently available for use by State retirees.
- The Retirement Division, working with the Office of the Attorney General and Legislative Council, submitted a miscellaneous retirement bill that was enacted into law (Act 25 of 2019). The law updated teacher health care provisions to ensure they conform with existing practice and prior agreements. Changes were made to the State's defined contribution system to permit optional after-tax contributions. The act also acalled for a study on the membership requirements in Group C of the Vermont State Employees' Retirement System relating to law enforcement positions. Treasury and Retirement Division staff began on this initiative in 2019 and it is continuing in the upcoming year. An interim report on the Committee's progress will be submitted to the General Assembly on January 15, 2019.

- In August of 2019, based on an upgrade to the July 2019 consensus revenue forecast, a \$10 million payment was made to VSTRS as provided for in Act 11 of the 2018 Special Session.
- The Budget Adjustment Act in FY 2019 included \$3.3M above ADEC for FY 2020 (originally requested as part of the 2020 Budget) recommended by the VSTRS Board to preserve interest savings on the \$26.2 million contributed over the required ADEC in FY 2018.
- The General Assembly and the Governor have continued to fund the ADEC as recommended by the Boards of Trustees for VSERS and VSTRS plus additional contributions (see figure 5).
- The Boards of Trustees, working with the VPIC Chair, employee groups, the Treasurer's Office, and the Administration conducted a first of its kind comprehensive risk assessment of the pension plans. This will be used to assist in assuring that the defined benefit plans continue incremental improvements to move to more secured funding at a lower cost to the taxpayer.
- The FY 2019 Budget Adjustment Act, approved by the Governor, provided \$22.2 million to lower the interfund loan in the VSTRS OPEB which combined with the surplus generated in the fund fully

Figure 5: Vermont Continues its Efforts to Contribute in Excess of the ADEC

FY2016: VSERS - 117.5%, VSTRS - 101.1% FY2017: VSERS - 124.3%, VSTRS - 100.3% FY2018: VSERS - 124.0%, VSTRS - 129.6% FY2019: VSERS - 105.8%, VSTRS - 112.8%*

*\$10 million over above the ADEC for VSTRS, plus \$3.3 million in the Budget Adjustment Act.

extinguished the loan. Based on the current funding projection included in recent Budget Adjustment Act testimony, it is expected to result in a \$75 million fund balance by end of 2024. This will put the OPEB fund on a path that could, with planned 2020 initiatives, get the plan on a path to prefunding.

• The FY 2019 Budget Adjustment Act further stipulated that the State OPEB plan would receive 50% of general fund surpluses at year end. That, and interest earned during the year as well as surplus relative to the premium appropriation, brought plan assets from \$21.7 million to \$51.7 million in 2019. Surpluses will continue to accrue to the plan.

2020 Planned Initiatives

- The Retirement Division plans to roll out Member Direct to Municipal and Teacher retirees in January 2020 and to all active employees in the first quarter of 2020.
- Act 25 of 2019 mandated a study of VSERS Group C and authorized the creation of the Law Enforcement Retirement Benefits Study Committee. The Committee is tasked with reviewing existing positions in VSERS Group C, and determining whether those positions are appropriately considered law enforcement, and evaluating if there are additional positions that should be in VSERS Group C. The Committee will also review the mandatory retirement age of 55. The Treasurer served as Chair for the committee, which held five meetings. The Committee will submit a progress report to the General Assembly in January 2020 and will continue its work.
- A 2020 miscellaneous retirement bill will be submitted recommending technical revisions focusing primarily on the State System.
- The Retirement Division will work collaboratively with other Treasury staff, employee groups, retirement boards, lawmakers, and the Administration to review recommendations and options arising out of the comprehensive Risk Assessment conducted in 2019. This workgroup is expected to report any results to the General Assembly in 2020 and work on long-term recommendations.

RETIREMENT DIVISION OPERATIONS

- The VSTRS Board of Trustees adopted an ADEC recommendation that reflects the approved alternative amortization schedule passed by the Board last year (and subsequently adopted by the Governor and the General Assembly for the 2020 ADEC). This reflects an additional request of approximately \$3.5 million. The difference is attributable to the supplemental \$26.2 million payment in 2018 and how that payment is recognized in the calculation of the unfunded liability. The recommendation defers the recognition of the gains from the \$26.2 million preserving interest generated and ultimately savings to the taxpayer. Adhering to the alternative amortization schedule will, over time, allow for \$77.4 million in savings on the final amortization payment.
- During the second half of FY 2020, in accordance with 3 V.S.A. § 471(j), an experience study will be conducted by the actuaries of the three retirement systems. This study will review the assumptions used in performing the annual valuations of the plan including the demographic, compensation, mortality, discount rate, and cost of living adjustment assumptions. The study will produce recommended changes for these assumptions based on recent past experience, general economic, and anticipated trends.

Facts and Figures:

A breakdown of the demographics of the three defined benefit plans as of June 30, 2019 is described in Figure 6.

5		System Demo	ographics as	of June 30, 2	
System	Active Members	Inactive Members	Deferred Members	Retirees & Beneficiaries	Total Monthly Benefits
VSERS (State)	8,443			1	
VSTRS (Teachers)	9,862			9,514	
VMERS (Municipal)	7,630	2,814	896	3,415	\$2,858,68

Defined contribution plan demographic and financial data is summarized in Figure 7. Prudential Retirement serves as the third-party administrator with oversight by the listed fiduciary.

Figure 7: VSERS and VMERS Defined Contribution Plan Data						
Plan Name	Total Participants	Total Assets (as of 6/30/19)	Fiduciary			
State Defined Contribution	571	\$69,464,609	State Treasurer			
Municipal Defined Contribution	457	\$24,097,430	VMERS Board			

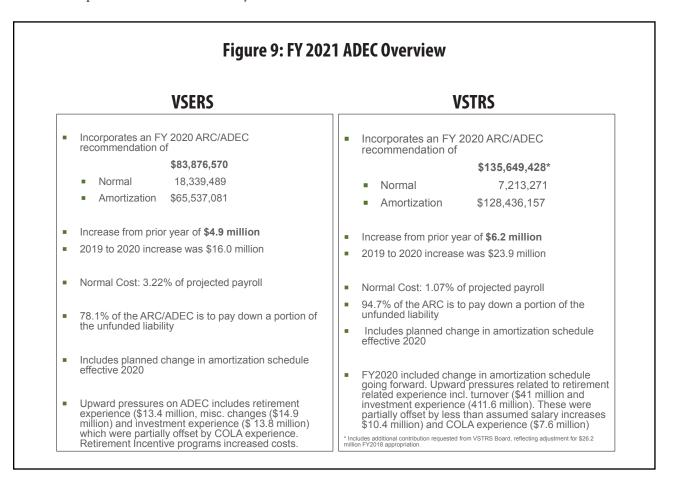
The four supplemental saving programs are described in Figure 8 on page 12. Prudential Retirement serves as the third-party administrator with oversight by the listed fiduciary.

Another indicator of pension funding progress is the development of a funding policy to pay down the unfunded liability. This requires payment of the ADEC. The ADEC is the method by which the unfunded actuarial accrued liability (UAAL) is eventually paid off, assuming it is fully appropriated. The ADEC is a measure of required plan funding that is made up of two parts: 1) the normal costs which is value of benefits to be accrued or allocated in the current valuation year by active employees (the employer normal cost equals the total normal cost of the plan reduced by employee contributions);

Figure 8: Supplemental Plan Data as of June 30, 2019						
Plan Name and eligible participants	Total Participants	Total Assets	Fiduciary			
457(b) Deferred Comp (State & Municipal)	7,648	\$505,870,924	VSERS			
403(b) Plan (Teachers and Municipal)	2,660	\$116,386,162	VSTRS			
Single Deposit Investment Account (state and teachers, closed to new entrants)	1,021	\$36,945,157	VSERS and VSTRS jointly			
Municipal Retiree Health Savings Plan	4,105	\$13,115,228	VMERS			

and 2) the amortization payment to retire the UAAL, the amount scheduled this year to retire a portion of the unfunded liability and fully pay down the liability by 2038.

The development of the ADEC and key factors for VSERS and VSTRS is as follows:



Vermont has been making additional payments to the ADEC, especially in the VSERS system where the rate is developed as a percentage of payroll. As payrolls have risen, the contributions increased as well (liabilities also increased). In VSTRS the ADEC payments have modestly exceeded the minimum level until recently. Beginning in 2018, the General Assembly began making additional payments to the VSTRS system. This will pay off over time in reducing the interest cost

to the taxpayer. See Figure 11 on page 14 for a detailed funding history.

Other Post-employment Benefits (OPEB)

In FY 2017 and 2018, the State implemented GASB 74/75, which provides similar treatment of other post-employment benefits (OPEB) to that of GASB 67/68. OPEB is primarily made up of health care. These standards changed the way plans and employers report OPEB liabilities. The intent of the standards is to improve the usefulness of the reporting information and increase transparency. As with the pension standards issued in previous years, it is important to remember that the standards focus on accounting for the costs and obligations of OPEB and avoid establishing guidance on funding. Like GASB 68, GASB 75 requires the State to place a net OPEB liability on its government-wide financial statements beginning in FY2018. Unlike pensions, where full funding of the actuarially required contribution is currently taking place, we are currently not prefunding the OPEB, which created additional liabilities on the State's financial statements beginning with FY2018. These will not impact the General Fund but will result in significant additional liabilities on the government-wide financial statements. The vast majority of states, who do not have any or significant prefunding, saw similar impacts on their financial statements.

As described above, these liabilities, like GASB 67, will not create any additional financial impacts on the General Fund. Nonetheless, it is important that the State develop funding plans to pay for these liabilities. To date most of the State's efforts have been focused on lowering liabilities rather than prefunding. While we have been successful at some changes to lower the liability side of the equation, the simple fact is nothing can replace the value of prefunding and compound interest. Interest from setting aside dollars now will result in lowering these long-term liabilities by \$1.068 billion. We are presenting the GASB 74 plan results since the OPEBs have no established funding policies. Significant steps were taken to establish funding policies in 2019. The funding status of the two OPEB plans are as follows:

	Financial Data	2017	2018	2019	Cumaltive Chage FY17-FY1
VSERS OPEB	Total OPEB Liability	1,484,522	1,240,275	1,279,299	(205,223
	Less: Plan Assets	22,502	21,771	51,733	29,231
	Net OPEB Liability	1,462,020	1,218,504	1,227,566	(234,454
	Plan Net Position as a Pewrcentage of Total				
	OPEB Liability	1.52%	1.76%	4.04%	
VSTRS OPEB	Total OPEB Liability	905,633	927,843	1,041,065	135,433
	Less: Plan Assets	(26,658)	(26,443)	312	26,97
	Net OPEB Liability	932,291	954,286	1,040,753	108,46
	Plan Net Position as a Pewrcentage of Total				
	OPEB Liability	-2.94%	-2.85%	0.03%	
Total	Total OPEB Liability	2,390,155	2,168,118	2,320,364	(69,79
	Less: Plan Assets	(4,156)	(4,672)	52,045	56,20
	Net OPEB Liability	2,385,999	2,163,446	2,372,409	(13,59
	Plan Net Position as a Pewrcentage of Total				
	OPEB Liability	-0.17%	-0.22%	2.24%	

Figure 10: OPEB Funding Status of VSERS and VSTRS (Amount in Thousands)

The overall net liability from 2017 to 2019 is down slightly, primarily due to per capita claims experience and negotiated change to health care provisions and changes in the drug formulary in VSERS. VSTRS has also had some positive claims experience. In both cases the application of a lower rate of interest to discount liabilities, and the lack of payment of the ADEC, had a negative effect. Without prefunding GASB requires that you use a lower rate calculated on the current double A rated municipal bond. In 2019, there was a significant drop in that rate, with Fed market moves, raising the liability. Despite these issues there were some significant funding initiatives with respect to both plans' OPEBs that are highlighted in Figure 12 on page 15.

Figure 11: Funding Progress of the Retirement Systems (Amounts in Thousands) Actuarial

Unfunded

AAL

(UAAL)

(b-a)

815,465

779,804

717,578

Funded

Ratio

(a/b)

70.7% \$

70.7%

71.4%

Covered

Payroll

(c)

527,571

521.671

504,553

Accrued

Liability

(AAL)

(b)

2,779,966

2,661,609

2,511,373

Actuarial

Value of

Assets

(a)

1,964,501 \$

1,881,805

1,793,795

\$

Year ending

June 30

2019

2018

2017

UAAL as a

Percentage of

Covered

Payroll

((b-a)/c)

154.6%

149.5%

142.2%





VMERS

2017	1,793,795	2,511,373	717,578	71.4%	504,553	142.2%
2016	1,707,268	2,289,452	582,184	74.6%	471,268	123.5%
2015	1,636,268	2,178,827	542,559	75.1%	462,057	117.4%
2014	1,566,076	2,010,090	444,014	77.9%	437,676	101.4%
2013	1,469,170	1,914,300	445,130	76.8%	416,766	106.8%
2012	1,400,779	1,802,604	401,825	77.7%	385,526	104.2%
2011	1,348,763	1,695,301	346,538	79.6%	398,264	87.0%
2010	1,265,404	1,559,324	293,920	81.2%	393,829	74.6%
2009	1,217,638	1,544,144	326,506	78.9%	404,516	80.7%
* 2008	1,377,101	1,464,202	87,101	94.1%	404,593	21.5%
2007	1,318,687	1,307,643	(11,044)	100.8%	386,917	-2.9%
2006	1,223,323	1,232,367	9,044	99.3%	369,310	2.4%
2005	1,148,908	1,174,796	25,888	97.8%	349,258	7.4%
2004	1,081,359	1,107,634	26,275	97.6%	336,615	7.8%
2003	1,025,469	1,052,004	26,535	97.5%	319,855	8.3%
2002	990,450	1,017,129	26,679	97.4%	300,994	8.9%
2001	954,821	1,026,993	72,172	93.0%	278,507	25.9%
2000	895,151	967,064	71,913	92.6%	266,519	27.0%
1999	804,970	876,412	71,442	91.8%	238,281	30.0%
1998	733,716	804,501	70,785	91.2%	235,956	30.0%
1997	639,128	753,883	114,755	84.8%	227,000	50.6%
	,	,				
2019	\$ 1,950,860	3,505,319	1,554,459	55.7% \$		248.8%
2018	1,866,121	3,379,554	1,513,433	55.2%	612,899	246.9%
2017	1,779,592	3,282,045	1,502,453	54.2%	607,355	247.4%
2016	1,716,296	2,942,024	1,225,728	58.3%	586,397	209.0%
2015	1,662,346	2,837,375	1,175,029	58.6%	557,708	210.7%
2014	1,610,286	2,687,049	1,076,764	59.9%	567,074	189.9%
2013	1,552,924	2,566,834	1,013,910	60.5%	563,623	179.9%
2012	1,517,410	2,462,913	945,503	61.6%	561,179	168.5%
2011	1,486,698	2,331,806	845,108	63.8%	547,748	154.3%
2010	1,410,368	2,122,191	711,823	66.5%	562,150	126.6%
2009	1,374,079	2,101,838	727,759	65.4%	561,588	129.6%
* 2008	1,605,462	1,984,967	379,505	80.9%	535,807	70.8%
2007	1,541,860	1,816,650	274,790	84.9%	515,573	53.3%
** 2006	1,427,393	1,686,502	259,109	84.6%	499,044	51.9%
2005	1,354,006	1,492,150	138,144	90.7%	468,858	29.5%
2004	1,284,833	1,424,661	139,828	90.2%	453,517	30.8%
2003	1,218,001	1,358,822	140,821	89.6%	437,239	32.2%
2002	1,169,294	1,307,202	137,908	89.5%	418,904	32.9%
2001	1,116,846	1,254,341	137,495	89.0%	403,258	34.1%
2000	1,037,466	1,174,087	136,621	88.4%	387,999	35.2%
1999	931,056	1,065,754	134,698	87.4%	372,299	36.2%
1998	821,977	955,694	133,717	86.0%	357,899	37.4%
1997	717,396	849,179	131,783	84.5%	364,695	36.1%
2019	\$ 718,337	\$ 896,342	178,005	80.1% \$	306,103	58.2%
2018	680,005	827,679	147,674	82.2%	289,839	51.0%
2017	634,690	754,877	120,187	84.1%	274,814	43.7%
2016	581,611	744,960	163,349	78.1%	256,730	63.6%
2015	543,768	699,293	155,525	77.8%	249,811	62.3%
2014	500,558	580,972	80,414	86.2%	230,969	34.8%
2013	446,236	528,426	82,190	84.4%	220,372	37.3%
2012	417,443	488,572	71,129	85.4%	215,075	33.1%
2011	402,550	436,229	33,679	92.3%	205,589	16.4%
2010	376,153 331,407	409,022	32,869	92.0%	202,405	16.2%
2009		366,973	35,566	90.3%	191,521	18.6%
2008	348,740	343,685	(5,055)	101.5%	175,894	-2.9%
2007	325,774	309,853	(15,921)	105.1%	162,321	-9.8%
2006	288,347	276,552	(11,795)	104.3%	148,815	-7.9%
2005	259,076	248,140	(10,936)	104.4%	146,190	-7.5%
2004	232,890	225,092	(7,798)	103.5%	135,351	-5.8%
2003	222,854	218,533	(4,321)	102.0%	126,216	-3.4%
2002	193,278	176,109	(17,169)	109.7%	106,986	-16.0%
2001	177,928	158,786	(19,142)	112.1%	101,873	-18.8%
2000	161,900	138,697	(23,203)	116.7%	87,147	-26.6%
1999	137,454	114,481	(22,973)	120.1%	70,808	-32.4%
1998	113,678	102,005	(11,673)	111.4%	87,328	-13.4%
1997	96,196	85,686	(10,510)	112.3%	70,800	-14.8%
1997	50,150	00,000	(10,010)	112.370	, 5,666	14.076

* 2008 - 2009 impacted by the Great Recession.

** Statutory change made to funding method to conform to best practice. Changes were realized in 2006 evaluation.

Figure 12: History of Disciplined Incremental Steps to Reduce Pension and Retiree Health Care Liabilities

2005: Teacher Study made changes to the State's actuarial methods and put full funding of the ARC on track. The Legislature has consistently adopted a budget with full funding of the ARC since 2007

2008: Committee restructured state system (VSERS) Group F benefits, lengthening age of retirement, effective in FY 2009, in concert with health care changes

2009: Pension and Health Care Study completed providing basis for negotiated savings over the next few years for both VSERS and the teachers' (VSTRS) system

2010 VSTRS: Lengthened age for normal retirement, contribution increases, and other changes, effective in FY 2011, resulting in \$15 million in annual pension savings. In addition to pension costs, additional health care savings accrued

2011 VSERS: Employee contribution rate increases beginning FY 2012, initially generating \$5 million in savings per year, increasing each year

2011-2012 VSTRS: Secured one-time revenues in excess of \$5 million for VSERS and VSTRS under the Federal Early Retirement Reinsurance Program

2012-2015 : Incremental increases in employee and employer contributions to municipal system (VMERS), demonstrating shared responsibility by all parties. These changes put VMERS on a stronger financial track

2014 VSTRS: additional contribution increases for new and non-vested members, effective FY 2015, generating \$1 million initial annual savings, increasing each year

2014 VSTRS: Statute change permitting that teacher pension costs be charged to federal grants, effective FY 2016, creating an estimated \$3 to \$4 million of savings per year

2015: Created Retired Teachers' Health and Medical Benefits Fund starting FY 2015

Since the 1980s, health care premiums for teachers were paid out of a sub-trust of teachers pension fund: by 2014 this arrangement was costing over \$20 million per year in interest costs

Collaborative solution: Successfully convened over a dozen stakeholders, including employee group, to address the problem with combined pension/health care changes

In addition to pension and health care changes previously stated, a new health care assessment for LEAs was implemented, linking local employment decisions to the benefit costs

Projected to save taxpayers \$480 million in unfunded liability interest costs through FY 2038

2016: Changes to the amortization financing schedule for VSERS and VSTRS will result in saving \$165 million in interest from present to 2038

2016: Increased employee contributions resulting in \$1.2 million in annual savings, with savings growing larger in future years

2018: Paid additional \$26.2 million above ADEC for VSTRS and \$12.5 million for VSERS

2018: Risk Assessment per ASOP 51 - Early Implementation by State

2019-2020: Amortization Plan enacted in 2016 takes effect

At the same time creating additional Transparency and Accountability:

2013: Pension forfeiture statute adopted for all three systems (VSERS, VSTRS, VMERS) 2015: VSERS Disability retirement reform permitting wage verification of disability pensioners

Collaborative Approach Key to Success:

All benefit changes made though collaborative efforts involving Administration, Treasurer's Office, Legislature and employee groups No court litigation/disruptions in planned implementations

Recent Actuarial Assumption Changes:

Lowered investment rate of return assumption to 7.5% based on independent analysis by actuary and pension consultant Currently updating mortality table assumptions

Debt Management

Overview

The State of Vermont's approach to debt management is characterized by conservative debt issuance and debt management policies that adhere to rigorous disclosure practices. These policies include moderate levels of bond issuance, careful consideration of debt affordability, strict adherence to credit rating agency guidelines, and strong fiscal budget policies to ensure that the State has funds readily available for bond principal and interest payments. Attention to rating agency and investor interest and concerns has earned the State a high debt rating and correspondingly very low borrowing costs. Vermont has steered clear of financial and regulatory concerns thanks to the State's disciplined practices and uncomplicated debt profile. Except for transportation infrastructure bonds, Vermont issues general obligation debt. All of the State's debt is fixed-rate debt.

In looking at the capital budget and the use of bonds, a distinction should be made between financing and funding. Bond financing leverages the value of a stream of revenue and then pays over time for the current use of those future revenues. In cases where there are significant inflationary costs, this can also result in increased net resources, but as a general rule, they add little or no new resources to the funding gap and are not solutions to meet budgetary shortfalls.

Funding refers to the generation of revenue, through various means such as taxes and fees, that provides needed services or capital infrastructure. The bonds to finance these must be repaid through future revenue flows. The Treasurer's Office urges prudence when issuing bonds. Borrowing makes sense when:

- The costs saved through accelerated construction (inflation and preventative maintenance) exceed the interest paid on the funds;
- a quantifiable economic benefit exceeds the cost of borrowing; and/or
- a future identifiable and available revenue source exists to pay for the bonds.

Vermont's Bond Ratings

Vermont has the highest general obligation bond rating in New England (see Figure 13). However, demographic headwinds in the Northeast underscore the importance that the State of Vermont continue its commitment to proactive financial management and fiscal discipline.

The State's general obligation bond rating was downgraded in October 2018 by Moody's (Aa1, second highest rating), and by Fitch Ratings (AA+, second highest rating) in July 2019. S&P Global Ratings (AA+, second highest rating) remains unchanged. All three ratings include stable outlooks. Fitch's

State	Moody's	S&P	Fitch
Vermont	Aa1	AA+	AA+
Connecticut	A1	А	A+
Maine	Aa2	AA	AA
Massachusetts	Aa1	AA	AA+
New Hampshire	Aa1	AA	AA+
Rhode Island	Aa2	AA	AA

Figure 13: New England General Obligation Bond Ratings

(As of Jan 2, 2020)

rating report echoed the same issues identified by Moody's in October of 2018. The Treasurer's Office welcomes the opportunity to work collaboratively to address shared challenges such as Vermont's aging population, slow economic growth, and above average long-term pension and post retirement liabilities relative to State GDP. While these reports identified valid challenges, they are accompanied by many positive strengths that have been identified by all three rating agencies.

The State of Vermont has many attributes that will be part of the solution as we seek to restore our triple-A bond rat-

ing. In addition to working together to address our demographic and workforce challenges, the Administration and General Assembly must continue to focus on fundamentals, including:

- Passing structurally sound budgets where revenues meet ongoing expenses;
- Paying at least the full ADEC;
- Addressing pension and OPEB funding challenges collaboratively and working to prefund long-term liabilities as the State continues its plan to retire the unfunded liability in 2038;
- Reducing reliance on debt and shift to more pay-as-you-go options to fund capital needs; and
- Increasing reserves in the General Fund, Education Fund, and Transportation Fund.

A preliminary analysis found that the cost of the rating downgrade will vary based on interest rates and credit spreads between bonds rated at various levels. The Treasurer's Office typically measures cost impacts based on a \$150 million bond issue over the life of a 20-year bond. Using this assumption, the estimated cost is \$1 million over the life of a 20-year bond. Forecasts issued by the Capital Debt Affordability Advisory Committee (CDAAC) project roughly \$61.59 million of issuance per year over the next several years, which would result in an approximate cost of \$400,000 over the life of a 20-year bond. The potential cost impact of these rating changes may be mitigated by the fact that Vermont's reputation is still strong.

Vermont's bond ratings are critical to Vermont because they allow access to capital at low rates. This not only supports the State's bonding needs, but it also lowers borrowing costs for municipalities that issue debt through the Vermont Municipal Bond Bank (VMBB) or other borrowers that rely on the State's bond rating. Additional costs to entities that utilize the State's "moral obligation" will vary by entity. These include entities that support affordable housing (Vermont Housing Finance Agency or VHFA), economic development (Vermont Economic Development Agency or VEDA), and selected issuance for student loans (Vermont Student Assistance Corporation or VSAC). Maintenance of the State's bond rating is important for every citizen, each community, and Vermont non-profits and businesses.

2019 Highlights

- In August 2019, the State sold \$88.255 million of general obligation bonds through a competitive bid process and refunded \$39.525 million of bonds through a negotiated sale. The sale resulted in \$100 million of proceeds to be used to finance capital projects, at a very low overall borrowing cost of 2.10 percent due to continued strong demand and low market rate conditions. As part of the issuance \$36 million of Build America Bonds were refunded resulting in a savings of \$3.75 million in interest payments for the taxpayer.
- In 2018, the Capital Debt Advisory Committee (CDAAC, described below) recommended a two-year maximum net tax-supported debt authorization of \$123.18 million, a reduction of 7.0% from the previous biennium recommendation of \$132.46 million. This follows reductions of 8.01% and 9.9% reductions in the prior bienniums. In total, these recommendations represent a cumulative 6 year reduction of 23.0%. These reductions are critical to reducing the portion of the budget devoted to debt service and to lower interest costs for the taxpayer. This decision was reaffirmed in 2019 by CDAAC.
- The issuance of the \$37.8 million Vermont Property Transfer Tax Revenue Bond (the "Housing Bond") in 2018 was successful in that it jump started needed increases in affordable housing. Steps were taken by the State, and VHFA, to have this debt treated not as net tax supported debt. The Treasurer's Office was advised in 2019 that Moody's, the only rating agency that was requested to rate the VHFA bonds, includes these bonds as net tax supported debt. For this reason, however, CDAAC now includes the Housing Bond as net tax supported debt for authorization and debt ratio purposes and takes this in account for future debt recommendations.

2020 Initiatives

• The State has recently made strides to reduce the amount of annual debt issuance. As mentioned above, the amount of debt authorization has decreased 23% from six years ago, and recommendations for further reductions are possible.

DEBT MANAGEMENT

These facts notwithstanding, the State of Vermont will likely see pressure to continue a trend of reducing bond issuance as we face demographic challenges in the Northeast. The Treasurer's Office and CDAAC look forward to partnering with the Administration and General Assembly to work to address our capital financing goals in a way that protects our bottom line.

- A working group was formed in order to research and recommend alternative ways to fund capital projects, rather than borrowing money. This group will specifically review the use and treatment of any bond premiums raised in the process of bond issuance, as well the possible creation of a Capital Non-Recurring Expenditure Fund or other such funds to accumulate non-bond resources (PAYGO) to pay for projects, reducing interest costs that currently amount to 25 cents for every dollar issued. The working group will conclude its work and report back to the full CDAAC Committee in the first quarter of calendar year 2020.
- CDAAC plans to review the criteria and metrics it uses when making its recommendations of new long-term net tax supported debt that may prudently be authorized. These will be reviewed for inclusion in the next full biennium report in September 2020.
- The General Assembly requested that the Treasurer's Office estimate the cost of building new housing in Vermont. As part of this effort, the Treasurer's Office has analyzed possible funding and financing mechanisms options, including bonding, for 1,000 units over and above what would have been created or preserved by state funding at FY 2019 base appropriation level, capital appropriation and other resources available to the Vermont Housing and Conservation Board (VHCB). In partnership with housing agencies, authorities, and interested parties, the Treasurer's Office expects to complete a comprehensive analysis of housing needs and costs, including, but not limited to, maintenance of permanent affordability, special needs and services, cost of service supported housing, rehabilitation versus new units, vouchers, and other considerations. A preliminary report will be issued on January 15, 2019, with a projected date of completion in March 2020.

Debt Affordability

The Treasurer's Office and majority of CDAAC members conclude that the State of Vermont needs to reduce its appetite for debt. Lower debt issuance by US states has weakened Vermont's debt ratio ranking relative to peers. This is particularly true of peer triple-A rated states. Furthermore, Vermont's projected debt issuance exceeds scheduled debt retirements, so the State's overall debt outstanding will continue to rise. In the sections that follow, the mean and median for all 50 states, as a part of an annual series most recently released by Moody's Investor Service in June 2019, is noted. This provides detail on Vermont's relative position.

CDAAC's 2019 report acknowledged rating agency concerns about the status of US local and state infrastructure needs. Decisions to defer maintenance and/or replacement of capital infrastructure require additional focus and proactive capital planning. There is an urgent need to develop pay-as-you-go funding structures that would be beneficial to the capital and asset management process. CDAAC and the Treasurer's Office will provide the Administration and General Assembly with suggestions to proactively manage these capital needs.

In addition, CDAAC calculates debt per capita and debt as a percentage of personal income based on the annual Moody's Report, using a five-year median and mean for states with at least two triple-A ratings. In the case of debt service as a percentage of revenues, Vermont uses an absolute guideline rather than a comparison to the peer triple-A states. This forms the basis for guidelines for the State in shaping its CDAAC recommendations.

Debt Per Capita

Debt as a percentage of personal income and debt service as a percentage of revenues are generally understood to be the better credit indicators of the State's ability to pay; however, the rating agencies continue to calculate and monitor the State's debt per capita as an indicator and it is included as a factor in CDAAC's deliberations. In 2019, the State's debt per capita was \$1,140 (see Figure 13 on page 19), an increase from \$987 the previous year. Vermont retained its ranking of 25th among the 50 states.

Figure 13: Moody's Investors Service -- Debt Per Capita Comparison

	Peer Group States (All states with at least two triple-A ratings)					
	5-Year Average Mean and 5-Year Average Median					
MEAN: \$934	MEDIAN: \$701	5-Year Average - VERMONT: \$1,030				

				Moody's Debt Per Capita					
Triple-A Rated States ¹	Moody's Ratings ²	S&P Ratings ²	Fitch Ratings ²	2015	2016	2017	2018	2019	
Alaska	Aa3/Stable	AA/Stable	AA-/Stable	\$ 1,489	\$1,422*	\$1,691*	\$1,574*	\$1,466*	
Delaware	Aaa/Stable	AAA/Stable	AAA/Stable	2,438	2,385	2,544	2,587	3,206	
Florida	Aaa/Stable	AAA/Stable	AAA/Stable	973	1,038	961	889	812	
Georgia	Aaa/Stable	AAA/Stable	AAA/Stable	1,043	1,029	992	986	996	
Indiana	Aaa/Stable	AAA/Stable	AAA/Stable	474	463	310	295	270	
lowa	Aaa/Stable	AAA/Stable	AAA/Stable	250	239	228	219	207	
Maryland	Aaa/Stable	AAA/Stable	AAA/Stable	1,889	1,928	2,122	2,164	2,343	
Minnesota	Aa1/Stable	AAA/Stable	AAA/Stable	1,538*	1,527*	1,480*	1,430	1,415	
Missouri	Aaa/Stable	AAA/Stable	AAA/Stable	606	574	579	532	487	
North Carolina	Aaa/Stable	AAA/Stable	AAA/Stable	739	721	659	611	531	
South Carolina	Aaa/Stable	AA+/Stable	AAA/Stable	672	603	564	517	503	
South Dakota	Aaa/Stable	AAA/Stable	AAA/Stable	547*	652	641	694	618	
Tennessee	Aaa/Stable	AAA/Stable	AAA/Stable	327	298	322	312	305	
Texas	Aaa/Stable	AAA/Stable ⁴	AAA/Stable	406	383	383	410	389	
Utah	Aaa/Stable	AAA/Stable	AAA/Stable	1,060	921	824	772	792	
Virginia	Aaa/Stable	AAA/Negative	AAA/Stable	1,356	1,418	1,486	1,515	1,502	
MEAN ³	-	-	-	980	908	901	929	958	
MEDIAN ³	-	-	-	856	687	650	694	618	
Vermont	Aa1/Stable	AA+/Stable	AA+/Stable	954	1,002	1,068	987	1,140	

¹ Carry at least two triple-A ratings.

² Ratings as of September 11, 2019

³ The calculations exclude all Vermont numbers.

* Indicates that the state was not rated triple-A thereby two or more of this rating agencies during the year shown. Amount not used in calculating the mean or median for the year.

CDAAC uses a five-year average of our peer triple-A states. Vermont has a five-year average of \$1,030 versus a mean of \$934, and a median of \$701 for the same five-year period for our peer triple-A states. The State's net tax-supported debt per capita is forecast to increase to \$1,164 by 2022, before trending back down. That forecast assumes a steady level of debt authorization and issuance of \$132.61 million in FY2021, and \$61.59 million per year from FY 2022 through FY 2030. Under this scenario, the debt per capita would exceed the projected state guideline. Given the weight placed on this ratio versus the other debt ratios noted below, CDAAC limited the constraining impact of this in its recommendations.

Debt as a Percentage of Personal Income

Another credit factor for assessing a state's relative ability to pay its general obligation debt is the ratio of net taxsupported debt as a percent of personal income. Vermont has a ratio of 2.2 percent as compared to a 50 state mean of 2.8 percent and a median of 2.2 percent. The State's ranking dropped slightly in 2019 from 28th to 26th among the 50 States. The CDAAC guideline is to perform better than the Moody's five-year mean (2.0 percent) and median (1.7 percent) for **DEBT MANAGEMENT**

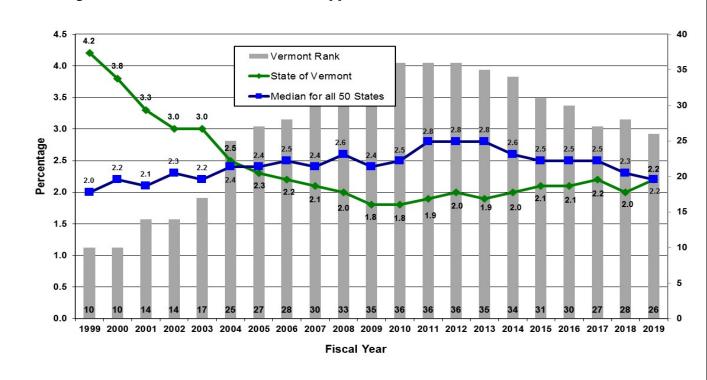
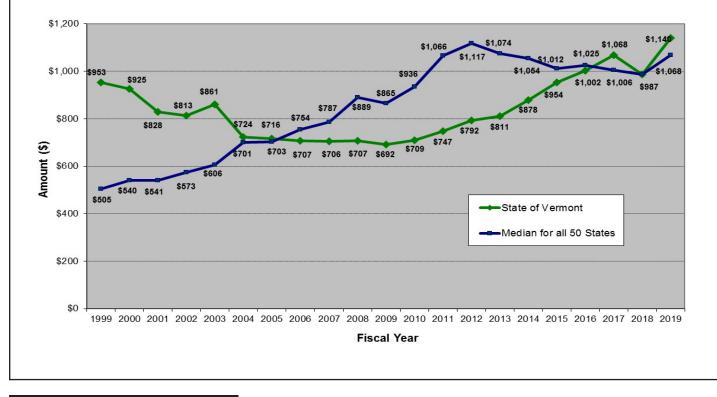


Figure 14: State of Vermont Net Tax Supported Debt as a Percent of Personal Income

Figure 15: State of Vermont Net Tax Supported Debt Per Capita



states with at least two triple-A ratings. Using the current CDAAC projection, this ratio will improve to 1.5 percent by FY2029.

Debt as a Percentage of Revenue

The guideline used for determining debt service as a percentage of revenue states that projected annual State debt service on general obligation bonds should not be more than 6.0 percent of projected revenues in the combined General and Transportation funds. The debt service as a percentage of revenues ratio was 4.0 percent for FY 2019. This percentage is expected to rise to 4.6 percent by FY 2025. Given the potential for wide variances in State revenues at various points in the economic cycle, CDAAC proposed a significant buffer between the recommended level and the guideline. During the Great Recession, this ratio jumped from 5 percent in 2008 to 5.5 percent in 2009 and 5.7 percent in 2010.

Budget Stabilization Reserves

The State has budget stabilization reserve levels required by statute for each of the State's General Fund, Transportation Fund, and Education Fund. Required reserves for the General Fund and Transportation Fund are 5 percent. The Education Fund's required reserve levels are between 3.5 percent and 5

Figure 16: Moody's Investors Service - Debt as % of Personal Income

Peer Group States (All states with at least two triple-A ratings) 5-Year Average Mean and 5-Year Average Median MEAN: 2.1% MEDIAN: 1.9% 5-Year Average VERMONT: 2.0%

		Moody's De	ebt as % of Pers	s % of Personal Income							
Triple-A Rated States	2015	2016	2017	2018	2019						
Alaska	3.0%	2.7%*	3.0%*	2.8%*	2.6%*						
Delaware	5.5	5.2	5.4	5.5	6.5						
Florida	2.4	2.5	2.2	2.4	1.7						
Georgia	2.8	2.7	2.5	2.0	2.3						
Indiana	1.2	1.2	0.8	0.7	0.6						
lowa	0.6	0.5	0.5	0.5	0.4						
Maryland	3.5	3.5	3.8	3.7	3.8						
Minnesota	3.2*	3.2*	2.9*	2.8	2.6						
Missouri	1.5	1.4	1.4	1.2	1.1						
North Carolina	1.9	1.8	1.6	1.5	1.2						
South Carolina	1.9	1.7	1.5	1.3	1.2						
South Dakota	1.2*	1.4	1.4	1.5	1.3						
Tennessee	0.8	0.7	0.8	0.7	0.7						
Texas	1.0	0.9	0.8	0.9	0.8						
Utah	3.0	2.5	2.1	1.9	1.9						
Virginia	2.8	2.9	2.9	2.9	2.7						
MEAN ¹	2.3	2.1	2.0	2.0	1.9						
MEDIAN ¹	2.2	1.8	1.6	1.5	1.3						
VERMONT	2.0	2.1	2.1	2.0	2.2						

(1) These calculation exclude all Vermont numbers and include only states rated triple-A by two or more rating agencies as of September 11, 2019.

* Indicates that the state was not rated triple-A by two or more of the rating agencies during the year shown. Amount not used in calculating the mean or median for the year.

percent of the previous year's appropriations. In addition to these reserves, the State has also increased the Human Services Caseload Reserve and 27/53 Reserve. Taken as a whole, General Fund reserves were 14.2% as a percentage of FY 2019 appropriations. The Treasurer's Office supports a policy of increasing reserves to mitigate economic fluctuations, and recommends continued progress to build reserves.

DEBT MANAGEMENT

Other Factors and Summary

The rating agencies also consider the breadth of the economy; the level and condition of the State's transportation, utilities and other infrastructure; personal income levels; fiscal responsibility; employment levels; workforce size and training; population demographics and trends; internal controls and auditing standards; need for short-term borrowings; and other factors.

In looking at our bond rating profile, Vermont's strong fiscal discipline, a record of surpluses, modest debt burden, and progress on funding liabilities despite a net pension liability are generally seen as strengths. Maintaining our reserves is also a strength, although additional increases to reserves would be a credit plus. On the credit challenge side, our demographics, particularly our aging workforce and population and slow revenue growth, are seen as challenges.

There are many external national and international economic factors that put stress on state ratings. In order to maintain and foster economic health, the State of Vermont must continue a collaborative, disciplined approach to financial management, punctuated by timely, balanced budgets; proactive budget management using consensus revenue forecasting; full funding of the required actuarial contributions; and continuous improvement of State stabilization and rainy day reserves.

Investments

<u>Overview</u>

The Treasurer's Office is responsible for the investment of funds that can be generally divided into three groups: 1) operating and restricted funds; 2) non-retirement related trust funds; and 3) post-retirement funds including pensions, heath care, other post-employment benefits, and supplemental retirement programs.

For operating funds and restricted funds (those funds identified as having certain federal restrictions, grant restrictions, or funds that must be segregated by statute), the State has an investment policy with an overarching goal of minimizing exposure to risk and maintaining liquidity necessary for future cash needs, while maximizing the return on investments. Types of investments allowed include obligations of the United States and its agencies and instrumentalities; certificates of deposit issued by banks and savings and loan associations approved by the State Treasurer; domestic money market funds; and other money market instruments. The Treasurer's Office issues additional formal guidance that is reviewed periodically to assure that the three investment objectives – safety, liquidity, and yield – are met.

State law permits a portion of these funds to be invested for longer maturity periods to obtain additional return consistent with liquidity needs. Beginning in 2013, local investment initiatives were implemented to develop a diversified portfolio of varying maturities.

Certain trust funds are contained in the Trust Investment Account, which is established pursuant to 32 V.S.A. § 434. These funds include the Tobacco Trust Fund, the Higher Education Trust Fund, the Agency of Natural Resources Stewardship Fund, two Veterans' Home Trusts, the Fish and Wildlife Trust, Vermont State Retirement OPEB Fund, and various small trusts. The State Treasurer may invest funds in accordance with the standard of care established by the Prudent Investor rule and apply the same investment objectives and policies adopted by the Vermont State Employees' Retirement System, where appropriate, to the investment of funds in the Trust Investment Account.

As noted in the retirement operations section of this report, certain optional retirement plans (deferred compensation, SDIA) and defined contribution plans are managed through third-party contracts with investment authority resting with the retirement boards, or in the case of the State defined contribution plan, the Treasurer.

The funds of the defined benefit pensions plans are invested under the authority of the Vermont Pension Investment Committee (VPIC), of which the State Treasurer is Vice Chair. The Treasurer's Office also provides administrative support to the plans.

Vermont Pension Investment Committee (VPIC)

The mission of VPIC is to manage investments for the participating retirement plans with integrity, prudence, and skill to meet or exceed the financial objectives of the beneficiaries of the participating retirement systems. VPIC acts as the trustee for the defined benefit plan investments, while the Board of Trustees for each retirement system maintains its fiduciary role in the area of benefits administration and actuarial recommendations. The Treasurer serves on the retirement boards and VPIC, and is the custodian of the funds, providing administrative support and oversight. The Investment Services Division within the Treasurer's Office provides cash and investment management for the State of Vermont and conducts day-to-day activities with investment managers, custodians, and other service providers.

VPIC was created in 2005, and amended in 2007 and in 2009, to combine the assets of VSERS, VSTRS, and VMERS for the purpose of 1) investment in a manner that is more cost- and resource-efficient; 2) improving the effectiveness of the oversight and management of the assets of the Retirement Systems; and 3) maintaining the actuarial, accounting, and asset allocation integrity of the Retirement Systems.

VPIC maintains a governance framework that ensures that all its fiduciary and legal responsibilities are addressed on an ongoing basis. VPIC focuses its time on its four core responsibilities: asset allocation, risk management, governance, and member education. Other VPIC responsibilities are largely delegated to investment managers. These include a proxy voting vendor, VPIC's master custodian, and VPIC's investment consultant. The Vermont Attorney General's Office provides legal counsel and support to VPIC and the retirement boards. VPIC has operating policies in place to manage these delegated responsibilities.

The 11-member VPIC consists of six voting members, a Chair, and four alternates. Each retirement system Board of Trustees has representation, along with the Governor's Office, and the Treasurer's Office. As of June 30, 2019, the total assets under management of VPIC portfolio were \$4.5 billion.

The Treasurer's Office extends its gratitude to former VPIC members Vaughn Altemus and Karen Paul, both of whom provided counsel and steady management of VPIC assets. The Office is please to welcome John Henry Hubert and Mary Alice McKenzie as new VPIC members. Both bring backgrounds that will be tremendously helpful to VPIC in the years to come.

2019 Highlights and Ongoing 2020 Initiatives

- Eric Henry joined the Treasurer's Office as the new Chief Investment Officer in October 2018. He brings a wealth of experience in public finance and support of trustee boards. Since joining, Henry has worked closely with VPIC Chair Tom Golonka and the entire VPIC Board to implement new initiatives.
- During the fiscal year, VPIC approved a streamlined asset allocation to improve risk-adjusted investment returns. Themes of this new strategy include the following:
 - o Fewer actively managed strategies in public markets in keeping with our belief that broadly diversified passive benchmarks are very difficult to beat, net of active manager fees.
 - o Rationalization of fees paid to investment managers to assure a prudent value proposition. This exercise resulted in the elimination of our absolute return strategies.
 - o Increasing the transparency and understandability of all VPIC investment strategies to improve ongoing monitoring. VPIC and staff believe this will improve our ability to conduct ad hoc analyses and to optimize alignment of pension assets with pension liabilities.
- VPIC implemented a broadly diversified, passively managed global equity strategy. VPIC and staff expect this strategy to deliver global equity returns at an industry-leading level with a reduction in investment management fees. This passive strategy will serve as our core exposure to public equity markets and be complemented by active managers who we believe are likely to consistently add value over long periods of time. While the VPIC has reduced the number and sizing of such actively managed public equity strategies, it believes that some are capable of consistently outperforming global equity indices and that active exposure is sized prudently.
- VPIC and staff redesigned the allocation to inflation-hedging assets to reduce their carrying cost during periods of low inflation. Traditional inflation hedges such as Treasury inflation-protected securities (TIPS) and commodities typically perform well in periods of high inflation. During periods of low inflation, as experienced in recent years, such traditional inflation hedges can be costly to hold and, in the case of commodities, volatile. In contrast, VPIC has sought assets that will hedge inflation in the event it returns to global markets, but also to be productive assets during non-inflationary periods. Assets such as core real estate, farmland, and infrastructure are expected to be effective inflation hedges and will generate attractive current income yields in the absence of inflation. VPIC reaffirmed its commitment to high quality core real estate and initiated a search for a compelling farmland/infrastructure manager.
- VPIC began to add lower-cap exposure to its private equity allocation. Historically, much of VPIC's private equity exposure has been obtained through large buyout funds. These vehicles have performed well. As this segment of the private equity market has exhibited strong investment returns, it has also attracted more investment from large pension funds, foundations, and endowments and now must deploy into portfolio companies. To mitigate the risk that the influx of "dry powder" into large private equity buyout funds, VPIC has sought to obtain exposure to smaller portfolio companies in segment of the market that is less efficient and presents the opportunity for higher risk-adjusted returns.
- Treasury staff completed an Environmental, Social and Governance Report in 2019, identifying points of integration of ESG into pension system investment decision making. This issue is discussed further below. Treasury staff expect

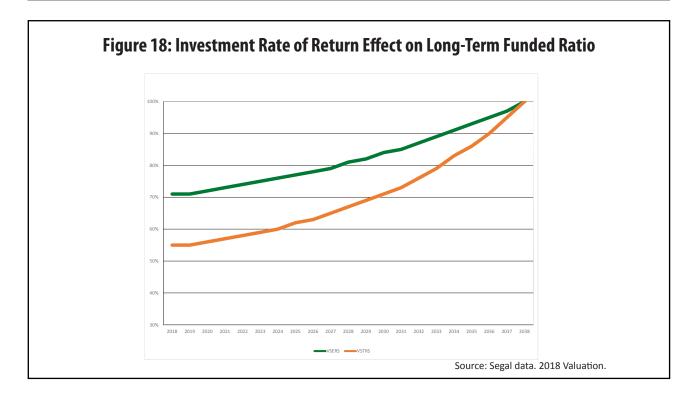
to work collaboratively with environmental groups to develop metrics for future reports which are expected to be completed annually (see page 27 for more details on ESG Initiatives).

Facts and Figures:

VPIC Investments

Return numbers may vary slightly by plan even in a pooled fund as their underlying cash flows are different. The VMERS system has positive cash inflows such that contributions exceed payouts which is not uncommon in a relatively new fund (founded in 1974). On the other hand, the employees and teachers' fund (most significantly the teachers'

Pension Plan	1-Year Return	3-Year Return	5-Year Return	7-Year Return	10-Year Return
State VSERS	5.9%	8.1%	4.9%	6.7%	8.5%
Teachers VSTRS	6.1%	8.1%	5.0%	6.7%	8.5%
Municipal VMERS	5.8%	8.1%	4.9%	6.7%	8.5%



INVESTMENTS

fund) have negative cash flows, whereby contributions are less than payouts. This is not uncommon in older funds where investment income is expected to have accumulated to partially fund payouts.

Return numbers are "end-point sensitive." Financial data can have large swings that do not "average out" as one might expect. For instance, the 1-year return for the VSERS fund as of June 30, 2018 was 7.8% and the 10-year return was 5.6% as it still included recession era numbers. On the other hand, the 10-year 2019 return (8.5%) included an investment "snap back" post-recession in year 2010. Nonetheless, staff believes that markets have and will continue to exhibit lower rates of return over the short-term versus historical averages. In fact, in developing the current long-term assumed rate of return of 7.5%, both our independent actuary (Segal Consulting) and investment consultant (NEPC) assumed a 5-7 year rate in the 6.5% range. Based on an independent actuarial review, even with a lower rate approximating 6.4% in the short term, the funded ratio of VSERS and VSTRS is expected to increase over the next 10 years, with all other experience assumed to approximate actuarial assumptions. While the VPIC portfolio investment performance is benchmarked over shorter periods, the investment portfolio is designed to fund pension liabilities over periods of 30 years or more. The baseline portfolio at 7.5% is expected to reach 100% funded by 2038, largely based on the policy of funding the ADEC (see pension funding section).

Nonetheless, initial market data for 2020 shows some trend toward lowering of interest rate assumption in both the short and long term. The Retirement Boards will be conducting an experience study in the Spring of 2020 which will review all actuarial assumptions including the assumed rate of return. The Boards and VPIC will continue to set the rate based on a review of independent investment consultant and actuarial assessments and adjust accordingly.

Pension Funds Asset Allocation

In the bull market post the Great Recession, public pension plans built up meaningful positions in private markets to take advantage of an illiquidity premium versus public market equivalents. VPIC and Treasury Staff have worked to find a balance between risk and return across the VPIC target asset allocation, and as such started in 2012 to prudently invest in private markets. VPIC reassessed the asset allocation strategy and implemented changes to obtain a higher expected risk-adjusted return profile in 2017, with a larger allocation to private markets as the Committee gained comfort with the asset classes. VPIC's portfolio return in 2019 slightly lagged peers due, in part, to a lower percentage of the VPIC portfolio being invested in private markets, which have significantly outperformed their public market equivalents. A well-diversified, private market investment strategy takes several years to build. Treasury staff anticipates in the coming years this gap will close as the new asset allocation approved in 2017 (and maintained in 2019 for these asset classes) of 10% private equity and 5% private debt is fully implemented. In addition, the Committee has implemented structural changes within the portfolio to increase transparency and lower fees. While alternatives assets are essential to a diversified portfolio, many alternative products on the market can be overly complex, difficult to value, and expensive. VPIC and the Treasurer's office have worked diligently to improve the expense structure of the portfolio through increased use of passive investment vehicles, where prudent and appropriate, and by annually evaluating

Figure 19: Asset Allocation

Asset Class	Target
Growth Assets	
Passive Global Equities	24%
Active Global Equities	5%
Large Cap US Equities	4%
Small/Mid Cap US Equities	3%
Non-US Developed Market Equities	5%
International Small Cap Equities	2%
Private Equity	10%
Core Plus Fixed Income	6%
Emerging Market Debt	4%
Private Debt	5%
Non-Core Real Estate	3%
Total Growth Assets	71%
Downturn Hedging Asset	5
Core Fixed Income	14%
Short-Term Quality Credit	5%
Total Downturn Hedging	19%
Inflation Headging Assets	5
Core Real Estate	5%
US TIPS	3%
Infrastructure/Farmland	2%
Total Inflation Hedging	10%
Total	100%
5-7 Year Expected Geometric Returr	7%
Risk (Standard Dev)	12%
Sharpe Ratio (5-7 Years)	0.34
30 Year Expected Geometric Return	7.6%
Sharpe Ratio (30 years)	0.20

the net risk-return attributes of actively managed investment strategies. From FY 2015 through December 31, 2019, we

estimate investment manager fee savings of \$18.2 million.

Environmental, Social and Corporate Governance (ESG) Initiatives

As noted in the VPIC investment policy, "The VPIC recognizes that environmental, social and governance (ESG) issues are among core factors when assessing the risks and opportunities of an asset and should be fully integrated into the investment process by the VPIC and its managers. ESG should be weighed with all other risks and opportunities and not considered in isolation. Engagement on ESG issues can result in more informed decision-making and VPIC recognizes the importance of shareholder engagement." The Treasurer's Office issued its 2019 ESG Report in October. The full report can be read on the Treasurer's Office's website. Below are some highlights.

- In 2017, The Treasurer's Office proposed, and VPIC approved, a 5-point plan to advance our ESG objectives. As described in the ESG report significant progress on each of these initiatives has been made over the past two years.
- Among our membership in numerous ESG networks, VPIC voted on October 23, 2018, to become a UN Principles for Responsible Investment (PRI) signatory. This commitment requires active ownership of shares, transparent reporting on responsible investing activities, and integration of ESG risk analysis in the portfolio's investment process.
- In fall 2019, VPIC moved forward with significant commitments of \$125 million in farmland and food and agriculture technology funds with significant ESG focus.
- Vermont has increased its shareholder activism and expects to be, for the first time, a lead filer on several shareholder resolutions. Over the past several years Vermont has been an active participant as a co-filer of proxy resolutions and has participated in direct engagement with companies.
- VPIC surveys investment managers, prior to hiring and on an annual basis, to disclose policies and procedures for integrating ESG into investment decisions, including ESG-related value drivers and management of material ESG-related risks. The Treasurer's Office aggregates the survey and reports the findings to VPIC and makes the surveys public in the ESG Report.

Short-term, Local Investments, and Other Investments

The following highlights investments made with non-retirement trust funds (the Trust Investment Fund), operating funds (restricted and unrestricted, local investments, and certain OPEB funds), State OPEB in the Trust Investment Account and the Retired Teachers Health and Medical Benefits Fund (RTHMB).

- For FY 2019 these short-term, local investments and other investments, and the Trust Investment Account had a combined average balance of \$524.9 million with combined earnings of \$14.9 million, resulting in a gross rate of return of 2.85%. Federal Rate decreases occurred in August, September, and October of 2019, so it didn't affect the rates that were used in our calculation for FY 2019, it will heavily affect them in FY 2020.
- The Trust investment Account (TIA) had a net return of 6.7%.
- The RTHMB Interfund Loan was paid off in full in 2019 through use of funds in the Budget Adjustment Act which puts the fund on a path toward prefunding of liabilities. The Treasurer's Office appreciates the collaborative work with the Governor and the General Assembly to achieve this milestone ahead of schedule.

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- The Treasurer's Office has established a credit facility of up to 10 percent of the State's average cash balance for local investments with longer maturities. Through this program, investments have been made with entities such as: Neighborworks of Western Vermont, the Vermont Community Loan Fund, the Vermont Economic Development Authority, Vermont Housing Finance Agency, and Champlain Housing Trust. The Treasurer's Office is authorized to loan up to \$34.2 million. Presently, \$27,304,935 million has been loaned out. See Figure 24 on page 37 of this report for additional detail on local investments.
- In 2020, the Treasurer's Office plans to request a statute change to permit investment of State OPEB monies similar to a pension fund with the expectation of increased earnings over the long run. The Treasurer's Office will also make a similar request permitting excess RTHMB funds to be invested in the TIA and/or selected pension funds.
- The Treasurer's Office will review funds to identify those funds with longer maturities that may benefit from movement to the TIA trust. This will include reviews of fund liabilities with various departments.

Single Deposit Investment Account

The Single Deposit Investment Account (SDIA) is a non-contributory defined contribution plan. The fund was formed in 1981 and is closed to new membership with no new monies invested since 1990. The portfolio is invested in a commingled stable value fund managed by ICMA-RC and administered by Prudential Retirement. The fund's objective is to provide a high level of income consistency with low market risk. The primary importance is the preservation of capital, with a secondary need to generate a composite yield in excess of comparable short-term money market yields. The balance as of June 30, 2019 was \$36.9 million for 1,021 participants.

Unclaimed Property Division

Overview

Unclaimed property refers to accounts in financial institutions, non-profits, and companies that have had no activity generated or contact with the owner for one year or a longer period. Common forms of unclaimed property include savings or checking accounts, stocks, uncashed dividends or payroll checks, refunds, traveler's checks, trust distributions, unredeemed money orders, insurance payments or refunds and life insurance policies, annuities, certificates of deposit, customer overpayments, utility security deposits, mineral royalty payments, and contents of safe deposit boxes. The Unclaimed Property program is first and foremost a consumer protection program that centralizes search efforts to locate property owners.

The State of Vermont is currently in possession of more than \$94 million in unclaimed property belonging to approximately 530,000 individuals and organizations.

2019 Highlights

- 18,012 individuals or organizations claimed their missing money in the fiscal year ending June 30, 2019, a new singleyear record for the free service managed by the Vermont State Treasurer's Office. The average claim paid was \$335.51 and more than \$6 million was returned to Vermonters.
- In 2019 the Unclaimed Property Division signed a contract for a new unclaimed property system. This system will support all aspects of the Treasurer's Unclaimed Property program and includes the ability to maintain unclaimed property data in perpetuity. Some of the key features include the ability to manage cash receipts from holders, stock sale proceeds, stock dividends (including all aspects of corporate actions), and tangible property, including auctions and associated transactions. It also will enable us to process claims and claim payments more efficiently.

<u>2020 Goals</u>

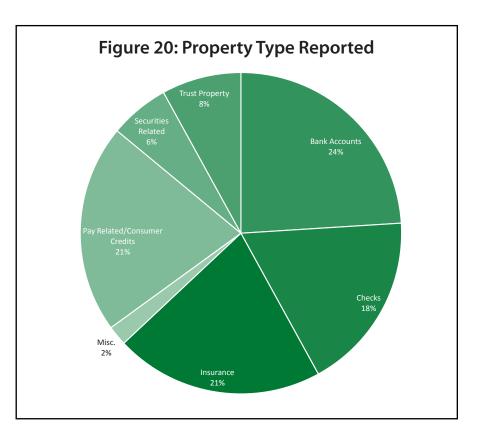
- Unclaimed Property staff will be implementing several system enhancements based on the contract for the new unclaimed property system. These include:
 - o A Holder Reporting website, that allows for the upload of holder reports and cash remittances securely online.
 - Online filing of claims and supporting documentation, saving money for postage and expediting payments to Vermonters. Included also is a fast-tracking feature allowing for on-line verification and authentication of claimants in real time.
 - o An imaging solution specifically designed for use with the Unclaimed Property system that allows for scanning and indexing of all documents related to all areas of unclaimed property.
- Work with the General Assembly to enact the Revised Uniform Unclaimed Property Act (H.550), which passed the House on May 1, 2019 and is in the Senate.
 - o In July 2016 the national Uniform Law Commission enacted a revised Uniform Unclaimed Property Act after a four-year period of research, public meetings, testimony, and negotiation. This revision updates the law to conform with new technologies and financial instruments since 1995, when it was last updated. It also includes updates for other provisions such as gift cards and other stored value cards, life insurance, securities, use of contract auditors and dormancy periods. Vermont had a unique role in this effort as the Treasurer served as one of two state advisors to the Uniform Law Commission representing the unclaimed property officials in

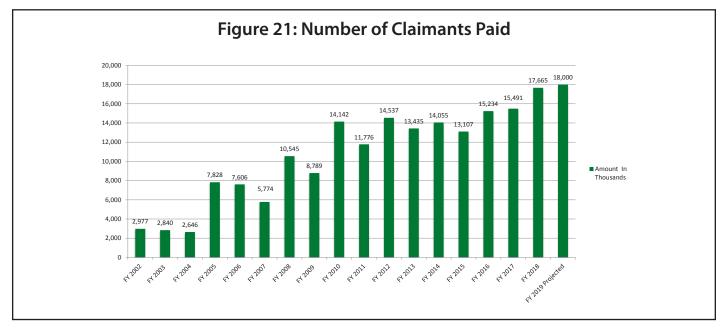
the 50 states, Puerto Rico, the Virgin Islands and Canada.

 The proposed bill has been customized for Vermont specific issues, including the life insurance provisions adopted by the General Assembly in 2013. The Treasurer's Office has worked with the House Economic Development Committee to introduce a bill. The Treasurer's Office will continue to work with the various subject matter committees to review this bill with various industry groups, associations, financial institutions, life insurers, and others to discuss specific provisions as the bill progresses.

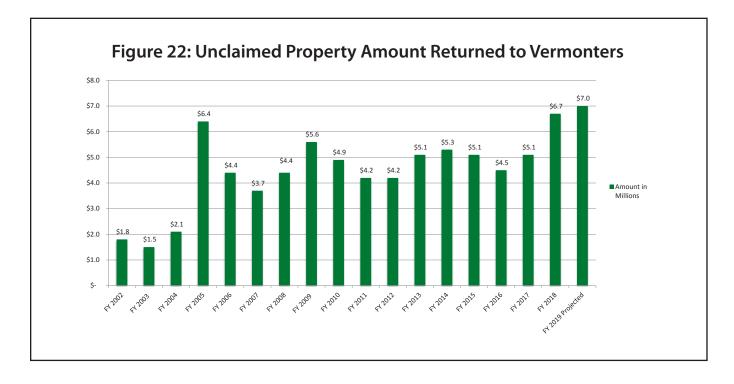
Facts and Figures

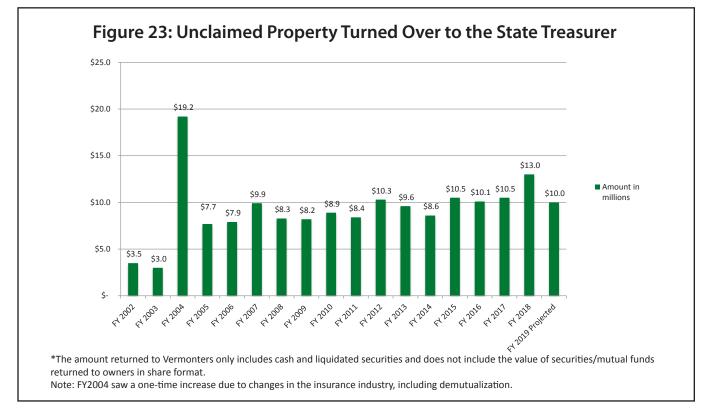
Figure 20 details the types of property reported in FY 2019. Figures 21, 22, and 23 provide statistics by year for the Unclaimed Property Division, including number of claimants paid, the amount of unclaimed property returned to Vermonters and unclaimed property turned over to the Treasurer's Office. In addition, there are two important facts about Vermont's unclaimed property program: 1) the services are free to the public and 2) you never lose the right to claim unclaimed property, no matter how old the property.





UNCLAIMED PROPERTY





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Financial Literacy

Overview

One of the Treasurer's Office's primary missions is to improve the financial capability of all Vermonters. The Office regularly collaborates with education stakeholders, financial institutions, and community organizations. Financial literacy initiatives are developed with the following goals: (1) advocacy - working to promote the adoption of fiscally sound money management practices by Vermonters of all ages; (2) collaboration - working with local, state and national groups to build support for and participation in activities that promote and teach personal finance; and (3) development - creating new financial education programs and resources for Vermont citizens where gaps exist.

2019 Highlights

- The Treasurer's Office worked with the Department of Financial Regulation, Department of Taxes, and Office of the Attorney General, to author educational info sheets on six topics, including: managing credit; kids and money; filing & paying taxes; protecting against scams; retirement savings; and understanding insurance. Two of these info sheets were distributed at an October 2019 outreach event that the State Treasurer and Attorney General held to raise awareness about the importance of managing credit and defending against fraud.
- The Treasurer's Office led a project to develop a new financial education website, MyMoney.Vermont.Gov. The website was completed in November 2019 and will be launched in early 2020 to serve as a clearinghouse with original resources, information on in-demand personal finance topics, an interactive mapping tool, and a resource database to direct Vermonters to reputable private and community-based groups. MyMoney.Vermont.Gov will be regularly updated as part of an ongoing initiative to raise public awareness of the importance of managing money.
- The ninth year of the K-6 Reading is an Investment financial education concluded in March 2019. Participating schools set a new record for student achievement, with 5,688 students certifying that they completed the program requirements, making them eligible to win one of twenty \$250 college savings accounts made available by the Vermont Student Assistance Corporation. Winning students were honored at the April 2019 Financial Literacy Awards Ceremony in Montpelier.
- The 2019 2020 edition of Reading is an Investment was delivered to Vermont schools in August 2019. More than 140 schools are enrolled at the time this report was published. This is the 10-year anniversary of the launch of Reading is an Investment, and the Treasurer's Office would like to thank People's United Bank for sponsoring the 2019 2020 program.
- The Treasurer's Office set a 2018 goal to expand its elementary education programs beyond the daytime classroom settings reached by Reading is an Investment. Afterschool programming was identified as an area where financial education could benefit students outside of the school day. The Treasurer's Office formed a partnership with Vermont Afterschool, Inc. This collaboration led to the January 2019 launch of VerMoney, a new program to help afterschool educators teach personal finance concepts. Modules were developed to cover six topic areas including employment and income, financial decision making, spending and saving, credit, investing, and risk management.
- VerMoney was piloted in the winter and spring of 2019. After a competitive grant process, 12 programs, representing 25 individual sites, were selected for participation. These sites were located in 10 Vermont counties. Each pilot participant received a stipend, curriculum guide, money-themed picture books, and a toolkit of supplies and playthings. 300 students completed the pilot program. The TD Bank Charitable Foundation supplied financial support through the

FINANCIAL LITERACY

Financial Literacy Trust Fund, which was provided to afterschool educators free-of-charge. Student prizes were sponsored by the Vermont Bankers Association, Inc.

• The Vermont Treasury Cup Challenge financial literacy tournament was held on March 7, 2019. Nine teams competed. Essex High School's team won the competition to claim the Treasury Cup trophy and first place prize. South Burlington High School came in second place. Each member of the championship team received a \$500 college savings account and members of the second place team were awarded \$250 accounts, donated by the Vermont Student Assistance Corporation. VSECU generously underwrote the competition.

<u>2020 Goals</u>

- The Treasurer's Office will expand the VerMoney financial literacy afterschool curriculum to more program sites, in more counties, across Vermont. Educator feedback received from the 2019 pilot was overwhelmingly positive, with multiple requests to continue the offering in 2020. Evaluations documented strong student interest, which was reflected in the pre- and post-assessment data provided by pilot participants. Following the success of the initial rollout of VerMoney, the Treasurer's Office and Vermont Afterschool, Inc. have initiated a 2020 program for returning 2019 participants, and new programs that wish to offer personal finance education. Program distribution and an educator training will be held in January 2020.
- The Treasurer's Office will support the Vermont Jump\$tart Coalition's financial literacy student video contest. This is a contest to create an original video that delivers information about the importance of responsibly managing money. The 2020 theme is "Making Money Means Making Decisions." In late 2019, the Treasurer's Office provided support as the contest was developed and marketed to students in grades 7-12. The winners will be awarded prizes at the Treasurer's Financial Literacy Awards Ceremony in April 2020.
- The Treasurer's Office will work with the Department of Human Resources (DHR) to develop a personal finance class for State Employees. While the Retirement Division currently partners with DHR's Center for Achievement in Public Service (CAPS) to offer a class on retirement issues, we identified a need to provide financial literacy education to newly hired State employees. The Treasurer's Office will partner with DHR to develop relevant curriculum about saving, retirement preparedness, and ways that the State supplemental retirement options can be used to help build a secure future.
- The Treasurer's Office will continue its collaborative work with State partners to develop MyMoney. Vermont. Gov into a clearinghouse for financial education topics. Additional infosheets will be developed to highlight relevant, in-demand topics.

Facts and Figures

- A record 5,688 students completed the 2018-2019 Reading is an Investment financial education program.
- Since Reading is an Investment was launched in 2010, 37,889 Vermont students have completed the program.
- 141 schools recieved the 2019-2020 edition of Reading is an Investment.
- 25 afterschool program sites in 10 Vermont counties took part in the 2019 VerMoney afterschool pilot.
- 28 Vermont students that completed Treasurer's Office financial education programs recieved College Savings Accounts.

Treasury Operations Division

Overview

The Treasury Operations Division is responsible for the banking and cash management of approximately \$6.1 billion annually in both receipts and disbursements; the establishment and maintenance of the State's banking services network; the disbursement of the State's warranted payments and debt service; the collection of certain receipts; and the recording of associated accounting transactions. Monitoring and reconciliation of internal and external accounts comprise a major portion of staff time, in addition to the proper reporting and recording on the State's books. The Treasury Operations Division also is responsible for preparing financial statement schedules and disclosures for the annual audit of the State's books for cash, investments, and pension systems managed in the Treasurer's Office, and administering various special funds. Pervasive changes in the above processes are not expected on a year over year basis as this Division is operationally focused. There is a periodic review of operational risks and associated internal controls to ensure that this Division is effectively managing the State's cash.

2019 Highlights

- Treasury Operations reconciles approximately 50 Core bank accounts which received over 164,000 deposits and disbursed over 1.99 million payments in 2019.
- Electronic Payments has remained stable at approximately 82 percent of all payments, with the expectation that this will slowly increase going forward. Retirement monthly benefit payments increased slightly to 98.5 percent electronic. As the costs of issuing a check well exceeded that of issuing payment electronically (ACH), this provides measurable savings to taxpayers.

2020 Goals

- Treasury Operations will work to increase awareness of the Vendor Management portal to decrease customer service phone and email requests.
- Treasury Operations will evaluate potential efficiencies in the reconciliations process to decrease processing time while maintaining quality.

Technology Update

Overview

The Technology Services Division is committed to providing technology support services to the Treasurer's Office. Staff provides business analysis; system design; programming; help desk support; hardware maintenance; system and data security; and project management services.

2019 Highlights

- The first major technology project of FY2019 was implementation of a check printing solution to replace an outdated system running since 2008 on an older technology platform. The new solution, "Check Plus CFO" from Printech Intelligent Business Solutions, was selected over two other products. All checks and positive pay files for check printing accounts were successfully implemented by the end of February 2019.
- Treasury technology staff oversaw updates as part of a VISION Upgrade Project managed by the Department of Finance and Management. New check printing requirements for Grant IDs and CFDA numbers were implemented. In addition, a new solution for printing checks from VISION for disaster recovery was tested and completed.
- As local school administrators manage changes to school governance, Treasury technology staff implemented updates to the VSTRS and VMERS Employer Reporting Systems. The technology team assisted the Retirement Division to ensure that all employers, and their employees, were transitioned to salary and contribution reports for the coming year.

2020 Goals

- Technology infrastructure upgrades continued in 2019. New servers were acquired to replace older servers for the Vermont Pension Administration System (VPAS). The updated servers were rolled out for use in 2020. New workstations were also ordered to refresh the current set of desktops being used in the office.
- A new web portal, Member Direct, has been developed to allow retirement system employees to access self-service functions. The portal (https:\\retire.vermont.gov) is currently being used by a limited group of retired State employees, for self-service functions. These functions, like changing direct deposit accounts or updating an address, have commonly been done in person or by mail. The portal for active members is being tested internally with plans to deploy it for use in 2020. The portal will allow active members to generate their own retirement estimates or download important documents, along with the ability to change their demographic data online.

Legislative Reporting Requirements

Financial Literacy Trust Fund

The General Assembly established a trust fund in 2008 to support financial literacy in Vermont. As enacted, "the purpose of the fund is to promote the adoption of fiscally sound money management practices by Vermonters through education and outreach efforts that raise awareness of the need for and benefits of practicing such skills; and to create opportunities to build and encourage the development of new financial literacy activities and educational products for Vermont citizens." The State Treasurer is authorized to collect money from a variety of sources to fund these activities. For FY2019, \$20,000.00 was deposited into the fund from program sponsors, including Peoples United Bank, the TD Bank Charitable Foundation, VSECU, and the Windham Foundation. \$516.29 of interest was earned. \$14,396.70 was expended from the trust fund during FY2019. Funds were expended in support of the Reading is an Investment program; to fund the 2019 VerMoney pilot; to pay for expenses related to the 2019 Vermont Treasury Cup Challenge; and for de minimis administrative expenses. The June 30, 2019 trust fund balance was \$27,060.02.

Local Investment Advisory Committee (LIAC)

Pursuant to Act 199 of 2014, Act 51 of 2015, and Act 157 of 2016, the Local Investment Advisory Committee (LIAC), chaired by the State Treasurer, is tasked with increasing economic development in Vermont and creating jobs by committing up to 10 percent of the state's average available cash balance to local investments. These financing projects redirect funds that were invested primarily in out-of-state government agency securities and money market accounts at large financial institutions, to local investments. To date, the State Treasurer has overseen the commitment of over \$34 million for local investment projects in energy improvements in residential housing, commercial energy projects, higher education, and the rehabilitation of State office buildings for energy efficiencies. See Figure 24 on page 37 of this report for an overview of existing loans.

In 2018, Act 188 authorized the Treasurer, in consultation with the LIAC, to invest up to \$5,000,000 in weatherization and housing improvement. On October 30, 2018, the LIAC voted in favor of a new, \$1.5 million credit facility for NeighborWorks of Western Vermont (NWWVT) under this authorization. Act 62 of 2019 amended the original authorization to remove the income restrictions for proposed accelerated weatherization and housing improvement programs and extend the authorization to invest through fiscal year 2021. This bill was signed into law on June 17th, 2019. In the meantime, on May 13th, 2019, the LIAC had approved a reduction in the amount of money previously approved for lending to NWWVT under Act 188 of 2018 by \$1,000,000, and increased the amount of money available to NWWVT under Act 87 of 2013, by the same \$1,000,000, resulting in no net increase to the credit facility. This allows NWWVT to provide energy efficiency and housing rehabilitation loans without any limits to income, however, as a certified Community Development Financial Institution, NWWVT ensures that at least 60 percent of its loans go to low-income borrowers under 80 percent of Area Median Income, or to borrowers in targeted low-income census tracts.

The LIAC will consider a new solicitation for proposals that reflects the changes made to the authorization in Act 62 of 2019.

In addition to the State Treasurer, the membership of the committee currently includes: Maura Collins, Executive Director, Vermont Housing Finance Agency; Dave Corliss, Efficiency Vermont Designee; Cassie Polhemus, Chief Executive Officer, Vermont Economic Development Authority; Michael Gaughan, Executive Director, Vermont Municipal Bond Bank; Tom Little, Vice President and General Counsel, Vermont Student Assistance Corporation Designee. Please visit the Local Investment Advisory Committee webpage for more details.

State Building Energy Loans

Act 11 of the 2018 Special Session authorized an additional \$500,000 in supplemental funding to offset costs of interest and principal available to State building weatherization projects that were longer-term than previously funded through the program. During calendar year 2018, \$28,000 of this funding was utilized.

Figure 24: Summary of Credit Facilities and Local Investment Initiatives Status as of September 30, 2019

uthorizing Legislation and Agency	Statutory Description	Amount Authorized	Remaining Capacity	Outstanding Balance	Issue Date	Original Amount	Maturity Date	Rate
act No. 62 of 2019:	Investment	\$1,000,000	-\$500,000	\$1,500,000		\$1,000,000		
1. Vermont Community Loan Fund ^[3]				\$1,500,000	7/24/2019	\$1,000,000	7/22/2020	1.50%
ct No. 87 of 2013, Sec. 8, as amended by Act No. 199 of 2014, Sec. 22:	Credit Facility	\$10,000,000	\$0	\$10,000,000		\$10,000,000		
2. Vermont Economic Development Authority (Note VEDA-003)				\$10,000,000	2/1/2015	\$10,000,000	1/31/2025 ^[2]	2.43%
uct No. 87 of 2013, Sec. 8a: ^{[6][7]}	Credit Facility	\$6,500,000	\$2,586,621	\$3,913,379		\$6,050,000		
3. NeighborWorks of Western Vermont (Note A-001)				\$0	10/22/2013	\$250,000	10/15/2023	2.00%
4. NeighborWorks of Western Vermont (Note A-002)				\$0	5/19/2014	\$250,000	4/15/2024	2.27%
5. NeighborWorks of Western Vermont (Note A-003)				\$0	10/15/2014	\$250,000	10/15/2024	2.35%
6. NeighborWorks of Western Vermont (Note A-004)				\$0	1/26/2015	\$250,000	1/15/2025	2.00%
7. NeighborWorks of Western Vermont (Note A-005)				\$148,379	10/15/2015	\$250,000	10/15/2025	2.00%
8. NeighborWorks of Western Vermont (Note A-006)				\$250,000	11/30/2015	\$250,000	10/15/2025	2.26%
9. NeighborWorks of Western Vermont (Note A-007)				\$250,000	10/27/2016	\$250,000	10/15/2026	2.00%
0. NeighborWorks of Western Vermont (Note A-008)				\$250,000	12/27/2016	\$250,000	10/15/2026	2.63%
11. NeighborWorks of Western Vermont (Note A-009) ^[6]				\$250,000	7/21/2017	\$250,000	7/15/2027	2.49%
 NeighborWorks of Western Vermont (Note A-010)^[7] 				\$250,000	7/17/2019	\$250,000	7/15/2029	2.48%
NeighborWorks of Western Vermont (Remaining authorization)						\$750,000		
14 Vermont Housing Finance Agency (Note VHFA-001)				\$2,515,000	2/18/2014	\$2,800,000	2/15/2024	2.76%
ct No. 199 of 2014, Sec. 23: ^[4]	Credit Facility	\$8,200,000	\$3,050,178	\$5,149,822		\$7,750,000		
15 NeighborWorks of Western Vermont (Note B-001)		+-;;	+-,,	\$400,000	9/2/2015	\$400,000	7/15/2025	2.10%
16 NeighborWorks of Western Vermont (Note B-002)				\$250,000	6/20/2016	\$250,000	7/15/2026	2.00%
17 NeighborWorks of Western Vermont (Note B-003)				\$250,000	9/6/2016	\$250,000	10/15/2026	2.00%
18 NeighborWorks of Western Vermont (Note B-004)				\$250,000	1/11/2017	\$250,000	1/15/2027	2.52%
19 NeighborWorks of Western Vermont (Note B-005)				\$400,000	2/17/2017	\$400,000	4/15/2027	2.45%
NeighborWorks of Western Vermont (Remaining authorization)				\$100,000	2.11.2011	\$200,000	111012021	2.10%
20 Champlain Housing Trust (Note A-001)				\$1,000,000	3/31/2016	\$1,000,000	3/31/2026	2.48%
21 Champlain Housing Trust (Note A-002)				\$321,547	2/28/2017	\$321,547	3/31/2027	3.02%
22 Champlain Housing Trust (Note A-003)				\$50,000	5/7/2018	\$50,000	6/30/2028	3.42%
23 Champlain Housing Trust (Note A-004)				\$59,315	6/18/2018	\$59,315	6/30/2028	3.58%
24 Champlain Housing Trust (Note A-005)				\$49,119	6/18/2018	\$49,297	6/30/2028	3.58%
25 Champlain Housing Trust (Note A-006)				\$519,841	7/30/2018	\$519,841	6/30/2028	3.50%
VSAC- higher education loan cost reduction				\$1,600,000	6/8/2016	\$4,000,000	6/15/2021	2.00%
ct No. 178 of 2014, Sec. 41 ^[5]	Credit Facility	\$8,000,000	\$5,891,613	\$2,108,387		\$ 2,404,202.30		
27 32 Cherry St. Exhaust Air Heat Recovery (SERF 001)	Great Facility	\$0,000,000	\$5,651,015		1/31/2015	524,172.00	6/30/2026	2.00%
 S2 Cherry St. Exhlatsi All Heat Recovery (SERF 001) 108 Cherry St. Lighting & Controls (SERF 002) 				\$311,170	2/15/2017	534,172.00	6/30/2020	2.00%
				\$534,156 \$136,744	9/24/2018	147,210.89	6/30/2029	
 52 Cherry St. Energy Upgrade SERF 003) Springfield State Office Building (SERF 004) 				\$136,744	8/14/2018	278,792.11	6/30/2029	2.00%
31 Derby Public Safety Facility Energy Retrofit (SERF 005)				\$127,348	9/28/2017	127,347.68	6/30/2023	2.00%
 Derby Public Salety Pacifity Energy Retrofit (SERF 005) Historic Sites Lighting Retrofits, Chimney Point & Mt. Independence (SER 	F 006)			\$127,348	3/26/2018	43,452.00	6/30/2024	2.00%
 33 Mahady Courthouse (SERF 007) 	,			\$217,249	12/17/2018	224,961.00	6/30/2024	3.00%
34 Williston Info Center (SERF 008)				\$43,241	12/17/2018	45,535.84	6/30/2027	2.60%
35 Caledonia Court (SERF 009)				\$174,613	8/15/2018	183,286.86	6/30/2024	2.00%
Asa Bloomer State Office Building, Rutland SERF 011)				\$285,075	1/8/2019	295,287.71	6/30/2024	2.75%
 7 Rutland Parking Garage & Barre Courthouse Lighting (SERF-014) 				\$396,525	7/2/2019	396,525.00	6/30/2026	2.00%
ct No. 11 of 2018 (SERF Supplemental Funding)	Appropriation	\$ 500,000	\$ 442,767.79 \$	\$390,525 57,232.21	11212013	\$ 100,732.21	0/00/2020	2.0076
38 Williston Info Center (SERF 008)	Αργιοριιατιστί	- 550,000	, 101.13 Ş	28,865.96	12/10/2018	28,865.96		_
Asa Bloomer State Office Building, Rutland SERF 011)				28,366.25	1/8/2019	28,366.25	-	-
40 Rutland Parking Garage & Barre Courthouse Lighting (SERF-014)				43,500.00	7/2/2019	43,500.00	_	-
	TOTALS:			.0,000.00		.0,000.00		-

 Notes:

 1. Subject to a "put" provision enabling the Treasurer's Office to demand full or partial repayment within 60 days if the State's unrestricted cash balance fails below \$75,000,000.

 2. Subject to a "put" provision enabling the Treasurer's Office to demand full or partial repayment within 60 days if the State's unrestricted cash balance fails below \$75,000,000.

 3. Additional capacity added to VCLF (up to 1,000,000 - Act 157 of 2016)

 4. Neighborworks has remaining authorization of \$200,000

 5. Establishes an Energy Revolving Fund under 29 V.S.A. § 168(c)

 6. Neighborworks original authorization for Act 87 was \$2,000,000, but loans total \$2,250,000 due to recycling after principal repayments

State PACE Reserve Fund

24 V.S.A. § 3270 specifies that the State Treasurer shall administer the State PACE Reserve Fund. The purpose of the fund is to reduce, for certain Property-Assessed Clean Energy districts, the risk faced by an investor making an agreement with a Vermont municipality to finance such a district. Monies deposited in this fund may be invested by the State Treasurer. The balance of this fund may be expended for the sole purpose of paying claims resulting from certain losses related to a Property-Assessed Clean Energy district. During FY2019, there were no new funds deposited into this fund. There was \$1,142.23 earned on the balance in the fund. There were no claims submitted and, therefore, no expenditures, other than de minimis administrative expenses, from the fund during FY2019. The fund balance as of June 30, 2019 was \$52,416.86.

Vermont Achieving a Better Life Experience (ABLE)

VermontABLE is entering its third year since program launch with consistent growth in enrollment numbers and significant increases in total assets under management. As of December 22, 2019, VermontABLE enrollments totaled 353. The average account balance as of October 31, 2019, is \$4,772.09, which is approximately \$2,700 over the previous benefit cliff level for individuals on means-tested programs. Also as of October 31, 2019, VermontABLE participants hold total assets under management of \$1,474,656.95, which is more than double the previous year. In August, Treasurer Pearce announced that VermontABLE reached its \$1 million milestone.

VermontABLE was featured on an ABLE State of the States panel at the National Association of State Treasurers (NAST) Treasury Management Training Symposium. This discussion resulted in the production of an informational video to be promoted and used by all states in their outreach efforts. The video is expected to launch in January 2020.

A 529-ABLE account allows for an account within section 529 of the Internal Revenue Code of 1986, and is a tax-free savings vehicle for disability-related expenses. VermontABLE participates in a multi-state partnership headed by the Ohio State Treasurer's Office STABLE program in order to administer these accounts. This is the largest consortium of ABLE accounts in the country with twelve states currently participating.

Please visit VermontABLE.com for more information.

Transportation Infrastructure Bonds

Beginning in 2010, the State began issuing Special Obligation Transportation Infrastructure Bonds (TIBs), which are payable from assessments on motor vehicle gasoline and diesel fuel. The State has issued three series of TIBs bonds (in 2010, 2012 and 2013) totaling \$36,385,000. As of June 30, 2018, there were \$26,750,000 of bonds outstanding.

Trust Investment Account

In 2000, the General Assembly authorized the establishment of a Trust Investment Account (TIA) administered by the State Treasurer for the purpose of investing restricted funds with non-expendable principal balances and other long-term funds. As of June 30, 2019, the fund had a principal balance of \$69.4 million, of which 45% was allocated to the Higher Education Endowment Trust Fund, 33% to the VSERS OPEB, 14% to various Agency of Natural Resources Funds, and the remainder to various smaller trust funds. Of those smaller trust funds, the Vermont Veteran's Home had a June 30, 2019 balance of \$1,438,584.82 and the Tobacco Trust Fund had a balance of \$8,240.75.

The current target allocation of the Trust Investment Account is 60% Fixed Income, 20% Domestic Large Cap Equities, 15% International Equities, and 5% Emerging Market Equities. In fiscal year 2019, the Fund's investment return was 6.9% net of fees. In 2014, the Treasurer's Office transitioned the fund's allocation to a passive strategy mix of index funds. This change in allocation helped decrease management fees from 0.38% to 0.05% and allowed the Treasurer's staff to construct a portfolio with a higher expected return-risk profile relative to the fund's return objectives by improved diversification. The rate of return for FY 2019 was 6.7%.

Vermont Higher Education Endowment Trust Fund

16 V.S.A. § 2885 provides that in August of each fiscal year, the State Treasurer is to withdraw up to 5% of the 12-quarter moving average of the Fund's assets and divide the amount equally among UVM, the Vermont State Colleges (VSC), and the Vermont Student Assistance Corporation (VSAC). The amount appropriated, however, cannot bring the Fund Balance below total contributed principal. Through June 30, 2019 principal contributions were \$29,269,374 (See Figure 34). The 5% distribution available this year is \$1,527,166 in total or \$509,055 for UVM, VSC and VSAC.

16 V.S.A. § 2885 further provides that during the first quarter of each fiscal year, the Secretary of Administration and the Subcommittee may authorize the State Treasurer to make an additional distribution of up to 2% of the Fund's average assets available to UVM and the Vermont State Colleges for the purpose of creating or increasing a permanent endowment fund. Similar to the 5% distribution, the amount appropriated cannot bring the Fund balance below total contributions to principal. Further, each institution is required to raise private donations of at least twice the appropriated amount. At its meeting last year, the Secretary of Administration and the Subcommittee voted to forgo the 2% appropriation for distribution to UVM and the Vermont State Colleges, based upon a recognition that lower expected returns

Figure 25: Higher Education Endowment Trust Fund Balance June 30, 2018 Ending balance FY 2018 \$30,937,547 FY 2018 Contributions received in FY 2019 \$72.097 Opening balance FY 2019 Distributions FY2018 (\$502.266) 5%: University of Vermon Vermont State Colleges (\$502,266) Vermont Student Assistance Corp. (\$502,266) 2%: University of Vermont \$0 Vermont State Colleges \$0 Income earned FY 2019 \$1,086,447 Appreciation (Depreciation) FY 2019 \$934,722 Fees and Other Charges FY 2019 (\$3.741) Principal Balance June 30, 2019 \$31,520,273 Statutory Distributions Available 1 5% of 12-Quarter Moving Average as of June 30, 2019 (\$1,527,166) 2% of 12-Quarter Moving Average as of June 30, 2019 (\$602,720) (\$2,129,886) **Total Projected Statutory Distribution** Balance After Projected Statutory Distribution \$29.390.387 \$29,269,374 Total Contributions Received as of June 30, 2019 Principal Balance Shortfall After Projected Statutory Distribution \$0 Adjustments to Distributions Due to Shortfall 5% Distribution Adjusted (0.00%) (\$1,527,166) 2% Distribution Adjusted (0.00%) (\$602,720) Total Available Distribution Adjusted as needed to Maintain the (\$2,129,886) Principal Balance Floor as Required by Statute Actual Distributions for 2019 \$1,527,166 5% Distribution 2% Distribution ² \$0 \$1,527,166 Principal Balance after distributions \$29,993,106 Fundraising target for potential 2% distribution in 2021 \$610.867 (Contingent on an institutional match in FY 2020 and Principal Balance greater than the total Contributions) Assuming statutory levels (5% distribution & 2% distribution) without regard to statutory requirement to keep balance at or above the otal principal contributions Committee elected to forego the 2% distribution for the fiscal year Numbers may not add due to rounding

in the near term do not support a total distribution of 7% from the fund.

After payments, the Fund balance at the end of FY2019 totaled \$29,993,106. For more detailed information regarding the Higher Education Endowment Trust Fund, please visit the Treasurer's Office's website.