

# Strategic Capital Budgeting

*Planning for the future,  
playing the long game*

*Bob Broyden*

# ***Major Topics Today***

- Some basics about the university's facility assets and current capital outlay program
- High priority accomplishments under the 2012-2018 capital plan (effective June 2011)
- Overview of the long-range capital planning process at Virginia Tech
- The draft plan for 2014-2020
- Questions and discussion at any time

*Before thinking about what we need,  
we take stock of what we have and  
how well that positions the university  
for the future*

# *University's Facility Inventory (owned buildings)*

- Total number of buildings 461
- Total amount of square feet ~10 million
- Average Age 42
- Buildings over 20 years 347
- Buildings over 50 years 183
- Average FCI 30%

# *Owned, Major Buildings*

- Total number of buildings 160
- Total amount of square feet ~9 million
- Average Age 41
- Buildings over 20 years 104
- Buildings over 50 years 53
- Average FCI 30%

# *Owned Assets*

	<u>Owned</u>	<u>Major, Owned</u>
Buildings	461	160
Square feet	~10 million	~9 million
Average age	42	41
Buildings >20	347	104
Buildings>50	183	53
Average FCI	30%	30%

# ***Breakdown of Owned, Major Buildings***

- Academic Buildings                      90 with 31% FCI at 46 years
- Auxiliary Buildings                      63 with 28% FCI at 34 years
- Administrative Buildings              7 with 24% FCI at 33 years

# ***Facility Changes Since 2000***

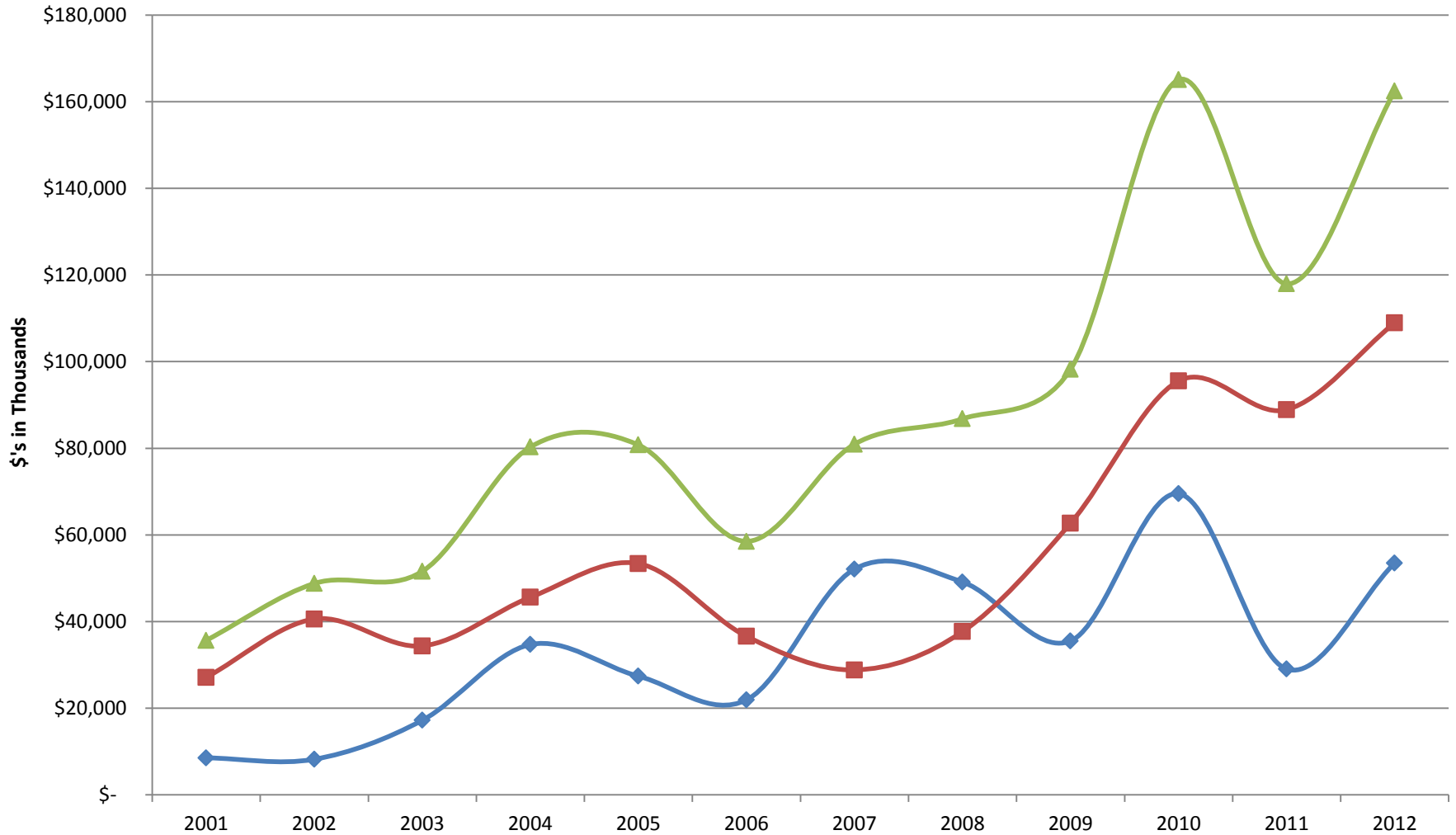
- Projects completed                      66
- Dollars spent                                \$1.07 billion
- Space added                                 1.9 million GSF
- Space leased                                331,000 GSF
- Space renovated                            623,000 GSF



# All Capital Projects

## Trend of Expenditures by Fund Source for Fiscal Years 2001-2012

General Fund   Nongeneral Fund   Total



***High priority  
accomplishments under the  
2012-2018 Capital Plan***

# ***Construction Funded Since June 2011***

- Signature Engineering Building \$95M
- Human and Agricultural Bioscience Building \$54M
- North End Center \$46M
- Classroom Building ~\$42M
- Davidson Hall Renovation – Phase I \$31M
- Chiller Plant Expansion (SW Campus) \$20M

# ***Construction Funded Since June 2011***

## ***(Continued)***

• Unified Communications and Network Renewal Project	\$16M
• VTCRI – Third Floor Laboratory Upfits	\$15M
• Veterinary Medicine Instruction Addition	\$14M
• Virginia Tech Transportation Institute Expansion	\$5.3M
• Propulsion Laboratory	<u>\$3.5M</u>
Total	\$321.8M

# *Planning Funded Since 2011*

• Academic Building Renovations	\$33.7M
• Upper Quad Residence Halls**	\$90.0M
• Kentland Improvements, Phase 1	\$14.0M
• Kentland Improvements, Phase 2	\$7.6M
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Total	\$145.3M

***Overview of the long-range  
capital planning process at  
Virginia Tech***

# ***Long Range Planning Concepts***

- A process that participants understand and is transparent
- Needs are identified and prioritized by the units
- Projects link to and support the university strategic plan
- Commitment to priorities over time
- Resources are finite
- Land use, life cycles and operating costs

***Draft capital outlay plan for  
2014-2020***



# *Draft Listing Includes*

- 71 Projects
- Total costs of \$2.5 billion
- Calls for \$1.7B state support
- Calls for \$811M of nongeneral fund revenues
- 49 Academic projects with costs of \$1.82B
- 7 Campus infrastructure projects with costs of \$203M
- 15 Auxiliary enterprise projects with costs of \$504M
- 4.5M GSF new or renovated space

## List of Projects for Inclusion in the 2014-2020 Capital Outlay Plan

JOINT FINANCE AND AUDIT COMMITTEE  
AND BUILDINGS AND GROUNDS COMMITTEE

February 15, 2013

	Budget by Revenue Source in Millions (Projected to Construction Mid Point ~ 2017)		
	General Funds	Nongeneral Funds	Total
<b><u>PROJECTS REQUESTING GENERAL FUND SUPPORT</u></b>			
<b><u>University Division</u></b>			
Bishop-Fawcett Hall Expansion	\$32.8	\$5.0	\$37.8
Burruss Hall Infrastructure Renewal	75.2	-	75.2
Comparative Medicine Research	6.6	6.6	13.2
Corps Leadership and Military Science Building	37.0	5.0	42.0
Data Center	17.5	17.5	35.0
Derrig Hall Renovation, Phase I	55.8	-	55.8
Electrical and Computer Engineering Building	41.8	10.5	52.3
Falls Church Facility Expansion	7.5	-	7.5
Health and Safety Improvements	15.0	-	15.0
Holden Hall Renovation and Expansion	68.0	7.6	75.6
Hutcheson /Smyth Halls Renovation	53.1	-	53.1
Institute for Critical Technology and Applied Science, Phase III	13.3	13.3	26.6
International Affairs Building	10.9	-	10.9
Kentland Facilities Improvements, Phase II: Historic Renovations	7.1	-	7.1
Lane Hall Rehabilitation	10.5	-	10.5
Library Expansion	3.5	-	3.5
Library Renovations	89.3	-	89.3
Library Storage Addition	6.4	-	6.4
Manufacturing Prototype and Demonstration Facility	11.6	3.9	15.5
New College of Business Building	90.4	-	90.4
New Natural Resources Building	62.1	11.0	73.1
Norms Hall Renovation	35.3	-	35.3
Pamplin Hall Renovation	34.7	-	34.7
Patton Hall Renovation	20.1	6.7	26.8
Price Hall Renovation	29.1	-	29.1
Randolph Hall Renovation and Expansion	155.5	17.3	172.8
Renovate Hillcrest Hall	14.9	-	14.9
Replace Center for Molecular Medicine and Infectious Disease	10.7	10.7	21.4
Replace Femoyer Hall	28.5	-	28.5

Capital Outlay Plan Draft Listing for 2014-2020

January 24, 2013

FIRST BIENNIUM – 2014-2016

Proposed Priority Level	UNIVERSITY DIVISION	History		Metrics		Potential Sources for Budget					
		Current Priority	On Plan Since	Square Feet	Unit Cost	Dollars in Millions					
						General Funds	Gifts	Overhead	Auxiliary Revenue	Other NGF Cash	Total
	Maintenance Reserve (2014-2016)		on-going	NA	NA	\$ 15.0	-	-	-	-	\$ 15.0
1	Undergraduate Science Laboratory Building	2-1	2007	77,000	857	66.0	-	-	-	-	66.0
2	Central Chiller Plant, Phase II	1-4	2005	14,000	NA	39.0	-	-	5.3	-	44.3
3	Holden Hall Renovation and Expansion	2-4	1995	101,240	748	68.0	-	7.6	-	-	75.5
4	Translational Research and Medicine Laboratory	1-3	2005	92,000	598	36.6	5.0	13.4	-	-	55.0
5	Corps Leadership and Military Science Building	1-7	1993	71,000	592	37.0	5.0	-	-	-	42.0
6	Derring Hall Renovation, Phase I	1-6	1997	118,130	472	55.8	-	-	-	-	55.8
7	Library Renovations	2-2	1997	228,000	395	89.3	-	-	-	-	89.3
8	Randolph Hall Renovation and Expansion	1-9	1997	208,000	839	155.5	17.3	-	-	-	172.8
9	Robeson Hall Renovation and Expansion	1-10	1997	110,500	550	48.6	-	12.2	-	-	60.8
10	VTCRI Vivarium and Research Addition	1-11	2011	45,500	967	22.0	-	22.0	-	-	44.0
11	New College of Business Building	3-7	2011	120,000	753	90.4	-	-	-	-	90.4
12	Burruss Hall Infrastructure Renewal	New	New	158,000	478	75.2	-	-	-	-	75.2
13	Health and Safety Improvements	1-12	on-going	NA	NA	15.0	-	-	-	-	15.0
14	Southgate Renovation	1-13	2011	38,100	270	10.3	-	-	-	-	10.3
15	Campus Road Package, Phase I	1-14	2011	NA	NA	41.9	-	-	-	-	41.9
16	Virginia Bioinformatics Institute, Phase III (construction)	1-18	2007	51,295	792	-	-	-	-	40.6	40.6
17	Upper Quad Residential Facilities	1-20	2001	190,000	474	-	-	-	90.0	-	90.0
18	Health Center Improvements	3-13	2011	3,000	833	-	-	-	2.5	-	2.5
19	South Recreation Field Replacement	1-21	2011	395,000	12	-	-	-	4.6	-	4.6
20	Airport "Hokie Bird" Hangar	New	New	17,700	277	-	-	-	4.9	-	4.9
	<b>TOTAL UNIVERSITY DIVISION</b>			<b>2,034,405</b>		<b>865.6</b>	<b>27.3</b>	<b>55.1</b>	<b>107.3</b>	<b>40.6</b>	<b>1,095.9</b>
	<b>COOPERATIVE EXTENSION/AGRICULTURAL EXPERIMENT STATION DIVISION (229)</b>										
1	Kentland Facilities Improvements, Phase I: Dairy Program	1-1	2009	28,900	782	7.6	-	-	-	15.0	22.6
2	Animal Production and Livestock Facilities	1-2	2011	23,900	347	8.3	-	-	-	-	8.3
	<b>TOTAL CEIAES PROJECTS</b>			<b>52,800</b>		<b>15.9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>15.0</b>	<b>30.9</b>
	<b>TOTAL OF 2014-2016 BIENNIUM</b>			<b>2,087,205</b>		<b>\$ 881.5</b>	<b>\$ 27.3</b>	<b>\$ 55.1</b>	<b>\$ 107.3</b>	<b>\$ 55.6</b>	<b>\$ 1,126.8</b>

**Thank You**

# Backup Slides

# ***Facility Inventory by SCHEV Guidelines***

## Owned:

Instruction:	1,110,086
Library:	220,193
Research:	680,779
Student Service:	203,674
Public Service:	44,590
Physical Plant:	<u>79,161</u>
Total Owned:	2,338,483

## Leased:

Instruction:	228,122
Library:	-
Research:	195,913
Student Service:	127,327
Public Service:	11,224
Physical Plant:	<u>5,463</u>
Total Leased:	568,049

# ***Space Added 2000-2012***

## Owned Space

Total 2000

Total 2012

Space Added

## GSF

7,453,843

9,366,259

1,912,416

## Leased Space

Total 2000

Total 2012

Space Added

## GSF

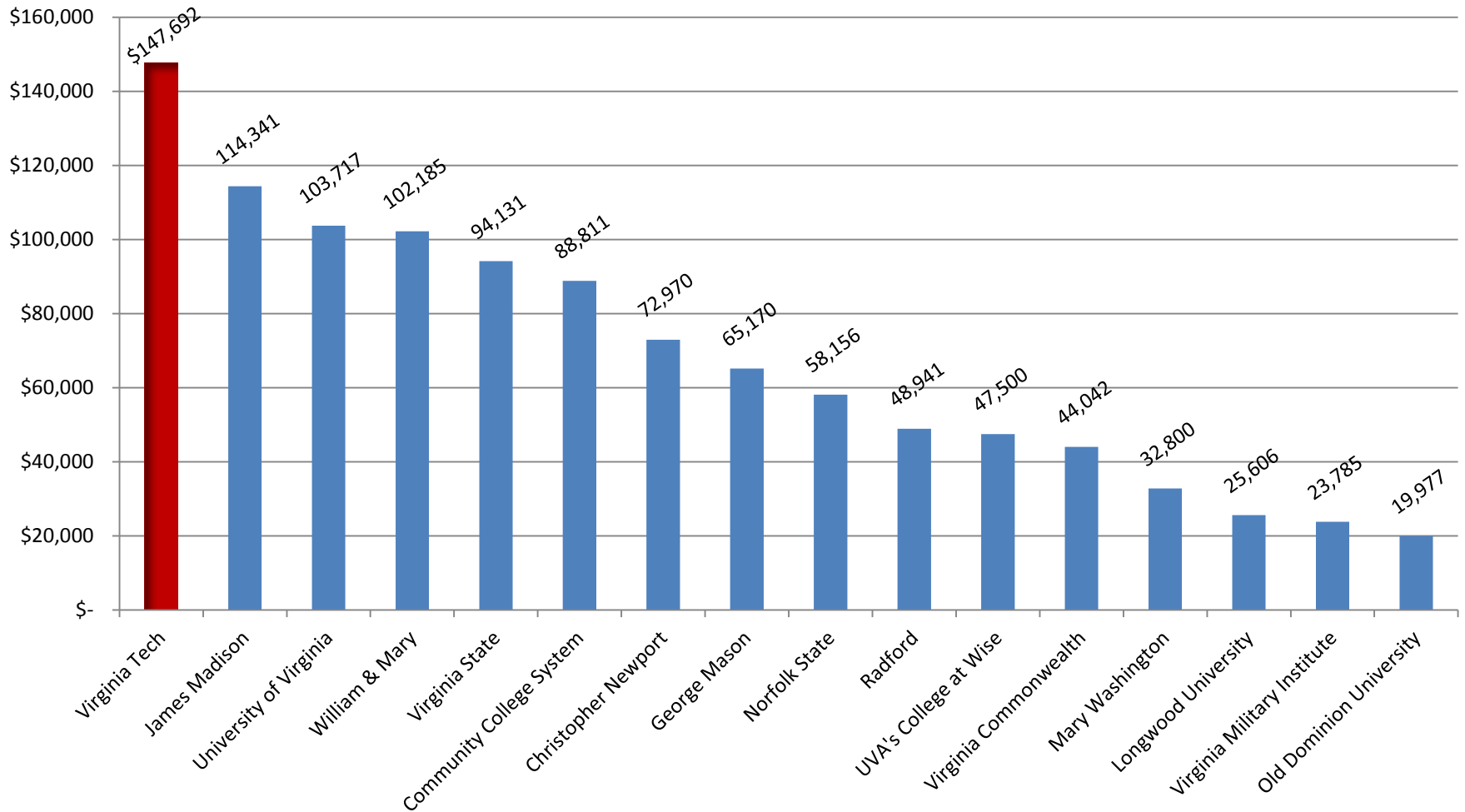
442,056

772,708

330,652

# System-Wide State Funding in 2011

(Dollars = Thousands)





# New State Construction Funding Obtained in 2011

- The General Assembly appropriated approximately \$1 billion of General Fund for higher education construction
- Virginia Tech received \$145 million of the program:
  - Davidson Hall
  - Signature Engineering Building
  - Human Agriculture and Biosciences Building
  - Chiller Project
- The total project value for these four projects, including nongeneral funds, is \$201 million

# ***State Funding***

## ***University Actions to Position Projects***

- University representatives work with Executives and Legislative Branch representation, including members of the Six-Year Capital Outlay Advisory Committee, about university projects
- The President meets with members of the legislature to discuss priorities
- **Goals:**
  - **Ensure that the state recognizes and addresses the university's highest priority projects**
  - **Ensure the university receives historical share of funding from the state**

# *General Fund*

- For projects listed in the state capital plan
- Pay as you go – utilized when General Fund resources are adequate (*not so much recently*)
- Debt issues – utilized when General Fund resources are not sufficient
  - State has specific guidelines addressing annual debt limitations, 5 percent ratio in support of its AAA bond rating
  - Stated priority for specific types of capital projects
- State capital outlay for non-transportation -- debt allocation generally limited to \$250-\$350 million annually, based on long-range projections
- VT obtained about \$520M since 2000, consistently one of the top allocations for the period
- State funding has not followed a consistent/predictable pattern

# *Private Gifts*

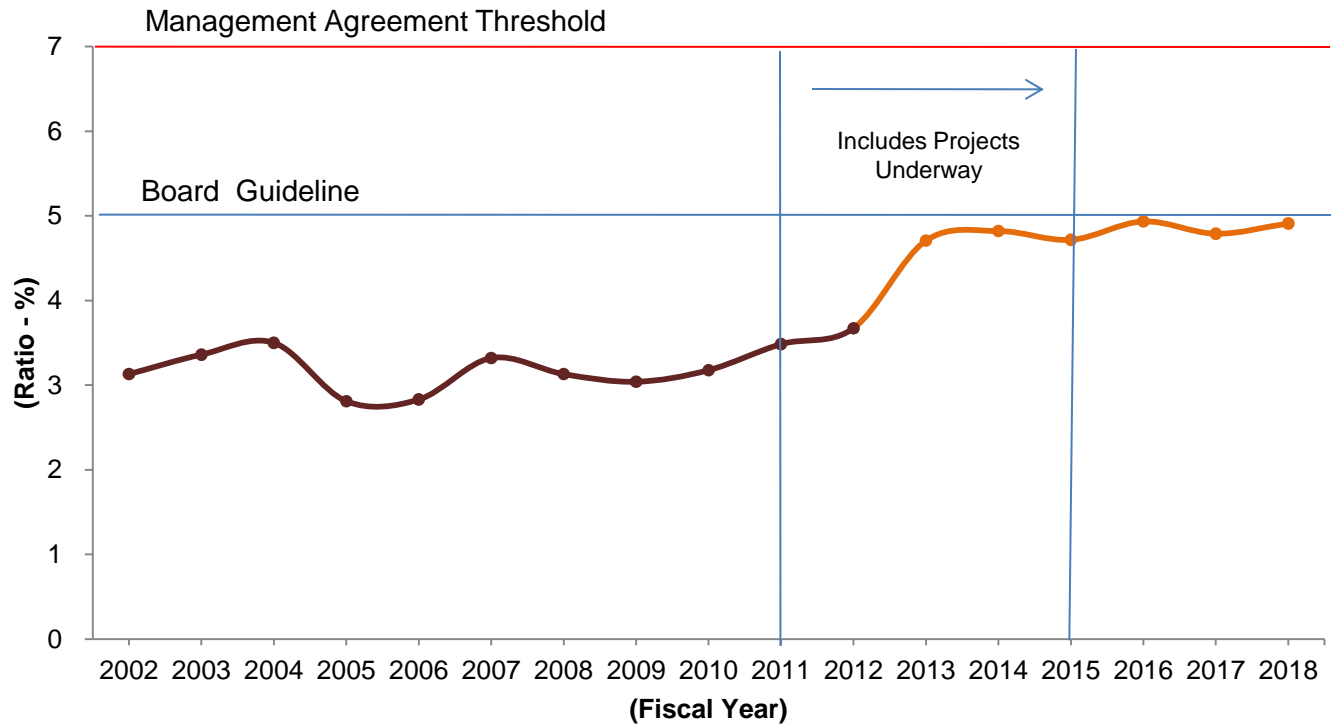
- May support all types of capital projects
- Can be a game changer for the College and university
- Project should be on university capital plan and approved in a campaign by the VP for Development
- Typical pledge raising period is five to seven years
- Typical pledge payout is five to seven years
- Requires long-term commitment to professional fund raising effort
- Normal capture range is \$3 to \$15 million per project
- **Since 2000: \$38M pledged, \$12.7M received, and \$6.2M private funds expended on capital**

# *Overhead Revenues*

- Come from the distribution of indirect cost recoveries from grants and contracts
- Use should be limited to support research program space
- Two central pools, college pools, and department pools
- The central pools have supported significant construction over the past 12 years
  - \$62 million expended for all programs since 2000
  - \$24.3 million expended for the college since 2000

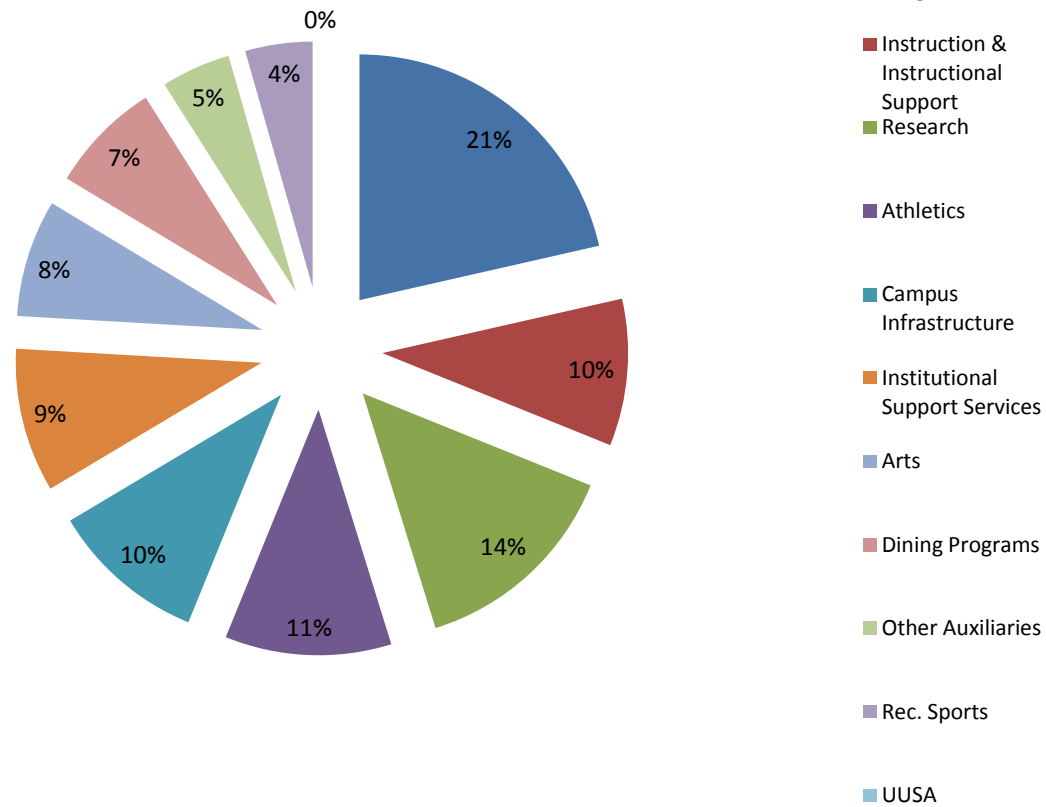
# *University Debt Capacity*

- Debt is an important financial tool to support the large costs of projects
- Board approved debt ratio guideline of 5 percent in support of maintaining at least a AA- bond rating
- University debt ratio as of June 30, 2011 was 3.44 percent
- Projected ratio, including approved capital projects, anticipates reaching 4.99 percent in FY2015
- Debt capacity, as influenced by projected rate of expenditure growth, is limited through FY2016
- Funding debt service restricts future revenues

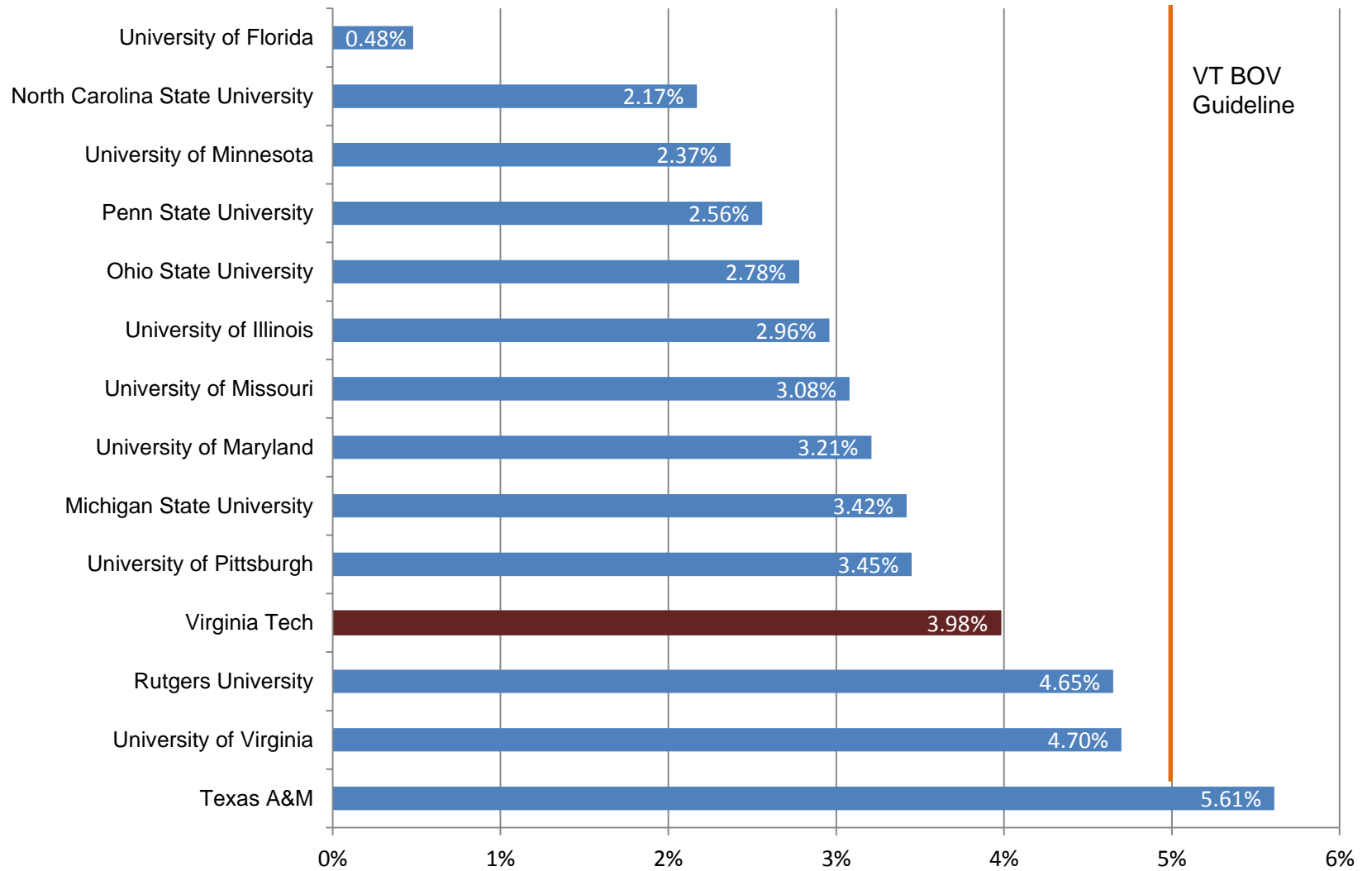


# Outstanding Principal \$497 Million

## Allocation of Outstanding Debt







Source: Moody's Investors Service, October 5, 2012, 2011 Data.

Debt Ratio includes University and affiliated Foundation debt.

# FICAS DATA

Agency No	FIPS Num	Location City	FICAS Location Name	Asset Type	Asset Number	Asset Name	FCI	Area	Year Constructed	Age in Yrs	Use
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	224	Airport Terminal	0.18	6,890	1995	✓	18	
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	225	Library Storage Facility	0.16	16,304	1995	✓	18	Multi-use
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	228	Upper Air Inflation Building	0.11	300	1994	✓	19	Research
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	229	Biobased Materials Processing Lab	0.26	951	1993	✓	20	Research
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	230	Brick Building At Airport	0.61	1,485	1941	✗	72	Storage
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	231	Airport Hangar	0.55	15,171	1940	✗	73	Hangar
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	232	Airport Shop	0.26	4,584	1942	✗	71	Other special facilities
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	233	Airport T-Hangar	0.20	8,290	1971	✓	42	Hangar
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	234	Small T-Hangar At Airport	0.13	1,323	1971	✓	42	Hangar
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	235	Chemical Waste Storage Building	0.24	1,000	1975	✓	38	Storage - Fuel and Haz. Material
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	430	Turf Research Center	0.52	2,400	1970	✓	43	Laboratory
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	625	Teleport Facility	0.13	819	1980	✓	33	
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	0625A	Uplink Facility	0.22	147	1987	✓	26	
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	0625B	Headend Facility	0.50	78	1980	✓	33	
Virginia Tc 121-COU	Blacksburg	Airport Area	Building	0625C	MCI Hut	0.56	78	1982	✓	31	
Virginia Tc 121-COU	Blacksburg	Brooks Center	Building	220	Aquatics and Fisheries Research Center	0.01	2,304	2007	✓	6	Multi-use
Virginia Tc 121-COU	Blacksburg	Brooks Center	Building	236	Sardo Laboratory	0.39	8,724	1976	✓	37	Laboratory
Virginia Tc 121-COU	Blacksburg	Brooks Center	Building	237	Wood Processing Lab	0.60	14,297	1978	✓	35	Multi-use
Virginia Tc 121-COU	Blacksburg	Brooks Center	Building	238	Wood Engineering Lab	0.60	11,864	1987	✓	26	Academic/Research
Virginia Tc 121-COU	Blacksburg	Brooks Center	Building	239	Timber Harvest Lab	0.76	3,384	1987	✓	26	Academic/Research
Virginia Tc 121-COU	Blacksburg	Brooks Center	Building	0238A	Wood Utilization & Recycling Bldg	0.16	1,630	2000	✓	13	Office
Virginia Tc 121-COU	Blacksburg	Brooks Center	Building	0239A	Timber Harvesting Lab Gas Storage	0.42	96	1987	✓	26	Storage - Fuel and Haz. Material
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	317	Residence	0.31	1,138	1955	✗	58	Residential
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	318	Residence	0.35	1,648	1955	✗	58	Residential
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	366	Seismograph Building	0.25	709	1962	✗	51	Research
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	470	Calan Feed Barn	0.02	1,200	2004	✓	9	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	471	Pump House	0.33	72	2004	✓	9	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	472	Dry Stack Manure Barn	0.00	6,256	2004	✓	9	Animal Facility
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	473	Free Stall Barn	0.01	43,250	2004	✓	9	Animal Facility
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	474	Milking Center	0.04	5,205	2004	✓	9	Animal Facility
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	475	Etgen Dairy Pavilion	0.31	7,709	1962	✗	51	Animal Facility
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	481	Loafing Barn	0.08	4,961	1962	✗	51	Animal Facility
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	482	Loafing Barn	0.11	4,961	1962	✗	51	Animal Facility
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	483	Calf Barn	0.63	6,601	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	484	Bull Barn	0.29	2,607	1962	✗	51	Animal Facility
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	485	Equipment Shed	0.32	4,565	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	486	Equipment Shed	0.65	2,700	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	488	New Bull Barn	0.18	7,087	1983	✗	30	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	489	New Heifer Barn	0.11	3,040	1983	✗	30	Animal Facility
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	490	Young Stock Barn	0.15	6,631	1962	✗	51	Animal Facility
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	492	Dry Stack Manure Barn	0.01	5,000	2001	✓	12	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	493	Shed	0.00	360	1985	✓	28	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0270H	Building 270H	0.05	1,763	2006	✓	7	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0469A	Hay Barn	0.00	3,200	2005	✓	8	Animal Facility
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0469C	Commodities Shed	0.00	1,947	2005	✓	8	Animal Facility
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0481A	Milking Parlor	0.59	1,014	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0481B	Baled Hay Storage/feeder	0.28	4,517	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0481C	Ensilage Feeder	0.05	1,188	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0481D	Silo	0.04	123	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0481E	Silo	0.05	123	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0482A	Milking Parlor	0.48	1,343	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0482B	Ensilage Feeder	0.46	1,100	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0482C	Chopped Hay Feeder - C	0.07	391	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0482D	Chopped Hay Feeder - D	0.07	391	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0482E	Computerized Feeder Shed	0.07	184	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0483A	Grain Bin	0.94	160	1962	✗	51	
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0484A	Silo	0.06	314	1962	✗	51	Storage
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0484B	Silo	0.05	314	1962	✗	51	Storage
Virginia Tc 121-COU	Blacksburg	Dairy Center	Building	0484C	Two Grain Bins	0.50	100	1962	✗	51	