VANDERBILT UNIVERSITY

Reports on the Audit of
Federal Financial Assistance Programs
in Accordance with the OMB Uniform Guidance
for the Year Ended June 30, 2019
EIN: 62-0476822

VANDERBILT UNIVERSITY

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Report of Independent Auditors

To the Board of Trust of Vanderbilt University

Report on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of Vanderbilt University and its subsidiaries ("the University"), which comprise the consolidated statements of financial position as of June 30, 2019 and 2018, and the related consolidated statements of activities and of cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the University's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Vanderbilt University and its subsidiaries as of June 30, 2019 and 2018, and the changes in their net assets and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.



Emphasis of Matter

As discussed in Note 2 to the consolidated financial statements, the University changed the manner in which it presents net assets and reports certain aspects of its financial statements as a not-for-profit entity in 2019. Our opinion is not modified with respect to this matter.

Other Matters

Other Information

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards for the year ended June 30, 2019 is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated, in all material respects, in relation to the consolidated financial statements taken as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 15, 2019 on our consideration of Vanderbilt University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters for the year ended June 30, 2019. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Vanderbilt University's internal control over financial reporting and compliance.

October 15, 2019

Pricewaterhouse Coopers LLP

Vanderbilt University Consolidated Statements of Financial Position

As of June 30, 2019 and 2018 (in thousands)

	2019		2018	
ASSETS				_
Cash and cash equivalents	\$	828,455	\$	602,652
Accounts receivable, net		88,328		159,903
Prepaid expenses and other assets		18,789		24,584
Contributions receivable, net		122,947		89,647
Promissory notes receivable		-		89,583
Student loans and other notes receivable, net		23,173		26,965
Investments		6,885,893		5,049,681
Investments allocable to noncontrolling interests		38,106		49,417
Property, plant, and equipment, net		1,196,792		1,093,621
Interests in trusts held by others		30,693		30,753
Total assets	\$	9,233,176	\$	7,216,806
LIABILITIES				
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Accounts payable and accrued liabilities	\$	111,171 86,103	\$	95,384 82,707
Accrued compensation and withholdings Deferred revenue		· · · · · · · · · · · · · · · · · · ·		,
		29,920		51,460
Deferred trademark revenue		1,344,670		25.602
Actuarial liabilities		33,544		35,603
Government advances for student loans		26,994		25,601
Commercial paper		-		114,602
Long-term debt		542,246		251,222
Fair value of securities sold short		362,309		240,447
Fair value of interest rate exchange agreements		22,742		28,089
Total liabilities		2,559,699		925,115
NET ASSETS				
Without donor restrictions, controlled by Vanderbilt		3,490,599		3,234,013
Without donor restrictions, related to noncontrolling interests		38,106		49,417
Total net assets without donor restrictions		3,528,705		3,283,430
With donor restrictions		3,144,772		3,008,261
Total net assets		6,673,477		6,291,691
Total liabilities and net assets	\$	9,233,176	\$	7,216,806

The accompanying notes are an integral part of the consolidated financial statements.

Vanderbilt University Consolidated Statement of Activities

Year Ended June 30, 2019 (in thousands)

	2019					
		Without	W	ith Donor		
	Dono	or Restriction	Restriction		Total	
REVENUES						
Tuition and educational fees, net	\$	319,301	\$	-	\$	319,301
Grants and contracts:						
Government sponsors		160,958		-		160,958
Private sponsors		27,656		-		27,656
Facilities and administrative costs recovery		60,408		-		60,408
Total grants and contracts		249,022		-		249,022
Contributions		27,325		116,458		143,783
Endowment distributions		170,967		110,481		281,448
Investment income		52,251		1,543		53,794
Room, board, and other auxiliary services, net		118,483		-		118,483
Trademark, license, and royalty revenue		107,850		-		107,850
Affiliated entity revenue		178,045		-		178,045
Other sources		90,297		-		90,297
Net assets released from restrictions		116,668		(116,668)		_
Total revenues and other support		1,430,209		111,814		1,542,023
EXPENSES						
Salaries, wages, and benefits		700,594		-		700,594
Supplies, services, and other		438,963		-		438,963
Interest expense		16,818		-		16,818
Depreciation		87,296		-		87,296
Grants to affiliate		25,335		-		25,335
Total expenses		1,269,006		-		1,269,006
Results of operations		161,203			•	
OTHER CHANGES IN NET ASSETS						
Change in appreciation of endowment, net of distributions		58,825		53,867		112,692
Appreciation of other investments, net of distributions		10,120		-		10,120
Change in appreciation of interest rate exchange agreements, net		(8,469)		-		(8,469)
Contributions for capital improvements		-		20,847		20,847
Net assets released from restrictions for capital improvements		46,145		(46,145)		-
Nonoperating net asset reclassifications		3,872		(3,872)		-
Other nonoperating activity		(15,110)		-		(15,110)
Total other changes in net assets		95,383		24,697		120,080
Increase in net assets controlled by Vanderbilt		256,586		136,511		393,097
Decrease in net assets related to noncontrolling interests		(11,311)		-		(11,311)
Total increase in net assets	\$	245,275	\$	136,511	\$	381,786
Net assets, June 30, 2018	\$	3,283,430	\$	3,008,261	\$	6,291,691
Net assets, June 30, 2019	\$	3,528,705	\$	3,144,772	\$	6,673,477

 $\label{the accompanying notes are an integral part of the consolidated financial statements.$

Vanderbilt University Consolidated Statement of Activities

Year Ended June 30, 2018 (in thousands)

	2018					
		Without	W	ith Donor		
	Donor Restriction		Restriction		Total	
REVENUES						_
Tuition and educational fees	\$	538,470	\$	-	\$	538,470
Less student financial aid		(239,628)		-		(239,628)
Tuition and educational fees, net		298,842		-		298,842
Grants and contracts:						
Government sponsors		151,580		-		151,580
Private sponsors		22,298		-		22,298
Facilities and administrative costs recovery		56,868		-		56,868
Total grants and contracts		230,746		-		230,746
Contributions		22,486		61,112		83,598
Endowment distributions		98,857		107,985		206,842
Investment income		25,672		10,434		36,106
Room, board, and other auxiliary services, net		110,522		-		110,522
Trademark, license, and royalty revenue		125,427		-		125,427
Affiliated entity revenue		174,633		-		174,633
Other sources		87,918		-		87,918
Net assets released from restrictions		110,324		(110,324)		-
Total revenues and other support		1,285,427		69,207		1,354,634
EXPENSES						
Salaries, wages, and benefits		655,736		-		655,736
Supplies, services, and other		413,453		-		413,453
Interest expense		11,223		-		11,223
Depreciation		86,753		-		86,753
Grants to affiliate		24,526		-		24,526
Total expenses		1,191,691		-		1,191,691
Results of operations		93,736				
OTHER CHANGES IN NET ASSETS						
Appreciation of endowment, net of distributions		101,328		198,317		299,645
Appreciation of other investments, net of distributions		29,736		-		29,736
Appreciation of interest rate exchange agreements, net		9,377		-		9,377
Contributions for capital improvements		195		21,624		21,819
Net assets released from restrictions for capital improvements		6,457		(6,457)		-
Nonoperating net asset reclassifications		(4,077)		4,077		
Total other changes in net assets		143,016		217,561		360,577
Increase in net assets controlled by Vanderbilt		236,752		286,768		523,520
Decrease in net assets related to noncontrolling interests		(12,188)		-		(12,188)
Total increase in net assets	\$	224,564	\$	286,768	\$	511,332
Net assets, June 30, 2017	\$	3,058,866	\$	2,721,493	\$	5,780,359
Net assets, June 30, 2018	\$	3,283,430	\$	3,008,261	\$	6,291,691

 $[\]label{the accompanying notes are an integral part of the consolidated financial statements.$

Consolidated Statements of Cash Flows

Years Ended June 30, 2019 and 2018 (in thousands)

Teas Linea June 30, 2017 and 2010 (in inousands)	2019		2018	
CASH FLOWS FROM OPERATING ACTIVITIES				
Change in total net assets	\$	381,786	\$	511,332
Adjustments to reconcile change in total net assets				
to net cash provided by (used in) operating activities:				
Change in net assets related to noncontrolling interests		11,311		12,188
Realized and unrealized gain on investments, net		(473,146)		(595,550)
Contributions for capital improvements and endowment		(111,465)		(55,391)
Contributions of donated securities		(22,653)		(16,717)
Proceeds from sale of donated securities		4,994		1,309
Depreciation		87,296		86,753
Amortization of bond discounts and premiums		(996)		(556)
Payments to terminate interest rate exchange agreements		(13,815)		17,318
Loss from disposals of property, plant, and equipment		4,892		660
Loss from sale of promissory note receivable		10,512		-
Net change in fair value of interest rate exchange agreements		(5,347)		(26,695)
Change in:				
Accounts receivable, net of accrued investment income		71,723		(13,055)
Prepaid expenses and other assets		5,795		(5,198)
Contributions receivable, net		(33,300)		(19,946)
Interests in trusts held by others		196		5,970
Accounts payable and accrued liabilities, net of nonoperating items		(6,572)		6,598
Accrued compensation and withholdings		3,396		(2,248)
Deferred revenue		(21,540)		3,050
Deferred trademark revenue		1,344,670		-
Actuarial liabilities		(2,059)		(1,418)
Net cash provided by (used in) operating activities		1,235,678		(91,596)
CASH FLOWS FROM INVESTING ACTIVITIES				
Purchases of investments		(11,022,570)		(7,939,736)
Proceeds from sales of investments		9,781,230		7,798,906
Purchases of investments allocable to noncontrolling interests		(497)		(660)
Proceeds from sales of investments allocable to noncontrolling interests		11,450		18,160
Change in accrued investment income		(148)		83
Payments to terminate interest rate exchange agreements		13,815		(17,318)
Acquisitions of property, plant, and equipment		(173,000)		(156,555)
Proceeds from sale of promissory notes receivable		79,071		4,583
Student loans and other notes receivable disbursed		(2,203)		(2,019)
Principal collected on student loans and other notes receivable		5,995		6,699
Net cash used in investing activities	-	(1,306,857)		(287,857)
CASH FLOWS FROM FINANCING ACTIVITIES		(1,500,037)		(207,037)
Contributions for capital improvements and endowment		111,465		55,391
Change in government advances for student loans		1,393		1,190
Payments to retire or defease debt		(122,582)		(7,830)
Proceeds from debt refinancing		300,000		(7,050)
Proceeds from sale of donated securities restricted for capital improvements and endowment		17,659		15,408
Proceeds from noncontrolling interests in investment partnerships		497		660
Payments to noncontrolling interests in investment partnerships				(18,160)
Net cash provided by financing activities		(11,450) 296,982		46,659
Net increase (decrease) in cash and cash equivalents		225,803		(332,794)
Cash and cash equivalents at beginning of year	6	602,652	en en	935,446
Cash and cash equivalents at end of year	\$	828,455	\$	602,652
Supplemental disclosure of cash flow information:				
Cash paid for interest	\$	16,694	\$	14,185
Donated securities		22,653		16,717
Accrued liabilities related to additions of property, plant, and equipment		35,616		13,257

 $\label{the consolidated financial statements.}$ The accompanying notes are an integral part of the consolidated financial statements.}

Vanderbilt University Notes to the Consolidated Financial Statements

1. ORGANIZATION

The Vanderbilt University ("Vanderbilt" or the "university") is a private, coeducational, not-for-profit, nonsectarian institution located in Nashville, Tennessee. Founded in 1873, Vanderbilt owns and operates educational and research facilities as part of its mission to be a leading center for informed and creative teaching, scholarly research, and public service. Vanderbilt provides educational services to approximately 6,900 undergraduate and 6,000 graduate and professional students enrolled across its 10 schools and colleges.

The consolidated financial statements include the accounts of all entities in which Vanderbilt has a significant financial interest and over which Vanderbilt has control.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The consolidated financial statements have been prepared on the accrual basis in accordance with U.S. generally accepted accounting principles ("GAAP"). Vanderbilt eliminates all material intercompany accounts and transactions in consolidation.

Net Asset Classifications

Based on the existence or absence of donor-imposed restrictions, Vanderbilt classifies resources into two categories: without donor restrictions and with donor restrictions.

Net assets without donor restrictions are free of donor-imposed restrictions. This classification includes all revenues, gains, and losses not restricted by donors. Vanderbilt reports all expenses as decreases in net assets without donor restrictions.

Net assets with donor restrictions are subject to donor-imposed restrictions that will be met by either actions of Vanderbilt or the passage of time. These net assets may include unconditional pledges, split-interest agreements, interests in trusts held by others, and donor-restricted endowments. Generally, the donor-imposed restrictions of these assets permit Vanderbilt to use a portion of the income earned on related investments for specific purposes.

Vanderbilt reports expirations of donor restrictions on net assets, (i.e., the passage of time and/or fulfillment of donor-imposed stipulations), as net assets released from restrictions between the applicable net asset classes in the consolidated statements of activities.

Cash and Cash Equivalents

Cash and cash equivalents are liquid assets with minimal interest rate risk and maturities of three months or less when purchased. Such assets, reported at fair value, primarily consist of depository account balances, money market funds, and short-term U.S. Treasury securities. Cash designated for investment is included within investments in the accompanying consolidated statements of financial position.

Prepaid Expenses and Other Assets

Prepaid expenses and other assets primarily represent prepaid expenses and other segregated investment-related assets managed by third parties related to a legacy deferred compensation program that are earmarked to ultimately settle certain liabilities recorded in accrued payroll and withholdings. Vanderbilt excludes this latter group of assets, reported at fair value, from the investments category since it will not directly benefit from the investment return.

Promissory Note Receivable

Vanderbilt University Medical Center (VUMC) issued to Vanderbilt a \$100 million promissory note (seller financing) paid over a 20-year period, \$5 million annually at 3.25% interest. In July 2018, Vanderbilt sold the remaining \$89.6 million balance of the promissory note receivable.

Fair Value Measurements

Fair value measurements represent the price received to sell an asset or price paid to transfer a liability in an orderly transaction between market participants at the measurement date. GAAP provides a hierarchy for fair value measurements based on the observable inputs to the valuation of an asset or liability at the measurement date. Inputs to the valuation techniques used are prioritized to measure fair value by giving the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to measurements involving significant unobservable inputs (Level 3 measurements).

Vanderbilt gives consideration to certain investment funds that do not have readily determinable fair values including private investments, hedge funds, real estate, and other funds. Vanderbilt uses net asset value per share or its equivalent in estimating the fair value of interests in

investment companies for which a readily determinable fair value is not available. Pursuant to ASU 2015-07, Vanderbilt reports these assets separately within the fair value hierarchy.

Investments

Vanderbilt reports investments at fair value using the three-level hierarchy established under GAAP. After review and evaluation, Vanderbilt utilizes estimates provided by fund managers for certain alternative investments, mainly investments in limited partnerships where a ready market for the investments does not exist.

Vanderbilt has exposure to a number of risks including liquidity, interest rate, counterparty, basis, tax, regulatory, market, and credit risks for both marketable and nonmarketable securities. Due to the level of risk exposure, it is possible that near-term valuation changes for investment securities will occur to an extent that could materially affect the amounts reported in Vanderbilt's financial statements.

Vanderbilt sometimes uses derivatives to manage investment market risks and exposure. The consolidated financial statements contain derivatives, which consist of both internally managed transactions and those entered into through external investment managers, at fair value. The most common instruments utilized are futures contracts and hedges against currency risk for investments denominated in currencies other than U.S. dollars. For internally managed transactions, Vanderbilt utilizes futures contracts with durations of less than three months.

Vanderbilt records purchases and sales of securities on the trade dates, and realized gains and losses are determined based on the average historical cost of the securities sold. Vanderbilt reports net receivables and payables arising from unsettled trades as a component of investments.

Unless donor-restricted endowment gift agreements require separate investment, Vanderbilt manages all endowment investments as an investment pool.

Investments Allocable to Noncontrolling Interests and Net Assets Related to Noncontrolling Interests

Vanderbilt reports the respective assets for entities in which other organizations are minority equity participants at fair value as investments allocable to noncontrolling interests on the consolidated statements of financial position.

The balance representing such organizations' minority or noncontrolling interests is recorded based on contractual provisions, which represent an estimate of a settlement value assuming the entity was liquidated in an orderly fashion as of the report date.

Split-Interest Agreements and Interests in Trusts Held by Others

Vanderbilt's split-interest agreements with donors consist primarily of irrevocable charitable remainder trusts, charitable gift annuities, and life income funds for which Vanderbilt serves as trustee. Vanderbilt reports assets held in these trusts in investments at fair value. Vanderbilt recognizes contribution revenue at the dates the trusts are established, net of the liabilities for the present value of the estimated future payments to the donors and/or other beneficiaries. Annually, Vanderbilt records the change in fair value of split-interest agreements based on the assets that are associated with each trust and recalculates the liability for the present value of the estimated future payments to the donors and/or other beneficiaries.

Vanderbilt is also the beneficiary of certain trusts held and administered by others. Vanderbilt records its share of these trust assets at fair value as interests in trusts held by others with any resulting gains or losses reported as investment income with donor restrictions.

Property, Plant, and Equipment

Purchased property, plant, and equipment, recorded at cost, includes, where appropriate, capitalized interest on construction financing. Vanderbilt capitalizes donated assets at fair value on the date of donation, expenses repairs and maintenance costs as incurred, and expenses additions to the library collection at the time of purchase.

Vanderbilt calculates depreciation using the straight-line method to allocate the cost of various classes of assets over their estimated useful lives. Vanderbilt follows the half-year convention to calculate depreciation associated with construction-related assets (e.g., land improvements, buildings, leasehold improvements, and fixed equipment). Under the half-year convention, Vanderbilt treats fixed assets constructed during the year as if placed in service on January 1, regardless of in-service date. All other purchased assets (e.g., moveable equipment) begin depreciation on the in-service date. Vanderbilt removes property, plant, and equipment from the accounting records upon disposal.

Conditional asset retirement obligations related to legal requirements to perform certain future activities associated with the retirement, disposal, or abandonment of assets are accrued utilizing site-specific surveys to estimate the net present value for applicable future costs (e.g., asbestos abatement or removal).

Vanderbilt reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Vanderbilt recognizes an impairment charge when the fair value of the asset or group of assets is less than the carrying value.

Debt Portfolio Financial Instruments

Vanderbilt reports long-term debt at carrying value. The carrying value of Vanderbilt's debt is the par amount adjusted for the net unamortized amount of bond premiums and/or discounts. Vanderbilt utilizes interest rate exchange agreements as part of its debt portfolio management strategy. The consolidated statements of activities include any gain or loss resulting from recording the fair value of derivative financial instruments as a nonoperating item.

Parties to interest rate exchange agreements are subject to risk for changes in interest rates as well as risk of credit loss in the event of nonperformance by the counterparty. Vanderbilt deals only with high-quality counterparties that meet rating criteria for financial stability and credit worthiness. Additionally, the agreements require the posting of collateral when amounts subject to credit risk under the contracts exceed specified levels.

Contributions

Vanderbilt recognizes unconditional promises to give (pledges) as contribution revenue upon receipt of a commitment from the donor, with payments due in future periods reported as increases in net assets with donor restrictions at the estimated present value of future cash flows. Vanderbilt recognizes pledges net of an allowance for amounts estimated to be uncollectible based upon past collection experience and other judgmental factors.

Vanderbilt records contributions with donor-imposed restrictions as net assets without donor restrictions revenue if the university receives the contribution and meets the restrictions in the same reporting period. Otherwise, Vanderbilt records contributions with donor-imposed restrictions as increases in net assets with donor restrictions.

After meeting donor stipulations, Vanderbilt releases contributions from restriction and recognizes these contributions as net assets without restriction. Vanderbilt releases from restrictions contributions for capital improvements and recognizes these contributions as nonoperating revenue when the related asset is placed in service.

In contrast to unconditional promises, Vanderbilt does not record conditional promises (primarily bequest intentions and conditional grants) until the university meets donor stipulations.

Measure of Operations

The university's measure of operations, the change in net assets without donor restriction from operating activity, as presented in the consolidated statement of activities includes revenue from tuition and fees (net of financial aid), grants and contracts, trademark revenue, revenue from affiliates, contributions for operating programs, endowment distributions in support of operations, and other revenues. Vanderbilt reports operating expenses on the consolidated statement of activities by natural classification.

The university's nonoperating activity within the consolidated statement of activities includes endowment and other investment returns, changes in the fair value of derivative financial instruments, contributions for capital improvements, and other nonrecurring items.

Income Taxes

Vanderbilt is a tax-exempt organization as described in Section 501(c)(3) of the Internal Revenue Code ("the Code"), and generally is exempt from federal income taxes on related income pursuant to Section 501(a) of the Code. Vanderbilt is, however, subject to federal and state income tax on unrelated business income, and provision for such taxes is included in the accompanying consolidated financial statements. Vanderbilt regularly evaluates its tax position and does not believe it has any material uncertain tax positions that require disclosure or adjustment to the consolidated financial statements.

Use of Estimates

The preparation of financial statements requires the use of estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses during the reporting period as well as the disclosure of contingent assets and liabilities. Actual results could differ from these estimates.

Newly Adopted Accounting Standards

On July 1, 2018, Vanderbilt retrospectively adopted ASU 2016-14, Presentation of Financial Statements for Not-for-Profit Entities, which revises the not-for-profit reporting model. This guidance requires Vanderbilt to (1) collapse the three-category (unrestricted, temporarily restricted, and permanently restricted) classification of net assets into two categories: with donor restrictions and without donor restrictions (2) recognize underwater endowment funds as a reduction in net assets with donor restrictions versus net assets without donor restrictions, and (3) release from restriction contributions for capital improvements when the related asset is placed in service. In addition, the new guidance requires Vanderbilt to make certain expanded disclosures relating to (1) the liquidity of financial assets, and (2) expenses by both their natural and functional classification in one location in the financial statements. As a result of implementing this standard, prior year amounts for temporarily restricted and permanently restricted net assets were combined as net assets with donor restrictions. Vanderbilt restated net assets as of June 30, 2017 and 2018 as follows:

	Without donor restrictions	With donor restrictions	Total net assets
June 30, 2017 net assets as previously reported:			
Unrestricted	\$ 3,069,721	\$ -	\$ 3,069,721
Temporarily restricted	-	1,385,442	1,385,442
Permanently restricted	-	1,325,196	1,325,196
	3,069,721	2,710,638	5,780,359
Reclassifications to implement 2016-14:			
Underwater endowments	4,024	(4,024)	-
Expiration of capital restrictions	(14,879)	14,879	-
Reclassifications to 2017	(10,855)	10,855	-
June 30, 2017 net assets, as restated	\$ 3,058,866	\$ 2,721,493	\$ 5,780,359

	Without donor restrictions	With donor restrictions	Total net assets
June 30, 2018 net assets as previously reported:			
Unrestricted	\$ 3,311,041	\$ -	\$ 3,311,041
Temporarily restricted	-	1,584,261	1,584,261
Permanently restricted	-	1,396,389	1,396,389
	3,311,041	2,980,650	6,291,691
Reclassifications to implement 2016-14:			
Underwater endowments	(3,502)	3,502	-
Expiration of capital restrictions	(13,254)	13,254	-
Reclassifications to 2018	(16,756)	16,756	-
Reclassifications to 2017	(10,855)	10,855	-
June 30, 2018 net assets, as restated	\$ 3,283,430	\$ 3,008,261	\$ 6,291,691

On July 1, 2018, Vanderbilt adopted ASU 2014-09, Revenue from Contracts with Customers and all subsequent amendments to the ASU (collectively, "ASC 606"), which supersedes most existing revenue recognition guidance and outlines a single comprehensive standard for revenue recognition across all industries. ASC 606 requires revenue to be recognized in an amount that reflects the consideration the entity expects to be entitled in an exchange of goods or services. Vanderbilt adopted ASC 606 using the modified retrospective method applied to all contracts not completed as of July 1, 2018. Vanderbilt performed an analysis of revenue streams and transactions to determine in-scope applicability. The revenue streams considered in-scope for purposes of ASC 606 include: Tuition and educational fees, net; Contracts, Room, board, and other auxiliary; Trademark, license and royalty revenue; Affiliated entity revenue; and Other sources. Vanderbilt recognizes revenues that fall within the scope of ASC 606 as it satisfies its obligation to the customer. The adoption of ASC 606 did not result in a material change to the accounting for any of the in-scope revenue streams; as such, Vanderbilt did not record a cumulative effect adjustment.

On July 1, 2018, Vanderbilt adopted ASU 2018-08, Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made. The adoption of this ASU resulted in the treatment of most federal grants as donor-restricted conditional contributions rather than exchange transactions. The new standard also clarified the criteria for evaluating whether contributions are unconditional or conditional. Vanderbilt adopted the provisions of ASU 2018-08 in fiscal 2019. The adoption of this ASU did not materially impact the consolidated financial statements and related disclosures.

On July 1, 2018, Vanderbilt adopted ASU 2017-02, Clarifying When a Not-for-Profit Entity that Is a General Partner or a Limited Partner Should Consolidate a For-Profit Limited Partnership or Similar Entity, which amends the consolidation guidance for not-for-profit entities in ASC 958-810. This ASU clarifies the model used by not-for-profit entities to evaluate investments in limited partnerships. This ASU retains the presumption (previously eliminated by ASU 2015-02) that a not-for-profit entity that is a general partner of a for-profit limited partnership or similar entity controls the limited partnership, unless that presumption can be overcome. Not-for-profit investors in a limited partnership or a similar entity will continue to apply a presumption that the general partner has control and should consolidate the investments unless substantive kick-out or participating rights held by any limited partners overcome that presumption. The adoption of this ASU did not affect the consolidated financial statements and related disclosures.

Recent Accounting Pronouncements

In January 2016, the FASB issued ASU 2016-01, Financial Instruments – Overall: Recognition and Measurement of Financial Assets and Financial Liabilities. ASU 2016-01 affects all entities that hold financial assets or owe financial liabilities and primarily affects the accounting

for equity investments, financial liabilities under the fair value option, and the presentation and disclosure requirements for financial instruments. The standard is effective for entities that are not considered public business entities for annual periods beginning after December 15, 2018. Vanderbilt early adopted the provisions of ASU 2016-01 eliminating the fair value disclosures for financial instruments not recognized at fair value for fiscal 2016. Vanderbilt plans to adopt the remaining provisions of ASU 2016-01 by fiscal 2020 and is currently evaluating the effect of adoption to the financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases. ASU 2016-02 requires recognition of rights and obligations arising from lease contracts, including existing and new arrangements, as assets and liabilities on the balance sheet. ASU 2016-02 is effective for annual reporting periods beginning after December 15, 2018. Vanderbilt's adoption of the new standard in fiscal 2020 will require extensive quantitative and qualitative financial statement disclosures regarding the university's lease arrangements and balance sheet presentation of right of use assets and lease liabilities representative of the university's discounted future lease payments. Vanderbilt continues to assess the impact of adoption with respect to the university's policies and procedures.

In August 2018, the FASB issued ASU 2018-13, Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement. ASU 2018-13 modifies and eliminates certain existing provisions and introduces new fair value measurement disclosure requirements. ASU 2018-13 is effective for fiscal periods beginning after December 15, 2019 with early adoption permitted. Vanderbilt is currently evaluating the effect of adoption to the financial statements.

3. LIQUIDITY AND AVAILABILITY

Financial assets available for general expenditure within one year of June 30 were as follows (in thousands):	2019
Total assets	\$ 9,233,176
Less nonfinancial assets:	
Property, plant, and equipment, net	1,196,792
Prepaid expenses and other assets	18,789
Less assets unavailable for general expenditure within one year:	
Endowment funds, including institutional endowments ¹	6,633,185
Contributions receivable, greater than one year	76,739
Interests in trusts held by others and investments allocable to minority interests	68,799
Annuities, trusts and other illiquid investments	29,041
Student Loans and other notes receivable, net	23,173
Financial assets available within one year	\$ 1,186,658

¹Total endowment funds as of June 30, 2019 is \$6,270.9 million and is net of securities sold short of \$362.3 million reflected in "Fair value of securities sold short" in the Consolidated Statements of Financial Position.

Vanderbilt has \$1,186.7 million of financial assets that are available within one year of the balance sheet date to meet cash needs for general expenditure consisting of cash of \$828.5 million, accounts receivable of \$88.3 million, contributions receivable, less than one year of \$46.2 million, and short-term investments of \$223.7 million.

Vanderbilt manages its financial assets for availability when its operating expenditures, liabilities and other obligations come due. In addition, Vanderbilt invests cash in excess of daily requirements in short-term investments or fixed income securities. To supplement working capital and investment commitments, Vanderbilt had a general line of credit totaling \$250.0 million as of June 30, 2019, with no outstanding borrowings under this agreement. The line of credit agreement expires in September 2019. Vanderbilt's commercial paper limitation is \$200.0 million; the university had no amounts outstanding under this limitation as of June 30, 2019. Vanderbilt never has borrowed against general use lines of credit to support operations.

Vanderbilt provides liquidity support for debt with short-term remarketing periods through self-liquidity. Additionally, Vanderbilt has institutional endowments of \$3,238.4 million as of June 30, 2019. Although Vanderbilt does not intend to spend from its institutional endowment funds, other than amounts appropriated for general expenditure as part of its annual budget approval and appropriation process, amounts from its institutional endowment funds could be made available if necessary. However, both the endowments with donor-restrictions and institutional endowments contain investments with lock-up provisions that would reduce the total investments that could be made available (refer to Notes 7 and 13 for disclosures about investments).

4. ACCOUNTS RECEIVABLE

The major components of accounts receivable as of June 30 were as follows (in thousands):

The major components of accounts receivable as of valie 30 were as follows (a	2019	2018
Secondary sale	\$ -	\$ 71,473
VUMC related agreements	42,431	24,479
Research and sponsored programs	34,729	46,069
Tuition and fees	2,352	8,134
Accrued investment income	1,337	1,189
Other	8,538	9,921
Accounts receivable	89,387	161,265
Less: Allowance for uncollectible amounts	(1,059)	(1,362)
Accounts receivable, net	\$ 88,328	\$ 159,903

Vanderbilt records allowances for uncollectible amounts based on management's assessment of expected net collections considering historical trends and current economic factors.

Vanderbilt's accounts receivable balance at June 30, 2019, includes \$34.7 million related to research and sponsored programs, and \$42.4 million related to agreements with VUMC. These receivables account for 87% of total net receivables at June 30, 2019.

5. CONTRIBUTIONS RECEIVABLE

Unconditional promises expected to be collected:	2019	2018
in one year or less	\$ 46,208	\$ 37,397
between one year and five years	90,117	60,525
in more than five years	3,930	8,758
Contributions receivable	140,255	106,680
Less: Discount	(5,565)	(6,347)
Less: Allowance for uncollectible promises	(11,743)	(10,686)
Contributions receivable, net	\$ 122,947	\$ 89,647

Vanderbilt discounts contributions receivable at a rate commensurate with the scheduled timing of receipt. Vanderbilt applied discount rates ranging from 1.7% to 3.0% to amounts outstanding as of June 30, 2019 and 2018. Vanderbilt's methodology for calculating the allowance for uncollectible promises consists of analyzing write-offs as a percentage of gross pledges receivable along with assessing the age and activity of outstanding pledges.

Contributions receivable, net as of June 30, were as follows (in thousands):

Contributions receivable, net	\$ 122,947	\$ 89,647
Restricted for endowment	81,627	56,167
Restricted for capital improvements	25,719	25,127
Restricted for programs and other operational purposes	\$ 15,601	\$ 8,353
	2019	2018

In addition to pledges reported as contributions receivable, Vanderbilt had cumulative bequest intentions and conditional promises to give of approximately \$469.9 million and \$301.6 million as of June 30, 2019 and 2018, respectively. Due to their conditional nature, Vanderbilt does not recognize these intentions to give as assets.

6. STUDENT LOANS AND OTHER NOTES RECEIVABLE

Student loans and other notes receivable as of June 30 were as follows (in thousands):

		2019			2018	
	Receivable	Allowance	Net	Receivable	Allowance	Net
Student loans:						
Federal	\$ 20,459	\$ (2,045)	\$ 18,414	\$ 22,22	8 \$ (2,045)	\$ 20,183
Institutional	4,292	(599)	3,693	6,09	8 (830)	5,268
Total student loans	24,751	(2,644)	22,107	28,32	6 (2,875)	25,451
Faculty mortgages	1,066	-	1,066	1,51	4 -	1,514
Student loans, other notes receivable, and related allowances	\$ 25,817	\$ (2,644)	\$ 23,173	\$ 29,84	0 \$ (2,875)	\$ 26,965

Vanderbilt remains committed to "no loans" for its undergraduate students, meaning that the university is meeting full-demonstrated financial need with scholarship and grant assistance. For other groups (e.g., professional school students), participation in several federal revolving loan programs, including the Perkins, Nursing, and Health Professionals Student Loan programs, has continued.

Vanderbilt carries loans to students at cost, which, based on secondary market information, approximates the fair value of education loans with similar interest rates and payment terms. The availability of funds for new loans under these programs is dependent on reimbursements to the pool from repayments on outstanding loans.

Vanderbilt assigns loans receivable from students under governmental loan programs, also carried at cost, to the federal government or its designees. Vanderbilt classifies refundable advances from the federal government as liabilities in the consolidated statements of financial position. Outstanding loans cancelled under a governmental program result in a reduction of the funds available for loan and a decrease in the university's liability to the government.

Vanderbilt establishes bad debt allowances based on prior collection experience and current economic factors, which, in management's judgment, could influence the ability of loan recipients to repay amounts due. When deemed uncollectible, Vanderbilt writes off institutional loan balances.

In an effort to attract and retain a world-class faculty, Vanderbilt provides various incentives and historically provided home mortgage financing assistance in select situations. Deeds of trust on properties concentrated in the surrounding region collateralize these notes. Vanderbilt has not recorded an allowance for doubtful accounts for loans based on their collateralization and prior collection history.

7. INVESTMENTS

Investments consist of the following as of June 30 (in thousands):

	2019	2018
Short-term securities ¹	\$ 147	\$ 12,088
Global equities ¹	2,028,872	1,349,140
Fixed income ¹	910,880	538,364
Hedged strategies ⁵	1,597,304	1,109,053
Private capital ³	1,661,409	1,443,106
Real estate ³	156,756	156,132
Natural resources ³	358,253	298,267
Commodities ²	148,759	151,771
Trusts ⁴	29,041	34,577
Other investments ⁴	32,578	6,600
Total value ⁶	\$ 6,923,999	\$ 5,099,098
Total cost	\$ 5,381,404	\$ 3,846,298

Quoted prices in active markets determine fair value or fund managers provide the net asset value per share of the specific investment to establish fair value.

² Quoted prices in active markets determine fair value.

³ Fund managers provide the net asset value of Vanderbilt's ownership interests at the fund level to establish fair value.

⁴Carrying value provides a reasonable estimate of fair value for certain components.

⁵ Quoted prices in active markets determine fair value or fund managers provide the net asset value per share of the specific investment to establish fair value. Includes \$480.8 million and \$226.6 million of cash and cash equivalents classified as investments in fiscal 2019 and 2018, respectively.

⁶ Net of securities sold short of \$362.3 million and \$240.4 million, total value of investments is \$6,561.7 million and \$4,858.7 million in fiscal 2019 and 2018, respectively.

Included in the amounts above are investments allocable to noncontrolling interests (i.e., minority limited partners) reported at fair value. Changes in noncontrolling interests net assets for the fiscal year ended June 30, 2019, were as follows:

Fair value as of June 30, 2018	\$ 49,417
Distributions to minority limited partners	(11,450)
Capital commitments funded by minority limited partners	497
Appreciation allocable to minority limited partners	(358)
Fair value as of June 30, 2019	\$ 38,106

Short-term securities primarily comprise short-term U.S. Treasury bills.

Global equities consist of investment funds globally diversified across public markets including U.S. markets, other developed markets, and emerging and frontier markets. Fund managers of these investments have the ability to shift investments from value to growth strategies, from small to large capitalization stocks, and from a net long position to a net short position.

Fixed income includes investments directed towards capital preservation and predictable yield as well as more opportunistic strategies focused on generating return on price appreciation. These investments are primarily public investments such as U.S. Treasuries and other government obligations, investment-grade corporate bonds, high-yield corporate bonds, bank debt, commercial mortgage-backed securities, residential non-agency mortgage-backed securities, asset-backed securities, direct lending, and below investment-grade developed and emerging market sovereign debt. Vanderbilt may make investments through commingled vehicles, separately managed accounts, synthetic transactions, and limited partnership interests.

Hedged strategies investments reflect multiple strategies such as event driven, relative value, and equity funds to diversify risks and reduce volatility in the portfolio generally in hedge fund structures. These strategies also include investments in both long and short primarily creditoriented securities. Investments may include mortgage-backed securities, trade finance, debt and asset-backed securities, repurchase agreements, senior loans, bank loans, and cash designated for investment. The fair value of open short positions is recorded as a liability and the university records an unrealized gain or loss to the extent of the difference between the proceeds received and the value of the open short position. By entering into short sales, the university bears the market risk of increases in the value of the security sold short in excess of the proceeds received. Possible losses from short sales differ from losses that could be incurred from purchases of securities because losses from short sales may be unlimited whereas losses from purchases cannot exceed the total amount invested.

Private capital consists of illiquid investments in buyouts, distressed debt, mezzanine debt, growth equity, and venture capital. Vanderbilt may make investments through commingled vehicles, separately managed accounts, synthetic transactions, limited partnership interests, and direct investments.

Real estate comprises illiquid investments in residential and commercial real estate assets, projects, publicly traded REITs or land held directly through separately managed accounts, limited partnership interests, and direct investments in properties. The nature of the investments in this category is such that distributions generally reflect liquidation of the underlying assets of the funds.

Natural resources include illiquid investments in timber, oil and gas production, mining, energy, and related services businesses held directly or in commingled limited partnership funds.

Commodities include public investments such as commodity futures, commodity-related equities, and private investments in energy, power, infrastructure, and timber. Investments may be made through commingled vehicles, separately managed accounts, synthetic transactions, limited partnership interests, and direct investments.

Trusts are Vanderbilt's split-interest agreements with donors, including charitable gift annuities, life income funds, and other non-endowed trusts.

8. ENDOWMENT

Endowment-related assets include donor-restricted endowments and institutional endowments (quasi-endowments). Vanderbilt's endowment does not include gift annuities, interests in trusts held by others, contributions pending donor designation, or contributions receivable.

Interpretation of Relevant Law

The Board of Trust's interpretation of its fiduciary responsibilities for donor-restricted endowments under the Uniform Prudent Management of Institutional Funds Act ("UPMIFA") requirements, barring the existence of any donor-specific provisions, is to preserve intergenerational equity. Under this broad guideline, future endowment beneficiaries should receive at least the same level of real economic support as the current generation. The overarching objective is to preserve and enhance the real (inflation-adjusted) purchasing power of the endowment in

perpetuity. Vanderbilt invests assets to provide a relatively predictable and stable stream of earnings to meet spending needs and attain long-term return objectives without the assumption of undue risks.

UPMIFA specifies that unless stated otherwise in a gift instrument, donor-restricted assets in an endowment fund are restricted assets until appropriated for expenditure. Barring the existence of specific instructions in gift agreements for donor-restricted endowments, Vanderbilt reports both the historical value for such endowments and the net accumulated appreciation, including recapitalizations, as net assets with donor restrictions. In this context, historical value represents the original value of initial contributions restricted as perpetual endowments plus the original value of subsequent contributions and, if applicable, the value of accumulations made in accordance with the direction of specific donor gift agreements.

Spending Policy

Specific appropriation for expenditure of Vanderbilt's endowment funds occurs each spring when the Board of Trust approves the university's operating budget for the subsequent fiscal year. For fiscal years 2019 and 2018, Vanderbilt's Board of Trust approved endowment distributions based on 5.0% of the average of the previous three calendar year-end market values. Vanderbilt reinvests actual realized endowment return earned in excess of distributions. For years when the endowment return is less than the distribution, the endowment pool's cumulative returns from prior years cover the shortfall.

Vanderbilt may not fully expend Board-appropriated endowment distributions in a particular fiscal year. In some cases, Vanderbilt will reinvest distributions into the endowment. Institutional endowments, which are Board-designated, include amounts for student scholarships and support for faculty research and teaching.

The table below summarizes Vanderbilt's endowment for the fiscal years ended June 30 (in thousands):

2019	Without Donor Restrictions	With Donor Restrictions	Total
Endowments with donor-restrictions	\$ -	\$ 2,822,479	\$ 2,822,479
Reinvested distributions of donor-restricted endowments	123,981	85,977	209,958
Institutional endowments	3,238,440	-	3,238,440
Endowment net assets as of June 30, 2019	\$ 3,362,421	\$ 2,908,456	\$ 6,270,877

2018	Without Donor Restrictions	With Donor Restrictions	Total
Endowments with donor-restrictions	\$ -	\$ 2,698,904	\$ 2,698,904
Reinvested distributions of donor-restricted endowments	130,170	80,706	210,876
Institutional endowments	1,698,681	-	1,698,681
Endowment net assets as of June 30, 2018	\$ 1,828,851	\$ 2,779,610	\$ 4,608,461

The purposes of endowments with donor-restrictions as of June 30 were as follows (in thousands):

	2019	2018
Student scholarships	\$ 1,106,455	\$ 1,037,298
Endowed chairs	830,699	807,152
Operational support, not yet appropriated	548,721	538,783
Program support	235,445	219,077
Research	69,866	68,522
Capital improvements	33,312	32,156
Faculty support and lectureships	32,903	31,043
Other	51,055	45,579
Total endowments with donor-restrictions	\$ 2,908,456	\$ 2,779,610

Return Objectives and Parameters

Currently, the endowment portfolio consists of three primary components designed to serve a specific role in establishing the right balance between risk and return. These three components are global, public, and private equity investments. Vanderbilt expects these three components, including private capital and many hedge funds, to produce favorable returns in environments of accelerated growth and economic expansion. Vanderbilt expects hedged strategies and fixed income investments to generate stable returns and preserve capital during periods of poor equity performance. Vanderbilt uses real estate and natural resources allocations to provide an inflation hedge.

Funds with Deficiencies

From time to time, the fair value of assets associated with an endowed fund may fall below the level that a donor or UPMIFA requires in terms of maintenance of perpetual duration endowments. Vanderbilt has a policy that permits spending from underwater funds, unless

specifically prohibited by the donor or relevant laws and regulations. As of June 30, 2019 and 2018, Vanderbilt had 22 and 28 funds, respectively, with deficiencies of this nature resulting from unfavorable market declines that occurred after the investment of recent contributions with donor restrictions. Vanderbilt believes these declines are modest in relation to the total market value for donor-restricted endowments and that these deficiencies will be relatively short-term in nature. The amount of such deficiencies for the fiscal years ended June were as follows:

Aggregate deficiency	\$ 108	\$ 522
Aggregate fair value	20,317	25,519
Aggregate original gift amount	\$ 20,425	\$ 26,041
	 2019	2018

Changes in endowment net assets for the fiscal years ended June 30 were as follows (in thousands):

2010	Without Donor	With Donor	T
2019	Restrictions	Restrictions	Total
Endowment net assets as of June 30, 2018	\$ 1,828,851	\$ 2,779,610	\$ 4,608,461
Endowment investment return, net	211,984	182,172	394,156
Gifts and additions to endowment, net	1,474,728	74,980	1,549,708
Endowment distributions	(153,142)	(128,306)	(281,448)
Endowment net assets as of June 30, 2019	\$ 3,362,421	\$ 2,908,456	\$ 6,270,877

	Without Donor	With Donor	
2018	Restrictions	Restrictions	Total
Endowment net assets as of June 30, 2017	\$ 1,610,390	\$ 2,526,075	\$ 4,136,465
Endowment investment return, net	189,377	316,797	506,174
Gifts and additions to endowment, net	108,554	64,110	172,664
Endowment distributions	(79,470)	(127,372)	(206,842)
Endowment net assets as of June 30, 2018	\$ 1,828,851	\$ 2,779,610	\$ 4,608,461

9. PROPERTY, PLANT, AND EQUIPMENT

Property, plant, and equipment as of June 30 were as follows (in thousands):

	2019	2018
Land	\$ 127,885	\$ 105,041
Buildings and improvements	1,745,802	1,588,094
Moveable equipment	332,983	335,463
Construction in progress	140,075	167,229
Property, plant, and equipment	2,346,745	2,195,827
Less: Accumulated depreciation	(1,149,953)	(1,102,206)
Property, plant, and equipment, net	\$ 1,196,792	\$ 1,093,621

Buildings and improvements include \$15.3 million of leasehold improvements as of fiscal 2019 and 2018. Vanderbilt reports property, plant, and equipment at cost or, if a gift, at fair value as of the date of the gift, net of accumulated depreciation. Vanderbilt computes depreciation using the straight-line method over the estimated useful lives of the assets: 10 to 50 years for buildings, building improvements, and land improvements, the shorter of the asset life or life of the lease including renewal options for leasehold improvements, and 3 to 25 years for machinery and equipment.

Purchases for the library collection are not included in the amounts above as Vanderbilt expenses such items at the time of purchase. As of June 30, 2019, the estimated replacement cost for library collections, including processing costs to properly identify, catalog, and shelve materials, totaled \$432.6 million.

Vanderbilt reported capitalized interest of \$1.4 million and \$1.5 million to construction in progress and/or buildings and improvements in the years ended June 30, 2019 and 2018.

Vanderbilt reviews property, plant, and equipment for recoverability whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The university recognizes an impairment loss if the carrying amount of a long-lived asset exceeds its fair value and is not recoverable. The carrying amount of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash

flows expected to result from the use and eventual disposition of the asset. Vanderbilt did not recognize any impairment losses in fiscal 2019 or 2018.

Vanderbilt identified conditional asset retirement obligations, primarily for the costs of asbestos removal and disposal, resulting in liabilities of \$3.4 and \$3.2 million as of June 30, 2019 and 2018. These liability estimates, included in Accounts payable and accrued liabilities in the consolidated statements of financial position, use an inflation rate of 4.0% and a discount rate of 5.0% based on relevant factors at origination.

10. LONG-TERM DEBT AND COMMERCIAL PAPER

Long-term debt consists of bonds and notes payable with scheduled final maturity dates at least one year after the original issuance date.

Outstanding long-term debt and commercial paper ("CP") obligations reflected in the financial statements at carrying value as of June 30 were as follows (in thousands):

	F:1 V	Fixed Coupon Interest Rates as	Fiscal 2019	Outstanding F	Principal
	Fiscal Year of Maturity	of June 30, 2019	Effective Interest — Rate ¹	2019	2018
FIXED-RATE DEBT					
Series 2009A - Tax-exempt	2020	4.00%	4.5%	\$ 2,360	\$ 4,720
Series 2012D - Tax-exempt	2038	3.00% - 5.00%	3.1%	106,230	106,230
Series 2016 - Taxable	2047	1.32% - 3.44%	3.0%	127,900	133,520
Series 2018 – Private Placement	2049	3.93%	3.9%	300,000	-
Fixed-rate debt (par amount)			3.4%	\$ 536,490	\$ 244,470
Net unamortized premium			-	6,879	7,932
Cost of Issuance			-	(1,123)	(1,180)
Total long-term debt			3.4%	542,246	251,222
Taxable commercial paper		_	2.1%	-	114,602
Total long-term debt and commercial paper			3.3%	\$ 542,246	\$ 365,824

Exclusive of interest rate exchange agreements. Inclusive of these agreements, the overall portfolio effective interest rate was 3.8%.

All debt instruments are general obligations of Vanderbilt. Vanderbilt did not pledge any of its assets as collateral for this debt.

The components of interest for total long-term debt, CP, and interest rate exchange agreements follow (in thousands):

	2019	2018
Payments for interest costs	\$ 16,694	\$ 14,185
Accrued interest expense	\$ 16,818	\$ 11,223

Payments for interest costs occur on varying scheduled payment dates for debt, maturity dates for CP, and settlement dates for interest rate exchange agreements. Vanderbilt calculates accrued interest expense for its debt, CP, and interest rate exchange agreements based on applicable interest rates for the respective fiscal year. Accrued interest expense of \$16.8 million and \$11.2 million in fiscal 2019 and 2018, respectively, is net of capitalized interest of \$1.4 million and \$1.5 million, respectively.

Principal retirements and scheduled sinking fund requirements based on nominal maturity schedules for long-term debt, excluding CP, due in subsequent fiscal years are as follows (in thousands):

Total long-term debt principal retirements	\$ 536,490
Thereafter	491,605
2024	14,850
2023	7,535
2022	7,285
2021	7,075
2020	\$ 8,140

On November 1, 2018, Vanderbilt executed the draw for the Series 2018 taxable private placement in the par amount of \$300.0 million. The Series 2018 private placement proceeds provided \$185.0 million of new project funding to finance construction of residential colleges and other strategic capital projects, as well as \$115.0 million to refund the outstanding par amount of commercial paper debt outstanding.

11. INTEREST RATE EXCHANGE AGREEMENTS

Vanderbilt utilizes interest rate exchange agreements as part of its debt portfolio management strategy. These agreements result in periodic net cash settlements paid to, or received from, counterparties. Adjustments to interest expense for net settlements due to counterparties totaled \$2.3 million and \$3.5 million in fiscal 2019 and 2018, respectively.

Vanderbilt estimates the fair value of interest rate exchange agreements by calculating the present value sum of future net cash settlements that reflect market yields as of the measurement date and estimated amounts that Vanderbilt would pay to terminate the contracts as of the report date. Vanderbilt considers current interest rates and creditworthiness of the interest rate exchange counterparties when estimating termination settlements. The estimated fair value of Vanderbilt's outstanding interest rate exchange agreements represented liabilities of \$22.7 million and \$28.1 million as of June 30, 2019 and 2018, respectively.

Vanderbilt did not enter into any new interest rate exchange agreements during fiscal 2019 or 2018. During fiscal 2019, Vanderbilt terminated \$59.3 million notional, net of amortization, of fixed-rate payer interest rate exchange agreements at a cost of \$13.8 million to reduce collateral exposure and eliminate ongoing settlement costs.

The fair value of interest rate exchange agreements, reported in the nonoperating section of the consolidated statements of activities, resulted in a net loss of \$8.5 million and a net gain of \$9.4 million in fiscal 2019 and 2018, respectively. The \$8.5 million change in appreciation of interest rate exchange agreements in fiscal 2019 includes a \$0.6 million unrealized loss to adjust the discount rate to reflect counterparty credit risk and \$13.8 million of termination costs, which were partially offset by a \$5.9 million net unrealized gain due to the termination of fixed-rate payer rate exchange agreements. The \$9.4 million appreciation of interest rate exchange agreements in fiscal 2018 includes a \$26.4 million net unrealized gain from the combination of the positive effect of the termination of fixed-rate payer and basis interest rate exchange agreements and the increase in the long-term LIBOR rate, a \$0.3 million unrealized gain to adjust the discount rate to reflect counterparty credit risk, and \$17.3 million of termination costs. Thirty-year LIBOR decreased to 2.2% as of June 30, 2019, from 2.9% as of June 30, 2018. Termination costs are reflected in the appreciation of interest rate exchange agreements in the respective periods.

The interest rate exchange agreements include collateral pledging requirements based on the fair value of the contracts. There was no collateral held by counterparties as of June 30, 2019 or 2018. Vanderbilt estimates that a decline in long-term LIBOR rates to approximately 1% would result in the fair value of the portfolio being a liability of approximately \$32.4 million, but would not require Vanderbilt to pledge collateral.

As of June 30, 2019, Vanderbilt's adjusted debt portfolio, after taking into account outstanding fixed-payer interest rate exchange agreements, was fully hedged.

The notional amount of Vanderbilt's remaining outstanding interest rate exchange agreement as of June 30 was as follows (in thousands):

Description	Rate Paid	Rate Received	Maturity	2019	2018
Fixed-payer interest rate exchange agreement	4.15%	68% of one- month LIBOR ¹	21 years	\$ 50,000	\$ 111,600

LIBOR (London Interbank Offered Rate) is a reference rate based on interest rates at which global banks borrow funds from other banks in the London interbank lending market.

12. NET ASSETS

The following is a summary of net assets as of June 30 (in thousands):

	Without donor	With donor	
2019	restriction	restriction	Total
Operations	\$ 818,991	\$ -	\$ 818,991
Deferred trademark license revenue	(1,344,670)	-	(1,344,670)
Net investment in plant	653,857	-	653,857
Endowment funds	3,362,421	2,908,456	6,270,877
Donor pledges and gifts	-	158,475	158,475
Split-interest agreements	-	77,841	77,841
Net assets controlled by Vanderbilt	3,490,599	3,144,772	6,635,371
Net assets related to noncontrolling interests	38,106	-	38,106
Total net assets as of June 30, 2019	\$ 3,528,705	\$ 3,144,772	\$ 6,673,477

2010	Without donor	With donor	
2018	restriction	restriction	Total
Operations	\$ 677,404	\$ -	\$ 677,404
Net investment in plant	727,758	-	727,758
Endowment funds	1,828,851	2,779,610	4,608,461
Donor pledges and gifts	-	147,858	147,858
Split-interest agreements	-	80,793	80,793
Net assets controlled by Vanderbilt	3,234,013	3,008,261	6,242,274
Net assets related to noncontrolling interests	49,417	-	49,417
Total net assets as of June 30, 2018	\$ 3,283,430	\$ 3,008,261	\$ 6,291,691

13. FAIR VALUE MEASUREMENT

Vanderbilt utilizes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three levels:

Level 1 consist of quoted prices (unadjusted) in active markets for identical assets or liabilities accessible at the measurement date.

Level 2 include inputs other than quoted prices in Level 1 directly or indirectly observable for the assets or liabilities.

Level 3 are unobservable inputs for the assets or liabilities.

The level in the fair value hierarchy within which a fair value measurement in its entirety is classified depends on the lowest level input that is significant to the fair value measurement.

The significance of the unobservable inputs to the overall fair value measurement determines the classification of a financial instrument within level 3.

The consolidated statements of activities reflect: all net realized and unrealized gains and losses on level 3 investments as appreciation of endowment or appreciation of other investments; gains and losses on investments allocable to noncontrolling interests as a component of appreciation of endowment; and net realized and unrealized gains and losses on interests in trusts held by others as appreciation of other investments.

Rollforwards of amounts for level 3 financial instruments for the fiscal years ended June 30 follow (in thousands):

	Beginning Net realized balance as of and unrealized June 30, 2018 gains (losses) ¹ Purchases Sales				Purchases Sales		into/(o	nsfers ut of) evel 3	Ending balance as of June 30, 2019			
LEVEL 3 ASSETS												
Private capital	\$	2,368	\$	-	\$	-	\$	-	\$	-	\$	2,368
Real estate		194		-		-		-		-		194
Natural resources		34,649		2,019		-	(2,665)		-		34,003
Trusts		34,577		1,102		2,250	(8,888)		-		29,041
Other investments		2,741		86		-		-		-		2,827
Interests in trusts held by others		30,753		(231)		231		(60)		-		30,693
Total Level 3	\$	105,282	\$	2,976	\$	2,481	\$ (1	1,613)	\$	-	\$	99,126

Total change in unrealized gains/(losses) relating to Level 3 investment assets held by the university at June 30, 2019, is \$1,469.1 and is reflected in "Appreciation of endowment, net of distributions" for private capital and natural resources categories as well as "Investment income (loss)" for remaining categories in the Consolidated Statement of Activities.

	Beginning balance as of June 30, 2017		Net realized and unrealized gains (losses) ¹		Purchases			Sales		sfers it of) vel 3	Ending nce as of 30, 2018
LEVEL 3 ASSETS											
Private capital	\$	2,368	\$	-	\$	-	\$	-	\$	-	\$ 2,368
Real estate		194		-		1		(1)		-	194
Natural resources		30,571		6,331		-	(2	2,253)		-	34,649
Trusts		37,216		1,179	2	2,204	(6	5,022)		-	34,577
Other investments		2,563		-		178		-		-	2,741
Interests in trusts held by others		28,577		8,147		-	(:	5,971)		-	30,753
Total Level 3	\$	101,489	\$ 1	5,657	\$ 2	2,383	\$ (14	4,247)	\$	-	\$ 105,282

¹ Total change in unrealized gains/(losses) relating to Level 3 investment assets held by the university at June 30, 2018, is \$13,970.8 and is reflected in "Appreciation of endowment, net of distributions" for private capital and natural resources categories as well as "Investment income (loss)" for remaining categories in the Consolidated Statement of Activities.

The following tables present the amounts within each valuation hierarchy level for those assets and liabilities carried at fair value: cash and cash equivalents; investments; investments allocable to noncontrolling interests (in Vanderbilt-controlled real estate and other partnerships); interests in trusts held by others; securities sold short; and the fair value of interest rate exchange agreements.

Also included in the following tables, as a measure of liquidity, are the redemption terms and restrictions of investments, along with the numbers of days' notice required to liquidate these investments. Most investments classified as levels 2 and 3 consist of shares or units in investment funds as opposed to direct interests in the funds' underlying holdings. Vanderbilt's ability to redeem its interest at or near the financial statement date determines the net assets' classification as level 2 or level 3. Vanderbilt defines near-term as within 90 days of the financial statement date. The total asset values for short-term securities, global equities, fixed income, hedged strategies, and commodities provide varying levels of liquidity, with daily to annual redemption frequencies. These strategies allow Vanderbilt to provide notice to the fund managers to exit from the respective funds in the time periods noted.

The total asset values for private capital, real estate, natural resources, and other investments are illiquid as of June 30, 2019. These amounts predominantly consist of limited partnerships. Under the terms of these limited partnership agreements, Vanderbilt is obligated to remit additional funding periodically as capital calls are exercised by the general partner. These partnerships have a limited existence and the agreements may provide for annual extensions relative to the timing for disposing portfolio positions and returning capital to investors. Depending on market conditions, the ability or inability of a fund to execute its strategy, and other factors, the general partner may extend the terms or request an extension of terms of a fund beyond its originally anticipated existence or may liquidate the fund prematurely. Unforeseen events prevent Vanderbilt from anticipating such changes. As a result, the timing and amount of future capital calls or distributions in any particular year are uncertain and the related asset values are illiquid.

Trusts are restricted by donors according to the underlying gift agreement with assets held to satisfy annuity obligations or until a remainder portion becomes available upon termination. As such, trusts are illiquid until termination, the timing of which is unknown.

The following tables summarize the fair value measurements and terms for redemptions or liquidations for those assets and liabilities carried at fair value as of June 30 (in thousands):

Assets Reported at Fair V	alue as of June	30, 2019
---------------------------	-----------------	----------

	Fair Value Measurements								
	Level 1		Level 2		Level 3		NAV		Total
Cash and cash equivalents	\$ 828,455	\$	-	\$	-	\$	-	\$	828,455
Short-term securities	147		-		-		-		147
Global equities	1,436,345		85,994		-		506,533		2,028,872
Fixed income	334,064		467,597		-		109,219		910,880
Hedged strategies	800,304		468,358		-		328,642		1,597,304
Private capital	37,547		-		2,368		1,621,494		1,661,409
Real estate	-		-		194		156,562		156,756
Natural resources	170		-		34,003		324,080		358,253
Commodities	148,759		-		-		-		148,759
Trusts	-		-		29,041		-		29,041
Other investments	4,217		25,534		2,827		-		32,578
Interests in trusts held by others	-		-		30,693		-		30,693
Total assets reported at fair value	\$ 3,590,008	\$	1,047,483	\$	99,126	\$	3,046,530	\$	7,783,147
Liabilities Reported at Fair Value as of June 30, 2019									
Securities sold short	\$ 268,322	\$	93,987	\$			\$ -	\$	362,309
Interest rate exchange agreements	_		22,742		-		-		22,742
Total liabilities reported at fair value	\$ 268,322	\$	116,729	\$	-		\$ -	\$	385,051

Assets Reported at Fair Value as of June 30, 2018

	Fair Value Measurements								
		Level 1		Level 2		Level 3	NAV		Total
Cash and cash equivalents	\$	602,652	\$	-	\$	-	\$ -	\$	602,652
Short-term securities		12,088		-		-	-		12,088
Global equities		912,752		45,657		-	390,731		1,349,140
Fixed income		255,707		203,840		-	78,817		538,364
Hedged strategies		513,997		362,091		-	232,965		1,109,053
Private capital		2,304		-		2,368	1,438,434		1,443,106
Real estate		-		-		194	155,938		156,132
Natural resources		299		-		34,649	263,319		298,267
Commodities		151,771		-		-	-		151,771
Trusts		-		-		34,577	-		34,577
Other investments		3,859		-		2,741	-		6,600
Interests in trusts held by others		-		-		30,753	-		30,753
Total assets reported at fair value	\$	2,455,429	\$	611,588	\$	105,282	\$ 2,560,204	\$	5,732,503
Liabilities Reported at Fair Value as of June 30, 2018									
Securities sold short	\$	190,609	\$	49,838	\$	-	\$ -	\$	240,447
Interest rate exchange agreements		-		28,089		-	-		28,089
Total liabilities reported at fair value	\$	190,609	\$	77,927	\$	-	\$ -	\$	268,536

Redemption Terms and Restrictions as of June 30, 2019 and 2018

	2019 Fair Value	Redemption Terms	Redemption Restrictions
Cash and cash equivalents	\$ 828,455	Daily, with same-day to 90 day notice	No restrictions
Short-term securities	147	Daily, with 1 day notice	No restrictions
Global equities	2,028,872	Daily to annually, with 1 to 90 day notice	Lock-up provision ranging from none to 2 years
Fixed income	910,880	Daily to annually, with 1 to 365 day notice	No restrictions
Hedged strategies	1,597,304	Daily to annually, with 15 to 90 day notice	Lock-up provision ranging from none to 2 years
Private capital	1,661,409	N/A	Not redeemable
Real estate	156,756	N/A	Not redeemable
Natural resources	358,253	N/A	Not redeemable
Commodities	148,759	Daily, with 1 to 30 day notice	No restrictions
Γrusts	29,041	N/A	Not redeemable
Other investments	32,578	N/A	Not redeemable
Interests in trusts held by others	30,693	N/A	Not redeemable

14. LEASES

Vanderbilt is obligated under numerous operating leases to pay base rent through the respective lease expiration dates. Operating leases primarily consist of equipment and real property with remaining lease terms of up to 10 years. Total operating lease expense was \$15.0 million and \$15.2 million in the years ended June 30, 2019, and June 30, 2018, respectively.

As of June 30, 2019, future committed minimum rentals by fiscal year on significant noncancelable operating leases with initial terms in excess of one year were as follows (in thousands):

Total future minimum rentals	\$ 84,317
Thereafter	25,196
2024	10,230
2023	10,625
2022	11,398
2021	13,199
2020	\$ 13,669

The following table provides a detail of significant noncancelable operating leases by type (in thousands):

	% of Minimum Rentals	Minimum Rentals
Property Leases	96%	\$ 81,073
Equipment Leases	4%	3,244
Total future minimum rentals	100%	\$ 84,317

Property leases for buildings owned by Vanderbilt University Medical Center (60%) and 2100 West End Avenue (29%) account for approximately 89% of the total future minimum rentals as of June 30, 2019.

15. REVENUE RECOGNITION

The following table presents Vanderbilt's sources of revenue as of June 30 as follows (in thousands):

	2019
Tuition and educational fees, net	
Undergraduate [net of financial aid, \$151,484]	\$193,033
Professional [net of financial aid, \$55,170]	119,326
Graduate [net of financial aid, \$48,596]	6,942
Total tuition and educational fees, net	319,301
Grants:	
Government sponsors ¹	130,589
Private sponsors ¹	12,392
Facilities and administrative costs recovery ¹	42,149
Contracts:	
Government sponsors ²	30,369
Private sponsors ³	15,264
Facilities and administrative costs recovery 4	18,259
Total grants and contracts	249,022
Contributions ¹	143,783
Endowment distributions ¹	281,448
Investment income ¹	53,794
Room, board, and other auxiliary services, net	
Room and board, net [net of financial aid, \$37,869]	50,189
Auxiliary revenue from affiliates	33,190
External rental revenue ¹	12,027
Vanderbilt Legends Club	9,951
Parking and vehicle registration	4,693
Commissions Revenue	2,696
Other auxiliary services	5,737
Total room, board, and other auxiliary services, net	118,483
Trademark, license, and royalty revenue	107,850
Affiliated entity revenue	178,045
Other sources	
Television revenue	31,786
Tournament revenue	12,352
Student athletics ticket revenue	7,426
Conference and seminar revenue	6,320
Miscellaneous revenue from affiliate	6,259
Child care operations	2,375
Other miscellaneous revenue	23,779
Total other source	90,297
Total revenues and other support	\$1,542,023

¹ Not considered revenue from contracts with customers

³ Revenue from government sponsors includes contracts with customers of \$23 million and contributions of \$7 million.

⁴ Revenue from private sponsors includes contracts with customers of \$14 million and contributions of \$1 million.

⁴ Revenue from facilities and administrative costs recovery includes contracts with customers of \$16 million and contributions of \$2 million.

Vanderbilt's related revenue recognition policies are:

Tuition and educational fees, net—Vanderbilt recognizes student tuition and educational fees in the amount that reflects the consideration expected for providing academic services in the year those services occur. Vanderbilt reflects financial aid provided for tuition and educational fees as a reduction to the expected consideration. Financial aid does not include payments made to students for services provided to Vanderbilt or financial aid applied to undergraduate room and board. In addition, students who adjust their course load or withdraw completely within the first three weeks of the academic term may receive a full or partial refund in accordance with Vanderbilt's refund policy. Refunds issued reduce the amount of tuition recognized. Tuition payments from students are due approximately 30 days after the invoice date.

Grants and contracts—Vanderbilt records revenues related to grants and contracts in two portfolio categories based on the source of the funds:

Government Sponsors provide funding for research largely to advance knowledge for public or academic benefit in direct support of Vanderbilt's mission. Vanderbilt primarily considers these sponsored research agreements to be contributions (nonreciprocal transactions). Vanderbilt recognizes grant and contract revenue associated with contributions from government sponsors as earned when the conditions are met (allowable expenses have been incurred). Additionally, a small portion of government-sponsored awards qualifies as exchange (reciprocal) transactions. The transaction price for exchange transactions is the stated amount of the award. Vanderbilt recognizes grants and contracts revenue related to these exchange transactions at the time services are provided.

Private Sponsors consist of private agencies, professional associations, private foundations, corporate foundations and corporations and may be either donors or sponsors depending on the nature, intent, and expectations of the funding they are providing. Vanderbilt recognizes revenue associated with contributions from private sponsors as the conditions are met. Additionally, some private sponsor awards qualify as exchange (reciprocal) transactions. The transaction price for exchange transactions is the stated amount of the award. Vanderbilt recognizes grants and contracts revenue related to these exchange transactions at the time services are provided.

Facilities and administrative (F&A) costs recovery—Vanderbilt recognizes F&A costs recovery as revenue. This activity represents reimbursement, primarily from the federal government, of F&A costs on sponsored activities. Vanderbilt's federal F&A cost recovery rate for on-campus research was 57.0% in both fiscal 2019 and 2018. Vanderbilt's federal F&A off-campus research adjacent and remote cost recovery rates was 28.5% in both fiscal 2019 and 2018.

Endowment distributions—Endowment distributions reported as operating revenue consist of endowment return (regardless of when such income arose) distributed to support operational needs in the current period. Vanderbilt's Board of Trust approves the distribution amount from the endowment pool on an annual basis, determined by applying a spending rate to an average of the previous three calendar year-end market values. The primary objective of the endowment distribution methodology is to reduce the impact of capital market fluctuations on operational programs.

Investment income—Investment income consists of distributions associated with working capital assets invested in long-term pooled investments managed in conjunction with endowment funds and dividends, interest, and gains/losses on other university investments. Vanderbilt reports any difference between total returns for pooled working capital assets and the aforementioned distributions as nonoperating activity.

Trademark, license, and royalty revenue—The Trademark License Agreement ("TML") between Vanderbilt and VUMC comprises the majority of trademark, license, and royalty revenue. Vanderbilt recognizes all trademark, license, and royalty revenues upon satisfaction of the performance obligation in accordance with the terms of the underlying agreements, which generally result in recognition of the revenue over the term of the agreement. In July 2018, Vanderbilt recorded \$1.43 billion related to the securitized trademark revenue stream as deferred revenue on the Statement of Financial Position and recognizes related revenue upon satisfaction of the performance obligation in accordance with the 30-year term of the underlying agreement.

Affiliated entity revenue—Affiliated entity revenue represents amounts received from VUMC to support and ensure sustainability of the upstream research pipeline and other academic initiatives and to compensate Vanderbilt for the provision of operating and capital infrastructure services to VUMC, primarily in campus infrastructure, campus safety and security, and various support functions. Vanderbilt recognizes affiliated entity revenues as the related services upon satisfaction of the performance obligation in accordance with the terms of the underlying agreements.

Other revenue—Vanderbilt recognizes revenue from other sources as the related services are provided and/or amounts are otherwise earned upon satisfaction of the performance obligation in accordance with the terms of the underlying agreements.

16. FUNCTIONAL CLASSIFICATION OF EXPENSES AND ALLOCATIONS

Vanderbilt presents functional classification of expenses in accordance with the mission of the university. Vanderbilt's primary programs are instruction and academic support, research and public services, and student services. Support activities are incurred in support of these primary programs.

For operating expenses that benefit multiple functional categories, Vanderbilt allocates these expenses to reflect the full cost of all activities. Based on the functional uses of space on its campus, Vanderbilt allocated operation and maintenance of facilities, depreciation, and interest on indebtedness across functional expense categories.

The following tables summarize operating expenses by natural and functional classification for the fiscal years ended June 30 (in thousands):

2019	ruction & academic support	Research & public service	Student services	Total program expenses	Support activities	Total expenses
Salaries, wages, and benefits	\$ 344,478	\$ 123,406	\$ 64,687	\$ 532,571	\$ 168,023	\$ 700,594
Supplies, services, and other	131,625	96,265	54,962	282,852	156,111	438,963
Interest	2,830	1,265	768	4,863	11,955	16,818
Depreciation	20,488	16,082	11,234	47,804	39,492	87,296
Grants to affiliate	-	25,335	-	25,335	-	25,335
Total expenses	\$ 499,421	\$ 262,353	\$ 131,651	\$ 893,425	\$ 375,581	\$ 1,269,006

17. RETIREMENT PLANS

Vanderbilt's eligible faculty and staff members participate in the defined contribution retirement plan administered by a third-party investment firm. For these employees, this plan requires employee and matching employer contributions. The employee immediately vests in these contributions upon eligibility.

Vanderbilt funds the obligations under these plans through payroll transfers to the respective retirement plan administrators with the corresponding expenses recognized in the year incurred. Vanderbilt's retirement plan contributions for fiscal 2019 and 2018 were \$20.5 million and \$19.7 million, respectively.

18. COMMITMENTS AND CONTINGENCIES

- (A) Construction. As of June 30, 2019, Vanderbilt had contractual commitments for approximately \$169.9 million of projects under construction and equipment purchases. The largest components of these commitments were for residential college hall construction at the Tarpley site (\$92.0 million) and Peabody campus improvements (\$31.2 million).
- (B) *Litigation*. On May 17, 2016, a former Vanderbilt football player filed suit against the NCAA, the SEC, and Vanderbilt in the Middle District of Florida in Orlando seeking class action status for students who played football at Vanderbilt between 1952 and 2010. The suit is styled Walthour v. Vanderbilt University, et al., No. 16-cv-834 (M.D. Fl.). Walthour alleged he suffered "several" concussions and now has cognitive functioning problems, such as loss of memory, mood swings, sensitivity to light, and blackouts. The suit has been transferred to the Northern District of Illinois for pre-trial purposes as a tag-along action to the multidistrict litigation styled In re: National Collegiate Athletic Association Student-Athlete Concussion Injury Litigation, MDL No. 2492.

Vanderbilt believes that the outcome of this action will not have a significant effect on its consolidated financial position. Vanderbilt is otherwise involved in various legal actions occurring in the normal course of activities which will not have a material adverse effect on Vanderbilt's financial position.

- (C) Regulations. Vanderbilt's compliance with regulations and laws is subject to future government reviews and interpretations, as well as regulatory actions unknown at this time. Vanderbilt believes that any potential liability from such reviews would not have a significant effect on Vanderbilt's consolidated financial position.
- (D) Employee Health and Workers Compensation Insurance. Vanderbilt is self-insured for employee health insurance and workers compensation coverage. Vanderbilt bases estimated liabilities upon studies conducted by independent actuarial firms.
- (E) Federal and State Contracts and Other Requirements. Expenditures related to federal and state grants and contracts are subject to adjustment based upon review by the granting agencies. Amounts of expenditures that granting agencies might disallow cannot be determined at this time. These amounts affect government grants and contract revenue as well as facilities and administrative cost recovery. Vanderbilt

would not expect these costs to materially impact the consolidated financial position.

(F) Partnership Investment Commitments. Vanderbilt had \$855.9 million of commitments to venture capital, real estate, and private equity investments as of June 30, 2019. At the request of the general partners, Vanderbilt may be required to contribute funds over the next several years. Vanderbilt expects to finance these commitments with available cash and expected proceeds from the sales of securities. Included in these commitments is \$8.7 million of commitments for which Vanderbilt is a secondary guarantor for commitments in certain investment vehicles where minority limited partners in subsidiaries that Vanderbilt controls have the primary obligations.

19. RELATED PARTIES

Intermittently, members of Vanderbilt's Board of Trust or Vanderbilt employees may be directly or indirectly associated with companies engaged in business activities with the university. Accordingly, Vanderbilt has a written conflict of interest policy that requires, among other things, that members of the university community (including trustees) may not review, approve, or administratively control contracts or business relationships when (a) the contract or business relationship is between Vanderbilt and a business in which the individual or a family member has a material financial interest or (b) the individual or a family member is an employee of the business and is directly involved with activities pertaining to Vanderbilt.

Furthermore, Vanderbilt's conflict of interest policy extends beyond the foregoing business activities in that disclosure is required for any situation in which an applicable individual's financial, professional, or other personal activities may directly or indirectly affect, or have the appearance of affecting, an individual's professional judgment in exercising any university duty or responsibility, including the conduct or reporting of research.

The policy extends to all members of the university community (including trustees, university officials, and faculty and staff and their immediate family members). Each applicable person is required to certify compliance with the conflict of interest policy on an annual basis. This certification includes specifically disclosing whether Vanderbilt conducts business with an entity in which he or she (or an immediate family member) has a material financial interest as well as any other situation that could appear to present a conflict with Vanderbilt's best interests. When situations exist relative to the conflict of interest policy, Vanderbilt takes active measures to manage appropriately the actual or perceived conflict in the best interests of the university, including periodic reporting of the measures taken to the Audit Committee of the Vanderbilt University Board of Trust.

See Note 20 to the consolidated financial statements for discussion regarding the ongoing economic relationship between Vanderbilt and VUMC.

20. VANDERBILT UNIVERSITY MEDICAL CENTER

Vanderbilt has an ongoing economic relationship with VUMC in the form of an Academic Affiliation Agreement ("AAA"), a Trademark Licensing Agreement ("TML"), a Ground Lease, and a Master Service Agreement ("MSA").

The AAA recognizes the ongoing academic, research, and clinical affiliation between the university and VUMC for all of the university's degree-granting, certificate, and research programs. The AAA serves to allocate responsibility between the university and VUMC for jointly administered academic programs, residency programs, and ongoing roles and rights of the university. The AAA will remain in effect until termination of the TML or Ground Lease.

Pursuant to the TML, the university grants, subject to certain consents and approvals, a perpetual license to VUMC to use various university-owned licensed marks in connection with VUMC's fundamental activities after the Transaction date. The licensed marks, which VUMC will continue to use as the primary brands of VUMC, include virtually all those currently in use by VUMC. The TML will remain in effect until termination of the AAA or Ground Lease.

In July 2018, Vanderbilt securitized 30 years of one of the university's trademark revenue streams and sold the remaining \$89.6 million balance of a promissory note receivable that resulted from the Transaction. This securitization occurred on a true-sale basis to a group of external investors in exchange for net cash consideration of \$1.43 billion and a special interest obligation equivalent to the remaining future promissory note interest stream.

The Ground Lease allows VUMC to use the land on which its campus and related buildings are located. The initial term of the Ground Lease ends June 30, 2114, with the option to extend for up to two additional terms of 50 to 99 years each upon mutual agreement by Vanderbilt and VUMC.

Vanderbilt and VUMC provide specified services to one another for agreed-upon consideration as outlined in the MSA. Vanderbilt continues to provide services to VUMC such as IT support, utilities, and law enforcement staffing. VUMC will continue to provide graduate medical education and training to Vanderbilt. The terms of these service agreements between Vanderbilt and VUMC are unique to each agreement.

21. SUBSEQUENT EVENTS

Vanderbilt evaluated events subsequent to June 30, 2019, through October 15, 2019, the date of issuance of the consolidated financial statements.

On August 1, 2019, Vanderbilt acquired two commercial properties and one hotel for a total purchase consideration of \$112.0 million. This transaction will be recorded as an asset acquisition in accordance with Accounting Standards Codification (ASC) 805, Business Combinations.

Vanderbilt did not identify any other material subsequent events for recognition or disclosure.



Cluster Title/Federal Grantor/Program	Type	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	<u>Federal</u>	Expenditures Passe	ed Throug
RESEARCH AND DEVELOPMENT CLUSTER								
JS Department of Agriculture	Direct		2018-08145	10 RD		\$	5,145.97	
US Department of Agriculture	Pass-Through Un	iversity of Memphis	2014-33522-21826 MEM	10.RD			(770) \$	
•	-					\$	4,376 \$	
US Department of Agriculture	Pass-Through Var	nderbilt University Medical Center	2017-680001-26352/VU	10.310	Agriculture and Food Research Initiative (AFRI)		10,478	
JS Department of Agriculture	_	iversity of Michigan	3004679739(2015-67015-2	27 10.310	Agriculture and Food Research Initiative (AFRI)		70,664	
,	· ·	, ,	·			\$	81,142 \$	
			Total US Department of Ag	riculture		\$	85,518 \$	
JS Department of Commerce	Direct		70NANB18H198	11.013	Education Quality Award Ambassadorship		94,987	
JS Department of Commerce	Direct		70NANB18H269	11.609	Measurement and Engineering Research and Standards		65,224	
JS Department of Commerce	Direct		70NANB18H245	11.609	Measurement and Engineering Research and Standards		96,261	
JS Department of Commerce	Direct		70NANB16H297	11.609	Measurement and Engineering Research and Standards		(8,640)	
JS Department of Commerce	Direct		70NANB17H266 NIST	11.609	Measurement and Engineering Research and Standards		141,172	
JS Department of Commerce	Direct		70NANB17H274 NIST	11.609	Measurement and Engineering Research and Standards		57,500	
JS Department of Commerce	Direct		70NANB15H020	11.609	Measurement and Engineering Research and Standards		105,343	
					The standard of the standard o	\$	456,859 \$	
			Total US Department of Co	mmerce		\$	551,846 \$	
IC Donorthoont of Assess	Deec Thurs of Ad-	annead Technical and the control of	M/043/M/II 45 0 0004 AT	12.444	Collaborative Describe and Describe and		462.060	242.52
JS Department of Army	Pass-Inrough Adv	vanced Technology International	W81XWH-15-0-0001 ATI	12.114	Collaborative Research and Development	<u> </u>	462,869	312,50
16.5	5		540750 44 2 0400	40.000		\$	462,869 \$	312,500
JS Department of Air Force	Direct		FA8750-14-2-0180	12.300	Basic and Applied Scientific Research		351,161	35,915
JS Department of Navy	Direct		N00173-16-C-2018	12.300	Basic and Applied Scientific Research		216,251	
JS Department of Navy	Direct		N00173-13-1-G017	12.300	Basic and Applied Scientific Research		(4,231)	
JS Department of Navy	Direct		N00014-18-1-2964	12.300	Basic and Applied Scientific Research		312,710	94,171
JS Department of Navy	Direct		N00174-19-1-0020	12.300	Basic and Applied Scientific Research		1,011	
JS Department of Navy	Direct		N00014-18-1-2107	12.300	Basic and Applied Scientific Research		187,132	65,894
JS Department of Navy	Direct		N00164-19-1-1006	12.300	Basic and Applied Scientific Research		10,281	
JS Department of Navy	Direct		N00014-17-1-2040	12.300	Basic and Applied Scientific Research		235,639	
JS Department of Navy	Direct		N00014-18-1-2568	12.300	Basic and Applied Scientific Research		137,413	
JS Department of Navy	Direct		N00014-11-1-0683	12.300	Basic and Applied Scientific Research		(7)	
JS Department of Navy	Direct		N00014-15-1-2621	12.300	Basic and Applied Scientific Research		24,485	
JS Department of Navy	Pass-Through Fisl	k University	N00174-16-C-0008	12.300	Basic and Applied Scientific Research		51,249	
JS Department of Navy	Pass-Through Un	iversity of California San Diego	N00014-16-1-3081_106190	08 12.300	Basic and Applied Scientific Research		47,413	
JS Department of Navy	Pass-Through Un	iversity of Texas at Arlington	N00014-18-1-2184-126060	1 12.300	Basic and Applied Scientific Research		103,570	
						\$	1,674,078 \$	195,980
Defense Threat Reduction Agency	Direct		HDTRA1-17-1-0003	12.351	Scientific Research - Combating Weapons of Mass Destruction		772,074	68,144
Defense Threat Reduction Agency	Direct		HDTRA11810002	12.351	Scientific Research - Combating Weapons of Mass Destruction		1,063,074	223,288
Defense Threat Reduction Agency	Direct		HDTRA1-15-1-0036	12.351	Scientific Research - Combating Weapons of Mass Destruction		(41,101)	
Defense Threat Reduction Agency	Direct		HDTRA1-13-1-0011	12.351	Scientific Research - Combating Weapons of Mass Destruction		12,637	
Defense Threat Reduction Agency	Direct		HDTRA1-16-1-0007	12.351	Scientific Research - Combating Weapons of Mass Destruction		282,981	
Defense Threat Reduction Agency	Direct		HDTRA1-12-1-0025	12.351	Scientific Research - Combating Weapons of Mass Destruction		(53,162)	
Defense Threat Reduction Agency	Pass-Through Cas	se Western Reserve University	HDTRA1-15-1-0039	12.351	Scientific Research - Combating Weapons of Mass Destruction		77,375	
Defense Threat Reduction Agency	Pass-Through Ge	orgia Institute of Technology	HDTRA1-16-1-0032	12.351	Scientific Research - Combating Weapons of Mass Destruction		162,590	
Defense Threat Reduction Agency	Pass-Through Ge	orgia Institute of Technology	HDTRA1-12-1-0031	12.351	Scientific Research - Combating Weapons of Mass Destruction		(6,932)	
Defense Threat Reduction Agency	Pass-Through Ma	ssachusetts Institute of Technology	HDTRA1-14-1-0057	12.351	Scientific Research - Combating Weapons of Mass Destruction		95,774	
Defense Threat Reduction Agency	_	iversity of California Los Angeles	HDTRA1-17-1-0035	12.351	Scientific Research - Combating Weapons of Mass Destruction		167,231	
Defense Threat Reduction Agency	_	iversity of Louisville	HDTRA1-15-1-0027	12.351	Scientific Research - Combating Weapons of Mass Destruction		126,840	
Defense Threat Reduction Agency		iversity of Minnesota	HDTRA1-14-1-0042	12.351	Scientific Research - Combating Weapons of Mass Destruction		(120,991)	
,		,		-	5	\$	2,538,390 \$	291,432
JS Department of Air Force	Direct		W81XWH-17-1-0266	12.420	Military Medical Research and Development		(440,401)	
JS Department of Army	Direct		W81XWH-15-1-0627	12.420	Military Medical Research and Development		66,718	
JS Department of Army	Direct		W81XWH-14-1-0298	12.420	Military Medical Research and Development		47,579	
JS Department of Army	Direct		W81XWH-16-2-0052	12.420	Military Medical Research and Development		149,685	9,699

Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Pass	ed Through
US Department of Army	Direct		W81XWH-16-1-0171	12.420	Military Medical Research and Development	140,911	
US Department of Army	Direct		W81XWH-18-1-0181	12.420	Military Medical Research and Development	83,986	
US Department of Army	Direct		W81XWH-16-1-0559	12.420	Military Medical Research and Development	200,321	20,080
US Department of Army	Direct		W81XWH-18-1-0234	12.420	Military Medical Research and Development	208,790	46,956
US Department of Army	Direct		W81XWH-18-1-0391	12.420	Military Medical Research and Development	51,362	
US Department of Army	Direct		W81XWH-16-1-0063	12.420	Military Medical Research and Development	279,491	8,270
US Department of Army	Direct		W81XWH-15-2-0068	12.420	Military Medical Research and Development	431,368	207,746
US Department of Army	Direct		W81XWH-18-1-0412	12.420	Military Medical Research and Development	97,669	,
US Department of Army	Direct		W81XWH-19-1-0089	12.420	Military Medical Research and Development	43,750	
US Department of Army	Direct		W81XWH-15-1-0438	12.420	Military Medical Research and Development	124,038	
US Department of Army	Direct		W81XWH-13-1-0397	12.420	Military Medical Research and Development	(10,301)	
US Department of Army	Direct		W81XWH-18-1-0139	12.420	Military Medical Research and Development	56,300	
US Department of Army	Direct		W81XWH-17-1-0266	12.420	Military Medical Research and Development	1,003,852	
US Department of Army	Direct		W81XWH-16-1-0064	12.420	Military Medical Research and Development	186,440	
US Department of Army	Direct		W81XWH-14-C-1422	12.420	Military Medical Research and Development	255,595	
US Department of Airry		Vanderbilt University Medical Center	VUMC61516/W81XWH-17-		Military Medical Research and Development	84,080	
US Department of Air Force	_	Wake Forest University	W81XWH-15-1-0574 WF	12.420	Military Medical Research and Development	28,386	
US Department of Army	_	Rehabilitation Institute Research Corporation	W81XWH-15-1-0374 WI	12.420	Military Medical Research and Development	57,609	
•	_	•	VUMC59895/W81XWH-15-		·		
US Department of Army	_	Vanderbilt University Medical Center			Military Medical Research and Development	(1,755)	
US Department of Army	_	Vanderbilt University Medical Center	VUMC66642_W81XWH180		Military Medical Research and Development	44,558	
US Department of Army	_	Vanderbilt University Medical Center	W81XWH-18-1-0301	12.420	Military Medical Research and Development	18,800	40.075
US Department of Army	Pass-Inrougn	Wake Forest University	W81XWH-14-2-0004 WF	12.420	Military Medical Research and Development	49,884	40,975
Defense Administration of December 1	D' I		W044NE 44 2 0022	42.424	Post Caratific Posses	\$ 3,258,714 \$	333,726
Defense Advanced Research Projects Agency	Direct		W911NF-14-2-0022	12.431	Basic Scientific Research	1,952,694	423,135
US Department of Army	Direct		W911NF-18-2-0176	12.431	Basic Scientific Research	67,707	
US Department of Army	Direct		W911NF-15-1-0176	12.431	Basic Scientific Research	(43)	
US Department of Army	Direct		W911NF-17-2-0159	12.431	Basic Scientific Research	165,136	
US Department of Army	Direct		W911NF-18-2-0081	12.431	Basic Scientific Research	206,293	
US Department of Army	Direct		W911NF1810392	12.431	Basic Scientific Research	59,774	
US Department of Army	Direct		W911NF1910345	12.431	Basic Scientific Research	2,373	
US Department of Army	Direct		W911NF-16-1-0069	12.431	Basic Scientific Research	60,505	41,310
US Department of Army	Direct		W911NF-17-1-0533	12.431	Basic Scientific Research	196,051	
						\$ 2,710,492 \$	464,445
US Department of Air Force	Direct		FA9550-15-1-0018	12.800	Air Force Defense Research Sciences Program	61,607	
US Department of Air Force	Direct		FA9550-18-1-0122	12.800	Air Force Defense Research Sciences Program	210,969	
US Department of Air Force	Direct		FA9550-17-1-0374	12.800	Air Force Defense Research Sciences Program	301,019	
US Department of Air Force	Direct		FA9101-13-D-0002/000	12.800	Air Force Defense Research Sciences Program	(14,444)	
US Department of Air Force	Direct		FA9550-18-1-0126	12.800	Air Force Defense Research Sciences Program	187,309	
US Department of Air Force	Direct		FA9550-15-1-0202	12.800	Air Force Defense Research Sciences Program	30,668	8,189
US Department of Air Force	Direct		FA9101-13-D-0002a	12.800	Air Force Defense Research Sciences Program	58,646	
US Department of Air Force	Direct		FA9550-17-1-0046	12.800	Air Force Defense Research Sciences Program	368,895	
US Department of Air Force	Direct		FA9550-11-1-0307	12.800	Air Force Defense Research Sciences Program	(5,570)	
US Department of Air Force	Pass-Through	Georgia Institute of Technology	FA9550-15-1-0512	12.800	Air Force Defense Research Sciences Program	60,629	
US Department of Air Force	Pass-Through	Global Technology Connection, Inc.	FA8501-17-C-0009 GTC	12.800	Air Force Defense Research Sciences Program	25,622	
US Department of Air Force	_	University of Dayton Research Institute	FA8650-12-D-3212/001	12.800	Air Force Defense Research Sciences Program	97,985	
US Department of Air Force	-	University of Texas at Arlington	FA9550-15-1-0258_126020		Air Force Defense Research Sciences Program	382,635	
•	J	,	_		Ç	\$ 1,765,970 \$	8,189
US Geological Survey_LOC	Direct		G18AC00101	12.810	Air Force Medical Research and Development	1,282	-,
Defense Advanced Develope Co.	Diment		IDA NICEAAA	42.040	December and Technology December	\$ 1,282 \$	-
Defense Advanced Research Projects Agency	Direct		IPA - NEEMA	12.910	Research and Technology Development	201,309	59,629
Defense Advanced Research Projects Agency	Direct		HR0011-15-C-0120	12.910	Research and Technology Development	282,734	
Defense Advanced Research Projects Agency	_	Wright State University	N66001-17-2-4019/WRI	12.910	Research and Technology Development	(13,154)	
US Department of Air Force	Pass-Through	Defense Advanced Research Projects Agency	FA8750-15-2-0087	12.910	Research and Technology Development	1,442,394	767,833
						\$ 1,913,282 \$	827,462
Defense Threat Reduction Agency	Direct		1527371	12.RD		52,961	

Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Numbe	er CFDA Program Title	Federal Expenditures	
Defense Threat Reduction Agency	Direct		HDTRA1-13-C-0063	12.RD		(9,264)
National Reconnaissance Office	Direct		NRO000-14-C-0274	12.RD		29,976	
National Reconnaissance Office	Direct		NRO000-13-C-0404	12.RD		192,675	
National Security Agency	Direct		H98230-18-D-0010	12.RD		51,397	
National Security Agency	Direct		H98230-18-D-0010	12.RD		463,481	123,272
Office of the Director of National Intelligence	Direct		2017-17081500003	12.RD		280,953	113,280
US Department of Air Force	Direct		FA9101-17-F-0064	12.RD		20,336	
US Department of Army	Direct		W81XWH-14-C-0058	12.RD		331,335	
US Department of Army	Direct		W52P1J1993008	12.RD		753	
US Department of Army	Direct		W911NF-14-2-0050	12.RD		(98	
US Department of Army	Direct		W81XWH-14-1-0278	12.RD		(4,350	
US Department of Army	Direct		W913E5-17-C-0005 DOD	12.RD		21,421	
US Department of Navy	Direct		N0002419C4302	12.RD		123,515	
Defense Advanced Research Projects Agency		I International Corporation	P030123_HR001118C0015			33,716	
Defense Advanced Research Projects Agency	Pass-Through Tri	·	TSI-2546-18-107461	12.RD		23,359	
Defense Threat Reduction Agency	•	eliable Microsysems, LLC	HDTRA1-16-P-0065	12.RD		(9,232	
_ ,	· ·	•	HQ0147-18-C-7410-S596				
Missile Defense Agency	Pass-Through Cro		·	12.RD		37,263	
Missile Defense Agency	_	eal-Time Innovations	HQ014719C7017_3199	12.RD		26,861	
US Department of Air Force	_	gis Technologies Group, Inc	002-19-6027-STTR-VU(FA8			31,756	
US Department of Air Force	_	ion Science & Technology	FA8075-14-D-0014_SUB11:			741,416	
US Department of Air Force	· ·	ion Science & Technology	FA807514D0014_SUB1118			334,241	
US Department of Air Force	-	efense Advanced Research Projects Agency	FA8750-18-C-0089_HR0013			968,843	
US Department of Air Force	_	eorgia Institute of Technology	FA8075-14-D-0018-000	12.RD		90,229	
US Department of Air Force	Pass-Through Lo	ckheed Martin Corporation	FA8750-17-C-0282_PO4103	3212.RD		158,247	
US Department of Air Force	Pass-Through PC	Krause and Associates, Inc.	FA8650-04-D-0015	12.RD		(4,319)
US Department of Air Force	Pass-Through Ra	ytheon Company	FA8750-16-C-0044	12.RD		171,231	
US Department of Air Force	Pass-Through Ro	olls-Royce Corporation	FA8650-06-5211	12.RD		(28)
US Department of Air Force	Pass-Through Se	curboration, Inc.	VICE_N0017817C1332	12.RD		8,275	
US Department of Air Force	Pass-Through So	uthwest Research Institute	FA875018C0030_L99011JV	/ 12.RD		377,385	
US Department of Air Force	Pass-Through US	Department of Air Force	FA875018C0030_L99011JV	/ 12.RD		(68,570)
US Department of Air Force	Pass-Through US	Department of Air Force	FA8075-14-D-0014_SUB11:	L{ 12.RD		(63,419)
US Department of Air Force	Pass-Through US	Department of Air Force	FA8750-17-C-0282_PO4103			(21,901	
US Department of Air Force	Pass-Through US	Department of Air Force	VICE_N0017817C1332	12.RD		(2,706	
US Department of Army	_	rma Therapeutics, Inc.	_ 11242SD4	12.RD		2,511	
US Department of Army	-	niversity of California Riverside	W912HQ18C0036_ER18-14			65,493	
US Department of Army	_	opiaCompression Corporation	VU17-0060-001-01-DOD	12.RD		9,577	
US Department of Army	-	opiaCompression Corporation	VU17-0060-001-01-DOD	12.RD		(9,577	
US Department of Army	_	inderbilt University Medical Center	W81XWH17C0252	12.RD		113,631	
US Department of Army	_	inderbilt University Medical Center	VUMC6338	12.RD		104,049	
US Department of Army	_	inderbilt University Medical Center	W81XWH-16-1-0605_VUM			44,196	
US Department of Navy	-	efense Advanced Research Projects Agency	N66001-18-C-4005	12.RD		789,741	
•	_						
US Department of Navy	•	ualtech Systems, Inc.	N6833518C0662_QSI-DSC-			56,518	
US Department of Navy	Pass-Through Ro		N61340-17-C-0007	12.RD		35,178	
US Department of Navy	Pass-Through UF	•	N00178-04-D-4042a	12.RD		(10,165	
US Department of Navy	Pass-Through UF	·	N00178-04-D-4042	12.RD		(47,555	
US Special Operations Command	Pass-Through Th	ird Floor Materials, Inc	S183-004-0058	12.RD		3,289	
						\$ 5,544,622	\$ 572,106
			Total Department of Defen	se		\$ 19,869,699	\$ 3,005,839
US Department of Housing and Urban Development	m Pass-Through Ur	niversity of Memphis	5-40624	14.228	Community Development Block Grants/State's program and No	65,027	
			Total Department of Housi	ng and Urban De	evelopment	\$ 65,027	\$ -
US Department of Interior	Direct		R18AC00110	15.506	Water Desalination Research and Development	37,055	

Cluster Title/Federal Grantor/Program	Type Pass-Through Grantor	pe Pass-Through Grantor Award Identifier CFDA Number CFDA Program Title				Federal Expenditures Passed		
		Total Department of Interio	or		\$	37,055 \$		
JS Department of Justice	Pass-Through American Institute for Research	AID 2014DCDVK001/027	16.RD			2,698		
·	_	AIR-2014DCBXK001/037				<u>-</u>		
JS Department of Justice	Pass-Through Pennslyvania Commission on Crime and Delinque	er 2013-J-04-26556 PCCD	16.RD		<u> </u>	47,779 50,477 \$		
IS Donartment of Justice	Direct	2016-CK-BK-K002	16.560	National Institute of Justice Research, Evaluation, and Developr	, ,		323,631	
JS Department of Justice	Direct	2010-CN-DN-NUU2	10.500	National institute of Justice Research, Evaluation, and Developi	¢	725,228 725,228 \$	323,631	
JS Department of Justice	Direct	2017-IJ-CX-0007	16.562	Criminal Justice Research and Development_Graduate Research	ب h	47,591	323,031	
55 Department of Justice	Direct	2017 IJ CX 0007	10.302	Chiminal sustice Research and Development_Graduate Research	\$	47,591 \$		
JS Department of Justice	Direct	2014-IJ-CX-0021 DOJ	16.812	Second Chance Act Reentry Initiative	<u> </u>	295		
				,,	\$	295 \$	-	
JS Department of Justice	Direct	MARTHA-OBRYAN-DOJ	16.817	Innovations in Community-Based Crime Reduction	- '	(80)		
·				,	\$	(80) \$	-	
		Total Department of Justice	e		\$	823,510 \$	323,631	
		•				· · ·	<u> </u>	
US Department of Labor	Direct	IL-26698-14-75-K-47	17.401	International Labor Programs		(2,540)		
		Total Department of Labor			\$	(2,540) \$	-	
JS Department of State	Pass-Through Institute of International Education, Inc.	IIE HUMPREY'S FELLOW	19.RD			2,865		
·					\$	2,865 \$	-	
US Department of State	Pass-Through Institute of International Education, Inc	IIE 000312 2018/2019	19.010	Academic Exchange Programs - Hubert H. Humphrey Fellowship	<u></u>	209,462		
					\$	209,462 \$	-	
S Department of State	Direct	S-CH500-17-GR2070	19.040	Public Diplomacy Programs		32,835		
					\$	32,835 \$	-	
		Total US Department of Sta	ate		\$	245,162 \$	-	
JS Department of Transportation	Pass-Through TN Department of Transportation	TDOT 40100-00517	20.RD			(9)		
US Department of Transportation	Pass-Through University of Arkansas	69A355174713	20.RD			(8,143)		
·	,				\$	(8,152) \$	-	
US Department of Transportation	Direct	693JJ31945049	20.215	Highway Training and Education		3,989		
		693JJ31845069	20.215	Highway Training and Education		1,800		
		693JJ31945027	20.215	Highway Training and Education		8,545		
		693JJ31945012	20.215	Highway Training and Education		15,437		
		693JJ31945020	20.215	Highway Training and Education		8,780		
JS Department of Transportation	Direct	693JJ31845050	20.215	Highway Training and Education		1,797		
US Department of Transportation	Direct	693JJ31845003	20.215	Highway Training and Education		13,247		
					\$	53,595 \$	-	
US Department of Transportation	Direct	693JK318C000011	20.514	Public Transportation Research, Technical Assistance, and Train	· \$	114,399		
					\$	114,399 \$	-	
JS Department of Transportation	Pass-Through University of Illinois at Urbana-Champaign	072605-17253_DTRT13-G-	U 20.701	University Transportation Centers Program	\$	36,478		
UC Department of Transportation	Dage Through Historian of Autopage	COA2FF4747420 ADMANC	20.020	Naviting Chadias and Inneresting	\$	36,478 \$	-	
US Department of Transportation	Pass-Through University of Arkansas	69A3551747130 ARKANS	20.820	Maritime Studies and Innovations	¢	175,421 175,421 \$	_	
		Total Department of Trans	portation		\$	371,742 \$		
US Department of Treasury	Direct	IPA 991054	21.RD			68,768		
					\$	68,768 \$	-	
		Total Department of Treaso	ury		\$	68,768 \$	-	
NASA Goddard Space Flight Center	Direct	NNX15AR87H GODDARD	43.RD			3,121		

Cluster Title/Federal Grantor/Program	Type Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Passe	d Through
NASA Goddard Space Flight Center	Direct	80NSSC18K0445	43.RD		186,390	
NASA Goddard Space Flight Center	Direct	NNX17GD47P - NASA	43.RD		(2,018)	
IASA Goddard Space Flight Center	Direct	NASA NNG16LP08P	43.RD		(26,976)	
NASA Langley Research Center	Direct	NASA NNX16AD07G	43.RD		76,281	
NASA Ames Research Center	Pass-Through Qualtech Systems, Inc.	NNX15CA11C/QSI-DSC-1	43.RD		16,251	
NASA Glenn Space Flight Center	Pass-Through Scientic, Inc.	SCIENTIC SCI.00753	43.RD		96,439	
NASA Goddard Space Flight Center	Pass-Through CFD Research Corporation	9269/NNX17CG10C	43.RD		64,686	
NASA Goddard Space Flight Center	Pass-Through CFD Research Corporation	20160788	43.RD		17,781	
NASA Goddard Space Flight Center	Pass-Through CFD Research Corporation	CONTR 20160317	43.RD		(5,633)	
NASA Goddard Space Flight Center	Pass-Through IOP Technologies	VU-KV #5015	43.RD		(3,816)	
NASA Goddard Space Flight Center	Pass-Through Massachusetts Institute of Technology	MIT 5710003558	43.RD		17,564	
NASA Goddard Space Flight Center	Pass-Through Metrolaser, Inc.	METROLASER	43.RD		81,274	
NASA Goddard Space Flight Center	Pass-Through Scientic, Inc.	SCI.00566	43.RD		(50)	
NASA Goddard Space Flight Center	Pass-Through The Catholic University of America	CATH-UNI/361381 SUB1	43.RD		(243)	
NASA Goddard Space Flight Center	Pass-Through The Catholic University of America	361381 Sub 2	43.RD		22,715	
NASA Goddard Space Flight Center	Pass-Through University of Pittsburgh	PITT/CASIS GA-2016-2	43.RD		55,305	
					\$ 1,356,706 \$	447,10
IASA Goddard Space Flight Center	Direct	NNX17AJ09G GODDARD	43.001	Science	46,972	
NASA Goddard Space Flight Center	Direct	80NSSC18K1297	43.001	Science	11,966	
IASA Goddard Space Flight Center	Direct	80NSSC18K0523	43.001	Science	257,202	
IASA Jet Propulsion Lab	Direct	1600101	43.001	Science	45,425	
IASA Jet Propulsion Lab	Direct	1592616	43.001	Science	106,362	
IASA Jet Propulsion Lab	Direct	1953567	43.001	Science	21,582	
NASA Goddard Space Flight Center	Pass-Through NASA Jet Propulsion Lab	1623087	43.001	Science	42,947	
IASA Goddard Space Flight Center	Pass-Through University of Michigan	SUBK00011110	43.001	Science	8,293	
IASA Goddard Space Flight Center	Pass-Through University of Wisconsin	825K182	43.001	Science	26,180	
IASA Goddard Space Flight Center	Pass-Through University of Wisconsin	830K826	43.001	Science	126,979	
					\$ 693,910 \$	
NASA Goddard Space Flight Center	Pass-Through Arizona State University	17-265	43.002	Aeronautics	369,217	
Wilder Courage Chight Contest	Tubb Timough Tubbona State State State	1, 200	101002	, teromated	\$ 369,217 \$	
NASA Goddard Space Flight Center	Direct	NNX16AR25G	43.006	Science, Recovery Act	(22,286)	
VASA doddard Space Flight center	Direct	MINIOANZOG	45.000	Science, necovery Act	\$ (22,286) \$	
NASA Ames Research Center	Direct	NNX15AU33H AMES	43.008	Education	46,296	
NASA AITIES NESEAICH CEITEI	Direct	NINATSAUSSIT AIVIES	45.008	Ludcation	\$ 46,296 \$	
NASA Coddard Space Elight Contor	Direct	80NSSC18K0493	43.009	Cross Agansy Sunnort	160,724	
NASA Goddard Space Flight Center				Cross Agency Support		
NASA Goddard Space Flight Center	Direct	80NSSC18K0721	43.009	Cross Agency Support	160,580	
	S	AUAU/474 B000	12.012		\$ 321,304 \$	•
NASA Goddard Space Flight Center	Direct	NNX17AD09G	43.012	Space Technology	158,371	
NASA Goddard Space Flight Center	Direct	80NSSC18K1165	43.012	Space Technology	60,236	
NASA Goddard Space Flight Center	Direct	NNX16AM57H	43.012	Space Technology	63,422	
NASA Kennedy Space Center	Pass-Through University of Miami	NNX16AT48A	43.012	Space Technology	16,773	
					\$ 298,802 \$,
					 	
		Total National Aeronautics	s and Space Admini	istration	\$ 3,063,949 \$	447,101
National Endowment for the Arts	Direct	NEAPS 1602	45.024	Promotion of the Arts_Grants to Organizations and Individua		91,683
					\$ 87,210 \$	91,683
National Endowment for the Humanities	Pass-Through Texas A & M University	02-S150269	45.149	Promotion of the Humanities_Division of Preservation and A		
					\$ 4,980 \$	-
National Endowment for the Humanities	Direct	HK-250720-16	45.169	Promotion of the Humanities_Office of Digital Humanities	77,432	
					\$ 77,432 \$	
lational Endowment for the Humanities	Pass-Through Nashville Public Library Foundation	NAZA/NPL	45.312	National Leadership Grants	6,830	
	·				\$ 6,830 \$	
					· ·	
		Total National Endowmen	t for the Humanitit	es	\$ 176,452 \$	91,683

Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal	Expenditures Passe	d Through
National Science Foundation	Direct		ECCS 1932711	47.RD			2,010	
National Science Foundation	Direct		1817594	47.RD			8,773	
National Science Foundation	Direct		CBET1605200	47.RD			77,143	5,919
National Science Foundation	Direct		CNS1446304	47.RD			28,458	-,
National Science Foundation	Direct		CHE1506587	47.RD			10,840	
National Science Foundation	Direct		CBET1821573	47.RD			5,958	
National Science Foundation		nderbilt University Medical Center	VUMC 66141	47.RD			17,846	
National Science Foundation	ŭ	nerican Educational Research Association	AERA Dissertation Grant	47.RD			6,647	
National Science Foundation	ŭ	rida International University	800004776-058UG	47.RD			6,170	
National Science Foundation	1 d33 THI Odgil Tio	rida international oniversity	000004770 03000	47.110		\$	163,843 \$	5,919
National Science Foundation	Direct		IIP1646269	47.041	Engineering Grants	<u> </u>	(41)	3,313
National Science Foundation	Direct		EECS1809937	47.041	Engineering Grants		15,934	
National Science Foundation	Direct		EECS1509740	47.041	Engineering Grants		166	
National Science Foundation	Direct		ECCS1407777	47.041	Engineering Grants		98,123	
National Science Foundation	Direct		CBET1604426	47.041	Engineering Grants		38,608	
National Science Foundation	Direct		CBET1828299	47.041	Engineering Grants		709,337	
National Science Foundation	Direct		CMMI1462866	47.041	Engineering Grants		145,253	
National Science Foundation	Direct		CBET1404823	47.041			6,351	
					Engineering Grants			
National Science Foundation	Direct		CBET1705048	47.041	Engineering Grants		69,434	
National Science Foundation	Direct		EECS1810088	47.041	Engineering Grants		52,365	
National Science Foundation	Direct		ECCS1055852	47.041	Engineering Grants		(3,124)	
National Science Foundation	Direct		CBET1805924	47.041	Engineering Grants		88,810	
National Science Foundation	Direct		CBET1067213	47.041	Engineering Grants		(2,124)	
National Science Foundation	Direct		CBET1437384	47.041	Engineering Grants		3,032	1,070
National Science Foundation	Direct		1435755	47.041	Engineering Grants		50,577	
National Science Foundation	Direct		CMMI1740900	47.041	Engineering Grants		20,802	
National Science Foundation	Direct		CMMI1400424	47.041	Engineering Grants		2,072	
National Science Foundation	Direct		CMMI1744333	47.041	Engineering Grants		15,764	
National Science Foundation	Direct		IIP1829321	47.041	Engineering Grants		26,783	
National Science Foundation	Direct		CMMI1635717	47.041	Engineering Grants		97,645	
National Science Foundation	Direct		CBET1705714	47.041	Engineering Grants		88,818	8,571
National Science Foundation	Direct		CBET1606005	47.041	Engineering Grants		78,994	
National Science Foundation	Direct		CBET1706155	47.041	Engineering Grants		54,075	
National Science Foundation	Direct		CBET1554623	47.041	Engineering Grants		17,175	
National Science Foundation	Direct		IIP1735762	47.041	Engineering Grants		32,609	
National Science Foundation	Direct		IIP1817937	47.041	Engineering Grants		10,665	
National Science Foundation	Direct		EEC1642895	47.041	Engineering Grants		166,416	
National Science Foundation	Direct		CBET1805126	47.041	Engineering Grants		3,925	
National Science Foundation	Direct		ECCS1508898	47.041	Engineering Grants		70,434	39,475
National Science Foundation	Direct		IIP 1855287	47.041	Engineering Grants		24,339	
National Science Foundation	Direct		CBET1706956	47.041	Engineering Grants		49,392	
National Science Foundation	Direct		CMMI1727863	47.041	Engineering Grants		59,739	
National Science Foundation	Direct		CMMI1563389	47.041	Engineering Grants		85,315	
National Science Foundation	Direct		FAIN 1462575	47.041	Engineering Grants		69,099	
National Science Foundation	Direct		CMMI1634856	47.041	Engineering Grants		94,455	
National Science Foundation	Direct		CMMI1435115	47.041	Engineering Grants		20,000	
National Science Foundation	Direct		ECCS1351334	47.041	Engineering Grants		72,818	
National Science Foundation	Direct		IIP1912657	47.041	Engineering Grants		40,363	
National Science Foundation	Direct		IIP1838482	47.041	Engineering Grants		41,142	
National Science Foundation	Direct		IIP 1906995	47.041	Engineering Grants		20,182	
National Science Foundation National Science Foundation			CMMI1734461	47.041 47.041				
	Direct				Engineering Grants		191,802	14 205
National Science Foundation	Direct		CMMI1537659	47.041	Engineering Grants		86,772	14,305
National Science Foundation	Direct		IIP1835028	47.041	Engineering Grants		50,244	
National Science Foundation	Direct		CMMI1300406	47.041	Engineering Grants		(8,547)	

Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Passo	ed Through
National Science Foundation	Direct		CBET1403456	47.041	Engineering Grants	5,487	
lational Science Foundation	Direct		CMMI1853913	47.041	Engineering Grants	57,704	
lational Science Foundation	Direct		IIP1834962	47.041	Engineering Grants	40,182	
National Science Foundation	Direct		CBET1922936	47.041	Engineering Grants	22,546	
National Science Foundation	Pass-Through Go	eorgia Institute of Technology	RJ378-G3	47.041	Engineering Grants	70,089	
National Science Foundation	Pass-Through Ju	ineBrain, LLC	NSF 17-596	47.041	Engineering Grants	41,395	
National Science Foundation	Pass-Through Li	pscomb University	LU19001	47.041	Engineering Grants	48,840	
National Science Foundation	Pass-Through PA	•	1721476	47.041	Engineering Grants	47,371	
National Science Foundation	_	utgers, The State University of New Jersey	SUB#0020	47.041	Engineering Grants	83,580	
National Science Foundation		yndax Pharmaceuticals, Inc.	MOERAE IIP1622828	47.041	Engineering Grants	5,399	
National Science Foundation		niversity of Illinois at Urbana-Champaign	CMMI1727785	47.041	Engineering Grants	36,298	
National Science Foundation	· ·	niversity of Maryland College Park	66507-Z3302202	47.041	Engineering Grants	40,038	
National Science Foundation		niversity of Minnesota	EEC0540834 T53066926	47.041	Engineering Grants	(4,130)	
National Science Foundation	Pass-Through Ve	•	UNIV60327	47.041	Engineering Grants	70,959	
		,				\$ 3,421,750 \$	63,420
National Science Foundation	Direct		CHE1214104	47.049	Mathematical and Physical Sciences	(1,885)	,
National Science Foundation	Direct		DMS1710534	47.049	Mathematical and Physical Sciences	35,056	
National Science Foundation	Direct		DMR1207019	47.049	Mathematical and Physical Sciences	(2,694)	
National Science Foundation	Direct		DMS1500180	47.049	Mathematical and Physical Sciences	6,715	
National Science Foundation	Direct		DMR1349604	47.049	Mathematical and Physical Sciences	12,730	
National Science Foundation	Direct		PHY1806612	47.049	Mathematical and Physical Sciences	405,666	
National Science Foundation	Direct		PHY1506406	47.049	Mathematical and Physical Sciences	117,445	
National Science Foundation	Direct		CHE1847813	47.049	Mathematical and Physical Sciences	33,165	
National Science Foundation	Direct		DMR1506717	47.049	Mathematical and Physical Sciences	61,446	
National Science Foundation	Direct		PHY1314463	47.049	Mathematical and Physical Sciences	(90)	
National Science Foundation	Direct		DMR1507505	47.049	Mathematical and Physical Sciences	49,880	15,965
National Science Foundation	Direct		CHE1905265	47.049	Mathematical and Physical Sciences	3,898	13,303
National Science Foundation	Direct		CHE1353105	47.049	Mathematical and Physical Sciences	(3,501)	
National Science Foundation	Direct		DMS1711089	47.049	Mathematical and Physical Sciences	77,480	
National Science Foundation	Direct		DMR1308550	47.049	Mathematical and Physical Sciences	(418)	
National Science Foundation	Direct		DMS1711567	47.049	Mathematical and Physical Sciences	5,032	
National Science Foundation	Direct		DMS1911307	47.049	Mathematical and Physical Sciences	72,127	
National Science Foundation	Direct		CHE1847804	47.049	Mathematical and Physical Sciences	20,731	
National Science Foundation	Direct		IIS1548499	47.049	Mathematical and Physical Sciences	446	
National Science Foundation	Direct		DMR1904793	47.049	Mathematical and Physical Sciences	70	
National Science Foundation	Direct		DMS1612473	47.049 47.049	-	76,359	
National Science Foundation	Direct		DMR1560414	47.049 47.049	Mathematical and Physical Sciences	125,987	
National Science Foundation			CHE1464874	47.049 47.049	Mathematical and Physical Sciences		
National Science Foundation	Direct		DMS1812826	47.049 47.049	Mathematical and Physical Sciences Mathematical and Physical Sciences	71,244 23,295	
National Science Foundation	Direct		DMS1801125	47.049 47.049	Mathematical and Physical Sciences		
National Science Foundation National Science Foundation	Direct Direct		DMS1500125	47.049 47.049	Mathematical and Physical Sciences	40,915	
					·	13,395	0.506
National Science Foundation	Direct		DMS1812601	47.049 47.040	Mathematical and Physical Sciences	84,989	8,596
National Science Foundation	Direct		CHE1610964	47.049	Mathematical and Physical Sciences	119,957	
National Science Foundation	Direct		CHE1665327	47.049	Mathematical and Physical Sciences	107,045	
National Science Foundation	Direct		DMR1726533	47.049	Mathematical and Physical Sciences	208,590	
National Science Foundation	Direct		DMR1610357	47.049	Mathematical and Physical Sciences	90,163	
National Science Foundation	Direct		DMS1322099	47.049	Mathematical and Physical Sciences	101,334	
National Science Foundation	Direct		DMS1516400	47.049	Mathematical and Physical Sciences	46,671	
National Science Foundation	Direct		CHE1460706	47.049	Mathematical and Physical Sciences	83,269	
National Science Foundation	Direct		CHE1464864	47.049	Mathematical and Physical Sciences	32,619	
National Science Foundation	Direct		OMA1744440	47.049	Mathematical and Physical Sciences	169,385	27,760
National Science Foundation	Direct		DMR1309258	47.049	Mathematical and Physical Sciences	4,362	
National Science Foundation	Direct		DMS1500174	47.049	Mathematical and Physical Sciences	39,383	
National Science Foundation	Direct		PHY1852158	47.049	Mathematical and Physical Sciences	94,799	
National Science Foundation	Direct		PHY1560035	47.049	Mathematical and Physical Sciences	(16,345)	

Cluster Title/Federal Grantor/Program	Type	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Pas	sed Through
National Science Foundation	Direct		DMS1521749	47.049	Mathematical and Physical Sciences	3,968	
National Science Foundation	Direct		DMS1562078	47.049	Mathematical and Physical Sciences	88,257	
National Science Foundation	Direct		DMR1549955	47.049	Mathematical and Physical Sciences	55,924	
National Science Foundation	Direct		DMR1508433	47.049	Mathematical and Physical Sciences	45,174	
National Science Foundation	Direct		DMS1418742	47.049	Mathematical and Physical Sciences	1,170	
National Science Foundation	Direct		AST1151650	47.049	Mathematical and Physical Sciences	11,700	
National Science Foundation	Direct		DMS1710970	47.049	Mathematical and Physical Sciences	34,006	
National Science Foundation	Direct		DMS1804586	47.049	Mathematical and Physical Sciences	4,080	
National Science Foundation	Direct		CHE1305874	47.049	Mathematical and Physical Sciences	11,017	
National Science Foundation	Direct		DMS 1914537	47.049	Mathematical and Physical Sciences	29,839	
National Science Foundation	Direct		DMS1710557	47.049	Mathematical and Physical Sciences	4,107	
National Science Foundation	Direct		DMS1748644	47.049	Mathematical and Physical Sciences	9,287	
National Science Foundation	Direct		DMS1763942	47.049	Mathematical and Physical Sciences	5,269	
National Science Foundation	Direct		DMS1855778	47.049	Mathematical and Physical Sciences	27,722	
National Science Foundation	Direct		DMS1800204	47.049	Mathematical and Physical Sciences	17,542	
National Science Foundation	Direct		1760991	47.049	Mathematical and Physical Sciences	5,969	
National Science Foundation		University of Illinois at Urbana-Champaign	11-07452	47.049	Mathematical and Physical Sciences	18,324	
National Science Foundation	-	University of Illinois at Urbana-Champaign	057930-16835	47.049	Mathematical and Physical Sciences	6,610	
National Science Foundation	_	University of Norte Dame	Quarknet 2018	47.049	Mathematical and Physical Sciences	3,482	
National Science Foundation	r ass-iiii ougii	offiversity of Norte Dame	Quarkilet 2018	47.043	Mathematical and Physical Sciences	\$ 2,794,161 \$	52,320
National Science Foundation	Direct		OPP1847173	47.050	Geosciences	12,538	32,320
National Science Foundation	Direct		EAR1757545	47.050	Geosciences	3,331	
National Science Foundation	Direct		FAIN 1455198	47.050	Geosciences	55,474	
National Science Foundation	Direct		PLR1355654	47.050	Geosciences	36,271	
National Science Foundation	Direct		PLR1445169	47.050 47.050	Geosciences	21,926	
National Science Foundation			EAR1830122				
	Direct		ICER1801362	47.050	Geosciences	60,840	
National Science Foundation	Direct			47.050	Geosciences	32,436	
National Science Foundation	Direct		AGS1554998	47.050	Geosciences	61,746	
National Science Foundation	Direct		EAR1600766	47.050	Geosciences	1,120	
National Science Foundation	Direct		EAR1416964	47.050	Geosciences	4,350	
National Science Foundation	Direct		EAR1263310	47.050	Geosciences	(1,800)	
National Science Foundation	Direct		EAR1735992	47.050	Geosciences	13,591	
National Science Foundation	Direct		EAR1226076	47.050	Geosciences	(857)	
National Science Foundation	Direct		OCE1600319	47.050	Geosciences	266,545	
National Science Foundation	Direct		EAR1830172	47.050	Geosciences	52,395	40,031
National Science Foundation	Direct	_	PLR1341428	47.050	Geosciences	(2,546)	
National Science Foundation	Pass-Through	University of Minnesota	UOM/NSF	47.050	Geosciences	39,572	
						\$ 656,932 \$	40,031
National Science Foundation	Direct		CNS1739328	47.070	Computer and Information Science and Engineering	118,724	
National Science Foundation	Direct		CNS1238959	47.070	Computer and Information Science and Engineering	155,822	
National Science Foundation	Direct		CCF1736323	47.070	Computer and Information Science and Engineering	132,585	118,548
National Science Foundation	Direct		CCF1719674	47.070	Computer and Information Science and Engineering	9,389	
National Science Foundation	Direct		IIS1623690	47.070	Computer and Information Science and Engineering	179,635	14,429
National Science Foundation	Direct		IIS1647242	47.070	Computer and Information Science and Engineering	13,365	
National Science Foundation	Direct		IIS1750994	47.070	Computer and Information Science and Engineering	106,794	
National Science Foundation	Direct		CCF1521672	47.070	Computer and Information Science and Engineering	32,143	
National Science Foundation	Direct		IIS1763966	47.070	Computer and Information Science and Engineering	7,209	
National Science Foundation	Direct		1823257	47.070	Computer and Information Science and Engineering	58,579	
National Science Foundation	Direct		IIS1526448	47.070	Computer and Information Science and Engineering	52,731	
National Science Foundation	Direct		1452485	47.070	Computer and Information Science and Engineering	38,807	
National Science Foundation	Direct		CNS1840052	47.070	Computer and Information Science and Engineering	21,970	
National Science Foundation	Direct		IIS1441542	47.070	Computer and Information Science and Engineering	(3,961)	
National Science Foundation	Direct		CNS1818901	47.070	Computer and Information Science and Engineering	23,131	
National Colones Foundation	Direct		IIS1814958	47.070	Computer and Information Science and Engineering	20,916	
National Science Foundation	Direct		1131014330	171070	compater and information objected and Engineering	20,510	

Cluster Title/Federal Grantor/Program	Type Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Passo	ed Through
National Science Foundation	Direct	ACT1535150	47.070	Computer and Information Science and Engineering	139,270	
National Science Foundation	Direct	CNS1629853	47.070	Computer and Information Science and Engineering	72,353	
National Science Foundation	Direct	CCF1318571	47.070	Computer and Information Science and Engineering	(36,674)	
National Science Foundation	Direct	OAC 1835874	47.070	Computer and Information Science and Engineering	72,327	
lational Science Foundation	Direct	OAC1841527	47.070	Computer and Information Science and Engineering	20,359	
lational Science Foundation	Direct	CNS1744561	47.070	Computer and Information Science and Engineering	5,903	
ational Science Foundation	Direct	CNS1744334	47.070	Computer and Information Science and Engineering	81,218	
lational Science Foundation	Direct	CCF1832312	47.070	Computer and Information Science and Engineering	292,589	
lational Science Foundation	Direct	CNS1649291	47.070	Computer and Information Science and Engineering	31,457	
lational Science Foundation	Direct	IIS1623625	47.070	Computer and Information Science and Engineering	155,735	435
lational Science Foundation	Direct	IIS1652372	47.070	Computer and Information Science and Engineering	108,253	48,365
ational Science Foundation	Direct	CNS1521617	47.070	Computer and Information Science and Engineering	1,170,938	407,966
ational Science Foundation	Direct	CNS1545573	47.070	Computer and Information Science and Engineering	2,563	,
lational Science Foundation	Direct	OAC1740151	47.070	Computer and Information Science and Engineering	47,805	
lational Science Foundation	Direct	CNS1644848	47.070	Computer and Information Science and Engineering	82,543	
ational Science Foundation	Direct	CNS1531079	47.070	Computer and Information Science and Engineering	39,367	
ational Science Foundation	Direct	IIS1649972	47.070	Computer and Information Science and Engineering	24,713	
ational Science Foundation	Direct	CNS1640624	47.070	Computer and Information Science and Engineering	29,358	
ational Science Foundation	Direct	IIS1526860	47.070	Computer and Information Science and Engineering	83,348	
lational Science Foundation	Direct	CNS1552836	47.070	Computer and Information Science and Engineering	92,978	
ational Science Foundation	Direct	IIS1327566	47.070	Computer and Information Science and Engineering	158,174	4,182
lational Science Foundation	Direct	CBET0967170	47.070	Computer and Information Science and Engineering	(16,975)	4,102
ational Science Foundation	Direct	CNS1629811	47.070	Computer and Information Science and Engineering	60,065	
ational Science Foundation	Direct	CNS1837652	47.070	Computer and Information Science and Engineering	19,005	
ational Science Foundation	Direct	CNS1857032 CNN1854321	47.070 47.070	Computer and Information Science and Engineering	43,829	
ational Science Foundation	Direct	IIS1855048	47.070 47.070		·	
ational Science Foundation		IIS1838347		Computer and Information Science and Engineering	16,310	
	Direct		47.070 47.070	Computer and Information Science and Engineering	195,854	
ational Science Foundation	Direct	1840713	47.070 47.070	Computer and Information Science and Engineering	122,329	
ational Science Foundation	Direct	CNS1743523	47.070 47.070	Computer and Information Science and Engineering	102,606	
ational Science Foundation	Direct	CNS1641269	47.070	Computer and Information Science and Engineering	110,562	
ational Science Foundation	Direct	SUB 1345 DARTMOUTH	47.070	Computer and Information Science and Engineering	11,452	
ational Science Foundation	Direct	501311SG161	47.070	Computer and Information Science and Engineering	15,213	
ational Science Foundation	Direct	800007071-03UG	47.070	Computer and Information Science and Engineering	2,644	
lational Science Foundation	Pass-Through Dartmouth College	BL4840230VU	47.070	Computer and Information Science and Engineering	30,915	
lational Science Foundation	Pass-Through New York University	NYU 1735909	47.070	Computer and Information Science and Engineering	55,687	
ational Science Foundation	Pass-Through The Learning Partnership	UNIV59809 1738572	47.070	Computer and Information Science and Engineering	3,440	
lational Science Foundation	Pass-Through Virginia Polytechnic Institute and State Univers	•	47.070	Computer and Information Science and Engineering	2,418	
lational Science Foundation	Pass-Through Vanderbilt University Medical Center	479589-19645	47.070	Computer and Information Science and Engineering	58,968	
					\$ 4,564,679 \$	593,925
lational Science Foundation	Direct	DEB1753982	47.074	Biological Sciences	148,485	
ational Science Foundation	Direct	MCB1517695	47.074	Biological Sciences	128,310	
ational Science Foundation	Direct	IOS-1456844	47.074	Biological Sciences	106,150	
lational Science Foundation	Direct	IOS1257936	47.074	Biological Sciences	(682)	
ational Science Foundation	Direct	DEB1046149	47.074	Biological Sciences	(218)	
lational Science Foundation	Direct	1456778	47.074	Biological Sciences	234,627	
ational Science Foundation	Direct	DEB1442113	47.074	Biological Sciences	83,942	
ational Science Foundation	Direct	IOS1456472	47.074	Biological Sciences	105,950	
lational Science Foundation	Direct	MCB1330792	47.074	Biological Sciences	241,117	
lational Science Foundation	Direct	MCB1818019	47.074	Biological Sciences	140,251	
lational Science Foundation	Direct	NSF 1411482	47.074	Biological Sciences	351,197	
					\$ 1,539,129 \$	
lational Science Foundation	Direct	BCS-1257098	47.075	Social, Behavioral, and Economic Sciences	(6,989)	
ational Science Foundation	Direct	SES-1556325	47.075	Social, Behavioral, and Economic Sciences	77,708	
lational Science Foundation	Direct	BCS1716699	47.075	Social, Behavioral, and Economic Sciences	482	
National Science Foundation	Direct	BCS1904291	47.075	Social, Behavioral, and Economic Sciences	5,148	

Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures	Passed Through
National Science Foundation	Direct		BCS1557097	47.075	Social, Behavioral, and Economic Sciences	93,433	
National Science Foundation	Direct		SES 1851690	47.075	Social, Behavioral, and Economic Sciences	4,041	
National Science Foundation	Direct		BCS1628403	47.075	Social, Behavioral, and Economic Sciences	812	
National Science Foundation	Direct		BCS-1558499	47.075	Social, Behavioral, and Economic Sciences	16,597	
National Science Foundation	Direct		BCS1560534	47.075	Social, Behavioral, and Economic Sciences	17,548	
National Science Foundation	Direct		BCS1556700	47.075	Social, Behavioral, and Economic Sciences	124,432	
National Science Foundation	Direct		SES1426811	47.075	Social, Behavioral, and Economic Sciences	(39,474)	
National Science Foundation	Direct		1756417	47.075	Social, Behavioral, and Economic Sciences	171,751	
National Science Foundation	Direct		BCS1651075	47.075	Social, Behavioral, and Economic Sciences	60,328	
National Science Foundation	Direct		BCS1744386	47.075	Social, Behavioral, and Economic Sciences	41,974	
National Science Foundation	Direct		BCS1753626	47.075	Social, Behavioral, and Economic Sciences	101,838	
National Science Foundation	Direct		1829148	47.075 47.075	Social, Behavioral, and Economic Sciences		
					·	111,943	
National Science Foundation	Direct		BCS1840896	47.075	Social, Behavioral, and Economic Sciences	15,732	02.526
National Science Foundation	Direct		SMA-1640681	47.075	Social, Behavioral, and Economic Sciences	344,192	92,526
National Science Foundation	Direct		BCS1534866	47.075	Social, Behavioral, and Economic Sciences	117,627	
National Science Foundation	Direct		BCS1730044	47.075	Social, Behavioral, and Economic Sciences	116,220	
National Science Foundation	Pass-Through Unive	rsity of Colorado Boulder	1555794 UCB	47.075	Social, Behavioral, and Economic Sciences	41,852	
						\$ 1,417,196	\$ 92,526
National Science Foundation	Direct		DRL1660816	47.076	Education and Human Resources	382,420	
National Science Foundation	Direct		DRL1750213	47.076	Education and Human Resources	105,241	
National Science Foundation	Direct		DRL1620863	47.076	Education and Human Resources	291,418	
National Science Foundation	Direct		DUE1561676	47.076	Education and Human Resources	207,909	
National Science Foundation	Direct		DRL1640199	47.076	Education and Human Resources	898,102	594,771
National Science Foundation	Direct		DUE1762158	47.076	Education and Human Resources	317,379	187,851
National Science Foundation	Direct		DRL1813008	47.076	Education and Human Resources	352,435	781
National Science Foundation	Direct		DGE1652825	47.076	Education and Human Resources	224,434	
National Science Foundation	Direct		DRL1535327	47.076	Education and Human Resources	111,824	
National Science Foundation	Direct		DRL1742257	47.076	Education and Human Resources	247,280	
National Science Foundation	Direct		DRL1420488	47.076	Education and Human Resources	126,283	
National Science Foundation	Direct		DMR1252380	47.076	Education and Human Resources	13,559	
National Science Foundation	Direct		GRFP	47.076	Education and Human Resources	72,417	
National Science Foundation	Direct		DRL1621088	47.076	Education and Human Resources	462,155	
National Science Foundation	Direct		DRL1316312	47.076	Education and Human Resources	14,070	
National Science Foundation			DRL 1812789	47.076 47.076	Education and Human Resources	5,800	
National Science Foundation	Direct		HRD1647196	47.076 47.076	Education and Human Resources		12 622
	Direct					297,735	43,633
National Science Foundation	Direct		DRL1561286	47.076	Education and Human Resources	187,839	
National Science Foundation	Direct		DRL1620920	47.076	Education and Human Resources	556,725	
National Science Foundation	Direct		DRL1643313	47.076	Education and Human Resources	34,165	
National Science Foundation	Direct		DRL1760225	47.076	Education and Human Resources	364,003	
National Science Foundation	Direct		HRD1649285	47.076	Education and Human Resources	3,331	
National Science Foundation	Direct		DUE1711712	47.076	Education and Human Resources	24,131	
National Science Foundation	Direct		DUE1439866	47.076	Education and Human Resources	301,112	27,322
National Science Foundation	Direct		DGE1445197	47.076	Education and Human Resources	1,784,662	
National Science Foundation	Pass-Through Fisk U	niversity	HRD1826755	47.076	Education and Human Resources	6,679	
National Science Foundation	Pass-Through Michig	gan State University	RC103138VU	47.076	Education and Human Resources	(430)	
National Science Foundation	Pass-Through New Y	ork University	F0394-02NYU	47.076	Education and Human Resources	171,143	
National Science Foundation	Pass-Through North	western University	NORTHWESTERN	47.076	Education and Human Resources	13,824	
National Science Foundation	Pass-Through Purdu	•	4101-77570 PURDUE	47.076	Education and Human Resources	26,582	
National Science Foundation	_	ernational Corporation	SRI 1742195	47.076	Education and Human Resources	186,175	
National Science Foundation	Pass-Through Tenne	·	HRD1826954	47.076	Education and Human Resources	43,976	
National Science Foundation	Pass-Through Tenne	·	HRD1305062 TSU	47.076	Education and Human Resources	12,856	
National Science Foundation	Pass-Through Tenne	•	332.77-16.014	47.076	Education and Human Resources	10,000	
National Science Foundation	Pass-Through Tufts	·	NSF023	47.076	Education and Human Resources	2,322	
Maderial Science i Gandation	1 a33 Till Ough Tuits	oversity	1431 023	77.070	Education and Human Nesources	\$ 7,859,559	\$ 854,358
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Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federa	l Expenditures Pass	sed Through
National Science Foundation	Direct		OISE1743772	47.079	Office of International Science and Engineering		446,326	95,299
National Science Foundation	Pass-Through Columb	oia University	5-24879	47.079	Office of International Science and Engineering		(4,109)	
						\$	483,522 \$	95,299
National Science Foundation	Direct		OCI1047828	47.080	Office of Cyberinfrastructure		2,270	
						\$	2,270 \$	-
			Total National Science Fou	ndation		\$	22,903,040 \$	1,797,799
Veterans Affairs	Direct		IPA - OLATUNJI	64.RD			48,155	
Veterans Affairs	Direct		IPA WRIISC	64.RD			1,339	
						\$	49,493 \$	-
			Total Veterans Affairs			\$	49,493 \$	-
Environmental Protection Agency	Direct		83573601	66.509	Science To Achieve Results (STAR) Research Program		742,490	435,863
211VII OTTITETT TO TO COLIO IT A GENEY	Birect		03373001	00.505	Section To Name ve Results (STAIN) Research Trogram	Ś	742,490 \$	435,863
Environmental Protection Agency	Pass-Through Jacobs	Technology Inc	JACOBS EPATP-0000003	66.708	Pollution Prevention Grants Program	<u> </u>	28,123	100,000
Environmental Protection Agency	Pass-Through Jacobs		JACOBS VU-001-RP	66.708	Pollution Prevention Grants Program		97,975	
zimionmentan rotestion / gene,	r ass rime agri sacous	realmology me	3710033 70 001 111	00.700	- Charlett Feverition Grants Frogram	\$	126,098 \$	-
			T. 15				050 500 4	425.062
			Total Environmental Prote	ction Agency		\$	868,588 \$	435,863
Nuclear Regulatory Commission	Direct		NRC-HQ-84-14-G-0044	77.008	U.S. Nuclear Regulatory Commission Scholarship and Fellowsh	ŗ	39,669	
						\$	39,669 \$	-
			Total Nuclear Regulatory C	ommission		\$	39,669 \$	-
	B: .		DE 504 000005	04.00			121 527	
US Department of Energy Chicago	Direct		DE-FOA-0000995	81.RD			121,697	
US Department of Energy Nuclear Energy	Direct		DE-NE0000646	81.RD			45,778	20.022
US Department of Energy Nuclear Energy	Direct	6	DE-NE0008712	81.RD			172,716	29,032
US Department of Energy Chicago	· ·	aven Science Associates, LLC	BNL350871	81.RD			19,743	
US Department of Energy Chicago	-	dated Nuclear Security, LLC	4300153633	81.RD			71,322	
US Department of Energy Chicago		Power Research Institute	10009816 217944	81.RD 81.RD			85,962 27,894	
US Department of Energy Chicago	Pass-Through Idaho N	•						0.056
US Department of Energy Chicago	Pass-Through Idaho N	•	VU#2545 0014530	81.RD			109,196	9,956
US Department of Energy Chicago	Pass-Through Los Alar		487709 LANL 468746	81.RD 81.RD			42,055	121 010
US Department of Energy Chicago US Department of Energy Chicago	Pass-Through Nations	al Renewable Energy Laboratory	XHQ-8-82059-01	81.RD			403,093 8,589	131,818
US Department of Energy Chicago	-	al Renewable Energy Laboratory	AGX-8-82010-01	81.RD			23,798	
US Department of Energy Chicago	ŭ	al Science Foundation_Billing	PO 1920246	81.RD			29,906	
US Department of Energy Chicago	-	Northwest National Laboratory	428975	81.RD			87,318	
US Department of Energy Chicago	Pass-Through Sandia	•	PO 1643376	81.RD			245,021	
US Department of Energy Chicago	Pass-Through Sandia		1849961	81.RD			49,820	
US Department of Energy Chicago	Pass-Through Sandia		PO 1946817	81.RD			158,573	
US Department of Energy Chicago	Pass-Through Sandia		1988281	81.RD			31,256	
US Department of Energy Chicago	Pass-Through Sandia		2047909	81.RD			5,778	
US Department of Energy Chicago	Pass-Through Sandia		SANDIA NAT LAB 1771668	81.RD			42,304	
US Department of Energy Chicago	Pass-Through Sandia		PO 1388902	81.RD			(1,913)	
US Department of Energy Chicago	Pass-Through Sandia		1873948	81.RD			39,201	
US Department of Energy Chicago	Pass-Through Sandia		PO 1938334	81.RD			53,436	
US Department of Energy Chicago	Pass-Through Savanna		SRRA110110	81.RD			4,441	
US Department of Energy Chicago	-	ocock & Wilcox Company	4300100092 CNS LLC	81.RD			(57,353)	
US Department of Energy Chicago	•	titute for Advanced Composites Man		81.RD			35,470	
US Department of Energy Chicago		titute for Advanced Composites Man		81.RD			236,532	
US Department of Energy Chicago		titute for Advanced Composites Man		81.RD			433,238	
03 Department of Lifetgy Chicago			414Ct417(10 05+5 5.2 01	01.110				

Cluster Title/Federal Grantor/Program	Type Pass-Throu	gh Grantor Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Pas	ssed Through
JS Department of Energy Chicago	Pass-Through The Institute for Advance	ed Composites Manufactu PA16-0349-6.11-01	81.RD		27,957	
IS Department of Energy Chicago	Pass-Through The Institute for Advance	ed Composites Manufactu PA16-0349-3.2-01	81.RD		(117,320)	
IS Department of Energy Chicago	Pass-Through US Department of Energ	Chicago_Billing PA16-0349-3.12-01	81.RD		44	
S Department of Energy Chicago	Pass-Through UT-Battelle, LLC	4000101604	81.RD		45,915	
IS Department of Energy Chicago	Pass-Through UT-Battelle, LLC	4000158449	81.RD		6,138	
S Department of Energy Chicago	Pass-Through UT-Battelle, LLC	4000150803	81.RD		464,870	
IS Department of Energy Chicago	Pass-Through UT-Battelle, LLC	4000182078	81.RD		30,100	
S Department of Energy Chicago	Pass-Through UT-Battelle, LLC	4000152142 UT BATTEL			2,651	
IS Department of Energy Germantown	Pass-Through Fermi National Accelerat		81.RD		2,358	
JS Department of Energy National Energy Tec	•	•	81.RD		53,818	4,520
					\$ 3,282,456 \$	175,326
JS Department of Energy Chicago	Direct	DE-SC0019404	81.049	Office of Science Financial Assistance Program	156,157	745
IS Department of Energy Chicago	Direct	DE-SC0008118	81.049	Office of Science Financial Assistance Program	1,553	, .0
JS Department of Energy Chicago	Direct	DEFG0592ER40712	81.049	Office of Science Financial Assistance Program	612,114	
JS Department of Energy Chicago	Direct	DE-SC0019207	81.049	Office of Science Financial Assistance Program	51,503	
JS Department of Energy Chicago	Direct	SC0019235	81.049	Office of Science Financial Assistance Program	31,770	
JS Department of Energy Chicago	Direct	SC0013233 SC0011981	81.049	Office of Science Financial Assistance Program	107,603	
IS Department of Energy Chicago	Direct	DEF60588ER40407	81.049	Office of Science Financial Assistance Program	249,088	
	Direct	ER46554	81.049			
JS Department of Energy Chicago		DE-SC0005220		Office of Science Financial Assistance Program	320,453	
IS Department of Energy Chicago	Direct	DE-5C0005220 DE-FC01-06EW07053	81.049	Office of Science Financial Assistance Program	1,166,045	1 016 305
JS Department of Energy Germantown	Direct		81.049	Office of Science Financial Assistance Program	4,832,866	1,816,285
JS Department of Energy Chicago	Pass-Through J. Craig Venter Institute	JCVI-17-013	81.049	Office of Science Financial Assistance Program	215,323	
JS Department of Energy Chicago	Pass-Through Johns Hopkins University		81.049	Office of Science Financial Assistance Program	19,673	
JS Department of Energy Chicago	Pass-Through Rutgers, The State Unive	rsity of New Jersey 0738	81.049	Office of Science Financial Assistance Program	6,261	1 017 020
	 .		04.000		\$ 7,770,409 \$	1,817,030
IS Department of Energy Chicago	Direct	DE-EE0007215	81.086	Conservation Research and Development	151,396	
					\$ 151,396 \$	-
JS Department of Energy Golden	Direct	DE-EE0008418	81.087	Renewable Energy Research and Development	31,471	
S Department of Energy Golden	Direct	DE-EE0007653	81.087	Renewable Energy Research and Development	768,653	408,074
S Department of Energy Golden	Direct	EE0008435	81.087	Renewable Energy Research and Development	45,061	
					\$ 845,185 \$	408,074
JS Department of Energy Nuclear Energy	Direct	DE-NE0000734	81.121	Nuclear Energy Research, Development and Demonstration	4,080	
IS Department of Energy Nuclear Energy	Pass-Through Electric Power Research	nstitute EPRI 10006762	81.121	Nuclear Energy Research, Development and Demonstration	408,025	
					\$ 412,106 \$	-
Advanced Research Project Agency - Energy	Direct	DE_AR0001035	81.135	Advanced Research Projects Agency - Energy	72,922	
Advanced Research Project Agency - Energy	Direct	DE-AR000666	81.135	Advanced Research Projects Agency - Energy	1,138,497	368,525
					\$ 1,211,420 \$	368,525
		Total Department of En	ergy		\$ 13,672,971 \$	2,768,956
S Department of Education	Pass-Through Mathematica Policy Rese	_			72,742	44,488
S Department of Education	•	nt of Nashville and Davidi 2-218740-26 METRO/E			454,869	
JS Department of Education	Pass-Through Metropolitan Nashville F		84.RD		171,087	
JS Department of Education	•	Health and Human Servi 1702PROS0303	84.RD		(110)	
JS Department of Education	Pass-Through National Board for Profe		84.RD		(1,357)	
JS Department of Education	Pass-Through TN Department of Educa		84.RD		24,933	
JS Department of Education	Pass-Through University of Florida	UNIV OF FLORIDA/ED	84.RD		54	
					\$ 722,218 \$	44,488
JS Department of Education	Direct	P015B180040	84.015	National Resource Centers Program for Foreign Language and		
JS Department of Education	Direct	P015A180040	84.015	National Resource Centers Program for Foreign Language and		
IS Department of Education	Direct	P015B140145	84.015	National Resource Centers Program for Foreign Language and		
JS Department of Education	Direct	P015A140145	84.015	National Resource Centers Program for Foreign Language and		
					\$ 337,633 \$	-
JS Department of Education	Pass-Through TN Department of Huma	n Services 34570-91018	84.126	Rehabilitation Services_Vocational Rehabilitation Grants to St		32,306
					\$ 408,498 \$	32,306

Cluster Title/Federal Grantor/Program	Type Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Page	ssed Through
US Department of Education	Pass-Through TN Department of Education	33195-00117 ED#48116	84.181	Special Education-Grants for Infants and Families	367,011	
·	·			·	\$ 367,011 \$	-
US Department of Education	Direct	P200A140248	84.200	Graduate Assistance in Areas of National Need	9,960	
US Department of Education	Direct	P200A150173	84.200	Graduate Assistance in Areas of National Need	116,259	
					\$ 126,219 \$	-
US Department of Education	Direct	R305A150141	84.305	Education Research, Development and Dissemination	403,488	183,122
US Department of Education	Direct	R305A140126	84.305	Education Research, Development and Dissemination	95,471	
US Department of Education	Direct	R305A170203	84.305	Education Research, Development and Dissemination	609,782	122,499
US Department of Education	Direct	R305A150199	84.305	Education Research, Development and Dissemination	436,280	281,411
US Department of Education	Direct	R305E150017	84.305	Education Research, Development and Dissemination	665,152	438,903
US Department of Education	Direct	R305A150396	84.305	Education Research, Development and Dissemination	233,291	12,367
US Department of Education	Direct	R305C100023	84.305	Education Research, Development and Dissemination	(25,930)	
US Department of Education	Direct	R305A150200	84.305	Education Research, Development and Dissemination	763,368	
US Department of Education	Direct	R305A160132	84.305	Education Research, Development and Dissemination	293,024	
US Department of Education	Direct	R305A180511	84.305	Education Research, Development and Dissemination	90,064	44,386
US Department of Education	Direct	R305B170009	84.305	Education Research, Development and Dissemination	298,611	•
US Department of Education	Pass-Through American Institute for Research	0467100003_R305N18000		Education Research, Development and Dissemination	33,576	
US Department of Education	Pass-Through Brown University	R305E150005	84.305	Education Research, Development and Dissemination	304,849	
US Department of Education	Pass-Through Columbia University	COLUMBIA UNIV	84.305	Education Research, Development and Dissemination	32,600	
US Department of Education	Pass-Through Harvard University	1081475101679R305A17	84.305	Education Research, Development and Dissemination	52,021	
US Department of Education	Pass-Through New York University	R305A170498-18_F0253-0		Education Research, Development and Dissemination	57,022	
US Department of Education	Pass-Through Stanford University	R305E130009	84.305	Education Research, Development and Dissemination	27,524	
US Department of Education	Pass-Through Temple University	R305A150432	84.305	Education Research, Development and Dissemination	3,558	
US Department of Education	Pass-Through University of Nevada Las Vegas	R305A160100	84.305	Education Research, Development and Dissemination	89,655	
US Department of Education	Pass-Through University of Texas at Austin	R305A160026	84.305	Education Research, Development and Dissemination Education Research, Development and Dissemination	214,277	
03 Department of Education	Pass-Tillough Offiversity of Texas at Austill	K303A100020	04.303	Education Research, Development and Dissemination	\$ 4,677,682 \$	1 002 600
US Department of Education	Direct	R324A190177	84.324	Research in Special Education	113	1,082,688
US Department of Education	Direct	R324A150094	84.324	Research in Special Education	922,043	248,949
US Department of Education	Direct	R324A120178	84.324	Research in Special Education	922,043 (741)	240,343
US Department of Education	Direct	R324D130003	84.324	Research in Special Education	` '	
•				·	1,746,018	201 506
US Department of Education	Direct	R324A160086	84.324	Research in Special Education	489,258	291,506
US Department of Education	Direct	R324A150269	84.324	Research in Special Education	110,139	62,233
US Department of Education	Direct	R324A180004	84.324	Research in Special Education	577,203	420.016
US Department of Education	Direct	R324A170150	84.324	Research in Special Education	555,236	429,816
US Department of Education	Direct	R324B160010	84.324	Research in Special Education	74,755	22.564
US Department of Education	Direct	R324A180171	84.324	Research in Special Education	376,287	23,564
US Department of Education	Pass-Through Lehigh University	R324A160096	84.324	Research in Special Education	222,949	
US Department of Education	Pass-Through University of Florida	R324A150076	84.324	Research in Special Education	54,828	
US Department of Education	Pass-Through University of Iowa	R324A160076	84.324	Research in Special Education	123,956	
US Department of Education	Pass-Through University of Kansas	R324A170118	84.324	Research in Special Education	185,285	
US Department of Education	Pass-Through University of Maryland College Park	R324A150181 U OF M	84.324	Research in Special Education	4,811	
US Department of Education	Pass-Through University of Texas at Austin	R324A150078-17_UTA18-		Research in Special Education	22,694	
US Department of Education	Pass-Through Vanderbilt University Medical Center	VUMC/IES-R324A150029	84.324	Research in Special Education	33,925	
					\$ 5,498,760 \$	1,056,067
US Department of Education	Direct	H325K180148	84.325	Special Education - Personnel Development to Improve Services	30,108	40
US Department of Education	Direct	H325E170001	84.325	Special Education - Personnel Development to Improve Services	1,080,160	12,468
US Department of Education	Direct	H325E120002	84.325	Special Education - Personnel Development to Improve Services	83,754	75,710
US Department of Education	Direct	H325K180175	84.325	Special Education - Personnel Development to Improve Services	10,968	
US Department of Education	Direct	H325D180086	84.325	Special Education - Personnel Development to Improve Services	27,608	
US Department of Education	Direct	H325D180095	84.325	Special Education - Personnel Development to Improve Services	5,636	
US Department of Education	Direct	H325K140110	84.325	Special Education - Personnel Development to Improve Services	370,570	
US Department of Education	Direct	H325K130214	84.325	Special Education - Personnel Development to Improve Services	113,776	
US Department of Education	Direct	H325H140001	84.325	Special Education - Personnel Development to Improve Services	1,490,042	878,915
US Department of Education	Direct	H325K140308	84.325	Special Education - Personnel Development to Improve Services	197,093	
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Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Pas	ssed Through
US Department of Education	Direct		H325D120091	84.325	Special Education - Personnel Development to Improve Services	122,033	
US Department of Education	Direct		H325K170014	84.325	Special Education - Personnel Development to Improve Services		
US Department of Education	Direct		H325D170005	84.325	Special Education - Personnel Development to Improve Services	246,447	
US Department of Education	Direct		H325D140087	84.325	Special Education - Personnel Development to Improve Services		18,746
US Department of Education	Direct		H325K140212	84.325	Special Education - Personnel Development to Improve Services		
US Department of Education	Direct		H325D170004	84.325	Special Education - Personnel Development to Improve Services	•	
US Department of Education	Direct		H325K140201	84.325	Special Education - Personnel Development to Improve Services		
US Department of Education	Direct		H325D140077	84.325	Special Education - Personnel Development to Improve Services	•	
US Department of Education			H325H140002 2017-18	84.325	Special Education - Personnel Development to Improve Services	•	
US Department of Education	_		H325H140002_88403 fe 2		Special Education - Personnel Development to Improve Services		
US Department of Education	_		H325H140002_88404a-18		Special Education - Personnel Development to Improve Services		
os Department of Education	rass-Illiough	Saids Offiversity	1132311140002_004048-10	-1.04.323	special Education - reisonnel Development to improve services	\$ 5,370,187 \$	985,839
US Department of Education	Direct		H326M180002	84.326	Special Education_Technical Assistance and Dissemination to In		363,633
•			H326B170003	84.326	· ·		
US Department of Education	Pass-Illiougii	Offiversity of South Florida	H320B1/UUU3	04.320	Special Education_Technical Assistance and Dissemination to In		
LIC Department of Education	Daga Thuasach	Linite consists of Mahanadaa Linaada	LINUVEO 440 /24 4700 04	04.265	Faciliah Laurangan Association State Counts	\$ 241,026 \$	
US Department of Education	Pass-Inrougn	University of Nebraska Lincoln	UNIV59418/24-1708-01	84.365	English Language Acquisition State Grants	18,047	
				0.4.000		\$ 18,047 \$	
US Department of Education	Pass-Through	University of Connecticut	322783_AG160213	84.380	Special Education Olympic Education Programs	25,676	
						\$ 25,676 \$	-
US Department of Education	Direct		P407A150058	84.407	Transition Programs for Students with Intellectual Disabilities in		28,554
						\$ 452,249 \$	28,554
US Department of Education	Pass-Through	Florida State University	FLORIDA STATE	84.411	Investing in Innovation (i3) Fund	70,705	
					_	\$ 70,705 \$	-
US Department of Education	Pass-Through	MT Department of Public Health and Human Servi	1902PROS0395	84.419	Preschool Development Grants	23,897	
US Department of Education	Pass-Through	MT Department of Public Health and Human Servi	1802PROS0303(C49226)	84.419	Preschool Development Grants	70,766	
US Department of Education	Pass-Through	TN Department of Education	S419B150026/46104	84.419	Preschool Development Grants	424,220	
						\$ 518,884 \$	-
			Total Department of Educa	ation		\$ 18,834,795 \$	3,229,943
National Institutes of Health	Direct		AI35937	93.RD		448,827	50,110
National Institutes of Health	Direct		2R01EY019882-09	93.RD		367,879	24,532
National Institutes of Health	Direct		7R01 DK097361	93.RD		167,162	
National Institutes of Health	Direct		1F30HL131179-02	93.RD		73,888	
National Institutes of Health	Direct		1R01AG051626-01	93.RD		261,899	
National Institutes of Health	Direct		1R01GM126363-01	93.RD		298,757	
National Institutes of Health	Direct		HHSN271201400118C	93.RD		(9,204)	
National Institutes of Health	Direct		2R01GM106720	93.RD		57,943	
National Institutes of Health	Direct		1R01HL144131	93.RD		(43,027)	
National Institutes of Health	Direct		1 R01 MH107399-01	93.RD		(36,118)	11,035
National Institutes of Health	Direct		S100D025281	93.RD		570,603	,
National Institutes of Health	Direct		GRANT12186579	93.RD		729,589	
National Institutes of Health	Direct		1 R01 GM128087-01A1	93.RD		48,939	
National Institutes of Health	Direct		1R35GM128915	93.RD		396,274	
National Institutes of Health	Direct		1K01MH112983	93.RD		111,914	
National Institutes of Health	Direct		7R01MH107254	93.RD		277,761	
National Institutes of Health	Direct		1R01CA238553-01	93.RD		31,640	
National Institutes of Health	Direct		7R01MH104158-04	93.RD		469,780	
National Institutes of Health	Direct		1R01HL133923	93.RD		536,022	
National Institutes of Health	Direct		7R01 DK 111831	93.RD		801,652	393,399
	Direct		4R37NS031373-24	93.RD		532,624	104,398
			4 D 2 4 N C O O 4 7 2 O O 4 A 4	02.00		29,060	
	Direct		1R21NS094738-01A1	93.RD		23,000	
National Institutes of Health	Direct Direct		1U01HG009086-01	93.RD 93.RD		1,223,385	638,232
National Institutes of Health National Institutes of Health National Institutes of Health National Institutes of Health							638,232

Cluster Title/Federal Grantor/Program	Type	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Pass	ed Through
National Institutes of Health	Direct		K01MH107256	93.RD		63,434	
National Institutes of Health	Direct		R21TW011294	93.RD		136,892	72,441
National Institutes of Health	Direct		1 F31 MH106291-01A1	93.RD		4,072	
National Institutes of Health	Direct		1F31HL132526-01	93.RD		279	
National Institutes of Health	Direct		1F31Al129357-01	93.RD		22,624	
National Institutes of Health	Direct		2T32 MH064913-16	93.RD		214,806	
National Institutes of Health	Direct		2T32HD007502-21	93.RD		228,168	
National Institutes of Health	Direct		1 F31 MH111103-01	93.RD		1,037	
National Institutes of Health	Direct		1 F3 0DA040343-01A1	93.RD		58,763	
National Institutes of Health	Direct		1 F31 MH109196-01	93.RD		(1,987)	
National Institutes of Health	Direct		1F31DK109594-01	93.RD		3,974	
National Institutes of Health	Direct		2T32CA119925-11	93.RD		178,053	
National Institutes of Health	Direct		5R25HL118679	93.RD		(30)	
National Institutes of Health	Direct		1F31DK108444-01A1	93.RD		1,987	
National Institutes of Health	Direct		F31CA232272	93.RD		8,773	
Administration for Children and Families		ZERO TO THREE	Year 4	93.RD		212,592	7,186
Indian Health Service	-	United South And Eastern Tribes, Inc.	U261 HIS 0078-003-00	93.RD		2,925	,,200
National Institutes of Health	-	Abt Associates, Inc.	ABT 48028	93.RD		357	
National Institutes of Health	_	Abt Associates, Inc.	HHSP233201500069I	93.RD		28,216	
National Institutes of Health	-	Abt Associates, Inc.	ABT NO. 47755	93.RD		1,583	
National Institutes of Health	-	CFD Research Corporation	CFDRC Project No. 9293	93.RD		189,514	
National Institutes of Health	-	Harvard University	UNIV56782	93.RD		4,695	
National Institutes of Health	~	Leidos Biomedical Research, Inc.	HHSN261200800001E	93.RD		190,938	
National Institutes of Health	~	Leidos Biomedical Research, Inc.	16X117 Mod 6A	93.RD		253,067	
	-		16Q060	93.RD		493,191	
National Institutes of Health	-	Leidos Biomedical Research, Inc.	16X117 MSA MODIFICAT				
National Institutes of Health National Institutes of Health	_	Leidos Biomedical Research, Inc. Leidos Biomedical Research, Inc.	WDR5-MLL NX002-162	93.RD 93.RD		12,692	
National Institutes of Health	-		HHSN268201800012I	93.RD		1,466,121	
	-	National Institutes of Health_Billing				111,961	
National Institutes of Health	•	Northern California Institute for Research and Ed		93.RD		14,836	
National Institutes of Health	•	Silver Lake Research Corporation	VUMC 1R43	93.RD		864	
National Institutes of Health	-	University of Calarada Barbara	DK101068	93.RD		10,188	
National Institutes of Health	•	University of Colorado Denver	P50 CA058187 - PO 10010			21,237	
National Institutes of Health	•	University of Denver	UNIV OF DENVER-NIH	93.RD		(42)	
National Institutes of Health	-	University of Michigan	UNIV OF MICHIGAN	93.RD		(709)	
National Institutes of Health	-	University of Pittsburgh	UNIV OF PITTS-004640	93.RD		11,138	
National Institutes of Health	•	Vanderbilt University Medical Center	1 R24 DK106755-01	93.RD		4,977	
National Institutes of Health	-	Vanderbilt University Medical Center	VUMC 66104	93.RD		49,762	
National Institutes of Health	-	Vanderbilt University Medical Center	VANDERBILT DIABETES-	93.RD		(806)	
National Institutes of Health	•	Vanderbilt University Medical Center	BA: HHSN272201400024	93.RD		(980)	
National Institutes of Health	•	Vanderbilt University Medical Center	Al110527	93.RD		3,730	
National Institutes of Health	-	Vanderbilt University Medical Center	UNIV 58928	93.RD		(487)	
National Institutes of Health	-	Vanderbilt University Medical Center	5 R01 EY23397-03	93.RD		(137)	
National Institutes of Health	-	Vanderbilt University Medical Center	1 R01 HL122847-01A1	93.RD		3,581	
National Institutes of Health	-	Vanderbilt University Medical Center	5 P50 CA95103-14	93.RD		(4,810)	
National Institutes of Health	-	Vanderbilt University Medical Center	5 P01 HL116263-04	93.RD		1,266	
National Institutes of Health	-	Vanderbilt University Medical Center	6 UL1 TR000445-11	93.RD		201	
National Institutes of Health	-	Vanderbilt University Medical Center	CA163072VUMC	93.RD		11,489	
National Institutes of Health	-	Vanderbilt University Medical Center	1 R01 NS75270-03	93.RD		(321)	
National Institutes of Health	•	Vanderbilt University Medical Center	6 R01 Al101171-05	93.RD		(1,290)	
National Institutes of Health	-	Vanderbilt University Medical Center	6 R01 Al118932-02	93.RD		(5)	
National Institutes of Health	-	Vanderbilt University Medical Center	2 R01 Al39657-16A1	93.RD		(1,297)	
National Institutes of Health	-	Vanderbilt University Medical Center	HD083211 VUMC59370a	93.RD		152	
National Institutes of Health	-	Vanderbilt University Medical Center	P30AI110527 VUMC	93.RD		(3,446)	
National Institutes of Health	-	Vanderbilt University Medical Center	MH111877-VUMC60364	93.RD		(2,040)	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	5 R01 EB17767-03	93.RD		(576)	

Cluster Title/Federal Grantor/Program	Type Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal	Expenditures Pas	sed Through
National Institutes of Health	Pass-Through Vanderbilt University Medical Center	4 R01 HL39006-27	93.RD			(1,078)	
National Institutes of Health	Pass-Through Vanderbilt University Medical Center	1 R01 NS93669-01A1a	93.RD			(12,695)	
National Institutes of Health	Pass-Through Vanderbilt University Medical Center	5 R01 NR15079-02a	93.RD			(1,025)	
National Institutes of Health	Pass-Through Vanderbilt University Medical Center	1 R21 EB19509-01A1	93.RD			(2,690)	
National Institutes of Health	Pass-Through Vanderbilt University Medical Center	HHSN272201400024C	93.RD			(14,452)	
National Institutes of Health	Pass-Through ZERO TO THREE	201709281N	93.RD			296,184	55,276
	dı Pass-Through TN Department of Mental Health and Substance		93.RD			4,489	,
					\$	11,997,504 \$	1,605,747
Food and Drug Administration	Pass-Through Oak Ridge Associated Universities	22163013S	93.103	Food and Drug Administration_Research		27,397	
					\$	27,397 \$	-
Health Resources and Services Administration	Direct	5 R40MC27707-03-00	93.110	Maternal and Child Health Federal Consolidated Programs		(2,084)	
Health Resources and Services Administration	Pass-Through Vanderbilt University Medical Center	5 T73 MC00050-17	93.110	Maternal and Child Health Federal Consolidated Programs		578	
					\$	(1,506) \$	-
National Institutes of Health	Direct	1R01ES030575-01A1	93.113	Environmental Health		59,278	
National Institutes of Health	Direct	R01ES029357	93.113	Environmental Health		472,601	164,125
National Institutes of Health	Direct	1R01ES024133-01A1	93.113	Environmental Health		201,123	34,994
National Institutes of Health	Direct	2 R01 ES010546-16	93.113	Environmental Health		497,379	
National Institutes of Health	Direct	1 R01 ES026955-01A1	93.113	Environmental Health		246,567	
National Institutes of Health	Direct	1F31ES028084	93.113	Environmental Health		28,564	
National Institutes of Health	Direct	5T32ES007028-43	93.113	Environmental Health		682,832	5,601
National Institutes of Health	Direct	4K22ES028048-02	93.113	Environmental Health		152,964	,
National Institutes of Health	Pass-Through Arizona State University	ES026845-02	93.113	Environmental Health		15,152	
National Institutes of Health	Pass-Through Purdue University	11000758-013	93.113	Environmental Health		5,817	
National Institutes of Health	Pass-Through University of North Carolina Chapel Hill	1R01ES028269-01A1	93.113	Environmental Health		124,534	
vational institutes of fredicti	1 d35 1110 dg11 Offiversity of Worth Carolina Chaper 11111	110123020203 017(1	55.115	Environmental realth	Ś	2,486,810 \$	204,720
National Institutes of Health	Direct	5 R01 DE024982-02	93.121	Oral Diseases and Disorders Research	<u> </u>	7,892	8,761
National Institutes of Health	Pass-Through University of Buffalo	R1136496, UNIV 60392	93.121	Oral Diseases and Disorders Research		17,232	5,1 5 =
National Institutes of Health	Pass-Through University of Pennsylvania	DE024982	93.121	Oral Diseases and Disorders Research		178,716	
National Institutes of Health	Pass-Through Vanderbilt University Medical Center	VUMC66698	93.121	Oral Diseases and Disorders Research		9,713	
vacional institutes of fleatti	rass-fillough validerblit offiversity Medical Center	VOIVICUUU38	93.121	Of at Diseases and Disorders Nesearch	<u> </u>	213,554 \$	8,761
National Institutes of Health	Pass-Through University of Texas MD Anderson Cancer Cente	r HHSN26120120034102	93.135	Centers for Research and Demonstration for Health Promotion	າ :	633	0,701
vational institutes of freatth	1 das 1111 dagit of the cast via 7 that can can can can	111131120120120031102	33.133	centers for nescardif and Bernonstration for fleath From the	Ś	633 \$	_
Centers for Disease Control	Pass-Through University of Louisville	ULRF15-1357C-03A	93.136	Injury Prevention and Control Research and State and Commu	n Ś	75,133	
Centers for Disease Control	Pass-Through University of Louisville	ULRF 15-1357-03	93.136	Injury Prevention and Control Research and State and Commu	-	57,690	
centers for bisease control	1 dos 1111 dagit of the Eddisville	01M 13 1337 03	33.130	myary revention and control research and state and commu	'' \$	132,823 \$	
National Institutes of Health	Pass-Through Vanderbilt University Medical Center	BA: VUMC61905	93.145	HIV-Related Training and Technical Assistance	<u> </u>	110,352	
Tacional institutes of freuen	r ass rimought tuniders it of intersity interior defice.	<i>5</i> / 11 V 01/11001303	33.1.3	The fiction of the first feet and feet	Ś	110,352 \$	_
National Institutes of Health	Direct	4R01HG006857-04	93.172	Human Genome Research	<u> </u>	(792)	967
National Institutes of Health	Pass-Through Bioventures, Inc.	R24HG009470-01A1	93.172	Human Genome Research		525,099	
National Institutes of Health	Pass-Through Vanderbilt University Medical Center	VUMC 71271	93.172	Human Genome Research		4,238	
National Institutes of Health	Pass-Through Vanderbilt University Medical Center	1 R01 HG086844-04	93.172	Human Genome Research		(1,001)	
National Institutes of Health	Pass-Through Vanderbilt University Medical Center	VUMC 60003 UNIV58670	93.172	Human Genome Research		18,152	
National Institutes of Health	Pass-Through Vanderbilt University Medical Center	VUMC 60003	93.172	Human Genome Research		294,323	
National Institutes of Health	·	1 R01 HG07358-01A1	93.172	Human Genome Research		28,080	
National institutes of Health	Pass-Through University of Pittsburgh	1 KO1 UGO/556-01A1	95.172	nulliali dellottie kesearcii	Ċ	868,101 \$	967
National Institutes of Health	Direct	R21DC016153	93.173	Research Related to Deafness and Communication Disorders	٠	163,388	55,363
National Institutes of Health	Direct	1U01DC017135	93.173	Research Related to Deafness and Communication Disorders		397,571	104,989
National Institutes of Health	Direct	1 R21 DC015850-01	93.173	Research Related to Deafness and Communication Disorders		125,903	10-,505
National Institutes of Health	Direct	5 R01 DC013767-03	93.173	Research Related to Deafness and Communication Disorders		807,664	386,197
National Institutes of Health	Direct	1R01DC014037-YR1-5	93.173	Research Related to Deafness and Communication Disorders		169,870	56,254
National Institutes of Health	Direct	7R01DC013274	93.173	Research Related to Deafness and Communication Disorders		654,816	469,102
National Institutes of Health	Direct	1R01DC014462	93.173	Research Related to Deafness and Communication Disorders		551,878	137,665
National Institutes of Health	Direct	1F31DC015956-01	93.173	Research Related to Deafness and Communication Disorders		30,265	
National Institutes of Health	Pass-Through Drexel University	800198	93.173	Research Related to Deafness and Communication Disorders		1,552	
	Pass-Through University of California San Francisco	UNIVc	93.173	Research Related to Deafness and Communication Disorders		10,565	

Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Pas	sed Through
National Institutes of Health	Pass-Through	University of Maryland College Park	1R01DC015798 U OF MD	93.173	Research Related to Deafness and Communication Disorders	18,960	
National Institutes of Health	Pass-Through	University of Pittsburgh	0062738(132446-1)	93.173	Research Related to Deafness and Communication Disorders	150,952	
National Institutes of Health	Pass-Through	University of Utah	DC013168	93.173	Research Related to Deafness and Communication Disorders	124,180	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	2 R01 DC08408-05A1a	93.173	Research Related to Deafness and Communication Disorders	3,342	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC 64194	93.173	Research Related to Deafness and Communication Disorders	47,278	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC 64648	93.173	Research Related to Deafness and Communication Disorders	6,847	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC64813	93.173	Research Related to Deafness and Communication Disorders	4,348	
National Institutes of Health	_	Vanderbilt University Medical Center	7 R01 DC011755-06	93.173	Research Related to Deafness and Communication Disorders	15,942	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	1R01DC017683-01A1	93.173	Research Related to Deafness and Communication Disorders	11,407	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC	93.173	Research Related to Deafness and Communication Disorders	125,804	
National Institutes of Health	~	Vanderbilt University Medical Center	2 R01 DC08408-05A1	93.173	Research Related to Deafness and Communication Disorders	(6,490)	
	· ·	,			•	\$ 3,416,042 \$	1,209,569
National Institutes of Health	Direct		4 R01 AT06896-04/05	93.213	Research and Training in Complementary and Integrative Health		
			4R01AT007830-04	93.213	Research and Training in Complementary and Integrative Health		
National Institutes of Health	Direct		1F31AT010299	93.213	Research and Training in Complementary and Integrative Health		
						\$ 175,648 \$	-
National Institutes of Health	Direct		1 K08 HS024733-01A1	93.226	Research on Healthcare Costs, Quality and Outcomes	130,844	
National Institutes of Health	Direct		1K01HS025486	93.226	Research on Healthcare Costs, Quality and Outcomes	135,295	
Agency for Healthcare Research and Quality		University of Pittsburgh	UNIVOFPITTS/0041893	93.226	Research on Healthcare Costs, Quality and Outcomes	5,505	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC 73417	93.226	Research on Healthcare Costs, Quality and Outcomes	9,093	
		, and a control of the control of the control		55.225		\$ 280,736 \$	_
National Institutes of Health	Direct		4R01MH055806-20	93.242	Mental Health Research Grants	67,706	
National Institutes of Health	Direct		1R01MH110378-01A1	93.242	Mental Health Research Grants	579,034	
National Institutes of Health	Direct		1R61MH115125-01A1	93.242	Mental Health Research Grants	17,480	
National Institutes of Health	Direct		R01MH108562-01A1	93.242	Mental Health Research Grants	544,643	13,868
National Institutes of Health	Direct		1R21MH116150-01	93.242	Mental Health Research Grants	154,515	13,000
National Institutes of Health	Direct		1R21MH117735	93.242	Mental Health Research Grants	118,070	47,603
National Institutes of Health	Direct		1F31MH111144-01A1	93.242	Mental Health Research Grants	30,067	17,000
National Institutes of Health	Direct		1R21MH106748-01A1	93.242	Mental Health Research Grants	15,208	
National Institutes of Health	Direct		1K01MH115811-01A1	93.242	Mental Health Research Grants	57,358	
National Institutes of Health	Direct		1F31MH113271 Yr 1-3	93.242	Mental Health Research Grants	27,531	
National Institutes of Health	Direct		1F31MH114363-01/02	93.242	Mental Health Research Grants	26,375	
National Institutes of Health	Direct		4R01 MH082867-YR 9-1	93.242	Mental Health Research Grants	2,315	
National Institutes of Health	Direct		2R01MH084989-08-A1	93.242	Mental Health Research Grants	426,189	
National Institutes of Health	Direct		4RO1MH096832-05	93.242	Mental Health Research Grants	(7,366)	
National Institutes of Health	Direct		1R01MH096832-01A1	93.242	Mental Health Research Grants	(4,839)	
National Institutes of Health	Direct		R01 MH100258-01A1	93.242	Mental Health Research Grants	393,819	
National Institutes of Health	Direct		1R21MH112866-01	93.242	Mental Health Research Grants	201,256	
National Institutes of Health	Direct		1 K01 MH107765-01	93.242	Mental Health Research Grants	18,690	
National Institutes of Health	Direct		1R01MH113543-01	93.242	Mental Health Research Grants	464,356	
National Institutes of Health	Direct		1R01MH108498-01/02	93.242	Mental Health Research Grants	244,520	
National Institutes of Health	Direct		R01MH119673	93.242	Mental Health Research Grants	109,607	
National Institutes of Health	Direct		1 U19 MH106839-01	93.242	Mental Health Research Grants	627,270	
National Institutes of Health	Direct		2R01MH062646-17-21	93.242	Mental Health Research Grants	375,161	
National Institutes of Health	Direct		5 R01 MH073676 -11	93.242	Mental Health Research Grants	457,277	
National Institutes of Health National Institutes of Health	Direct		1R21MH111548-01	93.242	Mental Health Research Grants	143,438	49,584
National Institutes of Health National Institutes of Health					Mental Health Research Grants		
National Institutes of Health	Direct Direct		4R33MH103518-03 1R01MH091102-01/05	93.242 93.242	Mental Health Research Grants	163,699 284	56,790
National Institutes of Health			2R01MH066198		Mental Health Research Grants		
	Direct			93.242		350,092 245,052	
National Institutes of Health	Direct		7R01MH066198-16	93.242	Mental Health Research Grants	245,952	
National Institutes of Health	Direct		1R34MH118028-01A1	93.242	Mental Health Research Grants	5,413	
National Institutes of Health	Direct		NIH 7R01MH070727	93.242	Mental Health Research Grants	430,758	
National Institutes of Health	Direct		5 T32 MH018921-28 YR	93.242	Mental Health Research Grants	294,336	
National Institutes of Health	Direct		1F32MH113266-01	93.242	Mental Health Research Grants	53,395	
National Institutes of Health	Direct		1F31MH113259	93.242	Mental Health Research Grants	29,484	

Cluster Title/Federal Grantor/Program	Type	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Pass	ed Through
National Institutes of Health	Direct		F30MH115535	93.242	Mental Health Research Grants	15,023	
National Institutes of Health	Direct		T32MH064913-15	93.242	Mental Health Research Grants	231,061	
National Institutes of Health	Direct		5T32MH065215-15	93.242	Mental Health Research Grants	158,279	
lational Institutes of Health	Direct		1F31MH112336-01A1	93.242	Mental Health Research Grants	11,989	
lational Institutes of Health	Direct		1F31MH114368-01/03	93.242	Mental Health Research Grants	28,606	
lational Institutes of Health	Direct		1F31MH115669	93.242	Mental Health Research Grants	52,028	
lational Institutes of Health	Pass-Through	Columbia University	1(GG014615-01)	93.242	Mental Health Research Grants	21,351	
ational Institutes of Health	•	University of California Berkeley	, KVUE	93.242	Mental Health Research Grants	19,913	1,530
lational Institutes of Health	•	University of Nebraska Lincoln	34-5507-2036-001	93.242	Mental Health Research Grants	65,057	•
lational Institutes of Health	•	Vanderbilt University Medical Center	R01 MH113362-01 VUMC	93.242	Mental Health Research Grants	66,846	
lational Institutes of Health	_	Vanderbilt University Medical Center	MH111877-VUMC/VU 603	93.242	Mental Health Research Grants	82,622	
lational Institutes of Health	•	Vanderbilt University Medical Center	VUMC 66716	93.242	Mental Health Research Grants	13,489	
ational Institutes of Health	_	Vanderbilt University Medical Center	1 R01 MH102246-01A1	93.242	Mental Health Research Grants	12,159	
lational Institutes of Health	_	Vanderbilt University Medical Center	VUMC 64353	93.242	Mental Health Research Grants	25,555	
lational Institutes of Health	•	Vanderbilt University Medical Center	4R01MH100030-04	93.242	Mental Health Research Grants	24,478	
lational Institutes of Health	•	Vanderbilt University Medical Center	MH107435-VUMC	93.242	Mental Health Research Grants	29,921	
lational Institutes of Health	_	Vanderbilt University Medical Center	1 R24 MH109105-01a	93.242	Mental Health Research Grants	11,932	
lational Institutes of Health	•	Vanderbilt University Medical Center	VUMC 60283	93.242	Mental Health Research Grants	13,774	
ational Institutes of Health	_	Vanderbilt University Medical Center	VUMC 1R21MH11156	93.242	Mental Health Research Grants	105,424	
ubstance Abuse and Mental Health Services Ad	_	•	5 R01 MH077195-04	93.242	Mental Health Research Grants	2,294	
abstance Abase and Wentar Health Services A	arr ass Timoagn	Oniversity of minors at orbana enampaign	3 NOT WITO 7 133 04	33.242	Wentur reacti Research Granes	\$ 7,654,892 \$	169,376
ubstance Abuse and Mental Health Services Ad	dı Direct		1 H79 SP021246-01	93.243	Substance Abuse and Mental Health Services_Projects of Region	218,665	109,885
abstance Abase and Mental Treatm Services A	ai Direct		1117 5 31 021240 01	33.243	Substance Abuse and Mental Health Services_Projects of Region	\$ 218,665 \$	109,885
ealth Resources and Services Administration	Direct		1T96HP32512	93.247	Advanced Nursing Education Grant Program	330,132	103,003
earth Nesources and Services Administration	Direct		1190111 32312	33.247	Advanced Narshing Education Grant Program	\$ 330,132 \$	
ational Institutes of Health	Direct		5R37AA19455-07/10	93.273	Alcohol Research Programs	248,913	
ational Institutes of Health	Direct		F32AA027409	93.273	Alcohol Research Programs	43,785	
ational Institutes of Health		Vanderbilt University Medical Center	UNIV/VUMCd	93.273	Alcohol Research Programs	15,260	
ational Institutes of Health	•	Vanderbilt University Medical Center	VUMC AA026186	93.273	Alcohol Research Programs	18,751	
ational institutes of fleatin	r ass-rill ough	variderbilt offiversity intedical certiter	VOIVIC AAUZU180	33.273	Aconornesearch riograms	\$ 326,710 \$	
lational Institutes of Health	Direct		DA042111	93.279	Drug Abuse and Addiction Research Programs	232,665	
ational Institutes of Health	Direct		1K99DA042129-01	93.279	Drug Abuse and Addiction Research Programs	78,036	
ational Institutes of Health	Direct		1 R01 DA38058-01-03	93.279	Drug Abuse and Addiction Research Programs	(629)	
ational Institutes of Health	Direct		1 R01 DA35263-01A1	93.279	Drug Abuse and Addiction Research Programs	(693)	
lational Institutes of Health	Direct		1F32DA041157-01	93.279	Drug Abuse and Addiction Research Programs	41,206	
ational Institutes of Health	Direct		HHSNJ2712018000196P	93.279	Drug Abuse and Addiction Research Programs	31,573	
ational Institutes of Health	Direct		1 R01 DA37207-01A1	93.279	Drug Abuse and Addiction Research Programs	(3)	
lational Institutes of Health	Direct		1R01DA042475-01	93.279	Drug Abuse and Addiction Research Programs Drug Abuse and Addiction Research Programs	348,215	
lational Institutes of Health	Direct		1R21DA043680-01	93.279	Drug Abuse and Addiction Research Programs	178,405	
ational Institutes of Health	Direct		1F30DA042501-01/04	93.279	Drug Abuse and Addiction Research Programs	41,242	
lational Institutes of Health	Direct		1F32DA047777	93.279	Drug Abuse and Addiction Research Programs	8,503	
lational Institutes of Health		Paca Pair Piotochnologies Inc	BASEPAIR - 1R44DA047866		-	7,241	
lational Institutes of Health	_	Base Pair Biotechnologies, Inc	UCI 2017-3476	93.279	Drug Abuse and Addiction Research Programs	·	
	_	University of California Irvine			Drug Abuse and Addiction Research Programs	54,931	
lational Institutes of Health	Pass-Inrough	University of Hawaii	UNIV OF HAWAII/NIH	93.279	Drug Abuse and Addiction Research Programs	7,216	
lational leatitutes of Hoolth	Divost		100150026001 0141	02.200	Discovery and Applied Describe for Technological Improventions	\$ 1,027,908 \$	-
ational Institutes of Health	Direct		1R01EB026901-01A1	93.286	Discovery and Applied Research for Technological Innovations t	14,295	01 240
ational Institutes of Health	Direct		1R01EB023717	93.286	Discovery and Applied Research for Technological Innovations t	443,529	91,240
ational Institutes of Health	Direct		4R01EB017467-04	93.286	Discovery and Applied Research for Technological Innovations t	(41,581)	1,321
ational Institutes of Health	Direct		1R01EB019409 01/04	93.286	Discovery and Applied Research for Technological Innovations t	303,843	126,818
ational Institutes of Health	Direct		1RO1EB020040 1-4	93.286	Discovery and Applied Research for Technological Innovations t	269,841	
lational Institutes of Health	Direct		1F31EB022422-01	93.286	Discovery and Applied Research for Technological Innovations t	4,063	07 - 4-
lational Institutes of Health	Direct		R01 EB017230 YR 1-4	93.286	Discovery and Applied Research for Technological Innovations t	538,027	87,545
ational Institutes of Health	Direct		1R21EB024311-01A1	93.286	Discovery and Applied Research for Technological Innovations t	226,126	
National Institutes of Health	Direct		1R01EB028105-01	93.286	Discovery and Applied Research for Technological Innovations t	96,580	
National Institutes of Health	Direct		1R21EB024199-01A1	93.286	Discovery and Applied Research for Technological Innovations t	146,112	27,787

Cluster Title/Federal Grantor/Program	Type	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures I	Passed Through
National Institutes of Health	Direct		2R01EB016695-05	93.286	Discovery and Applied Research for Technological Innovations t	434,987	145,853
National Institutes of Health	Direct		IR01EB016695-01A1	93.286	Discovery and Applied Research for Technological Innovations t	23,336	
National Institutes of Health	Direct		1R21EB018521-01/02	93.286	Discovery and Applied Research for Technological Innovations t	(11,466)	
National Institutes of Health	Direct		2R01EB014308-05A1	93.286	Discovery and Applied Research for Technological Innovations t	484,537	168,350
National Institutes of Health	Direct		2R01EB001744-07A1	93.286	Discovery and Applied Research for Technological Innovations t	(36,910)	•
National Institutes of Health	Direct		1R01EB019980	93.286	Discovery and Applied Research for Technological Innovations t	421,138	21,538
National Institutes of Health	Direct		1R21EB015623-01A1	93.286	Discovery and Applied Research for Technological Innovations t	(3,399)	,
National Institutes of Health	Direct		1R21EB022380-01	93.286	Discovery and Applied Research for Technological Innovations t	171,472	1,370
National Institutes of Health	Direct		1F31EB026928	93.286	Discovery and Applied Research for Technological Innovations t	18,525	,
National Institutes of Health	Direct		5T32EB014841-05	93.286	Discovery and Applied Research for Technological Innovations t	2,542	
National Institutes of Health	Direct		1T32EB021937-01	93.286	Discovery and Applied Research for Technological Innovations t	225,436	
National Institutes of Health		n Cornell University	CORNELL 1R21EB022927	93.286	Discovery and Applied Research for Technological Innovations t	5,317	
National Institutes of Health	J	University of California Berkeley	00009722	93.286	Discovery and Applied Research for Technological Innovations t	108,327	
National Institutes of Health	_	University of North Carolina Chapel Hill	5108995	93.286	Discovery and Applied Research for Technological Innovations t	214,611	19,477
National Institutes of Health	•	Vanderbilt University Medical Center	1R01EB026991	93.286	Discovery and Applied Research for Technological Innovations t	12,419	13,477
National Institutes of Health	•	Vanderbilt University Medical Center Vanderbilt University Medical Center	VUMC 67017	93.286	Discovery and Applied Research for Technological Innovations t	3,096	
National institutes of fleatin	rass-IIII ougi	value bit offiversity Wedical Center	VOIVIC 07017	93.280	Discovery and Applied Research for Technological Inflovations t	\$ 4,074,804	691,300
National Institutes of Health	Dace Through	n Meharry Medical College	17406MFL060	93.307	Minority Health and Health Disparities Research		091,300
	J	,			•	40,156	
National Institutes of Health	Pass-Inrougr	Nanderbilt University Medical Center	CENTER OF EXCELLENCE	93.307	Minority Health and Health Disparities Research	258,568	<u>.</u>
Nistianal Institutos of Haulth	Dina at		41104 CA 225500 04	02.240	Toron NIII December Comment	\$ 298,725	-
National Institutes of Health	Direct		1U01CA235508-01	93.310	Trans-NIH Research Support	30,370	65.000
National Institutes of Health	Direct		1U54DK120058	93.310	Trans-NIH Research Support	300,058	65,820
National Institutes of Health	Direct		1R03CA222452-01	93.310	Trans-NIH Research Support	75,662	
National Institutes of Health	Direct		3DP7OD018423-02S1&03	93.310	Trans-NIH Research Support	381,368	
National Institutes of Health	Direct		1 DP2 GM114849-01	93.310	Trans-NIH Research Support	497,330	
National Institutes of Health	•	Case Western Reserve University	OT2OD025307-01	93.310	Trans-NIH Research Support	165,507	
National Institutes of Health	Pass-Through	Nanderbilt University Medical Center	VUMC 68757	93.310	Trans-NIH Research Support	45,583	
						\$ 1,495,878	65,820
Centers for Disease Control	Pass-Through	n TN Department of Health	34349-92919	93.323	Epidemiology and Laboratory Capacity for Infectious Diseases (E	54,985	
					<u>-</u>	\$ 54,985	F
National Institutes of Health	Direct		1U01TR002383-01	93.350	National Center for Advancing Translational Sciences	988,300	629,984
National Institutes of Health	Direct		3UH3TR000491-04S2	93.350	National Center for Advancing Translational Sciences	21,434	9,885
National Institutes of Health	Direct		UG3TR002097-01	93.350	National Center for Advancing Translational Sciences	1,460,928	361,743
National Institutes of Health	Pass-Through	n Allegheny-Singer Research Institute	49801909(R21TR001728	93.350	National Center for Advancing Translational Sciences	1,333	
National Institutes of Health	Pass-Through	Nanderbilt University Medical Center	VUMC71360	93.350	National Center for Advancing Translational Sciences	1,971	
National Institutes of Health	Pass-Through	Nanderbilt University Medical Center	1 U24 TR001579-01	93.350	National Center for Advancing Translational Sciences	74,368	
National Institutes of Health	Pass-Through	Nanderbilt University Medical Center	TR002243 VUMC 59661	93.350	National Center for Advancing Translational Sciences	204,167	
National Institutes of Health	Pass-Through	Nanderbilt University Medical Center	3U24TR001579-01S1	93.350	National Center for Advancing Translational Sciences	58,317	
						\$ 2,810,817	\$ 1,001,612
National Institutes of Health	Direct		1S10OD025199-01	93.351	Research Infrastructure Programs	353,686	
National Institutes of Health	Direct		1 R25 OD021883-01	93.351	Research Infrastructure Programs	254,063	
National Institutes of Health	Direct		1S10OD023680-01	93.351	Research Infrastructure Programs	20,696	
					-	\$ 628,445	-
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	1U2CCA233291	93.353	21st Century Cures Act - Beau Biden Cancer Moonshot	\$ 262,989	
		·			·	\$ 262,989	<u> </u>
Health Resources and Services Administration	Direct		1 UD7HP30932-01-00	93.359	Nurse Education, Practice Quality and Retention Grants	476,959	283,057
						\$ 476,959	\$ 283,057
National Institutes of Health	Direct		5 R01 NR15353-02	93.361	Nursing Research	88,387	5,709
	•				• ··········	\$ 88,387	
National Institutes of Health	Direct		1R01CA239161-01	93.393	Cancer Cause and Prevention Research	102,438	5,705
National Institutes of Health	Direct		5 R01 CA102729-13	93.393	Cancer Cause and Prevention Research	321,191	
National Institutes of Health	Direct		2R01CA164605	93.393	Cancer Cause and Prevention Research	412,224	12,014
							12,014
National Institutes of Health	Direct		1 R50 CA211206-01	93.393	Cancer Cause and Prevention Research	108,293	
National Institutes of Health	Direct		1R01CA211305	93.393	Cancer Cause and Prevention Research	133,388	04.000
National Institutes of Health	Direct		1R01CA218315-01A1	93.393	Cancer Cause and Prevention Research	312,361	84,862

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National Institutes of Health	Direct		2P01CA160032-26A1	93.393	Cancer Cause and Prevention Research		775,677	269,742
National Institutes of Health	Direct		R01CA055678-13/17	93.393	Cancer Cause and Prevention Research		(11,520)	
lational Institutes of Health	Direct		4R01CA055678-24	93.393	Cancer Cause and Prevention Research		11,914	11,914
National Institutes of Health	Direct		2P01CA160032-21A	93.393	Cancer Cause and Prevention Research		146,852	56,566
National Institutes of Health	Direct		5 R01 CA087819-17	93.393	Cancer Cause and Prevention Research		287,349	
National Institutes of Health	Direct		1R21 CA175840-01A1	93.393	Cancer Cause and Prevention Research		(290)	
National Institutes of Health	Direct		4 R01 CA118332-09	93.393	Cancer Cause and Prevention Research		149,816	63,026
National Institutes of Health	Direct		1 R01CA200709-01	93.393	Cancer Cause and Prevention Research		323,901	116,446
National Institutes of Health	Direct		1U01CA224276	93.393	Cancer Cause and Prevention Research		126,658	47,370
National Institutes of Health		n Lawrence Berkley National Laboratory	2P01CA092584-16	93.393	Cancer Cause and Prevention Research		55,145	,
National Institutes of Health	_	Thomas Jefferson University	7 R01 CA160432-05	93.393	Cancer Cause and Prevention Research		521	
National Institutes of Health	•	Thomas Jefferson University	2 R01CA207468	93.393	Cancer Cause and Prevention Research		44,654	
National Institutes of Health	_	University of Arizona	1 R01 CA174926-01A	93.393	Cancer Cause and Prevention Research		16,611	
National Institutes of Health	•	University of California Berkeley	2 P01 CA092584-16	93.393	Cancer Cause and Prevention Research		39,875	
National Institutes of Health	_	University of California Berkeley	2 P01 CA092584-16a	93.393	Cancer Cause and Prevention Research		40,660	
National Institutes of Health	_	Vanderbilt University Medical Center	5P01CA028842	93.393	Cancer Cause and Prevention Research		2,408	
	_	·	BA: 1 R01 CA190612-0					
National Institutes of Health	•	Vanderbilt University Medical Center		93.393	Cancer Cause and Prevention Research		436	
National Institutes of Health	_	Vanderbilt University Medical Center	UNIV59281/VUMC61130	93.393	Cancer Cause and Prevention Research		14,868	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC67580	93.393	Cancer Cause and Prevention Research		1,532	
National Institutes of Health	_	Vanderbilt University Medical Center	2P01CA116087-12	93.393	Cancer Cause and Prevention Research		41,698	
National Institutes of Health	_	Vanderbilt University Medical Center	6 P01 CA116087-09	93.393	Cancer Cause and Prevention Research		94,707	
National Institutes of Health	•	Nanderbilt University Medical Center	VUMC68022	93.393	Cancer Cause and Prevention Research		17,056	
National Institutes of Health	_	Nanderbilt University Medical Center	VUMC/VU CA202981	93.393	Cancer Cause and Prevention Research		22,263	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	5 R01 CA188214-01:02	93.393	Cancer Cause and Prevention Research		36,647	664.044
lational Institutos of Hoolth	Direct		100164212147 0141	02.204	Canaar Datastian and Diagnosis Bassarah	\$	3,629,333 \$	661,941
lational Institutes of Health	Direct		1R01CA212147-01A1	93.394	Cancer Detection and Diagnosis Research		645,666	355,644
lational Institutes of Health	Direct		1R01CA162477-01/05	93.394	Cancer Detection and Diagnosis Research		196,468	200.60
lational Institutes of Health	Direct	. Many the heath to for Borrowski	1 R01 CA186193-01	93.394	Cancer Detection and Diagnosis Research		616,096	288,697
lational Institutes of Health	•	Morgridge Institute for Research	CA205101 SUB 17-J002	93.394	Cancer Detection and Diagnosis Research		8,966	
lational Institutes of Health	J	University of Tennessee Knoxville	1 R15 CA182850-01A1	93.394	Cancer Detection and Diagnosis Research		1,588	
National Institutes of Health	_	University of Texas at Austin	7U01CA174706-TEXAS	93.394	Cancer Detection and Diagnosis Research		140,619	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC 70667	93.394	Cancer Detection and Diagnosis Research		7,477	
National Institutes of Health	_	Nanderbilt University Medical Center	VUMC69091	93.394	Cancer Detection and Diagnosis Research		16,973	
National Institutes of Health	~	Vanderbilt University Medical Center	1 R01 CA184693-01	93.394	Cancer Detection and Diagnosis Research		14,871	
National Institutes of Health	•	Vanderbilt University Medical Center	1U01CA186145-01-A1	93.394	Cancer Detection and Diagnosis Research		23,755	
National Institutes of Health	Pass-Through	Nanderbilt University Medical Center	UNIV/VUMC	93.394	Cancer Detection and Diagnosis Research		28,038	644.244
National Institutes of Health	Direct		1R01CA224241-01A1	02 205	Cancer Treatment Research	\$	1,700,516 \$	644,341
	Direct			93.395			345,887	26 461
National Institutes of Health	Direct		2 R01 CA116021-11,12	93.395	Cancer Treatment Research		370,970	36,461
National Institutes of Health	Direct		1R37CA233770	93.395	Cancer Treatment Research		134,833	11,121
National Institutes of Health	Direct		7R01CA203991-02	93.395	Cancer Treatment Research		658,374	20,278
National Institutes of Health	Direct		1R01CA214043	93.395	Cancer Treatment Research		445,340	92,889
National Institutes of Health	Direct		5 R01 CA174887-02	93.395	Cancer Treatment Research		100,124	
National Institutes of Health	_	University of Miami	SPC-000908	93.395	Cancer Treatment Research		20,214	
lational Institutes of Health	_	university of Texas Southwestern Medical Center			Cancer Treatment Research		55,843	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC66321	93.395	Cancer Treatment Research		61,284	100 710
National Institutes of Health	Direct		1U01CA202229-01	02 206	Cancor Biology Possarch	<u>\$</u>	2,192,868 \$ 596,324	160,749
	Direct			93.396	Cancer Biology Research			258,150
National Institutes of Health	Direct		4 R01 CA164605-05	93.396	Cancer Biology Research		(129,579)	74 04 0
National Institutes of Health	Direct		5 R01 CA178030-03	93.396	Cancer Biology Research		406,388	74,216
National Institutes of Health	Direct		5 R01 CA64140-22	93.396	Cancer Biology Research		406,056	24,706
National Institutes of Health	Direct		1R01CA163499-01A1	93.396	Cancer Biology Research		4,147	8,281
lational Institutes of Health	Direct		1 R35 CA197571-01	93.396	Cancer Biology Research		1,006,102	
National Institutes of Health	Direct		4R01CA034590-33	93.396	Cancer Biology Research		4,157	3,355
National Institutes of Health	Direct		1R21CA227483-01A1	93.396	Cancer Biology Research		75,621	

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National Institutes of Health	Direct		1R01CA226833-01A1	93.396	Cancer Biology Research	308,955	
National Institutes of Health	Direct		1U01CA215845-01	93.396	Cancer Biology Research	581,433	
National Institutes of Health	Direct		4R01CA163592-05	93.396	Cancer Biology Research	26	
National Institutes of Health	Direct		4R00CA201304-03	93.396	Cancer Biology Research	271,286	
National Institutes of Health	Pass-Through	Massachusetts Institute of Technology	144383	93.396	Cancer Biology Research	167,099	
National Institutes of Health	Pass-Through	Massachusetts Institute of Technology	5U01CA215798	93.396	Cancer Biology Research	13,866	
National Institutes of Health	Pass-Through	Massachusetts Institute of Technology	MIT: SYSTEMS APPROAC	93.396	Cancer Biology Research	(1,411)	
National Institutes of Health	Pass-Through	University of Texas Southwestern Medical Center	1 R35 CA220449	93.396	Cancer Biology Research	46,200	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC70679	93.396	Cancer Biology Research	7,477	
National Institutes of Health	-	Vanderbilt University Medical Center	VUMC 65678	93.396	Cancer Biology Research	10,981	
National Institutes of Health	_	Vanderbilt University Medical Center	1 U01 CA196405-01a	93.396	Cancer Biology Research	121,232	
National Institutes of Health	•	Vanderbilt University Medical Center	1 R01 CA177681-01A1	93.396	Cancer Biology Research	(287)	
National Institutes of Health	_	Vanderbilt University Medical Center	5 U19 CA179514-03	93.396	Cancer Biology Research	53,676	
National Institutes of Health	-	Vanderbilt University Medical Center	5 U19CA179514-03	93.396	Cancer Biology Research	27,959	
		, , , , , , , , , , , , , , , , , , , ,				\$ 3,977,708 \$	368,708
National Institutes of Health	Direct		1 U54 CA217450-01A1	93.397	Cancer Centers Support Grants	1,817,242	495,577
National Institutes of Health		Vanderbilt University Medical Center	VUMC 66483	93.397	Cancer Centers Support Grants	6,237	.00,017
National Institutes of Health	U	Vanderbilt University Medical Center	UNIVf	93.397	Cancer Centers Support Grants	1,174,250	
National Institutes of Health	_	Vanderbilt University Medical Center	UNIV58822	93.397	Cancer Centers Support Grants	100,412	
National Institutes of Health	-	Vanderbilt University Medical Center	5 P50 CA098131-15	93.397	Cancer Centers Support Grants Cancer Centers Support Grants	(1,260)	
National Institutes of Health	-	Vanderbilt University Medical Center	VUMC59466	93.397	Cancer Centers Support Grants Cancer Centers Support Grants	115,331	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC 61062, VU 58983	93.397	Cancer Centers Support Grants Cancer Centers Support Grants	62,093	
National Institutes of Health	-	Vanderbilt University Medical Center	CA068485-22S1 VUMC 610		Cancer Centers Support Grants Cancer Centers Support Grants	18,247	
National Institutes of Health	_	•	VUMC59916 CA068485-21		• •	64,279	
Vacional institutes of Health	Pass-Illiougii	Vanderbilt University Medical Center	VUIVIC39910 CAU06463-21	.3: 33.337	Cancer Centers Support Grants	\$ 3,356,830 \$	495,577
National Institutes of Health	Direct		K00CA212447	02.200	Concer Decearch Manneyur		495,577
	Direct			93.398	Cancer Research Manpower	67,360	
National Institutes of Health	Direct		5 K22 CA184308-03	93.398	Cancer Research Manpower	893	
National Institutes of Health	Direct		1K99CA212270-01	93.398	Cancer Research Manpower	3,031	
National Institutes of Health	Direct		4 R00 CA178190-03	93.398	Cancer Research Manpower	78,318	
National Institutes of Health	Direct		1F32CA228271	93.398	Cancer Research Manpower	4,036	
National Institutes of Health	Direct		5 T32 CA09582-28	93.398	Cancer Research Manpower	90,836	
National Institutes of Health	Direct		T32CA009582-31	93.398	Cancer Research Manpower	230,031	
National Institutes of Health	Direct		1F31CA213744-01	93.398	Cancer Research Manpower	11,962	
National Institutes of Health	Direct		CA206339-02 GALLANT	93.398	Cancer Research Manpower	44,437	
National Institutes of Health	Direct		1F32CA217064-01	93.398	Cancer Research Manpower	54,284	
National Institutes of Health	Direct		1F30CA203220 01/04	93.398	Cancer Research Manpower	42,197	
National Institutes of Health	Direct		1F30CA228242-01	93.398	Cancer Research Manpower	28,877	
National Institutes of Health	Direct		1F31CA221147-01	93.398	Cancer Research Manpower	28,877	
National Institutes of Health	Direct		1F30CA16891 01/04	93.398	Cancer Research Manpower	28,894	
National Institutes of Health	Direct		1F30CA224559-01	93.398	Cancer Research Manpower	29,050	
National Institutes of Health	Direct		1F30CA236131	93.398	Cancer Research Manpower	15,893	
National Institutes of Health	Direct		1F31CA239502	93.398	Cancer Research Manpower	4,418	
National Institutes of Health	Direct		1 F31 CA199993-02	93.398	Cancer Research Manpower	(1,258)	
National Institutes of Health	Direct		1F32CA213794-01A1	93.398	Cancer Research Manpower	286	
National Institutes of Health	Direct		5 T32 CA119925-08	93.398	Cancer Research Manpower	75,290	
National Institutes of Health	Direct		1 F31 CA210429-01	93.398	Cancer Research Manpower	29,102	
National Institutes of Health	Direct		2T32CA009592-31	93.398	Cancer Research Manpower	7,493	
National Institutes of Health	Direct		4T32CA009592-29	93.398	Cancer Research Manpower	107,149	1,507
National Institutes of Health	Direct		7F30CA189433	93.398	Cancer Research Manpower	37,380	
National Institutes of Health	Direct		1F31CA220804-01	93.398	Cancer Research Manpower	28,944	
National Institutes of Health	Direct		1F30CA196087-01-04	93.398	Cancer Research Manpower	50,526	
National Institutes of Health	Direct		1F31CA225065	93.398	Cancer Research Manpower	29,449	
National Institutes of Health	Pass-Through	Thomas Jefferson University	TJUCA189433	93.398	Cancer Research Manpower	11,921	
		•				\$ 1,139,678 \$	1,507
National Institutes of Health	Direct		90IFRE0001-01-00	93.433	ACL National Institute on Disability, Independent Living, and Re	181,962	3,712

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National Institutes of Health		Murray State University	90IF0096-01-01	93.433	ACL National Institute on Disability, Independent Living, and Re		11,618	
	J				, ,	\$	193,580 \$	3,712
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	5 R24 DK103067-04	93.447	2004: State Health Fraud Task Force Grants		46,324	
						\$	46,324 \$	-
Administration for Children and Families	Direct		90YR0101-01-01	93.600	Head Start		30,915	
Administration for Children and Families	Pass-Through	ZERO TO THREE	ZERO TO THREE	93.600	Head Start		(2,183)	
						\$	28,733 \$	-
Administration for Community Living	Direct		90DN0294-04-00 YR4	93.631	Developmental Disabilities Projects of National Significance		60	
						\$	60 \$	-
Administration for Children and Families	Pass-Through	Vanderbilt University Medical Center	90DD0807-03-00	93.632	University Centers for Excellence in Developmental Disabilities	E	142,233	
						\$	142,233 \$	-
Centers for Medicare and Medicaid Services	Pass-Through	Gramercy Research Group, LLC	VUMC 61273 PTN	93.638	ACA-Transforming Clinical Practice Initiative: Practice Transform	ı	30,210	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC 71027	93.638	ACA-Transforming Clinical Practice Initiative: Practice Transform	1	17,672	
						\$	47,883 \$	-
Administration for Children and Families	Pass-Through	Vanderbilt University Medical Center	BA: STTN 35910-10211	93.658	Foster Care Title IV-E		6,474	
						\$	6,474 \$	-
Health Resources and Services Administration	Direct		HRSA M01HP31387	93.732	Mental and Behavioral Health Education and Training Grants		111,453	
						\$	111,453 \$	-
National Institutes of Health	Direct		1R01HL122347 01/04	93.837	Cardiovascular Diseases Research		539,378	60,623
National Institutes of Health	Direct		7R01HL127499-03	93.837	Cardiovascular Diseases Research		495,092	
National Institutes of Health	Direct		IR01HL144131	93.837	Cardiovascular Diseases Research		351,732	120,363
National Institutes of Health	Direct		1R25HL145330-01	93.837	Cardiovascular Diseases Research		42,730	
National Institutes of Health	Direct		1R01HL115103-01A1	93.837	Cardiovascular Diseases Research		(48,813)	
National Institutes of Health	Direct		1R01HL128715 01/04	93.837	Cardiovascular Diseases Research		(8,959)	
National Institutes of Health	Direct		4R01 HL115103-04	93.837	Cardiovascular Diseases Research		(64,791)	
National Institutes of Health	Direct		5 K01 HL121010-02	93.837	Cardiovascular Diseases Research		17,282	
National Institutes of Health	Direct		1 F31 HL136081-01	93.837	Cardiovascular Diseases Research		15,911	
National Institutes of Health	Direct		1F30HL126280	93.837	Cardiovascular Diseases Research		53,669	
National Institutes of Health	Direct		1F31HL136133-01A1	93.837	Cardiovascular Diseases Research		16,514	
National Institutes of Health	Direct		1T32HL144446	93.837	Cardiovascular Diseases Research		6,770	
National Institutes of Health	Direct		5T32HL007411-37	93.837	Cardiovascular Diseases Research		314,473	20,635
National Institutes of Health	Direct		1F32HL138745	93.837	Cardiovascular Diseases Research		47,453	
National Institutes of Health	Direct		1F30HL145917	93.837	Cardiovascular Diseases Research		11,660	
National Institutes of Health	Pass-Through	Meharry Medical College	MOLECULAR MICROBIAL	93.837	Cardiovascular Diseases Research		279	
National Institutes of Health	Pass-Through	Northwestern University	2R01HL122010-05	93.837	Cardiovascular Diseases Research		503,092	
National Institutes of Health	Pass-Through	Northwestern University	5 R01 HL122010-02	93.837	Cardiovascular Diseases Research		30,492	
National Institutes of Health	Pass-Through	Northwestern University	HL122010/NORTHWESTER	93.837	Cardiovascular Diseases Research		19,743	
National Institutes of Health	Pass-Through	University of Mississippi Medical Center	2R25HL126145-05	93.837	Cardiovascular Diseases Research		34,867	
National Institutes of Health	Pass-Through	University of Mississippi Medical Center	HBCU PRIDE - UNIV MS	93.837	Cardiovascular Diseases Research		20,970	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	5R01HL122847-04	93.837	Cardiovascular Diseases Research		13,136	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC 60278	93.837	Cardiovascular Diseases Research		36,400	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC 65119	93.837	Cardiovascular Diseases Research		14,590	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	5P01HL116263-05	93.837	Cardiovascular Diseases Research		369,102	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC65281	93.837	Cardiovascular Diseases Research		4,827	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	HL137166-VUMC 60817	93.837	Cardiovascular Diseases Research		12,060	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	HL133127-VUMC	93.837	Cardiovascular Diseases Research		8,182	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC58331 HL130502	93.837	Cardiovascular Diseases Research		(224)	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	5 R01 HL118392-03	93.837	Cardiovascular Diseases Research		2,220	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	R00HL135442	93.837	Cardiovascular Diseases Research		9,880	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	BA: UNIV SMITH	93.837	Cardiovascular Diseases Research		12,047	
National Institutes of Health	_	Vanderbilt University Medical Center	HHSN272201700071VMC	93.837	Cardiovascular Diseases Research		45,368	
	2	•				\$	2,927,134 \$	201,620
National Institutes of Health	Direct		1R35HL135790	93.838	Lung Diseases Research		1,397,439	•
National Institutes of Health	Direct		1F31HL142189	93.838	Lung Diseases Research		29,251	
National Institutes of Health	Direct		1F30HL140756	93.838	Lung Diseases Research		22,413	

Cluster Title/Federal Grantor/Program	Type	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Passe	ed Through
National Institutes of Health	Pass-Through	University of Pittsburgh	HL135144-UNIV OF PIT	93.838	Lung Diseases Research	57,642	
National Institutes of Health	~	University of Texas Medical Branch at Galveston	R01HL145477	93.838	Lung Diseases Research	7,982	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	RO1 HL095797	93.838	Lung Diseases Research	8,020	
National Institutes of Health	_	Vanderbilt University Medical Center	UNIV/VUMCb	93.838	Lung Diseases Research	60,542	
National Institutes of Health	_	Vanderbilt University Medical Center	UNIV	93.838	Lung Diseases Research	23,694	
National Institutes of Health	•	Vanderbilt University Medical Center	1 R01 HL122417-01A1	93.838	Lung Diseases Research	6,922	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC65979	93.838	Lung Diseases Research	27,028	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC 65058	93.838	Lung Diseases Research	42,921	
National Institutes of Health	_	Virtuoso Surgical, Inc	1R41HL140709-01	93.838	Lung Diseases Research	71,500	
		0			6	\$ 1,755,354 \$	
National Institutes of Health	Direct		5T32HL069765-15	93.839	Blood Diseases and Resources Research	134,416	
National Institutes of Health	Direct		1F30HL143826	93.839	Blood Diseases and Resources Research	23,919	
						\$ 158,335 \$	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	K12HL137943	93.840	Translation and Implementation Science Research for Heart, Lu	, in the second	
		, and a substitution of the substitution of th				\$ 113,170 \$	
National Institutes of Health	Direct		4R01AR064304-04	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	109	
National Institutes of Health	Direct		1R01AR064772-01A1	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	199,711	14,575
National Institutes of Health	Direct		1R01AR072679-01A1	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	75,058	3,512
National Institutes of Health	Direct		1R21AR072510-01	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	162,564	3,312
National Institutes of Health	Direct		1R21AR074589-01	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	11,169	
National Institutes of Health	Direct		4 R01 AR51968-09	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	(551)	
National Institutes of Health	Direct		5T32AR059039	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	296,479	12,393
National Institutes of Health		Vanderbilt University Medical Center	VUMC70515	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	8,499	12,393
	_	•			·	·	
National Institutes of Health	•	Vanderbilt University Medical Center	VUMC 67478	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	17,826	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC 65991	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	8,849	
National Institutes of Health	Pass-Inrougn	Vanderbilt University Medical Center	VUMC63742	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	8,648	20.400
Nighting all Institutes of Health	Disast		DO1DV10C340.1/F	02.047	Dishetes Disective and Kidney Disector Future would Decomb	\$ 788,360 \$	30,480
National Institutes of Health	Direct		R01DK106348 1/5	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	347,877	205 470
National Institutes of Health	Direct		DK050203	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	336,247	205,470
National Institutes of Health	Direct		2R01DK090570-05A1	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	504,722	200,644
National Institutes of Health	Direct		1R01DK117147	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	217,682	106,823
National Institutes of Health	Direct		5 R33 DK105149-02	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	(68,161)	420.604
National Institutes of Health	Direct		1 UC4 DK108120-01	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	641,751	438,601
National Institutes of Health	Direct		1R01DK117158-01	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	257,756	
National Institutes of Health	Direct		1R25DK111362	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	87,086	30,023
National Institutes of Health	Direct		2 R01 DK43748-22A1	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	472,926	
National Institutes of Health	Direct		1k01dk115633-01	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	28,898	
National Institutes of Health	Direct		R01DK115620	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	352,269	
National Institutes of Health	Direct		4 R01 DK97392-04	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	(45,498)	
National Institutes of Health	Direct		1 R01 DK111949-01	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	297,416	
National Institutes of Health	Direct		4 R01 DK095811-04	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	(23,755)	
National Institutes of Health	Direct		1 R01 DK103831-01A1	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	416,248	2,801
National Institutes of Health	Direct		1R01DK109204-01/04	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	317,156	
National Institutes of Health	Direct		2U2CDK059637-16 thru 20	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	924,425	284,074
National Institutes of Health	Direct		4R37DK050277-22	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	66,812	
National Institutes of Health	Direct		2R01DK054902-16A1	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	390,016	50,638
National Institutes of Health	Direct		1R01DK106476-01A1	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	692,983	
National Institutes of Health	Direct		4R01DK060667-13	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	(19,943)	
National Institutes of Health	Direct		2R01DK018243-43A1	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	656,617	
National Institutes of Health	Direct		5 R01 DK65949-13	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	46,232	
National Institutes of Health	Direct		1 R01 DK106228-01A1	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	581,609	
National Institutes of Health	Direct		1R01 DK097376-01/03	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	(996)	
National Institutes of Health	Direct		1F31DK120225	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	24,510	
National Institutes of Health	Direct		1F31DK20214	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	22,732	
National Institutes of Health	Direct		T32DK101003 YEAR 2	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	144,011	
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Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Page 1	assed Through
National Institutes of Health	Direct		1F31DK108652-01	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	20,455	
National Institutes of Health	Direct		1F32DK120104	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	35,594	
National Institutes of Health	Direct		7F32DK108598-02	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	54,943	
National Institutes of Health	Direct		1F30DK118830-01	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	28,646	
National Institutes of Health	Direct		1 F31 DK108528-01	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	660	
National Institutes of Health	Direct		1F30DK118774	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	29,632	
National Institutes of Health	Direct		1F30DK111107-01	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	29,564	
National Institutes of Health	Direct		F32DK112603	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	45,043	
National Institutes of Health	Direct		1F30DK120149	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	25,670	
National Institutes of Health	Direct		1F32DK113689	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	17,072	
National Institutes of Health	Direct		1 F31 DK107321-01A1	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	279	
National Institutes of Health	Direct		1 F30 DK108476-01	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	57,361	
National Institutes of Health	Direct		1F31DK112553	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	24,778	
National Institutes of Health	Direct		1F31DK117592-01A1	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	28,646	
National Institutes of Health	Direct		5 F30 DK103438-02	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	4,821	
National Institutes of Health	Direct		1F31DK118855-01	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	29,048	
National Institutes of Health	Direct		5 T32 DK07563-28	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	368,950	
National Institutes of Health	Direct		2T32DK007563-31	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research		4,114
			1F32DK117529			75,501	4,114
National Institutes of Health	Direct			93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	64,136	
National Institutes of Health	Direct		1F32DK109577-01A1	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	65,244	
National Institutes of Health	Direct		1F30DK120114	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	10,422	
National Institutes of Health	Direct		DK112630-MECHANISM O	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	49,885	2 220
National Institutes of Health	Pass-Through Aug	•	UNIVh	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	(3,461)	2,220
National Institutes of Health	Pass-Through Aug	•	DK076169-11	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	8,217	
National Institutes of Health	Pass-Through Aug	•	30835/25034-83	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	1,205	
National Institutes of Health	Pass-Through Indi	•	IN4684797VU	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	29,340	
National Institutes of Health	Pass-Through Star	•	DK10261202	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	37,440	
National Institutes of Health	_	versity of Cincinnati	7R01DK106364	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	154,585	
National Institutes of Health	-	derbilt University Medical Center	DK106755-01/VUMC	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	97,420	
National Institutes of Health	•	derbilt University Medical Center	DK106755-VUMC 60122	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	90,025	
National Institutes of Health	•	derbilt University Medical Center	64222	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	1,499	
National Institutes of Health	•	derbilt University Medical Center	VUMC 66391	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	50,192	
National Institutes of Health	-	derbilt University Medical Center	UNIV58790	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	2,492	
National Institutes of Health		derbilt University Medical Center	SUBCONTRACT 64675	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	17,323	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	BA: UNIV	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	18,747	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	2R01DK105550-07	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	2,491	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	VUMC 66384	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	63,395	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	UNIV59245(UCADK11223	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	17,461	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	1 R01 DK109102-01	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	19,544	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	VUMC 59472	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	450,871	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	UNIVb	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	140,711	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	UNIV/VUMCa	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	18,477	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	2R01DK101332	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	11,735	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	UNIV58606 VUMC59745	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	20,307	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	VUMC 66040	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	118,151	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	1 R01 DK108968-01	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	19,412	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	BA: 1 UC4 DK104211-0	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	5,624	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	BA: R24 DK106755	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	11,389	
National Institutes of Health	Pass-Through Van	derbilt University Medical Center	VUMC 59326	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	3,486	
National Institutes of Health	•	derbilt University Medical Center	BA: UNIVa; VUMC 63119	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	56,586	
National Institutes of Health	-	derbilt University Medical Center	BA: 2 T32 DK007061	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	7,974	
National Institutes of Health		shington University In St. Louis	4282700173	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	32,658	
	, and the second	- ,			,	\$ 10,241,270 \$	1,325,408
National Institutes of Health	Direct		1R21NS087796-01/02	93.853	Extramural Research Programs in the Neurosciences and Neuro		
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Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures	Passed Through
National Institutes of Health	Direct		4 R01 NS081259-04	93.853	Extramural Research Programs in the Neurosciences and Neuro	(11,584)	
National Institutes of Health	Direct		1R01NS106951-01	93.853	Extramural Research Programs in the Neurosciences and Neuro	408,305	82,720
National Institutes of Health	Direct		4 R01 NS079611-04	93.853	Extramural Research Programs in the Neurosciences and Neuro	74,854	
National Institutes of Health	Direct		1R01NS096238-01	93.853	Extramural Research Programs in the Neurosciences and Neuro	333,383	19,588
National Institutes of Health	Direct		1R01NS104497	93.853	Extramural Research Programs in the Neurosciences and Neuro	316,522	15,212
National Institutes of Health	Direct		1 R01 NS095989-01	93.853	Extramural Research Programs in the Neurosciences and Neuro		243,829
National Institutes of Health	Direct		1R21NS109521	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Direct		2R01NS058639-05/08	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Direct		2R01NS058639-05A1	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Direct		1R01NS107456	93.853	Extramural Research Programs in the Neurosciences and Neuro		206,870
National Institutes of Health	Direct		1R01NS102365	93.853	Extramural Research Programs in the Neurosciences and Neuro		4,535
National Institutes of Health	Direct		1R21NS106510-01	93.853	Extramural Research Programs in the Neurosciences and Neuro		12,888
National Institutes of Health	Direct		4 R01 NS78291-05	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Direct		1 R01 NS096899-01A1	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Direct		1 R01 NS097898-01	93.853	Extramural Research Programs in the Neurosciences and Neuro	•	6,555
National Institutes of Health	Direct		1R01NS111749	93.853	Extramural Research Programs in the Neurosciences and Neuro		2,222
National Institutes of Health	Direct		5 R37 NS31373	93.853	Extramural Research Programs in the Neurosciences and Neuro		1,279
National Institutes of Health	Direct		2R01NS016446-34	93.853	Extramural Research Programs in the Neurosciences and Neuro		_,_,
National Institutes of Health	Direct		2R01NS049251-08/12	93.853	Extramural Research Programs in the Neurosciences and Neuro		247,893
National Institutes of Health	Direct		01NS095291 YR 9-12	93.853	Extramural Research Programs in the Neurosciences and Neuro		74,999
National Institutes of Health	Direct		1R56NS094651-01A1	93.853	Extramural Research Programs in the Neurosciences and Neuro		51,945
National Institutes of Health	Direct		7R01NS094456	93.853	Extramural Research Programs in the Neurosciences and Neuro		31,3 .3
National Institutes of Health	Direct		8K00DA048436	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Direct		1F31NS092250 01/03	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Direct		1F31NS096908-01-03	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Direct		1F31NS108595-01A1	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Direct		1F31NS106735	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Pass-Through Emo	ory University	UNIV/EMORY	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Pass-Through Ohio	·	1 R21 NS098362-01	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	· ·	nessee State University	R25NS091004/TSU	93.853	Extramural Research Programs in the Neurosciences and Neuro	18,561	
National Institutes of Health	Pass-Through Univ	•	1R21NS108505-01A1	93.853	Extramural Research Programs in the Neurosciences and Neuro	•	
National Institutes of Health	Pass-Through Univ		ETR-1/CELF1 IN NEURO	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Pass-Through Univ	•	ULRF 17-1118-02	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health		derbilt University Medical Center	VUMC 69232	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	· ·	derbilt University Medical Center	UNIVi	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health		derbilt University Medical Center	VUMC 69235	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	· ·	derbilt University Medical Center	VUMC 69141	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health		derbilt University Medical Center	1 R01 MH102266-01A1	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health		derbilt University Medical Center	5T32NS007491-18	93.853	Extramural Research Programs in the Neurosciences and Neuro	•	
National Institutes of Health		•	BA: Univ 59643				
National Institutes of Health	· ·	derbilt University Medical Center	BA: UNIV59690	93.853 93.853	Extramural Research Programs in the Neurosciences and Neuro Extramural Research Programs in the Neurosciences and Neuro		
		derbilt University Medical Center			-		
National Institutes of Health		derbilt University Medical Center	VUMC60466 UNIV58597	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health		derbilt University Medical Center	VUMC 59642	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health		derbilt University Medical Center	VUMC 68321	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health		derbilt University Medical Center	1 R01 NS93669-01A1	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health		derbilt University Medical Center	BA:UNIV59805	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	•	derbilt University Medical Center	VUMC58834 T32NS00749	93.853	Extramural Research Programs in the Neurosciences and Neuro		
National Institutes of Health	Pass-Through Yale	University	UNIVm	93.853	Extramural Research Programs in the Neurosciences and Neuro		d 000 010
National Institutes of Uselth	Diroct		152041420424-04	02.000	Allergy and Infectious Discours Describ	\$ 6,026,608	\$ 968,313
National Institutes of Health	Direct		1F30Al138424-01	93.855	Allergy and Infectious Diseases Research	28,980	
National Institutes of Health	Direct		1R21Al119596-01	93.855	Allergy and Infectious Diseases Research	(9,910)	
National Institutes of Health	Direct		1R01Al132581-01	93.855	Allergy and Infectious Diseases Research	319,512	
National Institutes of Health	Direct		R21Al133522	93.855	Allergy and Infectious Diseases Research	238,854	460 766
National Institutes of Health	Direct		1R01Al136301-01A1	93.855	Allergy and Infectious Diseases Research	575,541	469,762
National Institutes of Health	Direct		1R01A1100643 01/04	93.855	Allergy and Infectious Diseases Research	(14)	

Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number		Federal Expenditures Passed Th	
National Institutes of Health	Direct		R21AI121626-01A1	93.855	Allergy and Infectious Diseases Research	140,566	8,162
National Institutes of Health	Direct		1 R01 AI108778-01A1	93.855	Allergy and Infectious Diseases Research	218,331	
National Institutes of Health	Direct		1R01AI140400-01A1	93.855	Allergy and Infectious Diseases Research	5,740	
National Institutes of Health	Direct		1R56AI127693	93.855	Allergy and Infectious Diseases Research	269,412	
National Institutes of Health	Direct		1R21Al138157-01	93.855	Allergy and Infectious Diseases Research	117,865	
National Institutes of Health	Direct		1R21AI113960-01A1	93.855	Allergy and Infectious Diseases Research	48,760	
National Institutes of Health	Direct		1R21Al21799-01A1	93.855	Allergy and Infectious Diseases Research	104,193	
National Institutes of Health	Direct		1R01AI127422-02	93.855	Allergy and Infectious Diseases Research	92,612	
National Institutes of Health	Direct		1F32AI140694-01A1	93.855	Allergy and Infectious Diseases Research	19,154	
National Institutes of Health	Direct		F30AI118376-03	93.855	Allergy and Infectious Diseases Research	41,432	
National Institutes of Health	Direct		1F31AI133926-01	93.855	Allergy and Infectious Diseases Research	27,327	
National Institutes of Health	Direct		F31AI129747	93.855	Allergy and Infectious Diseases Research	24,134	
National Institutes of Health	Direct		GRAEPEL-1F30AI129229	93.855	Allergy and Infectious Diseases Research	28,571	
National Institutes of Health	Direct		AI131780-YEAR 01/03	93.855	Allergy and Infectious Diseases Research	25,141	
National Institutes of Health	Direct		5F30AI114262-YR 04	93.855	Allergy and Infectious Diseases Research	127	
National Institutes of Health	Direct		1F31AI126662-01	93.855	Allergy and Infectious Diseases Research	20,535	
National Institutes of Health	Direct		1F31Al133952	93.855	Allergy and Infectious Diseases Research	28,681	
National Institutes of Health	Direct		1F31Al133970	93.855	Allergy and Infectious Diseases Research	29,873	
National Institutes of Health	Direct		5T32Al112541-02	93.855	Allergy and Infectious Diseases Research		7,546
National Institutes of Health	Direct		F31Al136255	93.855	<i>5,</i>	32,719	7,340
					Allergy and Infectious Diseases Research		
National Institutes of Health	Direct		7F30AI122563-04	93.855	Allergy and Infectious Diseases Research	39,473	
National Institutes of Health	Direct	David Fash as Cast and Institute	1F32AI140557	93.855	Allergy and Infectious Diseases Research	34,345	
National Institutes of Health	•	Dana Farber Cancer Institute	R56AI138489	93.855	Allergy and Infectious Diseases Research	33,681	
National Institutes of Health	_	Georgia State University	R01AI127793	93.855	Allergy and Infectious Diseases Research	23,117	
National Institutes of Health	_	Meharry Medical College	5T32Al007281-30	93.855	Allergy and Infectious Diseases Research	31,863	
National Institutes of Health	_	Meharry Medical College	5T32Al007281-30	93.855	Allergy and Infectious Diseases Research	30,845	
National Institutes of Health	_	Meharry Medical College	T32AI007281 MEHARRY	93.855	Allergy and Infectious Diseases Research	438	
National Institutes of Health	_	Oak Crest Institute of Science	5 R01 Al120748-02	93.855	Allergy and Infectious Diseases Research	51,977	
National Institutes of Health	•	Oak Crest Institute of Science	UNIV44107	93.855	Allergy and Infectious Diseases Research	51,866	
National Institutes of Health	_	University of California San Francisco	R01 AI106987	93.855	Allergy and Infectious Diseases Research	133,593	
National Institutes of Health	Pass-Through	University of Cape Town (South Africa)	A110329/UNIV OF CAPE	93.855	Allergy and Infectious Diseases Research	23,879	
National Institutes of Health	Pass-Through	University of Idaho	R01AI084918	93.855	Allergy and Infectious Diseases Research	102,807	
National Institutes of Health	Pass-Through	University of Texas Medical Branch at Galveston	19-84547	93.855	Allergy and Infectious Diseases Research	6,982	
National Institutes of Health	Pass-Through	University of Virginia	5U01AI125056	93.855	Allergy and Infectious Diseases Research	72,591	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	AI121549/58532	93.855	Allergy and Infectious Diseases Research	14,035	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC 59334 UNIV 58747	93.855	Allergy and Infectious Diseases Research	11,161	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	1 P30Al110527-01A1a	93.855	Allergy and Infectious Diseases Research	20,914	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC63571 UNIV59819	93.855	Allergy and Infectious Diseases Research	16,775	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC 65638	93.855	Allergy and Infectious Diseases Research	77,267	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	AI101171	93.855	Allergy and Infectious Diseases Research	181,005	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	R01AI138581	93.855	Allergy and Infectious Diseases Research	88,600	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	AI095755- VUMC 61671	93.855	Allergy and Infectious Diseases Research	12,769	
National Institutes of Health	_	Vanderbilt University Medical Center	R01Al39657-16	93.855	Allergy and Infectious Diseases Research	14,871	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC61803 NIHAI12419	93.855	Allergy and Infectious Diseases Research	22,681	
National Institutes of Health	_	Vanderbilt University Medical Center	AI124456-VUMC	93.855	Allergy and Infectious Diseases Research	29,675	
National Institutes of Health	ŭ	Vanderbilt University Medical Center	2 RO1 Al44924-14	93.855	Allergy and Infectious Diseases Research	9,395	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC67001	93.855	Allergy and Infectious Diseases Research	36,838	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC 65592	93.855	Allergy and Infectious Diseases Research	65,879	
National Institutes of Health	_	Vanderbilt University Medical Center	U19AI117905 VUMC6003	93.855	Allergy and Infectious Diseases Research	392,199	
National Institutes of Health	_	Vanderbilt University Medical Center	1U19AI117905 VUMC600	93.855	Allergy and Infectious Diseases Research	(77,398)	
National Institutes of Health	_	·		93.855			
ivacional institutes of Health	rass-iiiiougn	Virginia Commonwealth University	VU	53.033	Allergy and Infectious Diseases Research	\$ 4,395,021 \$ 48	QE 171
National Institutes of Health	Direct		2 DA1 CM102201 00	U3 0EU	Diamodical Bassarch and Bassarch Training		85,471
National Institutes of Health	Direct		2 P41 GM103391-06	93.859	Biomedical Research and Research Training	2,069,634	
National Institutes of Health	Direct		1RO1GM117299-01	93.859	Biomedical Research and Research Training	273,211	
National Institutes of Health	Direct		5 R01 GM116616-02	93.859	Biomedical Research and Research Training	541,327	

Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number		Federal Expenditures	Passed Through
National Institutes of Health	Direct		1 R01 GM118491-01	93.859	Biomedical Research and Research Training	386,878	
National Institutes of Health	Direct		4R25GM107754-04	93.859	Biomedical Research and Research Training	275,964	250,197
National Institutes of Health	Direct		1R25 GM107754-01	93.859	Biomedical Research and Research Training	(2,652)	
National Institutes of Health	Direct		2R01GM076592-10 THUR	13 93.859	Biomedical Research and Research Training	253,282	11,292
National Institutes of Health	Direct		1R01GM118412	93.859	Biomedical Research and Research Training	343,940	64,243
National Institutes of Health	Direct		1R01 GM117650-1/4	93.859	Biomedical Research and Research Training	417,494	
National Institutes of Health	Direct		1R21NS095323-01	93.859	Biomedical Research and Research Training	24,152	
National Institutes of Health	Direct		1R35GM128696-01	93.859	Biomedical Research and Research Training	429,280	
National Institutes of Health	Direct		1R01GM123260-01	93.859	Biomedical Research and Research Training	193,546	
National Institutes of Health	Direct		2R01GM107434	93.859	Biomedical Research and Research Training	471,607	
National Institutes of Health	Direct		R21MH107713-01	93.859	Biomedical Research and Research Training	6,945	
National Institutes of Health	Direct		RGM067152D	93.859	Biomedical Research and Research Training	473,946	
National Institutes of Health	Direct		1R01GM107434-01/04	93.859	Biomedical Research and Research Training	(719)	
National Institutes of Health	Direct		5 R01 GM70902-12	93.859	Biomedical Research and Research Training	(3,545)	
National Institutes of Health	Direct		2R01GM063557-13	93.859	Biomedical Research and Research Training	44,777	
National Institutes of Health	Direct		R56GM063557-07	93.859	Biomedical Research and Research Training	(92)	
National Institutes of Health	Direct		2R01GM084333-05	93.859	Biomedical Research and Research Training	(11,913)	
National Institutes of Health	Direct		4 R01 GM030910-33	93.859	Biomedical Research and Research Training	31,401	
National Institutes of Health	Direct		1 R35 GM119569-01	93.859	Biomedical Research and Research Training	492,973	
National Institutes of Health	Direct		1F31GM125344-01	93.859	Biomedical Research and Research Training	29,899	
National Institutes of Health	Direct		R01GM107978-05	93.859	Biomedical Research and Research Training	274,235	
National Institutes of Health	Direct		R01GM118452-01	93.859	Biomedical Research and Research Training	301,694	
National Institutes of Health	Direct		4R01GM107978-04	93.859	Biomedical Research and Research Training	16,472	
National Institutes of Health	Direct		1F32GM128344-01	93.859	Biomedical Research and Research Training	54,675	
National Institutes of Health	Direct		1R01GM131178-01	93.859	Biomedical Research and Research Training	33,518	
National Institutes of Health			1F31GM120879-01A1	93.859	Biomedical Research and Research Training	14,254	
National Institutes of Health	Direct Direct		1R35GM131799	93.859	Biomedical Research and Research Training	100,247	
					Biomedical Research and Research Training		
National Institutes of Health National Institutes of Health	Direct		5 R01 GM112989-03	93.859	Biomedical Research and Research Training	184,440	01 144
	Direct		2 R01 GM101035-05	93.859	Biomedical Research and Research Training	441,455	81,144
National Institutes of Health	Direct		2 R01 GM77659-09A1	93.859	3	339,046	
National Institutes of Health	Direct		1 R35 GM118089-01	93.859	Biomedical Research and Research Training	296,311	
National Institutes of Health	Direct		5 R13 GM108284-02	93.859	Biomedical Research and Research Training	1,321	CE E03
National Institutes of Health	Direct		2 R01 GM067871-14	93.859	Biomedical Research and Research Training	514,516	65,582
National Institutes of Health	Direct		1R35GM128650-01	93.859	Biomedical Research and Research Training	322,928	
National Institutes of Health	Direct		4R00GM104151-03	93.859	Biomedical Research and Research Training	168,820	
National Institutes of Health	Direct		5R25GM062459-14-18	93.859	Biomedical Research and Research Training	661,041	
National Institutes of Health	Direct		1R01GM124404-01	93.859	Biomedical Research and Research Training	457,851	
National Institutes of Health	Direct		R35GM119525-01	93.859	Biomedical Research and Research Training	372,299	
National Institutes of Health	Direct		7R01GM117191-03	93.859	Biomedical Research and Research Training	581,927	
National Institutes of Health	Direct		4 R37 GM51219-23	93.859	Biomedical Research and Research Training	601,356	
National Institutes of Health	Direct		1 R01 GM109955-01A1	93.859	Biomedical Research and Research Training	377	
National Institutes of Health	Direct		1R35GM122491-01	93.859	Biomedical Research and Research Training	564,536	
National Institutes of Health	Direct		1R35GM125028-01	93.859	Biomedical Research and Research Training	351,085	
National Institutes of Health	Direct		2R01DK095811-05A1	93.859	Biomedical Research and Research Training	506,225	179,884
National Institutes of Health	Direct		1R01GM123292-01	93.859	Biomedical Research and Research Training	303,203	
National Institutes of Health	Direct		9 R01 GM118122-16	93.859	Biomedical Research and Research Training	532,952	
National Institutes of Health	Direct		1 R35 GM119552-01	93.859	Biomedical Research and Research Training	318,406	
National Institutes of Health	Direct		R01GM092218 YR4-7	93.859	Biomedical Research and Research Training	185,849	
National Institutes of Health	Direct		1 R01 GM120569-01	93.859	Biomedical Research and Research Training	374,219	
National Institutes of Health	Direct		1R35GM127087-01	93.859	Biomedical Research and Research Training	216,359	
National Institutes of Health	Direct		1R01GM115722	93.859	Biomedical Research and Research Training	233,057	
National Institutes of Health	Direct		1R01GM130130	93.859	Biomedical Research and Research Training	253,578	
National Institutes of Health	Direct		1 R01 GM117899-01	93.859	Biomedical Research and Research Training	228,844	
National Institutes of Health	Direct		4 R01 GM103937-04	93.859	Biomedical Research and Research Training	74,160	
National Institutes of Health	Direct		1R01GM128336-01	93.859	Biomedical Research and Research Training	175,365	

Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures	Passed Through
National Institutes of Health	Direct		1R35GM122516-01	93.859	Biomedical Research and Research Training	437,926	
National Institutes of Health	Direct		4 R01 GM081635-09	93.859	Biomedical Research and Research Training	(641)	
National Institutes of Health	Direct		1 R01 GM115892-01	93.859	Biomedical Research and Research Training	58,487	
National Institutes of Health	Direct		1R35GM127098	93.859	Biomedical Research and Research Training	574,793	
National Institutes of Health	Direct		5 R01 GM78373-08	93.859	Biomedical Research and Research Training	39,326	
National Institutes of Health	Direct		2R01GM080403-06A1	93.859	Biomedical Research and Research Training	243,055	
National Institutes of Health	Direct		1R01GM117916-01	93.859	Biomedical Research and Research Training	689,121	8,663
National Institutes of Health	Direct		1R01GM128191-01	93.859	Biomedical Research and Research Training	98,183	7,357
National Institutes of Health	Direct		1F31GM131581-01	93.859	Biomedical Research and Research Training	16,197	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
National Institutes of Health	Direct		1 F32 GM117770-01	93.859	Biomedical Research and Research Training	2,767	
National Institutes of Health	Direct		5T32GM008320	93.859	Biomedical Research and Research Training	411,715	
National Institutes of Health	Direct		2T32GM007628-41	93.859	Biomedical Research and Research Training	333,401	
National Institutes of Health	Direct		5T32GM007628-30	93.859	Biomedical Research and Research Training	37,085	
National Institutes of Health	Direct		1F32GM126646	93.859	Biomedical Research and Research Training	21,992	
National Institutes of Health	Direct		1F31GM128334	93.859	Biomedical Research and Research Training	28,646	
National Institutes of Health	Direct		1F32GM128270-01	93.859	Biomedical Research and Research Training	46,531	
National Institutes of Health					<u> </u>		
	Direct		2T32GM065086-16	93.859	Biomedical Research and Research Training	425,438	
National Institutes of Health	Direct		5T32GM065086-15	93.859	Biomedical Research and Research Training	38,539	
National Institutes of Health	Direct		2T32GM080178-11	93.859	Biomedical Research and Research Training	210,014	
National Institutes of Health	Direct		5T32GM008554-22	93.859	Biomedical Research and Research Training	402,440	
National Institutes of Health	Direct		5T32GM007347-38	93.859	Biomedical Research and Research Training	1,175,875	
National Institutes of Health	Pass-Through B	•	1R25GM114021-BROWN U	93.859	Biomedical Research and Research Training	16,649	
National Institutes of Health	_	Case Western Reserve University	RES513850	93.859	Biomedical Research and Research Training	3,348	
National Institutes of Health	-	ndiana University	BL-4624936-VU	93.859	Biomedical Research and Research Training	7,358	
National Institutes of Health	Pass-Through N	Medical College of Wisconsin	MEDICAL COL OF WISCO	93.859	Biomedical Research and Research Training	31,384	
National Institutes of Health	Pass-Through N	Northern California Institute for Research and Edu		93.859	Biomedical Research and Research Training	190,863	
National Institutes of Health	Pass-Through S	Stanford University	UNIV 1R01GM113195-01	93.859	Biomedical Research and Research Training	23,453	
National Institutes of Health	Pass-Through S	State University of New York	5 R01 GM071461-09	93.859	Biomedical Research and Research Training	46,132	
National Institutes of Health	Pass-Through T	he Forsyth Institute	VU2555(R01GM117174)	93.859	Biomedical Research and Research Training	3,153	
National Institutes of Health	Pass-Through L	Jniversity of Arizona	UNIV - UNIV OF AZ	93.859	Biomedical Research and Research Training	89,594	
National Institutes of Health	Pass-Through L	Jniversity of California Los Angeles	2120 G WA478	93.859	Biomedical Research and Research Training	27,832	
National Institutes of Health	Pass-Through U	Jniversity of Chicago	THE MEMBRANE PROTEIN	93.859	Biomedical Research and Research Training	60,863	
National Institutes of Health	Pass-Through U	Jniversity of Nebraska Lincoln	UNIVj	93.859	Biomedical Research and Research Training	96,102	
National Institutes of Health	Pass-Through L	Jniversity of North Carolina Chapel Hill	5107299	93.859	Biomedical Research and Research Training	17,677	
National Institutes of Health	Pass-Through L	Jniversity of North Carolina Chapel Hill	GM073151/5033661 UNC	93.859	Biomedical Research and Research Training	(1,949)	
National Institutes of Health	Pass-Through L	Jniversity of Virginia	GB10515.157721	93.859	Biomedical Research and Research Training	58,974	
National Institutes of Health	Pass-Through V	/anderbilt University Medical Center	R01GM120484 VMC62142	93.859	Biomedical Research and Research Training	49,890	
National Institutes of Health	Pass-Through V	/anderbilt University Medical Center	UNIV58423	93.859	Biomedical Research and Research Training	1,370	
	_	•			_	\$ 22,811,538	\$ 668,360
National Institutes of Health	Direct		1R21HD086833-01	93.865	Child Health and Human Development Extramural Research	(1,851)	
National Institutes of Health	Direct		1R01HD087395-01A1	93.865	Child Health and Human Development Extramural Research	206,954	44,237
National Institutes of Health	Direct		1F30HD094345-01	93.865	Child Health and Human Development Extramural Research	34,493	,
National Institutes of Health	Direct		1R37HD095519	93.865	Child Health and Human Development Extramural Research	99,637	
National Institutes of Health	Direct		1 R0 HD089474-01	93.865	Child Health and Human Development Extramural Research	648,185	
National Institutes of Health	Direct		5 R01 HD044073-13	93.865	Child Health and Human Development Extramural Research	708,978	4,084
National Institutes of Health	Direct		1 R21 HD087088-01A1	93.865	Child Health and Human Development Extramural Research	88,560	29,068
National Institutes of Health	Direct		1R01HD088959-01A1	93.865	Child Health and Human Development Extramural Research	390,941	23,000
National Institutes of Health	Direct		1R21 HD0076124-01A1	93.865	Child Health and Human Development Extramural Research	(40,200)	
National Institutes of Health			RHD064727B	93.865	Child Health and Human Development Extramural Research		56 570
	Direct				•	276,811 636,550	56,579
National Institutes of Health	Direct		1R01HD079461 YR01/05	93.865	Child Health and Human Development Extramural Research	636,550	350,000
National Institutes of Health	Direct		1R01HD091232-01A1	93.865	Child Health and Human Development Extramural Research	518,523	256,868
National Institutes of Health	Direct		1R03HD093547	93.865	Child Health and Human Development Extramural Research	92,457	
National Institutes of Health	Direct		2 P20 HD075443-05	93.865	Child Health and Human Development Extramural Research	529,901	
National Institutes of Health	Direct		2R01HD053714 6-10	93.865	Child Health and Human Development Extramural Research	687,998	3,839
National Institutes of Health	Direct		5T32HD007502-20	93.865	Child Health and Human Development Extramural Research	1,105	

Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Pass	ed Through
National Institutes of Health	Direct		1F31HD090923 YR 01-0	93.865	Child Health and Human Development Extramural Research	10,304	
National Institutes of Health	Direct		1F31HD095592	93.865	Child Health and Human Development Extramural Research	40,127	
National Institutes of Health	Pass-Through	PragmaDX, Inc.	UNIV60203	93.865	Child Health and Human Development Extramural Research	36,865	
National Institutes of Health	Pass-Through	Synchro Motion LLC	1R43HD096967	93.865	Child Health and Human Development Extramural Research	30,205	
National Institutes of Health	_	The Research Institute at Nationwide Children's H	I: 700167-0719-00	93.865	Child Health and Human Development Extramural Research	35,067	
National Institutes of Health	_	University of California Irvine	2018-3599	93.865	Child Health and Human Development Extramural Research	4,289	
National Institutes of Health	_	University of California Irvine	CA-IRVINE-2014-3050	93.865	Child Health and Human Development Extramural Research	(21,677)	
National Institutes of Health	•	University of California Los Angeles	UCLA-HD073975-05	93.865	Child Health and Human Development Extramural Research	(2,218)	
National Institutes of Health	•	University of Colorado Boulder	1555885	93.865	Child Health and Human Development Extramural Research	19,296	
National Institutes of Health	•	University of North Carolina Chapel Hill	UNCH 5112050	93.865	Child Health and Human Development Extramural Research	10,126	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC 64235	93.865	Child Health and Human Development Extramural Research	27,535	
National Institutes of Health	_	Vanderbilt University Medical Center	1 R01 HD81121-01	93.865	Child Health and Human Development Extramural Research	110,195	
National Institutes of Health	_	Vanderbilt University Medical Center	3U54HD083211-05S1	93.865	Child Health and Human Development Extramural Research	22,248	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC-59370. UNIV 58596	93.865	Child Health and Human Development Extramural Research	442,736	
National Institutes of Health	•	Vanderbilt University Medical Center	VUMC59370	93.865	Child Health and Human Development Extramural Research	31,606	
National Institutes of Health	_	Vanderbilt University Medical Center	5 R01 HD76983-02	93.865	Child Health and Human Development Extramural Research	54,232	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC 64028	93.865	Child Health and Human Development Extramural Research	15,413	
National Institutes of Health	_	Vanderbilt University Medical Center	UNIV LI	93.865	Child Health and Human Development Extramural Research	14,620	
National institutes of Health	rass-Illiougii	validerbilt offiversity Medical Center	ONIV LI	33.803	Cilia Health and Human Development Extramular Research	\$ 5,760,011 \$	204 675
National Institutes of Health	Direct		1 021 4 000 200 01	02.966	Aging Doscorch		394,675
National Institutes of Health	Direct		1 R21 AG053562-01	93.866	Aging Research	98,427	174 900
National Institutes of Health	Direct		1R01AG056147-01	93.866	Aging Research	712,473	174,800
National Institutes of Health	Direct		1R01AG043458-01A1	93.866	Aging Research	102,471	72,122
National Institutes of Health	Direct		1 R21 AG049332-01A1	93.866	Aging Research	2,796	2,796
National Institutes of Health	Direct		1R01AG054622	93.866	Aging Research	739,990	339,976
National Institutes of Health	Direct		1R21AG050483-01A1	93.866	Aging Research	141,306	19,637
National Institutes of Health	Direct		4R00AG052666	93.866	Aging Research	155,943	
National Institutes of Health	Direct		1F31AG059345	93.866	Aging Research	20,263	
National Institutes of Health	Direct		T32AG058524	93.866	Aging Research	158,718	
National Institutes of Health	J	Metabolic Technologies, Inc.	1R44AG055184	93.866	Aging Research	313,666	212,504
National Institutes of Health	•	University of Pittsburgh	9012425 (129146-1)	93.866	Aging Research	2,088	
National Institutes of Health	_	University of Pittsburgh	0056283 (130061-1)	93.866	Aging Research	85,077	
National Institutes of Health	Pass-Through	University of Texas Southwestern Medical Center	GM0191209	93.866	Aging Research	233,115	
National Institutes of Health	_	Vanderbilt University Medical Center	BA: KANAH LEWALLEN S	93.866	Aging Research	32,259	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC 64875	93.866	Aging Research	5,509	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	BA: JENNIFER KIM SBA	93.866	Aging Research	36,575	
National Institutes of Health	Pass-Through	Yale University	1 R01 AG050969-01A1	93.866	Aging Research	10,488	
						\$ 2,851,163 \$	821,835
National Institutes of Health	Direct		2R01EY008890-27	93.867	Vision Research	102,956	
National Institutes of Health	Direct		REY008890F	93.867	Vision Research	114,644	
National Institutes of Health	Direct		REY021833B	93.867	Vision Research	260,917	
National Institutes of Health	Direct		1F32EY028041-01	93.867	Vision Research	(269)	
National Institutes of Health	Direct		1R01EY025275-01	93.867	Vision Research	392,045	
National Institutes of Health	Direct		2R01EY019882-05A1	93.867	Vision Research	257	
National Institutes of Health	Direct		R01EY027729	93.867	Vision Research	412,774	136,013
National Institutes of Health	Direct		1R21EY026176	93.867	Vision Research	43,082	17,999
National Institutes of Health	Direct		1R01EY029278-01	93.867	Vision Research	181,700	
National Institutes of Health	Direct		2R01EY012018-21	93.867	Vision Research	292,339	
National Institutes of Health	Direct		4 R01 EY012018-19/20	93.867	Vision Research	58,829	
National Institutes of Health	Direct		2R01EY024258-05A1	93.867	Vision Research	14,439	
	Direct		5 R01 EY24258-02	93.867	Vision Research	83,334	39,023
National Institutes of Health	Direct						
			1EYR01EY013462-16A1	93.867	Vision Research	407.256	/0.85/
National Institutes of Health	Direct		1EYR01EY013462-16A1 5 R01 EY11500-20	93.867 93.867	Vision Research Vision Research	407,256 540,938	70,857
National Institutes of Health National Institutes of Health	Direct Direct		5 R01 EY11500-20	93.867	Vision Research	540,938	70,857
National Institutes of Health	Direct						5,749

Cluster Title/Federal Grantor/Program	Туре	Pass-Through Grantor	Award Identifier	CFDA Number	CFDA Program Title	Federal Expenditures Pa	ssed Through
National Institutes of Health	Direct		2R01EY002686-37A1	93.867	Vision Research	408,615	
National Institutes of Health	Direct		1R01EY024354 01/03	93.867	Vision Research	(11,246)	
National Institutes of Health	Direct		5T32EY007135-23	93.867	Vision Research	290,060	
National Institutes of Health	Direct		1F32EY025538-01A1	93.867	Vision Research	22,759	
National Institutes of Health	Direct		1F32EY028846-01A1	93.867	Vision Research	43,479	
National Institutes of Health	Direct		5T32EY021453-07	93.867	Vision Research	118,473	
National Institutes of Health	Pass-Through	Oakland University	5 R01 EY02027-02	93.867	Vision Research	1,222	
National Institutes of Health	Pass-Through	State University of New York	580-1141963-79147	93.867	Vision Research	25,860	
National Institutes of Health	Pass-Through	University of Rochester	417255G/UR FAO GR51074	10 93.867	Vision Research	35,174	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	5 P30 EY8126-27	93.867	Vision Research	283,727	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	VUMC 68303	93.867	Vision Research	28,648	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	5 R01 EY23240-02	93.867	Vision Research	49	
National Institutes of Health	Pass-Through	Vanderbilt University Medical Center	UNIV58522	93.867	Vision Research	132,194	
National Institutes of Health	•	Vanderbilt University Medical Center	EY027746 VUMC	93.867	Vision Research	18,905	
National Institutes of Health	_	Vanderbilt University Medical Center	VUMC 67445	93.867	Vision Research	50,212	
National Institutes of Health	_	Vanderbilt University Medical Center	BA: 1U01EY027265-01	93.867	Vision Research	445,694	
		, and a control of the control of the control	27 11 20022 7 200 02	55.557		\$ 5,649,002 \$	269,642
Health Resources and Services Administration	Pass-Through	Catholic Charities of Tennessee	GR-18-57329	93.870	Maternal, Infant and Early Childhood Home Visiting Grant Prog		203,012
Treatin Nessanses and services , tarrimistration	. 433	catholic charteres of Termessee	GN 10 37323	33.070	maternal, mane and zarry ormanood frome violeng orane frog	\$ 114,430 \$	
National Institutes of Health	Direct		2T15LM007450	93.879	Medical Library Assistance	586,826	41,211
National Institutes of Health	Direct		5T32LM012412-02	93.879	Medical Library Assistance	282,608	19,790
National Institutes of Health		University of Maryland Baltimore	UMBALTIMORE 1600679	93.879	Medical Library Assistance	2,402	13,730
National Institutes of Health	_	University of Massachusetts Lowell	S51110000040449	93.879	Medical Library Assistance Medical Library Assistance	10,987	
National institutes of Health	Pass-Illiougii	Offiversity of iviassactiusetts Lowell	331110000040449	33.073	iviedical Libitary Assistance	\$ 882,823 \$	61,001
Substance Abuse and Mental Health Services A	d. Dass Through	TN Department of Montal Health and Substan	ACO A EDISON ID E0247	93.959	Block Grants for Prevention and Treatment of Substance Abus		61,001
Substance Abuse and Mental Health Services A	urrass-mough	The Department of Mental Health and Substai	ice A EDISON ID 39247	33.333	block Grants for Prevention and Treatment of Substance Abus		
National Institutes of Health	Direct		1R21TW010635	93.989	International Research and Research Training	\$ 84,120 \$ 186,382	59,259
	Direct				· ·		59,259
National Institutes of Health	Direct		4D43TW009348-05	93.989	International Research and Research Training	(1,795)	F0 2F0
			Total Department of Healtl	a and Human Cami	inne	\$ 184,586 \$	59,259
			Total Department of Health	i anu Human Servi	ices	\$ 120,774,985 \$	12,979,119
US Department of Homeland Security	Direct		HSCG23-17-C-MCR019	97.RD		54,797	
,						\$ 54,797 \$	-
						<u> </u>	_
			Total Department of Home	land Security		\$ 54,797 \$	-
			Total Research and Develo	pment Cluster		\$ 202,554,527 \$	25,079,932
HIGHWAY PLANNING AND CONSTRUCTION CL	.USTER						
US Department of Transportation		TN Department of Transportation	40100-00517	20.205	Highway Planning and Construction	52,682	
US Department of Transportation	_	TN Department of Transportation	40100-07219	20.205	Highway Planning and Construction	68,329	
US Department of Transportation	_	TN Department of Transportation	40100-15916	20.205	Highway Planning and Construction	90,528	60,570
US Department of Transportation	-	TN Department of Transportation	TDOT 40100-03317	20.205	Highway Planning and Construction	(2,389)	00,570
US Department of Transportation	_	TN Department of Transportation	TDOT 40100-00617	20.205	Highway Planning and Construction	(3,489)	
os bepartment of mansportation	1 d33 THI Odgii	The Department of Transportation	1001 40100 00017	20.203	Thighway Harring and construction	\$ 205,660 \$	60,570
			Total Highway and Constru	ction Cluster		\$ 205,660 \$	60,570
							22,373
SPECIAL EDUCATION CLUSTER (IDEA)							
US Department of Education	Pass-Through	TN Department of Education	33136-01216 ST TDOE	84.027	Special Education_Grants to States	385,178	4,073
US Department of Education	Pass-Through	TN Department of Education	33136-00718 DOE TN	84.027	Special Education_Grants to States	769,331	50,124
						\$ 1,154,509 \$	54,197
			Total Special Education Clu	ster (IDEA)		\$ 1,154,509 \$	54,197
			F	` '		. , , , , , , , , , , , , , , , , , , ,	- /

Cluster Title/Federal Grantor/Program	Type Pass-Through Gra	ntor Award Identifier	CFDA Number	r CFDA Program Title	Federal Expenditures	Passed Through
STUDENT FINANCIAL ASSISTANCE CLUSTER					·	
US Department of Education	Direct	P007A183941	84.007	Federal Supplemental Educational Opportunity Grants	1,170,175	
					\$ 1,170,175	\$ -
US Department of Education	Direct	P033A183941 FWS	84.033	Federal Work-Study Program	1,533,146	
					\$ 1,533,146	\$ -
US Department of Education	Direct		84.038	Federal Perkins Loan Program		
US Department of Education	Direct		84.038	Outstanding loans as of July 1, 2018	13,992,374	
US Department of Education	Direct		84.038	New loans issued during 2019	-	
US Department of Education	Direct		84.038	Administrative Cost Allowance	-	
					\$ 13,992,374	\$ -
US Department of Education	Direct	P063P182253	84.063	Federal Pell Grant Program	5,037,501	
					\$ 5,037,501	\$ -
US Department of Education	Direct		84.268	Federal Direct Student Loans	94,890,945	
					\$ 94,890,945	\$ -
US Department of Education	Direct	P379T172253	84.379	Teacher Education Assistance for College and Higher Education		
					\$ 34,903	
		Total US Department of E	Education		\$ 116,659,044	\$ -
US Department of Health and Human Services	Direct		93.264	Nurse Faculty Loan Program (NFLP)		
US Department of Health and Human Services	Direct		93.264	Outstanding loans as of July 1, 2018	5,821,676	
US Department of Health and Human Services	Direct		93.264	New loans issued during 2019	1,635,372	
					\$ 7,457,048	\$ -
US Department of Health and Human Services	Direct		93.364	Nursing Student Loans		
US Department of Health and Human Services	Direct		93.364	Outstanding loans as of July 1, 2018	1,962,469	
US Department of Health and Human Services	Direct		93.364	New loans issued during 2019	567,770	
					\$ 2,530,239	<u>\$</u> -
US Department of Health and Human Services	Direct		93.408	ARRA - Nurse Faculty Loan Program (NFLP)		
US Department of Health and Human Services	Direct		93.408	Outstanding loans as of July 1, 2018	451,400	
US Department of Health and Human Services	Direct		93.408	New loans issued during 2019	-	,
			Total US Department of Health and Human Services		\$ 451,400	
		Total US Department of F			\$ 10,438,687	\$ -
		T . 10. 1 . 5			427.027.724	
		Total Student Financial A	ssistance Cluster		\$ 127,097,731	\$ -
OTHER DROCKANAS						
OTHER PROGRAMS	Direct	AID OAA A 16 00031	00 001	LICAID Foreign Assistance for Programs Overses	1 05 4 720	125 075
US Agency for International Development	Direct Pass-Through National Academy of Sciences	AID-OAA-A-16-00021	98.001	USAID Foreign Assistance for Programs Overseas	1,054,738	435,875
US Agency for International Development	Pass-Through National Academy of Sciences	2000009510_AIDOAAA1	100 98.001	USAID Foreign Assistance for Programs Overseas	124,082	104,882
LIS Agansy for International Dayslanment	Pass-Through Universidad De Los Andes	AID-514-A-16-00004	98.U01		\$ 1,178,820 43,009	\$ 540,757
US Agency for International Development	_					
US Agency for International Development	Pass-Through Dexis Consulting Group Pass-Through Dexis Consulting Group	7001-S-19-002 7001-S-18-001	98.U01 98.U01		2,673 200,897	02 640
US Agency for International Development	r ass-through Dexis Consuming Group	\001-2-10-001	30.001		\$ 246,579	\$ 83,640
		Total US Agency for Inter	Total US Agency for International Development			
		Total OS Agency for litter	national Developine	CIIL	\$ 1,425,399	ب U24,397
		Total Other Programs			\$ 1,425,399	\$ 624,397
		Total Other Flograms			۲٫4۷۶٫۵۶۶	y 024,337
		Total Federal Expenditure	es		\$ 332,437,825	\$ 25,819,096
		Total Teachar Experialtan			7 332, 137,023	+ L3,013,030

VANDERBILT UNIVERSITY

Notes to Schedule of Expenditures of Federal Awards Year ended June 30, 2019

(1) Basis of Presentation

The accompanying Schedule of Expenditures of Federal Awards (the "Schedule") includes the federal activity of Vanderbilt University ("Vanderbilt") under programs of the federal government for the year ended June 30, 2019. The information in this Schedule is presented in accordance with the requirements of Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards ("Uniform Guidance") and Office of Management and Budget Circular A-21, Cost Principles for Educational Institutions as applicable. Because the Schedule presents only a selected portion of the operations of Vanderbilt, it is not intended to, and does not, present the financial position, changes in net assets, or cash flows of Vanderbilt.

For purposes of the Schedule, federal awards include all grants, contracts, and similar agreements entered into directly between Vanderbilt and agencies and departments of the federal government and all subawards to Vanderbilt by nonfederal organizations pursuant to federal grants, contracts, and similar agreements.

(2) Summary of Significant Accounting Policies for the Schedule

For purposes of the Schedule, expenditures for federal programs are recognized on the accrual basis, which is consistent with generally accepted accounting principles.

Expenditures for federal student financial aid programs are recognized as incurred and include Federal Pell program grants to students, the federal share of students' FSEOG program grants, FWS program earnings, loans to students under federally guaranteed programs and certain other federal financial assistance grants for students and administrative cost allowances, where applicable.

Expenditures for other federal awards on the Schedule are reported on the accrual basis of accounting. Such expenditures are recognized following, as applicable, either the cost principles in *Uniform Guidance* or *A-21*, wherein certain types of expenditures are not allowable or are limited as to reimbursement.

Expenditures for certain non-student financial aid awards include facilities and administrative costs (indirect costs). Facilities and administrative costs allocated to such awards for the year ended June 30, 2019 were based on predetermined fixed rates negotiated with Vanderbilt's cognizant federal agency, the U.S. Department of Health and Human Services. Indirect costs and recoveries of those costs under sponsored programs are classified as unrestricted expenditures and revenues, respectively, in Vanderbilt's financial statements. Vanderbilt has elected not to use the 10-percent de minimis indirect cost rate allowed under the *Uniform Guidance*.

Negative amounts represent adjustments or credits made in the normal course of business to amounts reported as expenditures in prior years. CFDA numbers and pass-through numbers are provided when available.

VANDERBILT UNIVERSITY

Notes to Schedule of Expenditures of Federal Awards

Year ended June 30, 2019

(3) Federal Student Financial Assistance Programs

The Perkins, Nurse Faculty Loan Program (NFLP), and Nursing Student Loan (NSL) programs are administered directly by Vanderbilt, and balances and transactions relating to these programs are included in Vanderbilt's consolidated financial statements. Loans outstanding at the beginning of the year and the amount of direct loans made during the year ended June 30, 2019 is included in the federal expenditures presented in the Schedule. The balance of loans outstanding at June 30, 2019 consists of:

Perkins	84.038	\$ 11,242,470
NFLP	93.264	6,664,555
NFLP ARRA	93.408	361,861
NSL	93.364	2,189,919
		\$ 20,458,805

Vanderbilt is responsible for the performance of certain administrative duties with respect to the guaranteed direct loan programs. It is not practical to determine the balance of loans outstanding to students and former students of Vanderbilt under these programs, as referenced above, for the year ended June 30, 2019.



Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

To the Board of Trust of Vanderbilt University

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the consolidated financial statements of Vanderbilt University ("the University"), which comprise the consolidated statements of financial position as of June 30, 2019, and the related consolidated statements of activities and of cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated October 15, 2019, which included a paragraph describing a change in the manner in which the University presents net assets and reports certain aspects of its consolidated financial statements as a not-for-profit entity in 2019.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Vanderbilt University's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Vanderbilt University's internal control. Accordingly, we do not express an opinion on the effectiveness of Vanderbilt University's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Vanderbilt University's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and



material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

Pricewaterhouse Coopers LLP

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

October 15, 2019



Report of Independent Auditors on Compliance with Requirements That Could Have a Direct and Material Effect on Each Major Program and on Internal Control Over Compliance in Accordance with the Uniform Guidance

To the Board of Trust of Vanderbilt University

Report on Compliance for Each Major Federal Program

We have audited Vanderbilt University's compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of Vanderbilt University's major federal programs for the year ended June 30, 2019. Vanderbilt University's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations and the terms and conditions of its federal awards applicable to its federal programs.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for each of Vanderbilt University's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about Vanderbilt University's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of Vanderbilt University's compliance.

Opinion on Each Major Federal Program

In our opinion, Vanderbilt University complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2019.

Report on Internal Control Over Compliance

Management of Vanderbilt University is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and



performing our audit of compliance, we considered Vanderbilt University's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of Vanderbilt University's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

October 28, 2019

Pricewaterhouse Coopers LLP

Vanderbilt University

Schedule of Findings and Questioned Costs

Year Ended June 30, 2019

No matters are reportable.

Section I - Summary of Auditor's Results						
Financial Statements Type of auditor's report issued	Unmodified					
Internal control over financial reporting:						
 Material weakness(es) identified? Significant deficiency(ies) identified that are no considered to be material weaknesses? 	yes yes	X no none reported				
Noncompliance material to financial statements no	oted?	yes	Xno			
Federal Awards Internal control over major programs:						
Material weakness(es) identified?	yes	Xno				
 Significant deficiency(ies) identified that are no considered to be material weaknesses? 	ot	yes	Xnone reported			
Type of auditor's report issued on compliance for major programs	Unmodified					
Any audit findings disclosed that are required to be in accordance with the 2 CFR 200.516(a)?	yes	Xno				
Identification of major programs:						
CFDA Number(s) N	Name of Federal Program or Cluster					
	Research and Development Cluster USAID Foreign Assistance For Programs Overseas					
Dollar threshold used to distinguish between type		4				
and type B programs:	\$3,000,000					
Auditee qualified as low-risk auditee?		Xyes	no			
Section II - Financial Statement Findings						
No matters are reportable.						
Section III - Federal Award Findings and Questioned Costs						

Vanderbilt University

Summary of Status of Prior Audit Findings

Year Ended June 30, 2019

There are no findings from prior years which require an update in this report.