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STATE OF VERMONT Office of the State Treasurer

| TO: | Justin Johnson, Secretary of Administration, and the Higher Education Subcommittee of the Prekindergarten-16 Council |
|-------|---|
| FROM: | Elizabeth Pearce, State Treasurer |
| RE: | Annual Report on the Higher Education Endowment Trust Fund |
| DATE: | September 12, 2016 |

I am pleased to present the Secretary of Administration and the Higher Education Subcommittee ("Subcommittee") of the Prekindergarten-16 Council with the State Treasurer's seventeenth annual report on the Higher Education Endowment Trust Fund ("the Fund").

The General Assembly established the Fund in the Office of the State Treasurer in 1999 to provide non-loan financial aid to Vermont students attending the University of Vermont (UVM), the Vermont State Colleges, and other Vermont post-secondary institutions (16 V.S.A. § 2885).

Performance Summary

During fiscal year 2016, the Fund's investment return was 2.5% net of fees. This performance is in line with the policy on a gross of fee basis. Note that as of December 2013, the investments are comprised of index fund positions as a result of a Fund restructuring. The result of the restructuring has been an annual fee reduction of 32 basis points (0.38% to 0.06%). Additionally, a more diversified asset allocation that includes international and emerging market equities has been adopted by the Treasurer's office.

5% Distribution based on Fiscal Year 2016 balances

The statute 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, and the Vermont Student Assistance Corporation (VSAC); however, the amount distributed cannot exceed an amount that would bring the Fund balance below total contributions to principal. If the later condition cannot be met, the distribution must be reduced accordingly. Total principal contributions through June 30, 2016 have been \$29,038,711.25. The 5% distribution available this year has been reduced to 3.83% and is equal to \$1,153,297 in total or \$384,432 each for UVM, the Vermont State Colleges, and VSAC. The original 5% would have been equal to \$1,505,318, and the reduction was \$352,020. Appendix

A to this report includes quarterly market values and distributions for fiscal year 2016, and Chart #1 shows principal contributions to date.

2% Distribution based on Fiscal Year 2015 balances

16 V.S.A. § 2885 further provides that during the first quarter of each fiscal year, the Secretary 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 distributed cannot exceed an amount that would bring the Fund balance below total contributions to principal. Further, each institution is required to match the distribution by raising private donations of at least twice the distributed amount, to certify to the Commissioner of Finance and Management ("the Commissioner") that it received private donations in the requisite amount, and that the funds will be used to create or increase a permanent endowment at the respective institution.

At their September 30, 2015 meeting, the Secretary and the Subcommittee decided to forgo this 2% distribution to UVM and the Vermont State Colleges, based upon recognition that lower expected returns in the near term did not support a total distribution of 7% from the Fund. However, the 2% distribution would not have been available to them regardless of this decision, because the fund balance fell below the principal threshold to allow for the 2% distribution pursuant to statute.

Fund Balances

After payments of \$1,153,297, the Fund balance at the end of fiscal year 2016 totals \$29,038,711. An accounting of the Fund balance is provided below:

| Ending balance FY 2015 | | | \$30,888,836 |
|--------------------------------|-----------------|--|---------------|
| | FY15 Contribu | tions received in FY 2016 | \$54,006 |
| Opening balance FY 2016 | | | \$30,942,842 |
| | Distributions | FY2015 | |
| | 5%: | University of Vermont | (\$506,785) |
| | | Vermont State Colleges | (\$506,785) |
| | | Vermont Student Assistance Corp. | (\$506,785) |
| | 2%: | University of Vermont | \$0 |
| | | Vermont State Colleges | \$0 |
| | Income earned | d FY 2016 | \$856,793 |
| | Appreciation (| Depreciation) FY 2016 | (\$84,393) |
| | Fees and Othe | er Charges FY 2016 | (\$2,878) |
| Balance June 30, 2016 | | | \$30,192,009 |
| | Statutory Dis | tributions FY2016 ¹ | |
| | 5% of 12-Qua | rter Moving Average as of June 30, 2016 | (\$1,505,318) |
| | | rter Moving Average as of June 30, 2016 | (\$608,142) |
| | Total Statutory | V Distribution Projected | (\$2,113,460) |
| Total contributions as of June | e 30, 2016 | | \$29,038,711 |
| | • | ent to the Statutory Distribution to | |
| | maintain the P | rincipal Balance level required by statute | (\$960,162) |
| | | 5% Distribution Adjusted -23.4% | (\$352,020) |
| | | 2% Distribution Adjusted -100% | (\$608,142) |
| | | ion Adjusted to Maintain the Principal as Required by Statute | \$1,153,297 |
| Balance after distributions | | | \$29,038,711 |
| | | vailable for Endowments from FY 2017 an institutional match in FY 2017) | \$602,127 |

¹ Assuming statutory levels (5% distribution & 2% distribution) without regard to statutory requirement to keep balance at or above the total principal contributions.

2% Distribution based on Fiscal Year 2016 balances

All principal contributions to the Fund through June 30, 2016 total \$29,038,711, which also represents the minimum balance that must be maintained in the Fund. The 2% distribution

proposed for fiscal year 2017 is \$602,127. It is possible that neither the 5% nor 2% distribution next year could be met in full unless returns during the next year are sufficient to cover these amounts. That said, if returns were sufficient to make the funds available and if the Secretary and the Subcommittee authorize this distribution, each institution's share would be \$301,064 with a required match to be raised by each entity in FY 2017 of \$602,127. To re-emphasize, any distribution in the next fiscal year is dependent upon the Fund's balance being greater than \$29,038,711 after the distributions have been made. The attached **Chart #2** provides a graphical depiction of authorized distributions, including this 2% distribution subject to the Secretary's and the Subcommittee's approval.

Fund Distributions

Appendix B to this report shows the total return of the entire Trust Investment Account ("Account"), of which the Higher Education Endowment Trust Fund, with a balance of \$30.2 million comprises approximately 49.8%. A State Employee's retirement benefit trust fund comprises 31.8% of the account, or \$19.3 million, and the remaining is made up of the ANR Stewardship Fund, the Tobacco Trust Fund, two Fish and Wildlife Trust funds, two Veterans' Home trust funds, and other small trusts. **Chart #3** displays the relative share of the Higher Education Endowment Trust Fund compared to the entire Trust Investment Account.

Chart #4 presents the Fund's balances, inclusive of distributions, for fiscal years 2000 through 2016. Examining the intermediate term period there is a tale of two halves. Fiscal years 2009-2011 were marked by large contributions and strong performance, which easily allowed for the 5% distribution to the systems. The years that followed, fiscal years 2012-2016, have experienced lessened returns due to the Federal Reserve's and other central banks' policies that have diminished overall returns across all asset classes. As a result, the three year annualized return during this period has dipped below the necessary 5% for a full distribution to the systems for the first time. The Treasurer's office anticipates returns will be muted in the coming years due to these continued central bank policies of keeping interest rates low to stimulate economic activity globally.

Asset Allocation, Investment Managers and Performance

The Trust Investment Account's target asset allocation is 60% fixed income securities and 40% equities, with the equity allocation being comprised of Large Cap US Equities (20%), International Equities (15%) and Emerging International Equities (5%). As of June 30, 2016, the Account's actual allocation was in line with this target. This asset allocation represents the second year of performance with the new asset allocation, which no longer utilizes active management. This change was made in order to take advantage of a broader range of asset classes at a reduced fee. To minimize transaction costs, the Account is rebalanced semi-annually on March 31 and September 30, and other contributions and withdrawals from the various funds are used to "fine tune" the asset allocation during the year.

The Account currently utilizes four Vanguard mutual funds: Institutional Index (VINIX), Developed Markets Index (VTMNX), Emerging Markets Stock Index (VEMAX) and Total Market Bond Index (VBTIX), creating exposures to three equity asset classes and a broad range of fixed income. Annual fees have also been reduced by 32 basis points to 6 basis points. Historically, the Account achieved modest positive returns in both FY 2008 and FY 2009, during some of the worst financial market conditions since the 1930s, and has achieved sufficient returns to fully fund required distributions in fiscal years 2010 through 2015. The Treasurer's Office has been mindful of the need to balance the allocations to equity and fixed-income assets given the expectation for annual distributions from the Fund while maintaining an appropriate risk profile. In the past, the asset allocation structure has enabled the Fund to perform reasonably well in both adverse and positive markets, reinforcing the belief in the appropriateness of a diversified structure. However, the outlook for lower returns across all asset classes over the intermediate term horizon required the Treasurer's Office to re-evaluate its approach in fiscal year 2014. During the second fiscal quarter of 2014 the Fund was transitioned away from four active managers and into two index funds, at the same time that the equity allocation was increased. Specifically, an allocation of 30% to domestic equity and 70% to mortgage-backed securities was changed to 40% domestic equity and 60% broad fixed income. This was accomplished by investments in the Vanguard Institutional Index and the Vanguard Total Market Bond Index. Also at this time the policy benchmark was changed from an 30% S&P 500/70% MBS mix to 40% S&P 500/60% Barclays Aggregate Bond Index. The actual allocation and policy were further refined at the end of FY 2014 to include exposure to Developed Markets Index and Emerging Markets Stock Index funds. Market performance in FY 2015 and FY 2016 is reflective of the diminished return environment markets are experiencing due to the Federal Reserve's and other central banks' policies, which the Treasurer's office has been anticipating for the intermediate term. Appendix B presents a review of performance during the past fiscal year.

The international equity portion of the allocation, while a diversifying position expected to help reduce the overall volatility in the fund's equity allocation in the long run, was a detractor from the Fund's overall return for fiscal year 2016. This short term underperformance is linked to the global volatility caused most recently by the slowing global markets, specifically Europe and China, and continued volatility injected into the markets due to central bank activities. As of the date of this report, emerging markets have rebounded over 6% since June 30, 2016.

Staff believes that the longer term investment horizon of the Fund justifies maintaining the equity weighting in the portfolio despite expectations of eventual interest rate increase by the Federal Reserve and other Central Banks. International equities have generally underperformed US equities, but they benefit currently from better valuation characteristics relative to US equities that have done well in the intermediate term (5-7 years). Staff also believes that interest rate hikes would need to be much larger and sharper than expected in order for the exposure to a broad fixed income index to suffer substantial losses. Finally, softness in a variety of macroeconomic factors over the past year suggest that the Central Banks are inclined to be cautious when increasing interest rates.

Fund Management Philosophy

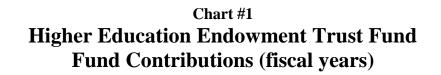
Staff believes that a dependence upon manager performance relative to benchmarks, or alpha, is counterproductive, especially for relatively established asset classes. We believe that administrative effort is better spent analyzing optimal portfolio allocations using total return, standard deviation, and correlation assumptions available from professional investment advisors,

and then constructing a portfolio with the lowest expected risk relative to the Account's return objectives.

This philosophy is now reflected in the Account through the use of low-fee, highly liquid indexing vehicles, such as mutual funds (and possibly in the future, exchange-traded funds). This will allow the Treasurer's Office Staff the opportunity to diversify the Fund by evaluating additional asset classes and to structure the portfolio in a manner best suited to meet the Fund's risk and return objectives.

Please feel free to contact me if you have any questions or concerns regarding this report.

cc: Andrew Pallito, Commissioner of Finance & Management Luke Martland, Director & Chief Legislative Counsel Rebecca Wasserman, Legislative Counsel



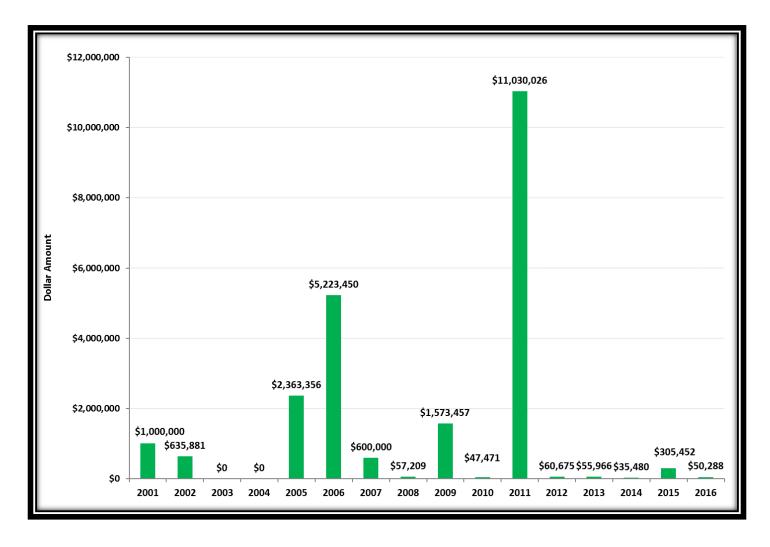
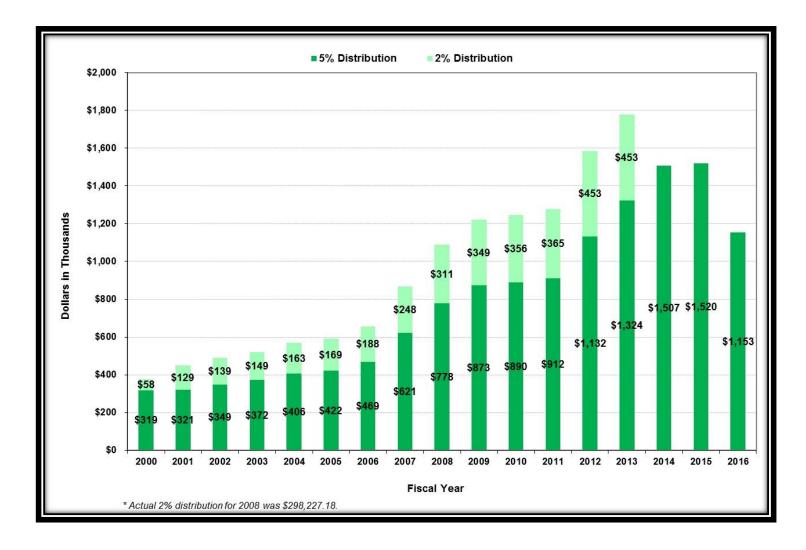
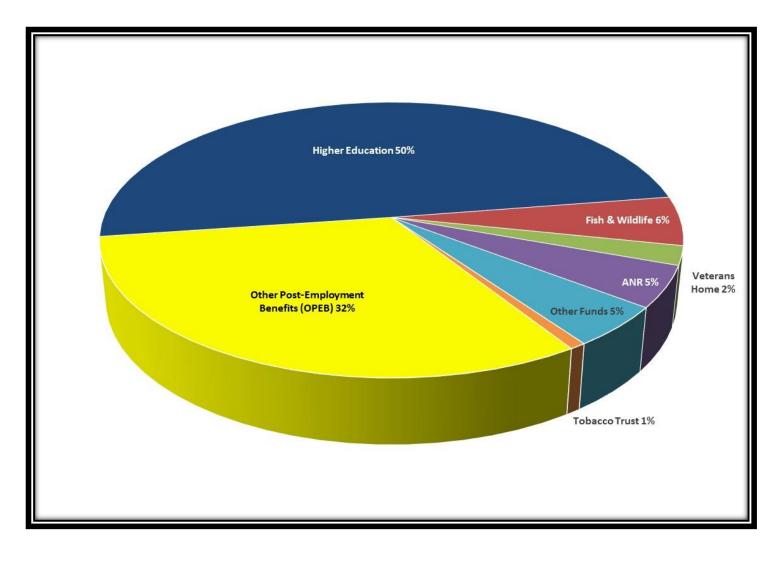
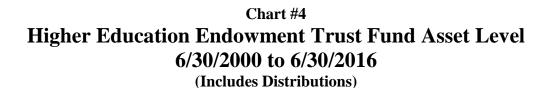


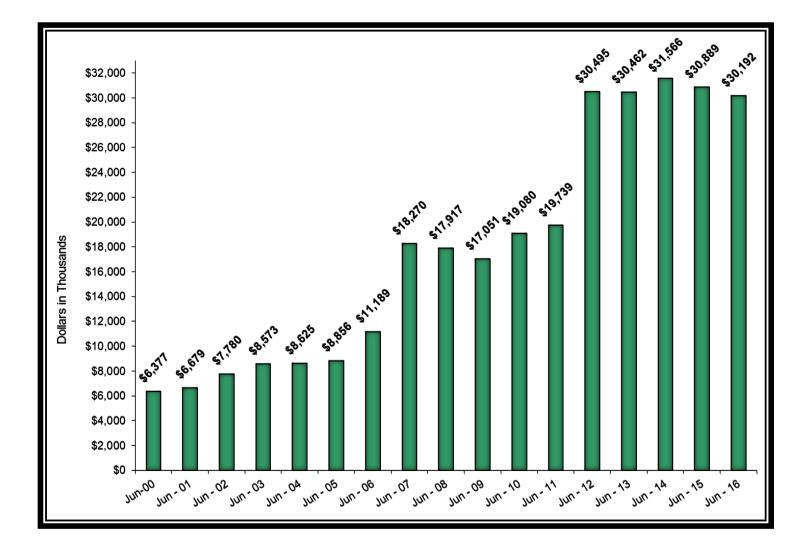
Chart #2 Higher Education Endowment Trust Fund Authorized Distributions by Year and Type











| Fiscal Year 2016 Analysis | | | | | |
|---|------------------------------------|--|--------------|------------------------------|------------------------------|
| Quarter-End Balances | <u>9/30</u> | <u>12/31</u> | <u>3/31</u> | <u>6/30</u> | |
| FY2014 | \$29,129,710 | \$30,035,917 | \$30,577,102 | \$31,566,056 | |
| FY2015 | \$30,125,526 | \$30,491,326 | \$31,125,036 | \$30,888,836 | |
| FY2016 | \$28,563,172 | \$28,988,572 | \$29,592,949 | \$30,192,009 | |
| Twelve Quarter Average | \$30,106,351 | | | | |
| | | | | ntributions | |
| 5% Distribution 2016 (Proj) | \$1,505,318 | | Init | | \$6,000,000 |
| VSAC | | \$501,773 | 20 | | \$1,000,000 |
| UVM | | \$501,773 | 20 | 02 | \$635,881 |
| VSC | | \$501,773 | 200 | 03 | \$0 |
| | | | 200 | 04 | \$0 |
| 5% Distribution 2016 (Actual) | \$1,153,297 | | 20 | 05 | \$2,363,356 |
| VSAC | | \$384,432 | 20 | 06 | \$5,223,450 |
| UVM | | \$384,432 | 20 | 70 | \$600,000 |
| VSC | | \$384,432 | 20 | 08 | \$57,209 |
| | | . , | 20 | 09 | \$1,573,457 |
| 2% FY2016 (Projected) | \$608,142 | < From prior year | 20 | | \$47,471 |
| UVM | ···· | \$304,071 | 20 | | \$11,030,026 |
| VSC | | \$304,071 | 20 | | \$60,675 |
| | | <i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i> | 20 | | \$55,966 |
| 2% FY2016 (Actual) | \$0 | | 20 | | \$35,480 |
| UVM | V U | \$0 | 20 | | \$305,452 |
| VSC | | \$0 \$0 | 20 | | \$50,288 |
| 100 | | φυ | 20 | | φ00,200 |
| Balance after Distributions | \$29,038,711 | | 20 | | |
| Datatice after Distributions | φ 2 9,030,711 | | 20 20 | | |
| 2% FY2017 (Projected) | \$602 127 | < From prior year | 20 | | |
| UVM | φυυ 2 , 127 | \$301,063.51 | 20. | | |
| VSC | | \$301,063.51 | Tot | | \$29,038,711 |
| <u>Shortfall</u> | | | Ch | ortfall >0? | YES |
| 2% Distribution Shortfall | (\$960,162) | | 011 | | . 20 |
| Projected 2% | \$608,142 | | 6/3 | 0/2016 Balance | \$30,192,009 |
| Actual 2% | \$008,142 \$0 | | | 2016 5% Dist | (\$1,505,318) |
| 5% Distribution Shortfall | پو (\$352,020) | | | 2016 3% Dist 2016 2% Proj | (\$1,505,316) (\$608,142) |
| | | | | | |
| Projected 5% | \$1,505,318 | | | ntributions | (\$29,038,711) |
| Actual 5% Total Balance After Distributions | \$1,153,297 \$29,038,711 | | Tot | a | (\$960,162) |

| APPE | PENDIX B | m | | | | | | | | | | | |
|--|---------------------|------------|-------|------------------------------|--------|----------|--------|------------------------------|--------|----------|------------------|--------------------------------|--------|
| | | | | | | | | | | iscal Ye | ar End | Fiscal Year End Returns | 6 |
| Lickov Education Truck Eurod | Portfolio Portfolio | Portfolio | Ę | 1 2002 | | , vo o v | | | | 101 | , 10C | , 10C | , 10 C |
| nigher Education Irust Fund | Value | Allocation | מומ | Trear | o rear | Direar | / Tear | | | CTUZ | 7074 | CTUZ | 7107 |
| Fund Return 3 | 30,192,009 | | 2.0% | 2.5% | 4.9% | 4.7% | 6.2% | 6.0% | 2.5% | 2.4% | 9.9% | 5.3% | 3.6% |
| Vanguard Institutional Index Fund (VINIX) | 6,132,832 | 20% | 2.5% | 4.0% 11.6% 12.1% 14.9% | 11.6% | 12.1% | 14.9% | 7.4% | 4.0% | 7.4% | 7.4% 24.5% 20.6% | 20.6% | 5.4% |
| Vanguard Developed Markets Index Fund (VTMNX) | 4,230,795 | 14% | -0.2% | -0.2% -8.5% 4.1% 2.9% 6.9% | 4.1% | 2.9% | 6.9% | 2.4% | -8.5% | -0.2% | 23.5% | -8.5% -0.2% 23.5% 18.5% | -13.8% |
| Vanguard Emerging Markets Stock Index Fund (VEMAX) | 1,356,543 | 4% | 2.4% | 2.4% -12.1% -0.7% -3.5% 4.0% | -0.7% | -3.5% | 4.0% | 3.6% -12.1% -2.4% 14.1% 1.5% | -12.1% | -2.4% | 14.1% | | -15.8% |
| Vanguard Total Bond Market Index Fund (VBTIX) | 18,471,422 | 61% | 2.4% | 2.4% 6.1% 4.0% 3.7% 4.5% | 4.0% | 3.7% | 4.5% | 5.1% 6.1% 1.7% 4.3% -0.9% | 6.1% | 1.7% | 4.3% | -0.9% | 7.7% |

* As of 06/30/2016