### Six-Year Plans - Part I (2018): 2018-20 through 2022-24

Due: July 12, 2018

Institution: Virginia Cooperative Extension & Agricultural Experiment Station

Institution UNITID: Agency 229

Individual responsible for plan

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#### Six-Year Plans - Part I (2017): 2018-20 through 2022-24 Virginia Cooperative Extension & Agricultural Experiment Station ACADEMIC AND FINANCIAL PLAN

Instructions: In the column entitled "Academic and Support Service Strategies for Six-Year Period (2018-2024)," please provide titles to identify strategies (for the three biennia of this six-year period) associated with goals in the Virginia Plan. Please use this title to identify a more detailed description of the strategy in the separate Word document (Part II - Narrative).

				ACA	DEMIC AND SU	PPORT SERVIC	E STRATEGIES	S FOR SIX-YE	AR PERIOD (20	16-2022)				
	Biennium 20	18-202	0 (7/1/18-6/3	30/20)								Biennium 2020-2022 (7/1/20-6/30/22)	Biennium 2022-2024 (7/1/22-6/30/24)	
Priority						Cost: Incre	mental, Saving	s, Reallocation						
Kalikili	Strategies (Short Title)	VP Goal		2018-	-2019	201	9-20	2018-2019	2018-2019 (revised)		(revised)	Strategies	Strategies	
		Goal		Total Amount	Amount From Tuition Revenue	Total Amount	Amount From Tuition Revenue	Total Amount	Amount From Tuition Revenue	Total Amount	Amount From Tuition Revenue			
3	Advance Virginia Agriculture and Natural Resources Initiative to Grow the Future of the Commonwealth's Economy with Public-Private Partnerships		Incremental:	\$2,500,000	\$0	\$5,000,000	\$0	\$0	\$0	\$2,500,000	\$0	Continue to leverage strength in agricultural biosciences to grow research and connect innovations with industry to build the commonwealth's	Continue to leverage strength in agricultural biosciences to grow research and connect innovations with industry to build the commonwealth's	
		4	Savings:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	economy and the health and competitiveness of the agricultural sector.	economy and the health and competitiveness of the agricultural sector.	
	(100% GF Request)		Reallocation:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	b		
4	Improve Compensation Levels for Extension Agents to Reduce Turnover and Enhance Service Levels to Commonwealth		Incremental:	\$837,489	\$0	\$1,716,853	\$0	\$0	\$0	\$1,068,998	\$0	Continue to enhance the salary competitiveness of Virginia's Cooperative Extension Agents.	Continue to enhance the salary competitiveness of Virginia's Cooperative Extension Agents.	
	(100% GF Request)	4	Savings:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
			Reallocation:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
A5	Reallocation of Existing Resources to Support Strategic Initiatives and Funding Shortfall		Incremental:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Opportunities for reallocation are limited, and will require the strategic realignment of expenditures and services.	Opportunities for reallocation are limited, and will require the strategic realignment of expenditures and services.	
	(100% NGF)	4	Savings:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	D		
			Reallocation:	\$0	\$0	\$0	\$0	\$1,215,641	\$0	\$1,663,511	\$0	D		
	Total 2018-2020 Costs													
	Incremental (Included in Financial Plan line 61)			\$3,337,489	\$0	\$6,716,853	\$0	\$0	\$0	\$3,568,998	\$0			
	Savings			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
	Reallocation			\$0	\$0	\$0	\$0	\$1,215,641	\$0	\$1,663,511	\$0			

## Six-Year Financial Plan for Educational and General Programs, Incremental Operating Budget Need 2018-2020 Biennium

(Assuming No Additional General Fund)

		2018-	2019	2019	-2020	2018-2019	(revised)	2019-2020	(revised)
	Items	Total Amount	Amount From Tuition Revenue						
	Total Incremental Cost from Academic Plan <sup>1</sup>	\$3,337,489	\$0	\$6,716,853	\$0	\$0	\$0	\$3,568,998	\$0
1	Increase T&R Faculty Salary Amount (state authorized salary increase), put NGF share amount in the tuition column and NGF share+state funding in the total column	\$23,899	\$0	\$68,978	\$0	\$0	\$0	\$562,366	\$0
	Increase T&R Faculty Salary Amount (additional NGF salary increase), put NGF amount in both tuition and total columns	\$0	\$0	\$0	\$0	\$551,339	\$0	\$1,001,232	\$0
	T&R Faculty Salary Increase Rate (put state authorized salary increases in the total column, leave tuition column blank)	0.20%	0.00%	0.20%	0.00%	0.00%		2.00%	
	Additional NGF T&R Faculty Salary Increase Rate (put additional NGF salary increase rate in both tuition and total columns)	0.00%	0.00%	0.00%	0.00%	2.00%	2.00%	1.60%	1.60%
1	Increase Admin. Faculty Salary Amount (state authorized salary increase), put NGF share amount in the tuition column and NGF share+state funding in the total column	\$18,146	\$0	\$52,371	\$0	\$0	\$0	\$427,599	\$0
	Increase Admin. Faculty Salary Amount (additional NGF salary increase), put NGF amount in both tuition and total columns	\$0	\$0	\$0	\$0	\$419,215	\$0	\$761,294	\$0
	Admin Faculty Salary Increase Rate (put state authorized salary increases in the total column, leave tuition column blank)	0.20%	0.00%	0.20%	0.00%	0.00%		2.00%	
	Additional NGF Admin. Faculty Salary Increase Rate (put additional NGF salary increase rate in both tuition and total columns)	0.00%	0.00%	0.00%	0.00%	2.00%	2.00%	1.60%	1.60%

2019-20: 3.6% merit-based salary increase.

2018-19: 2% merit-based salary increase.

2019-20: 3.6% merit-based salary increase.

2018-19: 2% merit-based salary increase.

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#### Six-Year Plans - Part I (2017): 2018-20 through 2022-24 Virginia Cooperative Extension & Agricultural Experiment Station ACADEMIC AND FINANCIAL PLAN

Instructions: In the column entitled "Academic and Support Service Strategies for Six-Year Period (2018-2024)," please provide titles to identify strategies (for the three biennia of this six-year period) associated with goals in the Virginia Plan. Please use this title to identify a more detailed description of the strategy in the separate Word document (Part II - Narrative).

dodamo	ACADEMIC AND SUPPORT SERVICE STRATEGIES FOR SIX-YEAR PERIOD (2016-2022)											
				ACAI	DEMIC AND SU	PPORT SERVI	CE STRATEGIE	S FOR SIX-YE	AR PERIOD (201	6-2022)		
Priority	Biennium 2018-20	020 (7/1/18-6/3	30/20)								Biennium 2020-2022 (7/1/20-6/30/22)	Biennium 2022-2024 (7/1/22-6/30/24)
Ranking	VF	, ——				, ,	s, Reallocation					
	Strategies (Short Title)			-2019		9-20	2018-2019	, ,	2019-2020	,	Strategies	Strategies
			<b>Total Amount</b>	Amount From Tuition Revenue	Total Amount	Amount From Tuition Revenue	<b>Total Amount</b>	Amount From Tuition Revenue	Total Amount	Amount From Tuition Revenue		
2	Increase Classified Salary Amount (state authorized salary increase), put No amount in the tuition column and NGF share+state funding in the total column		\$0	\$0	\$0	\$0	\$0	\$0	\$318,786	\$0	N/A	2019-20: 2% across-the-board and 2% merit-based salary increase.
	Increase Classified Salary Amount (additional NGF salary increase), put NG both tuition and total columns	F amount in	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
	Classified Salary Increase Rate (put state authorized salary increases in the leave tuition column blank)	total column,	0.00%	0.00%	0.00%	0.00%	0.00%		4.00%			
	Additional NGF Classified Salary Increase Rate (put additional NGF salary in both tuition and total columns)	increase rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
2	Increase University Staff Salary Amount (state authorized salary increase), pamount in the tuition column and NGF share+state funding in the total column		\$6,557	\$0	\$23,229	\$0	\$0	\$0	\$228,402	\$0		2019-20: 3% merit-based salary increase.
	Increase University Staff Salary Amount (additional NGF salary increase), pamount in both tuition and total columns	ut NGF	\$0	\$0	\$0	\$0	\$223,924	\$0	\$338,125	\$0	2018-19: 2% merit-based salary increase.	20.0 20.000.0000 00000 0000, 100.0000
	University Staff Salary Increase Rate (put state authorized salary increases column, leave tuition column blank)	in the total	0.15%	0.00%	0.15%	0.00%	0.00%		2.00%			
	Additional NGF University Staff Salary Increase Rate (put additional NGF sarate in both tuition and total columns)	alary increase	0.00%	0.00%	0.00%	0.00%	2.00%	2.00%	1.00%	1.00%		
	Increase Number of Full-Time T&R Faculty <sup>4</sup> (\$)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
	Increase Number of Full-Time T&R Faculty <sup>4</sup> (FTE)		0	0	0	0	-	0	0	0		
	Increase Number of Full-Time Admin. Faculty <sup>4</sup> (\$)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
	Increase Number of Full-Time Admin. Faculty <sup>4</sup> (FTE)		0	ŭ	0	0	-	0	0	0		
	Increase Number of Part-Time Faculty <sup>4</sup> (\$)		\$0	\$0	\$0	\$0	\$0	\$0		\$0		
	Increase Number of Part-Time Faculty <sup>4</sup> (FTE)		0	0	0	_		0	0	0		
	Increase Number of Classified Staff 4(\$)		\$0					\$0		\$0		
	Increase Number of Classified Staff <sup>4</sup> (FTE)		0	0	0	-	-	0	0	0		
	Increase Number of University Staff <sup>4</sup> (\$)		\$0					\$0		\$0		
	Increase Number of University Staff <sup>4</sup> (FTE)		0	ŭ	0	_	-	0	0	0		
	Library Enhancement <sup>4</sup> (\$)		\$0		ļ		· ·	\$0		\$0		
-	Library Enhancement <sup>4</sup> (FTE)		0	ŭ	0	0		0	0	0		
	Technology Enhancement <sup>4</sup> (\$)		\$0	\$0	\$0			\$0		\$0		
	Technology Enhancement <sup>4</sup> (FTE)		0	0	0	0	_	0	0	0		
6	O&M for New Facilities <sup>4</sup> (\$)		\$823,264	\$0	\$1,271,669			\$0	\$500,000	\$0		
-	O&M for New Facilities <sup>4</sup> (FTE) Utility Cost Increase		0	0	0	0	-	0 \$0	0	0		
7	NGF share of state authorized salary increase/bonus		\$550,000 \$0	\$0 \$0	<u> </u>			\$0 \$0		\$0 \$0		
A8	Fringe/health insurance benefits increase		\$0					\$0 \$0		\$0 \$0		
A8 A9	VRS increase		\$0					\$0 \$0		\$0 \$0		
Ay	Additional In-State Student Financial Aid From Tuition Revenue		\$0					\$0 \$0		\$0 \$0		
	Others (Specify, insert lines below)		\$0					\$0		\$0		
Δ10	State Initiative: Soil Scientist Assistance Program		\$0					\$0		\$0		
AIU	State Initiative. Con Colemat Assistance Flogram		Ψ0	φυ	φ0	φ0	Ψ200,000	φυ	Ψ200,000	Uψ		

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#### Six-Year Plans - Part I (2017): 2018-20 through 2022-24 Virginia Cooperative Extension & Agricultural Experiment Station ACADEMIC AND FINANCIAL PLAN

Instructions: In the column entitled "Academic and Support Service Strategies for Six-Year Period (2018-2024)," please provide titles to identify strategies (for the three biennia of this six-year period) associated with goals in the Virginia Plan. Please use this title to identify a more detailed description of the strategy in the separate Word document (Part II - Narrative).

		ACADEMIC AND SUPPORT SERVICE STRATEGIES FOR SIX-YEAR PERIOD (2016-2022)											
	Biennium 20	18-2020	0 (7/1/18-6/30	/20)								Biennium 2020-2022 (7/1/20-6/30/22)	Biennium 2022-2024 (7/1/22-6/30/24)
Priority Rankin						Cost: Increr	nental, Saving	gs, Reallocation					
Kankin	Stratonios (Short Title)	VP Goal	2018		2019	2019 2019-20		2018-2019	2018-2019 (revised) 2019-201		(revised)	Strategies	Strategies
			Tot	Total Amount	Amount From Tuition Revenue	Total Amount	Amount From Tuition Revenue	Total Amount	Amount From Tuition Revenue	Total Amount	Amount From Tuition Revenue		
D	Unavoidable Cost Increase Placeholder			\$45,524		\$76,252		\$0	\$0	\$0	\$0	e e como como e e e e e e e e e e e e e e e e e e	
	Safety and Security Enhancement			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
	Total Additional Funding Need	•		\$4,804,879	\$0	\$9,309,352	\$0	\$2,617,961	\$0	\$9,919,977	\$0		

#### Note:

- (1) Please ensure that these items are not double counted if they are already included in the incremental cost of the academic plan.
- (2) If planned, enter the cost of any institution-wide increase.
- (3) Enter planned annual faculty salary increase rate. Any salary increase entered here will be counted when calculating the gap to reach the 60th percentile in the future.
- (4) Enter number of FTE change over the FY2018 level in appropriate columns.
- (5) Agency 229 does not have "Tuition Revenue". Rather, this compensation program was made possible through internal reallocation strategies.

2017 Six-Year Plan - Academic-Financial Plan 3 of 3 SCHEV - 4/28/17

# Six-Year Plans - Part I (2017): 2018-20 through 2022-24 Virginia Cooperative Extension & Agricultural Experiment Station

Six-Year Financial Plan for Tuition and															Revised			
	2016-2017	(Estimated)	2017	7-2018 (Estir	nated)	20	18-2019 (Plai	nned)	201	9-2020 (Plan	ned)	2017-18 (Est.)	201	8-2019 (Estir	nated)	201	19-2020 (Plan	ned)
Items	Student Charge	Total Revenue	Student Charge	Rate Increase	Total Revenue	Student Charge	Rate Increase	Total Revenue	Student Charge	Rate Increase	Total Revenue	Total Revenue	Student Charge	Rate Increase	Total Revenue	Student Charge	Rate Increase	Total Revenue
E&G Programs	<u> </u>																	
Undergraduate, In-State	\$0	\$0	\$0	%	\$0	\$0	%	\$0	\$0	%	\$0			%			%	
Undergraduate, Out-of-State	\$0	\$0	\$0	%	\$0			\$0	\$0	%	\$0			%			%	
Graduate, In-State	\$0	\$0	\$0	%	\$0			\$0	\$0	%	\$0			%			%	
Graduate, Out-of-State	\$0	\$0	\$0	%	\$0	\$0			\$0	%	\$0			%			%	
Law, In-State	\$0	\$0	\$0	%	\$0	\$0	%	\$0	\$0	%	\$0			%			%	
Law, Out-of-State	\$0	\$0	\$0	%	\$0	\$0	%	\$0	\$0	%	\$0			%			%	
Medicine, In-State	\$0	\$0	\$0	%	\$0	\$0	%	\$0	\$0	%	\$0			%			%	
Medicine, Out-of-State	\$0	\$0	\$0	%	\$0	\$0	%	\$0	\$0	%	\$0			%			%	
Dentistry, In-State	\$0	\$0	\$0	%	\$0	\$0	%	\$0	\$0	%	\$0			%			%	
Dentistry, Out-of-State	\$0	\$0	\$0	%	\$0	\$0	%	\$0	\$0	%	\$0			%			%	
PharmD, In-State	\$0	\$0	\$0	%	\$0	\$0	%	\$0	\$0	%	\$0			%			%	
PharmD, Out-of-State	\$0	\$0	\$0	%	\$0	\$0	%	\$0	\$0	%	\$0			%			%	
Veterinary Medicine, In-State	\$0	\$0	\$0	%	\$0	\$0	%	\$0	\$0	%	\$0			%			%	
Veterinary Medicine, Out-of-State	\$0	\$0	\$0	%	\$0	\$0	%	\$0	\$0	%	\$0			%			%	
Other NGF		\$16,703,000			\$16,520,000			\$16,520,000			\$16,520,000	\$18,025,060			\$16,520,000			\$16,520,000
Total E&G Revenue - Gross		\$16,703,000			\$16,520,000			\$16,520,000			\$16,520,000				\$16,520,000			\$16,520,000
Total E&G Revenue - Net of Financial Aid		\$16,703,000			\$16,520,000			\$16,520,000			\$16,520,000	\$18,025,060			\$16,520,000			\$16,520,000
E&G Revenue Used for Faculty Salary Increases		\$0			\$0			\$0			\$0							
Average T&R Faculty Salary Increase Rate		0.00%			0.00%			0.00%			0.00%							
Auxiliary Program																		
Mandatory Non-E&G Fees																		
Undergraduate	\$0		\$0	%		\$0	%		\$0	%				%			%	
Graduate	\$0		\$0	%		\$0	%		\$0	%				%			%	
Law	\$0		\$0	%		\$0			\$0	%				%			%	
Medicine	\$0		\$0	%		\$0	%		\$0	%				%			%	
Dentistry	\$0		\$0	%		\$0	%		\$0	%				%			%	
PharmD	\$0		\$0	%		\$0	%		\$0	%				%			%	
Veterinary Medicine	\$0		\$0	%		\$0	%		\$0	%				%			%	
Total Auxiliary Revenue (ALL including room and bo	ard)	\$0			\$0			\$0			\$0							
Total Tuition and Fees																		
Undergraduate, In-State	\$0		\$0	%		\$0			\$0	%			\$0	%		\$0	%	
Undergraduate, Out-of-State	\$0		\$0	%		\$0	%		\$0	%			\$0	%		\$0	%	
Graduate, In-State	\$0		\$0	%		\$0	%		\$0	%			\$0	%		\$0	%	
Graduate, Out-of-State	\$0		\$0	%		\$0			\$0	%			\$0	%		\$0	%	
Law, In-State	\$0		\$0	%		\$0			\$0	%			\$0	%		\$0	%	
Law, Out-of-State	\$0		\$0	%		\$0	%		\$0	%			\$0	%		\$0	%	
Medicine, In-State	\$0		\$0	%		\$0	%		\$0	%			\$0	%		\$0	%	
Medicine, Out-of-State	\$0		\$0	%		\$0	%		\$0	%			\$0	%		\$0	%	
Dentistry, In-State	\$0		\$0	%		\$0	%		\$0	%			\$0	%		\$0	%	
Dentistry, Out-of-State	\$0		\$0	%		\$0	%		\$0	%			\$0	%		\$0	%	
PharmD, In-State	\$0		\$0	%		\$0			\$0	%			\$0	%		\$0	%	
PharmD, Out-of-State	\$0		\$0	%		\$0	%		\$0	%			\$0	%		\$0	%	
Veterinary Medicine, In-State	\$0		\$0	%		\$0			\$0				\$0			\$0	%	
Veterinary Medicine, Out-of-State	\$0		\$0	%		\$0	%		\$0	%			\$0	%		\$0	%	
Student Financial Aid (Program 108)		\$0			\$0			\$0			\$0							
Sponsored Programs (Program 110)		\$0			\$0			\$0			\$0							
Unique Military Activities		\$0			\$0			\$0			\$0							
Workforce Development		\$0			\$0			\$0			\$0							
Other (Specify)		\$0			\$0			\$0			\$0	<u> </u>						ļ

Footnotes:
(a) 2017-18 NGF reflects one-time carryover from Federal Funds due to misalignment of state and Federal fiscal years.

### Six-Year Plans - Part I (2017): 2018-20 through 2022-24 Virginia Cooperative Extension & Agricultural Experiment Station FINANCIAL AID PLAN

Note: If you do not have actual amounts for *Tuition Revenue for Financial Aid* by student category, please provide an estimate. If values are not distributed for *Tuition Revenue for Financial Aid*, a distribution may be calculated for your institution.

Allocation of Tuition	Allocation of Tuition Revenue Used for Student Financial Aid									
2015-16 (Actual)										
T&F Used for Financial Aid	Gross Tuition Revenue	Tuition Revenue for Financial Aid (Program 108)	% Revenue for Financial Aid	Distribution of Financial Aid						
Undergraduate, In-State	\$0	\$0	%	\$0						
Undergraduate, Out-of-State	\$0	\$0	%	\$0						
Graduate, In-State	\$0	\$0	%	\$0						
Graduate, Out-of-State	\$0	\$0	%	\$0						
First Professional, In-State	\$0	\$0	%	\$0						
First Professional, Out-of-State	\$0	\$0	%	\$0						
Total	\$0	\$0	%	\$0						
In-State Sub-Total	\$0	\$0	%	\$0						

*2016-17	(Estimated) Pleas	e see footnote bel	ow	
T&F Used for Financial Aid	Gross Tuition Revenue	Tuition Revenue for Financial Aid (Program 108)	% Revenue for Financial Aid	Distribution of Financial Aid
Undergraduate, In-State	\$0	\$0	%	\$0
Undergraduate, Out-of-State	\$0	\$0	%	\$0
Graduate, In-State	\$0	\$0	%	\$0
Graduate, Out-of-State	\$0	\$0	%	\$0
First Professional, In-State	\$0	\$0	%	\$0
First Professional, Out-of-State	\$0	\$0	%	\$0
Total	\$0	\$0	%	\$0
Total from Finance-T&F worksheet	\$16,703,000	\$0	%	
In-State Sub-Total	\$0	\$0	%	\$0

	2017-18 (Planned)									
T&F Used for Financial Aid	Gross Tuition Revenue	Tuition Revenue for Financial Aid (Program 108)	% Revenue for Financial Aid	Distribution of Financial Aid						
Undergraduate, In-State	\$0	\$0	%	\$0						
Undergraduate, Out-of-State	\$0	\$0	%	\$0						
Graduate, In-State	\$0	\$0	%	\$0						
Graduate, Out-of-State	\$0	\$0	%	\$0						
First Professional, In-State	\$0	\$0	%	\$0						
First Professional, Out-of-State	\$0	\$0	%	\$0						
Total	\$0	\$0	%	\$0						
Total from Finance-T&F worksheet	\$16,520,000	\$0	%							
In-State Sub-Total	\$0	\$0	%	\$0						
Additional In-State	\$0	\$0	%	\$0						

	2018-19 (Planned)									
T&F Used for Financial Aid	Gross Tuition Revenue	Tuition Revenue for Financial Aid (Program 108)	% Revenue for Financial Aid	Distribution of Financial Aid						
Undergraduate, In-State	\$0	\$0	%	\$0						
Undergraduate, Out-of-State	\$0	\$0	%	\$0						
Graduate, In-State	\$0	\$0	%	\$0						
Graduate, Out-of-State	\$0	\$0	%	\$0						
First Professional, In-State	\$0	\$0		\$0						
First Professional, Out-of-State	\$0	\$0	%	\$0						
Total	\$0	\$0	%	\$0						
Total from Finance-T&F worksheet	\$16,520,000	\$0	%							
In-State Sub-Total	\$0	\$0	%	\$0						
Additional In-State	\$0	\$0	%	\$0						
Additional In-State from Financial Plan		\$0	%							

2019-20 (Planned)									
T&F Used for Financial Aid	Gross Tuition Revenue	Tuition Revenue for Financial Aid (Program 108)	% Revenue for	Distribution of Financial Aid					
Undergraduate, In-State	\$0	\$0	%	\$0					
Undergraduate, Out-of-State	\$0	\$0	%	\$0					

Six-Year Plans - Part I (2018): FY2017-2018

Virginia Tech

**ECONOMIC DEVELOPMENT: CONTRIBUTIONS (HB515)** 

Requirement: As per § 23.1-306 (A) of the Code of Virginia each such plan and amendment to or affirmation of such plan shall include a report of the institution's active contributions to efforts to stimulate the economic development of the Commonwealth, the area in which the institution is located, and, for those institutions subject to a management agreement set forth in Article 4 (§ 23.1-1004 et seq.) of Chapter 10, the areas that lag behind the Commonwealth in terms of income, employment, and other factors.

Special Notes: The reporting period is FY18. The metrics serve as a menu of items that institutions should respond to as applicable and when information is available to them. Leave fields blank, if information is unavailable. Please note the narrative question at the bottom of the page. The response should be provided in a separate WORD or PDF document, as an attachment, if the Part II (Narrative) is not being updated.

#### NOTE: Responses represent aggregate contributions of both Agency 208 and Agency 229.

Section A: Provide information for research and development (R&D) expenditures by source of fund with a breakdown by Science and Engineering (S&E) specific and non-S&E.

VA PLAN	Section A: Research and Development (R&D) Expenditures I	by Source of	und	
Strategy	Source of Funds	*S&E	Non S&E	Total
Reference	Federal Government	\$ 181,379	\$ 4,675	\$ 186,054
4.3	State and Local Government	54,368	1,403	55,771
	Institution Funds	220,903	4,913	225,816
	Business	40,421	50	40,471
	Nonprofit Organizations	7,215	37	7,252
	All Other Sources	7,054	. 7	7,061
	Total	\$ 511,340	\$ 11,085	\$ 522,425
	* S&E - Science and Engineering			

Section B: Provide number and dollar value of grants, contracts and sub-agreements by discipline. If your institution prefers to report by industrichanges.

VA PLAN	Section B: Grants, Contracts and Sub-Agreements by Discip	line		
Strategy	Discipline			F
Reference		Federal	State & Local	Business
	Computer & Information Sciences			
	Engineering			
	Geosciences, Atmospheric and Ocean Sciences			
	Life Sciences			
	Mathematics & Statistics			
	Physical Sciences			
	Psychology			
	Social Sciences			
	Other Science			
	Non-Science and Engineering (non-S&E)			
	Total	\$ -	\$ -	\$ -

Section C: For the following items, provide responses in appropriate fields. Insert an X for yes/no responses. Use Number/Amount field for othe information your institution may want to provide.

VA PLAN Strategy Reference	Section C: General Questions	Yes	No	Number/Amount
4.1	Does your institution offer an innovation/ entrepreneurship/career-themed student living-learning community?	X		
4.1	Does your institution offer startup incubation/accelerator programs? If yes, please comment if people/companies external to the institution can access them and, if so, how.	Х		
4.2	3. Does your institution offer maker-space? If yes, please comment if people/companies external to the institution can access it and, if so, how.	Х		
4.2	Does your institution have an entrepreneurship center? If yes, please comment if people/companies external to the institution can access it and, if so, how.	X		
4.2	Does your institution have Entrepreneur Executive(s)-in- Residence?	X		
4.1	Number of students paid through externally funded research grants or contracts.			1144
4.1	Number of entrepreneurship degrees/ courses/programs (credit and noncredit) offered?			1 major and 1 minor, multiple non-credit activities.
4.1	Number of academic units that have courses/programs requiring a capstone project, experiential learning activities, or internships.			
4.1	Does your institution's tenure policy support commercialization? If yes, please provide brief explanation in comments section.	Х		
4.2	Does your institution offer a seed fund that awards money to start- ups? If yes, please comment on whether it awards funding only to university-based start-ups or to the general public as well?	Х		
4.2	Does your institution offer translational research and/or proof of concept funding? If yes, please provide dollar amount available in FY18 in the number/amount field.	X		~\$75,000
4.1	Does your institution offer continuing education programs to industry? If yes, please provide dollar value or headcount for such programs in the number/amount field.	Х		#995 / \$750,010

Section D: Provide information for research and commercialization grants by type, number, and dollar value with a breakdown by college and de contact Jean Mottley (jeanmottley@schev.edu) to assist with changes.

PLAN ategy ference	Section D: Research and Commercialization Grants	No.	\$ Value	College
4.3	SBIR - Small Business Innovation Research		\$86,021	College of Engineering
			\$220,000	College of Engineering
		5	\$190,000	College of Engineering
			\$49,981	College of Science
			\$207,102	College of Liberal Arts and Human Sciences
	STTR - Small Technology Transfer Research		\$75,000	College of Engineering
		2	\$81,456	College of Engineering
			\$180,000	Executive VP & Provost
	CRCF - Commonwealth Research Commercialization Fund	3	\$100,000	College of Engineering
			\$300,000	Vice President for Research
			\$97,415	Vice President for Research
	*VBHRC - The Catalyst	2	\$400,000	College of Science
		2	\$500,000	Vice President for Research
	Commonwealth Health Research Board	1	\$99,995	College of Veterinary Medicine
	VRIF - Virginia Research Investment Fund	2	\$483,547	College of Engineering
			\$391,729	Vice President for Research

<sup>&</sup>quot;University must pay to be a member and collaborate with at least one other member university

Section E. The Intellectual Property (IP) section captures information on disclosure, patent, and licensing activities. It is divided into two tables. T nature of entity to whom IP is transferred. Table 2 is required by § 23.1-102 subdivision 2 of the Code of Virginia. It details assignment of IP intere externally sponsored research funds received during the year from a person or nongovernmental entity by the institution, any foundation supported with the institution. Information is sought on research that yields IP regardless of the project's intent. Information is sought about IP tracaptures separate aggregate data on entities that have a principal place of business in Virginia and those with a principal place of business outside.

VA PLAN Strategy Reference	Section E: Part 1 - All Patent Activity for FY 2017-18	No.
4.2	Number of Intellectual Property disclosures received	148
	Number of Provisional Patent Applications filed during the year	101
	Number of Patent Applications filed during the year (by type)	
	Design	0
	Plant	4
	Utility	50
	Total	54
	Total number of Patent Applications pending (by type)	
	Design	0
	Plant	4
	Utility	742
	Total	746
	Number of Patents awarded during the year (by type)	
	Design	0
	Plant	1
	Utility	27
	Total	28

VA PLAN Strategy Reference	Section E: Part 2 - Other Information	Principal Place of Business in VA	Principal Place of Business outside VA
4.2	Value of funds from persons or nongovernmental entities to support intellectual property research	\$373,018	\$25,631,029
	<ol><li>Number of patents awarded during the year (by type) developed in whole or part from external projects funded by persons or nongovernmental entities:</li></ol>		
	a. Design Patent	0	0
	b. Plant Patent	0	1
	c. Utility Patent	2	25
	d. Total	2	26
	Number of assignments of intellectual property interests to persons or nongovernmental entities	0	0
	Total number of intellectual property licenses executed in FY 17- 18	12	33
	Number of start-ups created through IP licensing in FY17-18	6	1
	Amount of licensing revenue in FY17-18 resulting from all intellectual property licenses	\$269,255	\$1,077,020
	7. Number of jobs created as a result of university start-ups.	10	5

### Section F: These items are VCCS specific. Please provide responses in appropriate fields. A Comments field has been provided for any special

VA PLAN Strategy Reference	Section F: General Questions - VCCS Specific	Number	Value	
4.1	Number and value of federal, state or private grant resources to support development of, or access to, training programs leading to workforce credentials, certifications and licensures.	N/A	N/A	N/A
	<ol><li>Number of training programs leading to workforce certifications and licensures.</li></ol>	N/A		N/A
	<ol><li>Number of students who earned industry recognized credentials stemming from training programs.</li></ol>	N/A		N/A
	Number of industry-recognized credentials obtained, including certifications and licenses.	N/A		N/A
	Number of Career/Technical Education certificates, diplomas and degrees awarded that meets regional workforce needs.	N/A		N/A

#### NARRATIVE REQUIREMENT:

Contributions to Economic Development – Describe the institution's contributions to stimulate the economic development of the Commonwealth and/or area information should include:

- a. University-led or public-private partnerships in real estate and/or community redevelopment.
  b. State industries to which the institution's research efforts have direct relevance.
  c. High-impact programs designed to meet the needs of local families, community partners, and businesses.
  d. Business management/consulting assistance.

#### y, please contact Jean Mottley (jeanmottley@schev.edu) to assist with

unding Source		
Non-Profit	Institutional	Other
_		
\$	\$ -	\$ -

#### r information. A Comments field has been provided for any special

Comments				
see: https://www.apex.vt.edu/innovate-living-learning-community/				
Companies may partner with Virginia Tech through our LINK organization. See: https://vt.edu/link/index.html				
Companies may partner with Virginia Tech through our LINK organization. See: https://vt.edu/link/index.html				
Companies may partner with Virginia Tech through our LINK organization. See: https://vt.edu/link/index.html				
see: https://www.apex.vt.edu/programs/entrepreneur-in-residence-faqs/				
see: www.apex.vt.edu				
Virginia Tech has many programs with these elements as both required and optional				

activities. A count of departments and programs is not readily available.

Tenure requirements include citation of "Economic contributions and entrepreneurship", including start-up businesses, commercialization of discoveries, and other evidence of entrepreneurship.

VTC (Virginia Tech Carilion) Innovation Fund supports university and external start-ups. http://www.vtcinnovationfund.com/about/management/

The Catalyst program, supported by a US EDA i6 grant, will run through the remainde of this fiscal year with about \$75,000 to spend

### partment. If additional rows are needed, please

Department
Aerospace and Ocean Engineering
Civil & Environmental Engineering
Mechanical Engineering
Physics
Center for Gerontology
Aerospace and Ocean Engineering
Civil & Environmental Engineering
Center for the Arts at VT
Biomedical Engineering & Mechanics
Institute for Critical Technology and Applied Science
VT Carilion Research Institute
Chemistry
VT Carilion Research Institute
Vet Med Research & Graduate Studies
Biomedical Engineering & Mechanics
Hume Center

able 1 captures information regardless of source of funds or ests to persons or nongovernmental entities and the value of rting the IP research performed by the institution, or any entity nsferred as a result of either basic or applied research. The table de of Virginia.

information the VCCS may want to provide.	
Comments	

a in which the institution is located. If applicable, the



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# <u>Virginia Cooperative Extension & Agricultural Experiment Station</u> 2018-2024 Six-Year Plan

#### Part II:

#### A. Institutional Mission:

The Virginia Cooperative Extension and the Virginia Agricultural Experiment Station — the two organizations that make up Virginia Agency 229 — play integral roles in Virginia's landgrant system.

The mission of the Virginia Agricultural Experiment Station is to perform basic and applied research on agricultural, environmental, natural, and community resource issues related to the future needs of Virginia, the region, the nation, and the world.

The Virginia Cooperative Extension helps lead the engagement mission of Virginia Tech and Virginia State University, the commonwealth's land-grant universities. Building local relationships and collaborative partnerships, the VCE helps people put scientific knowledge to work through learning experiences that improve economic, environmental, and social well-being.

#### **B.** Strategies

### 229 Program Strategies:

- 1. Advance Faculty Salary Competitiveness to the 60th Percentile: The success of the university is due in large measure to its outstanding faculty who are committed to excellence in education, research, and outreach. In a competitive, global marketplace that values human capital, the highest quality employees in our organization are constantly being recruited by peer institutions, industry, and research centers around the world. Attracting and retaining the caliber of faculty needed to maintain and improve upon our success is becoming increasingly competitive. While compensation is only one factor that contributes to the university's ability to attract and retain the best faculty, it remains a major consideration. In addition, the replacement of faculty is far more expensive than the cost to retain those persons for whom the university has already invested significant time and resources. The university's actual faculty salary currently ranks at the 33rd percentile of the SCHEV peer group for Virginia Tech: 20th out of 26 institutions in terms of salary competitiveness. Maintaining an annual merit process that rewards our top faculty for their efforts is fundamental to keeping pace with the market and mitigating turnover. SCHEV estimates peer salaries moving at an average of 2.8% per year. With a 2% statewide compensation process pending in 2019, the university plans to make limited progress through a combination of General Fund support and institutional nongeneral fund resources, supporting an approximate 3.6% merit-based program in 2019-20.
- 2. <u>Increase Staff Salaries:</u> Much like faculty, the slow pace of growth of staff compensation has negatively influenced retention and recruitment efforts at the university, a trend likely



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to accelerate as the local labor market continues to tighten. Competitively compensating the hard-working support staff at the university is a key factor in ensuring a highly productive and innovative organization. The university plans to implement the state's 2% statewide Classified Staff compensation process in 2019 (with an additional 2% merit-based action for Classified Staff), and a 3% merit-based compensation process for University-Staff. This supports a multi-year strategy to position the university at the median of the competitive market, enabling the university to compete for talented staff that support continued university excellence.

3. Advance Virginia Agriculture and Natural Resources Initiative (ANRI) to Grow the Future of the Commonwealth's Economy with Public-Private Partnerships: The goal of the ANRI is to support and partner with agriculture and natural resource industries by promoting translational research and technological advancements to drive private industry and economic growth. An integrated research and extension effort will be at the forefront of supporting a sustainable global agricultural and natural resource industry through its translational research, technological innovation, and partnerships and engagement with relevant private industries.

As a component of the ANRI, the 229 agency hosted a Summit in Richmond in April 2018 including 120 leaders from the agriculture and natural resources industry, commodity groups, government, and Virginia's universities to discuss the issues hampering the continued growth of the ANR industry. A series of recommendations developed at the conference are currently being finalized. One of the recommendations of the Summit was to improve the capacity of Agency 229 in Translational Research and Innovation in Agriculture and Natural Resources. This recommendation could be achieved through enhancing the visibility of faculty programs, promoting interdisciplinary translational research, actively engaging with the agriculture and natural resources industry, developing new research and technology innovation pipelines, and translating agricultural innovations into commercial opportunities.

As part of the ANRI initiative, the program will develop a **consortium of industry partners** that will engage in communicating the needs of industry, and provide and facilitate financial support to conduct translational research and extension programs, and assist with the development and commercialization of new technologies. Industry support will be focused on needs identified at the Summit and prioritized by the Consortium Partners, based on the agency's strengths and core expertise.

There is a need to develop and maintain world-class program in order to attract industry to engage with and invest in 229 agency programs. Thus, it is critical that state funding be available to enhance the capability of the agency to deliver expertise and training on the rapidly developing products and technologies at our laboratories on campus and at our ARECs across the commonwealth. Providing the expertise and training to utilize and disseminate that technology will directly benefit the state's agricultural and natural resources economy. Maintaining state-of-the-art technologies and technological expertise and capability requires base resources that can leveraged to provide continuous access to new and advanced technology. This is a General Fund initiative.



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- 4. Improve Compensation Levels for Extension Agents to Reduce Turnover and Enhance Service Levels to the Commonwealth: The knowledge, experience, and relationships that Agents develop during their tenure are extremely valuable resources to the Commonwealth. Current compensation levels are creating issues as Virginia currently ranks second to last in starting salaries of Extension Agents in the thirteen-state Southern Region. Ensuring competitive compensation for hard-working Extension Agents across the Commonwealth will position the university to attract and retain the most qualified professionals. These agents will lead the Commonwealth's agricultural community to success by providing opportunities for youth to become productive citizens and delivering programs that support food safety and security for Virginia's families. This is a General Fund initiative.
- 5. Reallocation of Existing Resources to Support Strategic Initiatives and Funding Shortfall: The agency will reallocate existing resources to support university-wide compensation requirements to respond to market pressures, as well as support a shortfall of state funding for mandated cost increases (state compensation programs and fringe rate increases). Opportunities for reallocation are limited, and will require the strategic realignment of expenditures and services.
- 6. Operation & Maintenance of New Facilities: With new facilities coming on-line during the planning period, including the agency's Kentland improvements and the new Livestock Production & Poultry Research Facility, operation and maintenance support is a primary cost driver in the future budget. Facilities must be open year-round in order for the university to deliver its mission of providing programming for the citizens of the Commonwealth. Addressing operation and maintenance of facilities will ensure maximum facility service life and the prevention of building deficiencies. Support provided by the 2018 General Assembly is very much appreciated and will help ensure new facilities are utilized to their potential.
- Utility and Fixed Cost Increases: Rising costs of contracts, utility service, and other
  mandated or required operating costs must be addressed to maintain the delivery of
  institutional services.
- **8.** <u>Fringe/Health Insurance Benefits Increase</u>: Based on the assumptions used by the state in Chapter 2 of the 2018 Acts of the Assembly, the incremental cost of providing employee health insurance and other employment-related benefits is included utilizing the traditional fund split methodology.
- 9. VRS Increase: Based on the assumptions used by the state in Chapter 2 of the 2018 Acts of the Assembly, the incremental cost of Virginia Retirement System employer contributions is included utilizing the traditional fund split methodology.



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- **10.** <u>Soil Scientist Assistance Program:</u> This state initiative restores the Soil Scientist Assistance Program previously funded by the Virginia Department of Health.
- 11. <u>Unavoidable Cost Increase Placeholder</u>: In addition to known cost drivers in the agency's plan, the agency assumes that unknown and unavoidable costs will rise over time. These could include unfunded mandates, software contract escalation, health and safety cost increases, maintenance expenses, and other unforeseen cost drivers. Figures in the plan represent the agency's nongeneral fund share of projected cost increases in the 2018-20 biennium.

C. Financial Aid: N/A

#### D. Evaluation of Progress Towards Meeting the Goals of Current Six Year Plan:

The university was able to make measured progress towards the goals in the 2017 Six-Year plan submission. Unavoidable cost drivers and fixed cost increases continue to stress the agency. Due to the inability to increase nongeneral fund resources, the ability of the agency to continue to serve the citizens of the Commonwealth and address emerging issues in the agricultural economy is almost entirely dependent upon General Fund support.

In spite of these challenges, the agency was successful in helping to attract industry to the Commonwealth, increasing agri-business productivity, producing award-winning research, enhancing food safety, and spinning off new discoveries. Among these efforts were the development of an inexpensive water-quality system that limits nitrogen and phosphorus output from entering the Chesapeake Bay, the eradication of predatory stink bugs that destroy sweet corn, grapes, and apple crops, food safety trainings for clients in food-processing companies, and the use of new technologies including drones to help Virginia farmers with issues ranging from detailed soil and field analysis to daily monitoring and health assessments of crops and animals.

Research and outreach programs conducted by the Virginia Cooperative Extension and Agricultural Experiment Station positively impact citizens on a daily basis. In addition to supporting research and industry, the VCE/AES and its 29,845 volunteers provided over 1,181,416 hours of service to communities in the commonwealth in FY16. Collectively, this agency provides a significant return on investment to the state as every \$1 of General Fund support generates an additional \$1.37\* in economic impact. Enhancing state support of the Virginia Cooperative Extension and Agricultural Experiment Station activities is critical to maintaining the critical competitive and cultural advantages provided by the agency.

For more information, please see Agency 229 Matters:

https://issuu.com/virginiatech/docs/agency-229-matters

<sup>\*</sup>The university modified its method for attributing research expenditures in 2017. This modification impacts the total ROI calculation compared with previous reports.



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E. Tuition Rate Increases: N//A

#### F. Contributions to Economic Development:

Agency 229 is part of the fabric of the Commonwealth's key agricultural and forestry industry sectors. Activities performed by Agency 229 through the Virginia Agricultural Experiment Station (VAES) and Virginia Cooperative Extension (VCE), at 107 local offices, and 11 Agricultural Research and Extension Centers, facilitate economic growth and technological innovation, and forge collaborative partnerships between researchers, agents, and industry stakeholders.

Below is a brief overview of the economic impacts of Agency 229:

- Over the last five years, Virginia Cooperative Extension has delivered 400 unique programs related to cattle across sixty counties in Virginia, leading to improvements in profitability and livelihood. These efforts led to the development of a public-private partnership, the Virginia Quality Assured Feeder Cattle Program (VQA), designed to promulgate herd health management programs and record keeping techniques. VQA certified producers received an extra \$1.5 million leading to a statewide economic impact of \$2.5 million.
- Researchers and extension specialists from the Virginia Agricultural Experiment Station (VAES) and VCE have helped producers learn best management practices, improve efficiencies, and adopt new varieties of row crops that can be used for biofuel production, food products and ingredients for Virginia's burgeoning craft beverage market. Royalties from the licensing of patented varieties of row crops developed through the work of VAES researchers and VCE totaled \$3.7 million over the past five years. This funding supports additional research.
- To enhance the competitiveness of Virginia's pork and poultry industry in the global marketplace, Agency 229 and Extension experts have partnered with private industry to promote animal health, disease management, and pollution control. Due to these efforts, Virginia's poultry industry expanded by 26% from 2008-2015. Agency 229 researchers and Extension specialists have developed litter management policies centered around phosphorous site indexing that have led to the moderation of regulations in Virginia, enhancing the industry's competitive advantage.
- Agency 229 has been a critical player in the growth of Virginia's food and beverage industries, a sector that has seen the expansion of both large companies and small food businesses. The pilot plant in Virginia Tech's Human Agriculture and Biosciences Building facilitates collaboration between researchers and private industry and has helped companies expand product lines, leading to higher profits, greater investment, and more guidelines for food processing and safety regulations, resources for food



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start-ups, and information on specific labels used on food products served 450 individuals and analyzed 250 food products in 2016. This assistance allowed producers to more efficiently pass regulatory inspections and bring new products to market.

Agency 229 has maintained an extensive outreach program on environmental conservation that helps landowners make informed decisions on management practices such as forest harvesting, forest farming, wildlife habitat, and urban forestry. Forests were estimated to have an economic impact of over \$30.3 billion in 2015, with \$21 billion coming from industry output and an additional \$9.3 billion in value-added activities.

To build upon this success and ensure that Virginia's agricultural and forestry industries continue to prosper, additional 229 funding is needed to attract and retain additional Agency 229 researchers and extension specialists who can work on industry-specific challenges.

#### G. Capital Outlay Significantly Impacting E&G and NGF costs:

Virginia Tech appreciates the significant support to advance enrollment growth, research and economic development by fully funding our highest priority Agency 229 capital project in the 2016-18 Biennium -- Construct Livestock and Poultry Research Facilities, Phase I.

The Virginia agriculture industry represents a significant portion of commerce for the commonwealth. Virginia Tech's Cooperative Extension/Agriculture Experiment Station agency provides critical production and operation research to advance and protect these industries. The focus of the renewal of the Livestock and Poultry Research Facilities project is five specific animal programs that are in need of improved facilities to sustain and advance the commonwealth's industries. The specific sectors include sheep, poultry, swine, equine and beef cattle.

In accordance with the state's traditional capital outlay process, the university has begun its internal work to develop the 2020–2026 Capital Outlay Plan. There are certain key focus areas that will be needed to continue to advance the instruction, research, economic development, and campus infrastructure at the university including: the Undergraduate Science Laboratory Building, Data and Decision Sciences, Intelligent Infrastructure, Resilient Earth Systems, Integrated Security, and Global Business and Agriculture Systems.

#### H. Restructuring:

Restructuring opportunities are discussed in detail in the Agency 208 (University Division) submission.