Commonwealth of Virginia
November 8, 2021

Report to the Governor and the General Assembly of Virginia

Economic Development Incentives 2021

Spending and Performance

COMMISSION DRAFT

JLARC
JOINT LEGISLATIVE AUDIT
AND REVIEW COMMISSION

Joint Legislative Audit and Review Commission

JLARC staff

Hal E. Greer, Director

Kimberly Sarte, Associate Director for Ongoing Oversight and Fiscal Analysis
Ellen Miller, Chief Economic Development and Quantitative Analyst

Information graphics: Nathan Skreslet
Managing Editor: Jessica Sabbath

Economic analysis

Terance J. Rephann, Regional Economist
Weldon Cooper Center for Public Service

JLARC Report 557

jlarc.virginia.gov

Contents

Economic Development Incentives 2021 – Summary

WHAT WE FOUND

- Virginia spent $3 billion on 84 economic development incentive programs from FY11 to FY20. This amounts to 1.5 percent of total general fund spending during this time. Total spending on incentives was $385 million in FY20. Incentive spending has increased since FY16 because of increased spending for the data center exemption and several other incentives.
- Seventy percent of incentive spending was for tax incentives such as sales and use tax exemptions ($1.4 billion), tax credits ($475 million), and single sales apportionment for manufacturers and data centers ($139 million). The remaining 31 percent was spent on grants ($874 million) and other incentives such as loans and gap financing programs ($36 million).
- Collectively, Virginia economic development incentive grant programs awarded $1.9 billion to 5,000 projects between FY11 and FY20. Grant awards increased substantially in FY19 primarily because of the $750 million custom grant award for Amazon HQ2.
- Less than half of the $1.9 billion in grant awards was paid out or 'spent' between FY11 and FY20 because nearly $900 million in custom awards for Amazon HQ2 and five other companies are not scheduled to be paid until after FY19. Spending on grants, and thus total incentives, will increase substantially as these custom grant awards are paid.
- Completed projects receiving grant funds created more than 72,000 jobs and $18 billion in capital investment or other spending. The majority of these projects met their capital investment goals, but only one-quarter met their job creation goals.

WHY WE DID THIS STUDY

Through language in the Appropriation Act, the General Assembly directed the Joint Legislative Audit and Review Commission (JLARC) to review and evaluate economic development initiatives. Topics include spending on incentives and activity generated by businesses receiving incentives; the economic benefits of incentives; and the effectiveness of incentives.

JLARC releases two reports each year: a high-level summary report on overall spending and business activity and an in-depth report on the effectiveness of selected individual incentives. (See Appendix A: Study mandate.) JLARC contracted with the Weldon Cooper Center for Public Service to perform the analysis for both reports.

This report is the fifth in the series of overall spending and business activity and focuses on incentives that were provided between FY11 and FY20.

Economic Development Incentives 2021

Virginia provides economic development incentives to encourage businesses to locate or expand their operations in the state as part of its economic development strategy. To better understand the effectiveness of these incentives in stimulating business activity, the General Assembly directed the Joint Legislative Audit and Review Commission (JLARC) to review spending on and performance of economic development incentives such as grants, tax preferences, and other assistance. (See Appendix A.) JLARC contracted with the University of Virginia's Weldon Cooper Center for Public Service to perform the evaluation.

This report is the fifth in a series of annual reports about Virginia's economic development incentives, trends in state spending on incentives, and performance of incentive programs. Every other year the reports in this series include information about the economic benefits of total spending on economic development incentives. This information will be included again in next year's report.

This report provides summary information on 84 economic development incentive programs, including grants, tax preferences, business loans, and gap financing. The incentive programs covered in this report are funded by the state, provided funding for businesses between FY11 and FY20, and have a primary purpose of promoting economic activity through location or expansion of businesses. Businesses may also benefit from several other grants, tax credits, and exemptions offered by the state for purposes other than economic development; these programs are not included in this report.

For purposes of this report, **incentives spending** refers to (1) actual expenditures by the state in the form of grant awards or other financing and (2) estimated tax expenditures, in the form of forgone revenue, through tax credits or sales and use tax exemptions.

For most grants, spending is allocated to the fiscal year in which awards were approved. For custom grants, spending is allocated to the fiscal year in which grant payments are made to the company.

For refundable tax credits, such as the film credit, spending may reflect actual expenditures rather than forgone revenue.

See Appendix B for more information on methods used to estimate spending for each program.

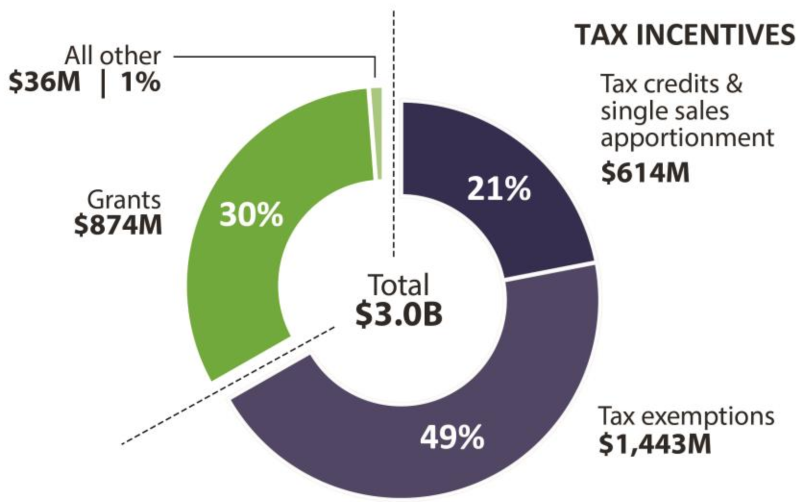
State spent $3 billion on incentives FY11–FY20

Virginia spent $3 billion on 84 economic development incentive programs over the past 10 fiscal years (Figure 1), for an average of $300 million per year. Nearly all incentives are funded by the state general fund, with the exception of incentives provided by the Tobacco Region Revitalization Commission and several transportation infrastructure incentives. Spending on incentives represented approximately 1.5 percent of total general fund spending between FY11 and FY20. In addition, the majority of spending on incentives was forgone revenue from tax incentives. Sales and use tax exemptions make up 49 percent of forgone revenue, and tax credits and single sales apportionment for manufacturers together make up 21 percent of forgone revenue. Almost all the remaining spending was for grants.

Ten incentives accounted for nearly 70 percent of the spending on incentives between FY11 and FY20 (Table 1). The top two—the Data Center Exemption and Railroad Common Carriers Exemption—provided more than $1 billion in exemptions to businesses in capital-intensive sectors that make large purchases of equipment. Because of the incentives, certain purchases by these businesses are exempt from the retail sales and use tax. The third-largest incentive was the Coalfield Employment Enhancement

Tax Credit, which provided $205 million for coal mining and coal bed methane production. (The 2021 General Assembly eliminated the Coalfield Employment Enhancement Tax Credit effective January 1, 2022.) Other top incentives include the Commonwealth's Opportunity Fund, the state's primary "deal closing" program, which awarded $139 million for 313 projects; the Tobacco Region Opportunity Fund Grant, which awarded $106 million to 288 projects; and the Tobacco Region Megasite Grant, which awarded 36 grants totaling $97 million for nine industrial parks in the Southern and Southwest regions.

FIGURE 1
About 70 percent of spending on incentives was for tax incentives (FY11–FY20)



SOURCE: Weldon Cooper Center analysis of economic development incentive programs.
NOTE: Estimates may not sum because of rounding. Adjusted for canceled projects, recaptures, and award reductions. Exemptions exclude the 1 percent sales tax for localities and the additional amounts collected in the Historic Triangle, Northern Virginia, and Hampton Roads. For custom grants, actual payments are allocated to the fiscal year when they were paid. Estimate for single sales apportionment includes both manufacturer and data center estimates.

TABLE 1
Ten incentives are responsible for over two-thirds of spending (FY11–FY20)

Incentive	Spending	% of spending
Data Center Exemption	$837M	28%
Railroad Common Carriers Exemption	210	7
Coalfield Employment Enhancement Tax Credit	205	7
Commonwealth's Opportunity Fund	139	5
Manufacturers Single Sales Apportionment	139	5
Tobacco Region Opportunity Fund	106	4
Real Property Investment Grant	105	4
Tobacco Region Megasite Grants	97	3
Airline Common Carriers Exemption	93	3
Virginia Coal Employment and Production Incentive Tax Credit	90	3
Subtotal	**$2,023M**	**68%**
All others	$943M	32%
TOTAL	**$2,966M**	**100%**

SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Excludes several tax preferences for which data was not available. For custom grants, payments are allocated to the fiscal year when they were paid. Adjusted for canceled projects, recaptures, and award reductions. Exemptions exclude the 1 percent sales tax for localities and, in most cases, the additional amounts collected in the Historic Triangle, Northern Virginia, and Hampton Roads. (See Appendix C for a description and Appendix D for spending for all incentives.)

Incentives have increased in number and spending

The number of economic development incentive programs offered by the state has grown over time (Figure 2). The oldest is the Economic Development Access Program—a grant program designed to improve transportation access for industrial sites—which was adopted in 1956. The newest incentives are customized performance grants, which are designed to attract large companies to locate or expand in the state:

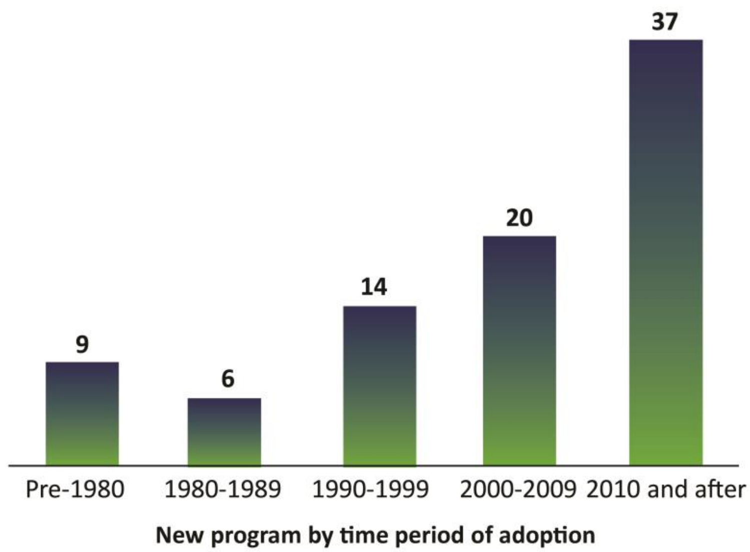
- Advanced Production Grant Program and Fund (Morgan Olson, FY20),
- Pharmaceutical Manufacturing Grant Program (Merck, FY20),
- Major Headquarters Workforce Grant (Amazon HQ2, FY19),
- Semiconductor Manufacturing Grant (Micron, FY19), and
- Special Workforce Grant Fund (Amazon Web Services, FY19).

More than one-third of the current incentives were adopted since 2010, and seven of the 15 programs adopted since 2015 have been custom performance grants.

Overall, the amount spent on economic development incentives increased 99 percent between FY11 and FY20, though spending varies from year to year (Figure 3). This increase is more than twice the increase in state general fund spending during that time period (37 percent) and nearly twice the increase in total state spending (55 percent).

Several new incentive programs are responsible for growth in incentive spending. The greatest increase in incentive spending occurred between FY11 and FY15 because of two incentives. The Data Center Exemption was first claimed in FY10 with an estimated $3 million in exemptions. Estimated exemptions increased to more than $20 million each year in FY11 and FY12 and to $95 million in FY15. Manufacturers could begin using single sales apportionment in FY15, and it reduced income tax revenue by an estimated $2 million that year. Both of these incentives have continued to grow over time and are estimated to be $140 million and $24 million in FY20, respectively. The Major Research and Development Tax Credit, which was adopted in 2016, contributed to an increase in incentive spending between FY19 and FY20.

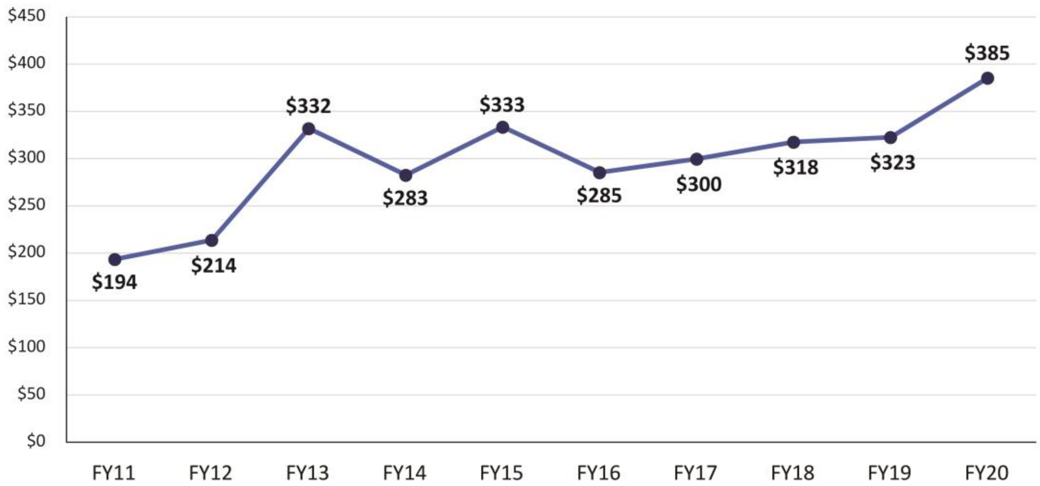
FIGURE 2
More than one-third of current incentive programs were adopted in 2010 or after



SOURCE: Weldon Cooper Center analysis of economic development incentive programs.
NOTE: Excludes incentive programs that expired prior to 2017 when this evaluation series began. See Appendix C for the year when each incentive was adopted.

Incentive spending often fluctuates from year to year because of program changes or large or atypical awards. For example, two programs contributed to the spike in incentives in FY13. Two-thirds ($59.5 million) of the total Virginia Coal Employment and Production Incentive Tax Credit awards between FY11 and FY20 were awarded in FY13 when a substantial amount of carryover credits were claimed on tax returns. The total amount of spending on the Data Center Exemption increased by $53 million between FY12 and FY13 after co-location data centers, which are operated by a landlord and may have multiple data centers as tenants, were allowed to use the exemption. Micron received a $20 million custom grant payment in FY20, which also contributed to the 20 percent increase in incentive spending between FY19 and FY20.

FIGURE 3
Spending on incentives fluctuates from year to year prior to FY16 but has increased steadily since



SOURCE: Weldon Cooper Center analysis of economic development incentive programs.
NOTE: Adjusted for canceled projects, recaptures, and award reductions. Amounts differ from earlier Economic Development Incentives reports because of project cancelations, recaptures for nonperforming projects, and adjusted reporting on completed projects. For custom grants, payments are allocated to the fiscal year when they were paid. Not adjusted for inflation. The trend is similar if adjusted for inflation.

Custom grants are periodically offered to attract specific large companies to the state. The state's typical package of incentives (grants, tax credits, exemptions, etc.) are relatively modest compared with a custom grant. For example, grant awards for non-custom projects were an average of $188,000 per project between FY11 and FY20 compared with custom grants, which were an average of $132M per project.

Several programs have experienced sizable declines in spending since FY15, which resulted in lower spending in FY16 and FY17. The Tobacco Region Megasite grant program awarded $18 million annually for the development of industrial parks between FY11 and FY15. Since then, however, only $4.9 million in FY18 has been awarded. Estimated tax savings from the Coalfield Employment Enhancement Tax Credit also declined, from $28.4 million in FY15 to $7.91 million in FY20. These declines, however, were offset beginning in FY18 because of increased spending for the data center exemption and the Major Research and Development Investment Tax Credit.

Approximately 5,000 projects were awarded $1.9 billion in grants FY11–FY20

Even though sales and use tax incentives—particularly exemptions—have historically had a larger overall impact on the state budget, Virginia's grant programs are the most widely recognized economic development incentive. Custom grants in particular are provided to business location or expansion projects promising to make substantial job creation and capital investment and therefore receive considerable media attention. For example, Virginia's $750 million custom grant award for Amazon to locate its East Coast headquarters in Virginia received national attention in fall 2018 and early 2019. Grant payments are scheduled to begin in FY26 and end in FY43. To receive the full award, Amazon must create at least 37,850 jobs and make a capital investment of at least $2 billion.

Economic development grants are financial incentives provided to businesses in return for locating in the state or expanding business activity. Some grants are discretionary, which means that the state can negotiate the terms of the grant with the business. Other grants are automatically awarded if the business meets the minimum requirements. Grants are not repaid as long as businesses meet program requirements.

Several programs that are not commonly identified as grant programs are included in this category because they provide financial assistance to businesses (or to a third party for their benefit).

Collectively, Virginia's economic development incentive grant programs—which are typically funded with general funds with some exceptions—awarded $1.9 billion to 5,003 projects between FY11 and FY20 (Table 2). Thirteen of the 29 grant programs each provided more than $30 million in awards during the time period. For most grant programs, awards were also paid out during the 10-year period. However, less than half of the $1.9 billion in grant awards was paid out or 'spent' between FY11 and FY20 because nearly $900 million in custom awards for Amazon HQ2, Micron, Newport News Shipbuilding, Amazon Web Services, Morgan Olson, and Merck are not scheduled to be paid out until after FY20. Spending on grants, and thus total incentives, will increase substantially as these custom grant awards are paid.

TABLE 2
Grant programs made approximately 5,000 awards totaling $1.9 billion (FY11–FY20)

	Total FY11–FY20		Annual average	
Program	**Award amount**	**# of awards**	**Award amount**	**# of awards**
Major Headquarters Workforce Grant (Amazon HQ2) [a]	$750.0M	1	n.a.	n.a.
Commonwealth's Opportunity Fund	178.0	313	$17.8M	31
Tobacco Region Opportunity Fund	158.4	288	15.8	29
Tobacco Commission Megasite Grant	108.9	36	10.9	4
Real Property Investment Grant (Enterprise Zone)	105.5	1,545	10.5	155
Virginia Jobs Investment Program	94.9	937	9.5	94
Semiconductor Manufacturing Grant Fund (Micron) [a]	70.0	1	n.a.	n.a.
Virginia Investment Partnership Grant	54.2	68	5.4	7
Transportation Partnership Opportunity Fund	48.4	14	4.8	1
Advanced Shipbuilding Production Facility Grant (Newport News Shipbuilding) [a]	46.0	1	n.a.	n.a.
Virginia Economic Development Incentive Grant	40.8	9	4.1	1
Governor's Motion Picture Opportunity Fund	35.2	48	3.5	5
Advanced Shipbuilding Training Facility Grant (Newport News Shipbuilding) [a]	32.8	1	n.a.	n.a.
Job Creation Grant (Enterprise Zone)	26.9	573	2.7	57
Economic Development Access Program	24.9	43	2.5	4
Commonwealth Research Commercialization Fund	13.5	228	1.5	25
Rail Industrial Access Program	11.2	31	1.1	3

Program	Total FY11–FY20 Award amount	Total FY11–FY20 # of awards	Annual average Award amount	Annual average # of awards
Special Workforce Grant Fund (Amazon Web Services) [a]	10.5	1	n.a.	n.a.
Agriculture and Forestry Industries Development Grant	8.1	99	1.2	14
Pharmaceutical Manufacturing Grant Program (Merck) [a]	7.5	1	n.a.	n.a.
Small Business Jobs Grant Fund Program	7.4	137	0.8	15
Advanced Production Grant Program (Morgan Olson) [a]	7.0	1	n.a.	n.a.
VALET Program	5.2	248	0.5	25
Port of Virginia Economic and Infrastructure Grant	4.8	17	0.7	2
Small Business Investment Grant Fund	3.6	70	0.5	10
GO Virginia	3.0	3	0.8	1
Trade Show Assistance Program	2.4	270	0.6	68
Virginia Business Ready Site Program	1.6	13	0.4	3
Virginia Talent Accelerator Program [b]	1.5	6	1.5	6
All programs	**$1,862.0M**	**5,003**	**$112.0M**	**565**

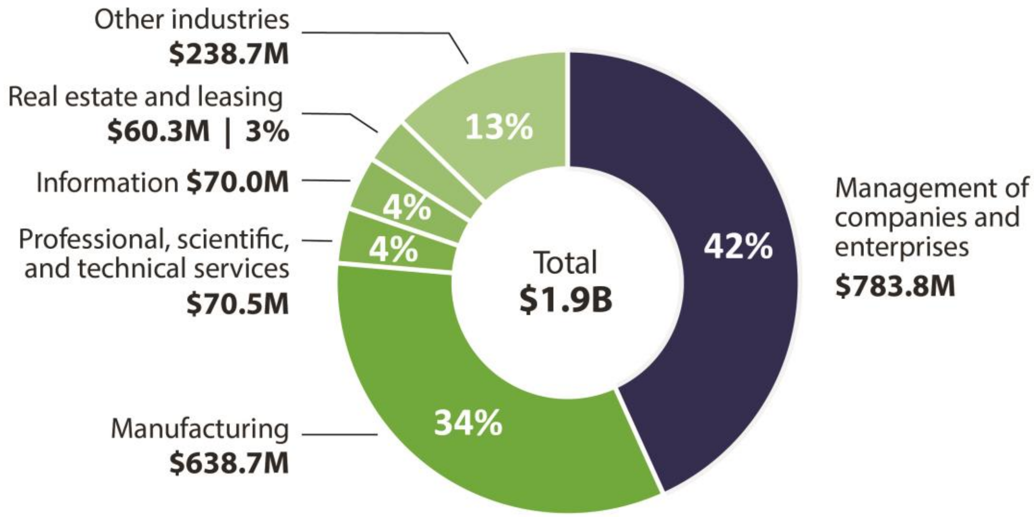
SOURCE: Weldon Cooper Center analysis of economic development incentive grants.
NOTE: Includes all awards and amounts *prior* to recaptures, cancelations, or reductions. For this reason, amounts for the Tobacco Region Opportunity Fund, Commonwealth's Opportunity Fund, and Virginia Jobs Investment Program are higher than amounts shown in Table 1. Total award amounts for custom grants are shown. The Small Business Jobs Grant Fund Program was eliminated by the 2020 General Assembly.
[a] These grants provide custom one-time awards that are or will be paid out over several years based on performance. The $32.5 million Advanced Shipbuilding Training Facility Grant has been fully paid. [b] The Virginia Talent Accelerator Program was created in 2019 and began making awards in FY20. Its value is estimated and represents the internal cost of the accelerator services at the time of announcement.

Grant awards targeted corporate headquarters and manufacturing sectors and urban localities

Over three-quarters of grant award amounts were directed to corporate headquarters or manufacturers between FY11 and FY20 (Figure 4). Forty-two percent of grant awards were directed to businesses in the corporate headquarters sector, reflecting the sizable custom grant award for Amazon HQ2. Another third was directed to businesses in the manufacturing sector. The manufacturing sector is commonly represented because grant programs generally target companies in "basic," or export-base industry sectors, which export at least half their goods or services outside the state. Targeting these businesses is desirable because they bring new revenue into the state. Corporate headquarters is also an export-base industry sector, but until FY20, the state generally provided fewer and smaller grants for headquarters locations or expansions.

Geographically, the largest amount of grant awards went to urban localities, such as Arlington County ($792 million), Newport News ($120 million), Manassas City ($73 million), Fairfax County ($70 million), and Richmond City ($59 million). Several less populated counties—such as Henry and Greensville—also received large amounts ($42 million and $41 million respectively). Ten localities received approximately 70 percent of the total amount awarded for the period (Table 3).

FIGURE 4
Three-quarters of grant awards were directed to corporate headquarters and manufacturers (FY11–FY20)



SOURCE: Weldon Cooper Center analysis of economic development incentive grants.
NOTE: The "other industries" category includes businesses in a variety of sectors such as agriculture and forestry, construction, utilities, finance and insurance, wholesale or retail trade, transportation and warehousing, and other service sectors. Estimates may not sum because of rounding.

TABLE 3
Businesses in 10 localities received 70 percent of grant awards (FY11–FY20)

Locality	Amount awarded	% of total amount	# awards	% of total awards
Arlington County	$792M	42.5%	84	1.7%
Newport News City	120	6.4	276	5.5
Manassas City	73	3.9	18	0.4
Fairfax County	70	3.8	297	5.9
Richmond City	59	3.2	443	8.9
Henry County	42	2.3	129	2.6
Greensville County	41	2.2	23	0.5
Accomack County	36	1.9	35	0.7
Pittsylvania County	35	1.9	64	1.3
Brunswick County	34	1.8	11	0.2
Subtotal	**$1,301M**	**69.9%**	**1,380**	**27.6%**
All others	561M	30.1	3,623	72.4
TOTAL	**$1,862M**	**100.0%**	**5,003**	**100.0%**

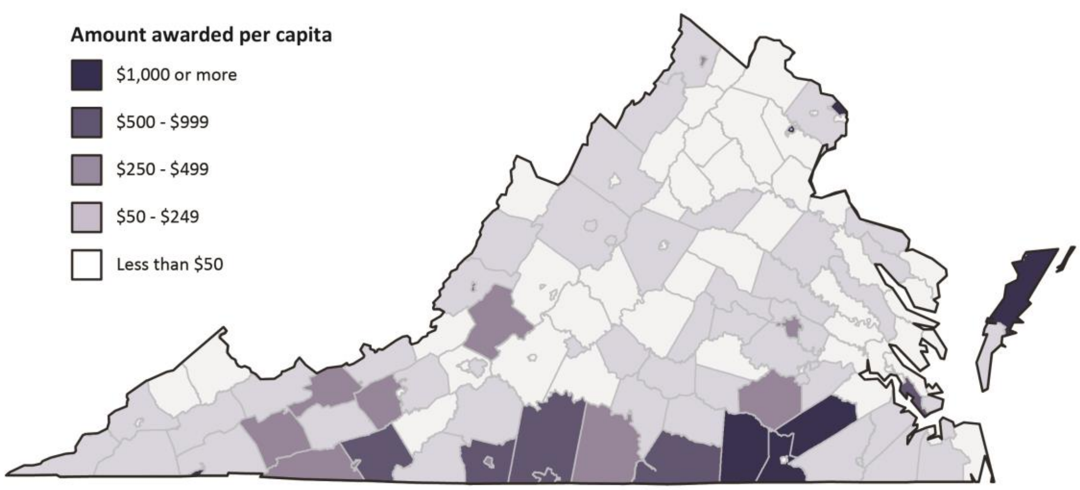
SOURCE: Weldon Cooper Center analysis of economic development incentive grants.
NOTE: Localities were not assigned to 13 Governor's Motion Picture Opportunity Fund projects because filming occurred in multiple locations.

Businesses in urban localities in Northern Virginia and rural localities in the southern and eastern part of the state received a large proportion of grant funding, relative to population size (Figure 5). Businesses in the Northern Virginia Regional Commission service area (the counties of Arlington, Fairfax, Loudoun, and Prince William and the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park) received approximately 51 percent of all economic development incentive grant awards. Businesses in Tobacco Region localities received approximately 19 percent of all economic development grant awards, largely due to the contributions of the Tobacco Commission's Tobacco Region Opportunity Fund and Megasite Grant programs. The highest *per capita* award amounts were in

- Greensville County ($3,593) for development of the Mid-Atlantic Advanced Manufacturing Center;
- Arlington County ($3,297) for the location of Amazon HQ2;
- Brunswick County($2,115) for the location of a Dominion Power gas power plant that received $30 million in financial assistance;
- Manassas City ($1,782) for the Micron expansion; and
- Sussex County ($1,242) for development of a Tobacco Commission-funded megasite.

(See Appendix E for maps of the regional distribution of grant awards, overall and per capita.)

FIGURE 5
Awards per capita are concentrated in Arlington, Manassas City, and rural localities in Southern and Eastern Virginia (FY11–FY20)



SOURCE: Weldon Cooper Center analysis of economic development incentive grants.

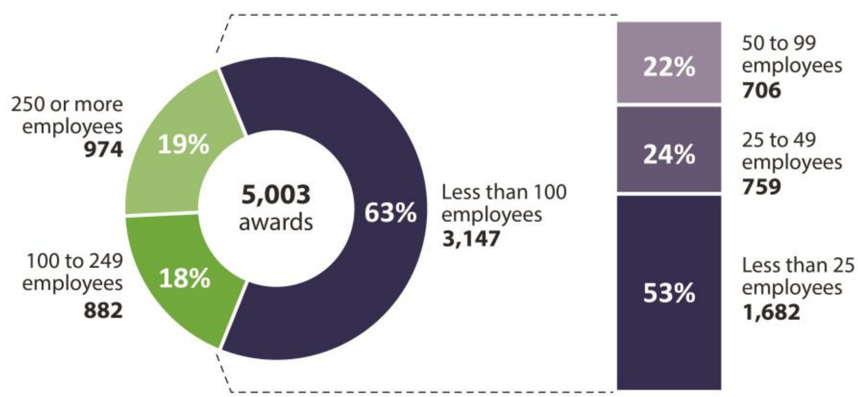
The award amounts per capita are positively correlated with the local unemployment rate, indicating that more funds are generally provided to businesses in localities that are economically disadvantaged. The number of awards per capita has an even higher positive correlation with the local unemployment rate.

Majority of grant awards were for business locations that had fewer than 100 employees at the time of the award

Sixty-three percent of the grant awards between FY11 and FY20 went to business locations that had fewer than 100 employees at the time the awards were made (Figure 6). Of this group, 53 percent were for business locations with fewer than 25 employees. These businesses received grant awards from programs, such as the Small Business Investment Grant or Commonwealth Research and Commercialization Fund, which typically make awards to start-up businesses with 10 or fewer employees, on average. In contrast, 19 percent of grant awards were for large businesses with 250 or more employees. Custom grants and four other grant programs—the Transportation Partnership Opportunity Fund, Virginia Investment Partnership Grant, Virginia Economic Development Incentive Grant, and Port of Virginia Economic and Infrastructure Grant—tend to make awards to business locations with 250 employees or more. (See Appendix F for the average employment size of grant recipients by program.)

Many businesses have operations in multiple **locations**. Grants and other incentives are often provided to projects that occur at a specific business location.

FIGURE 6
Majority of grants were for business locations with fewer than 100 employees (FY11–FY20)



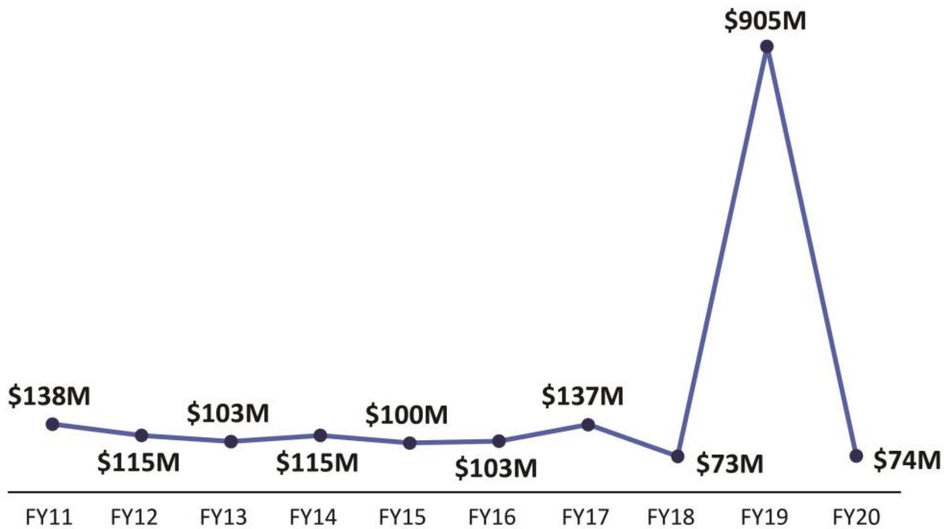
SOURCE: Weldon Cooper Center analysis of economic incentive grant awards.
NOTE: Employment records were matched with 3,048 of the 5,003 awards (61 percent) and $1.292 million of $1.862 billion (70 percent) in total awards. The numbers and percentages shown in the figure reflect a weighted distribution of awards and amounts using information from the matched records.

Grant awards increased substantially in FY19 because of large custom grant awards

Grant awards increased substantially in FY19 because of large custom grant awards for Amazon HQ2, Amazon Web Services, and Micron that totaled $830.5 million, which was 92 percent of total grant awards that year (Figure 7). Before FY19, annual grant awards fluctuated within a much narrower range and were generally on a declining trend. Awards in FY11 and FY17 were the previous highest amounts. Two large incentive programs were introduced in FY11—the Tobacco Commission Megasite Grant, which awarded $11 million in incentives per year on average, and the custom Advanced Shipbuilding Training Facility Grant, which made a one-time award of $32.8 million to

Newport News Shipbuilding. In FY17, the Newport News Shipbuilding received another custom grant award of $46 million from the Advanced Shipbuilding Production Facility Grant. Though two custom grants were awarded in FY20, the awards were smaller (each less than $10 million) than other custom awards. (See Appendix D for grant awards by program.)

FIGURE 7
Grant awards increased substantially in FY19 because of three large custom grant awards



SOURCE: Weldon Cooper Center analysis of economic incentive grant awards.
NOTE: Adjusted for canceled projects, recaptures, and award reductions. Amounts differ from earlier Economic Development Incentives reports because of project cancelations, recaptures for nonperforming projects, and adjusted reporting on completed projects. Sizable custom grants were awarded to Amazon HQ2 ($750 million), Micron ($70 million), and Amazon Web Services ($10.5 million) in FY19. Not adjusted for inflation. (The trend is the same if adjusted for inflation.)

Programs vary in amount awarded per job created and level of business investment

The size of grant awards varied widely by program (Table 4). Awards ranged from an average high of $4.5 million to a low of $8,861 per project excluding the custom grant awards. Custom grant awards—which tend to be much larger—ranged from $7.0 million to $750 million.

The size of grant awards also varied when compared with the number of jobs created or investment made (Table 4). Grant programs require projects to meet certain minimum requirements to be eligible for grant funding. These minimum requirements vary based on program goals, but the most common are job creation and some form of business investment or spending in Virginia. The average grant award per expected job for Virginia projects was $6,624 between FY11 and FY20, but it ranged from a high of $63,291 per job (custom grant for Micron) to a low of less than $1,000 (Virginia Jobs Investment Program and Small Business Jobs Grant Fund). The average grant award for capital investment or additional spending was $38 per $1,000 spent and ranged from a high of $375 (custom grant for Amazon HQ2) to a low of $5 (Agriculture and Forestry Industries Development Grant).

TABLE 4
Average grant awards by program varied widely (FY11–FY20)

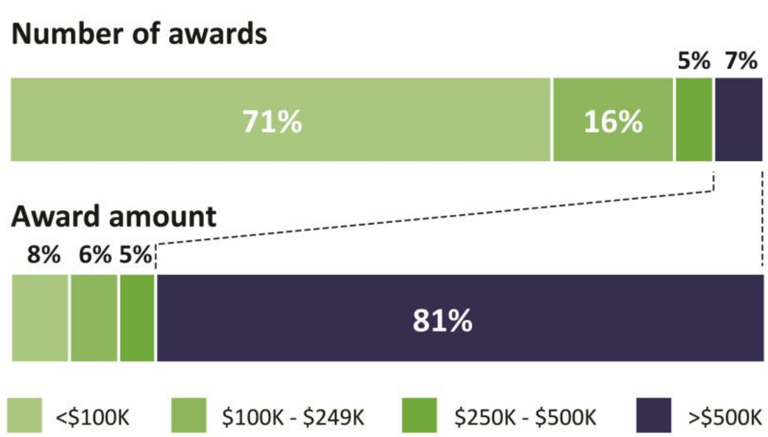
	Average award amount per		
Program	**Project**	**$1,000 in spending or investment in Virginia (expected)**	**Job created in Virginia (expected)**
Custom grants			
Semiconductor Manufacturing Grant (Micron II)	$70,000,000	$23	$63,291
Pharmaceutical Manufacturing Grant (Merck)	7,500,000	8	49,342
Advanced Shipbuilding Production Facility Grant	46,000,000	61	46,000
Advanced Shipbuilding Training Facility Grant	32,777,745	109	32,778
Major Headquarters Workforce Grant (Amazon HQ2)	750,000,000	375	19,815
Advanced Production Grant (Morgan Olson)	7,000,000	121	9,957
Special Workforce Grant (Amazon Web Services)	10,500,000	125	7,000
Average, custom projects	**$131,968,249**	**$129**	**$21,329**
All other grants			
Transportation Partnership Opportunity Fund	$3,456,937	106	$20,369
Rail Industrial Access Program	361,244	33	8,388
Virginia Investment Partnership Grant	796,324	12	8,015
Virginia Economic Development Incentive Grant	4,533,333	76	6,947
Small Business Investment Grant Fund	51,799	210	5,737
Tobacco Region Opportunity Fund	549,931	18	5,455
Commonwealth's Opportunity Fund	568,745	14	3,515
Agriculture and Forestry Industries Devel. Grant	$82,221	5	2,815
Port of Virginia Economic and Infrastructure Grant	283,882	n/a	2,029
Job Creation Grant (Enterprise Zone)	46,890	n/a	1,889
Virginia Talent Accelerator Program	252,081	n/a	1,147
GO Virginia	1,006,117	30	1,029
Virginia Jobs Investment Program	101,262	9	884
Small Business Jobs Grant Fund Program	53,945	25	850
Commonwealth Research Commercialization Fund	59,118	215	n.a.
Economic Development Access Program	578,128	204	n.a.

Program	Project	Average award amount per $1,000 in spending or investment in Virginia (expected)	Job created in Virginia (expected)
Governor's Motion Picture Opportunity Fund	733,560	n.a.	n.a.
Real Property Investment Grant (Enterprise Zone)	68,271	44	n.a.
Tobacco Commission Megasite Grant	3,023,838	n.a.	n.a.
Trade Show Assistance Program	8,861	n.a.	n.a.
VALET Program	20,806	n.a.	n.a.
Virginia Business Ready Sites Program	124,776	n.a.	n.a.
Average, noncustom projects	**$187,726**	**$22**	**$3,939**
Average, all projects	**$372,633**	**$38**	**$6,624**

SOURCE: Weldon Cooper Center analysis of economic development incentive grants.
NOTE: Expected jobs and spending or investment were used for programs that awarded grants prior to when project performance began. *Actual* jobs and spending or investment were used for programs for which performance already occurred prior to projects receiving a grant award. The goal of the VALET program and Virginia Trade Show Assistance Program is to increase a company's international sales rather than to encourage job creation or capital investment; therefore, the average award amount per $1,000 in spending or investment or jobs created is not relevant for this program. As of FY20, most GO Virginia awards have not been for specific business projects. Average award amounts are calculated using total spending across programs divided by the total number of projects, amount of expected capital investment, and expected jobs across programs. The Small Business Jobs Grant Fund Program was eliminated by the 2020 General Assembly.
n.a. indicates that job creation or investment is not among the criteria considered for obtaining the grant.
** indicates that data was not provided for the program.

From FY11 to FY20, only 7 percent of awards were more than $500,000. However, these larger awards accounted for 81 percent of the grant funding (Figure 8). In fact, the seven custom grant awards alone accounted for 50 percent of the grant funding.

FIGURE 8
Seven percent of grant awards accounted for over 80 percent of total grant funding (FY11–FY20)



SOURCE: Weldon Cooper Center analysis of economic development incentive grants.
NOTE: Number of grants awarded is 5,003. Total amount awarded is $1,862 million (not adjusted for cancelations, recaptures, and refunds).

Completed projects created more than 72,000 jobs and nearly $18 billion in business investment and spending

Projects that received grant awards between FY11 and FY20 and completed their location or expansion project (including those that did not perform) collectively created an estimated 72,000 jobs and $18.1 billion in capital investment or other spending (Table 5). Completed projects that received Virginia Jobs Investment Program grants accounted for the largest share of jobs (46,235) and capital investment and other spending ($7.9 billion). Projects funded through the Commonwealth's Opportunity Fund ranked second in job creation (20,748 jobs) and business spending ($7.6 billion).

The **72,000 jobs and $18.1 billion in capital investment or other spending** are unduplicated amounts because many projects receive more than one grant. For example, Navy Federal Credit Union received a Commonwealth's Opportunity Fund grant and Virginia Jobs Investment Program grant to create 1,400 jobs and make a $100 million capital investment in Frederick County.

TABLE 5
Completed projects created over 72,000 jobs and nearly $18 billion in business spending or investment (FY11–FY20)

Program	# of projects	Spending or investment ($M)	Jobs created
Virginia Jobs Investment Program	799	$7,918M	46,235
Commonwealth's Opportunity Fund	188	7,599	20,748
Job Creation Grant (Enterprise Zone)	573	n.a.	14,226
Tobacco Region Opportunity Fund	181	2,641	5,620
Small Business Jobs Grant Fund Program	131	**	3,058
Port of Virginia Economic and Infrastructure Grant	17	n.a.	2,379
Advanced Shipbuilding Training Facility Grant	1	358	1,520
Virginia Investment Partnership Grant	15	525	544
Tobacco Commission Megasite Grant	19	n.a.	450
Agriculture and Forestry Industries Devel. Grant	17	387	337
Commonwealth Research Commercialization Fund	182	45	n.a.
Economic Development Access Program	22	35	n.a.
Governor's Motion Picture Opportunity Fund	44	312	n.a.
Rail Industrial Access Program	26	243	n.a.
Real Property Investment Grant (Enterprise Zone)	1,545	2,406	n.a.
Small Business Investment Grant Fund	1	0	0
Transportation Partnership Opportunity Fund	10	n.a.	n.a.
	Total (duplicated):	**$22,468M**	**95,117**
	Total (unduplicated):	**$18,023M**	**72,298**

SOURCE: Weldon Cooper Center analysis of economic development incentive grants.
NOTE: Completed projects represented about $505 million in total awards across programs. Some grant programs such as the Major Eligible Employer and some custom grants had no completed projects during this time period. Jobs are not counted for the Governor's Motion Picture Opportunity Fund program because they are not permanent full-time jobs. Many projects receive grants from more than one program. No unique identifiers exist to easily identify projects that received grants from multiple programs. The unduplicated number of jobs and investment or spending is an estimate based on a review of projects with similar business names, locations, time periods, and other factors. VALET and Trade Show Assistance programs (270 and 204 completed projects respectively) are not included in the table because their goals are to increase a company's international sales, and job creation and capital investment are not reported by program participants. The one completed Small Business Investment Grant project did not perform and funding was recaptured.
n.a. indicates that job creation or investment is not one of the criteria for receiving the grant.
** indicates that data was not provided for program.

Majority of completed projects met capital investment goals, and only one-quarter met their job creation goals

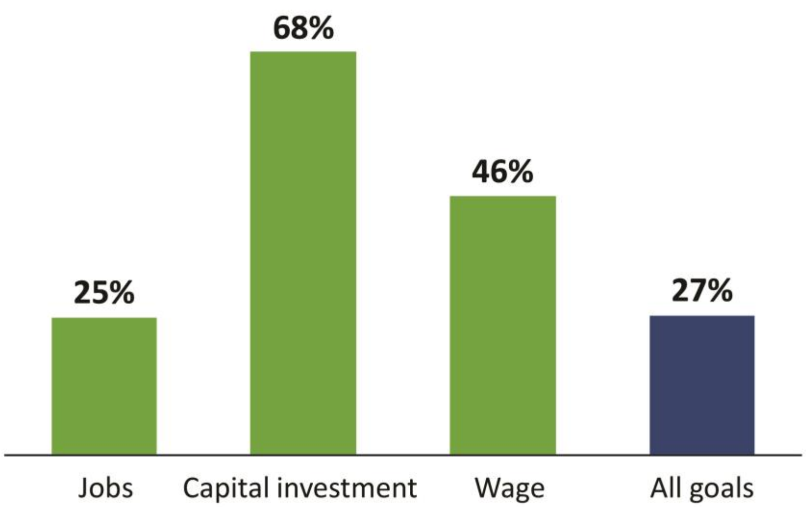
Some grant programs establish an "upfront" award agreement with project-specific goals. The most common project-specific goals are job creation, capital investment, and average wages paid. Several programs use alternative goals that are more relevant to their program. For example, transportation-related programs, such as the Rail Industrial Access Program and Port of Virginia Economic and Infrastructure Grant, establish project-specific goals for rail car volume and Virginia port usage, respectively. (See Appendix G for goals across programs.)

Sixty-eight percent of completed projects met or exceeded their project-specific goals for capital investment or other spending (Figure 9). Forty-six percent met their average wage goals, and 25 percent met their job creation goals.

Completed projects include those whose grant performance period ended during the time period analyzed, including projects that did not perform. Not all projects that received a grant award between FY11 and FY20 had completed their performance at the end of FY20. Completed projects represent 3,771 projects and $505 million in awards.

It is likely that the majority of the jobs and business investment or spending by completed projects would have occurred without incentives. Trying to determine the effect of incentives with precision is difficult because site selection decisions are based on a variety of factors. The success in swaying business decisions varies by program. Research on incentives nationally suggests that between 75 percent and 98 percent of projects would have occurred anyway without incentives (Bartik 2018).

FIGURE 9
Majority of completed projects met their capital investment goals (FY11–FY20)



SOURCE: Weldon Cooper Center analysis of economic development incentive grants.
NOTE: N=1,580 duplicated projects. Only includes projects from programs that establish project-specific goals. Some programs allow projects to attain 90 percent of specific goal(s) before award reduction or recapture is made. For simplicity of making calculations across programs, projects that exceeded 90 percent (or other established percentage) for a specific goal but did not achieve 100 percent are not included in the figure.

Attainment rates for project-specific goals varied widely by program (Table 6). The Port of Virginia Economic and Infrastructure Development Grant Program is the only program with multiple projects where all projects attained project-specific goals. Goal achievement was especially low for some programs. Only 18 percent of the 181 completed Tobacco Region Opportunity Fund projects met all project-specific goals.

TABLE 6
Attainment of project-specific goals varied by program (FY11–FY20)

Program	# of projects	% of projects that achieved goal: Job creation	Capital investment	Average wage	All goals
Advanced Shipbuilding Training Facility Grant	1	100%	100%	n.a.	100%
Port of Virginia Economic and Infrastructure Grant	17	100	n.a.	n.a.	100
Commonwealth Research Commercialization Fund	182	n.a.	n.a.	n.a.	83
Rail Industrial Access Program	26	n.a.	65	n.a.	62
Commonwealth's Opportunity Fund	188	37	56	61	32
Virginia Jobs Investment Program-Retraining	171	n.a.	95	50	34
Agriculture and Forestry Industries Devel. Grant	17	47	53	**	18
Virginia Investment Partnership Grant	15	20	20	20	20
Economic Development Access Program	22	n.a.	36	n.a.	36
Tobacco Region Opportunity Fund	181	30	38	43	18
Virginia Jobs Investment Program-Job Creation	628	21	76	40	10
Small Business Jobs Grant Fund Program	131	11	**	50	8
Small Business Investment Grant Fund	1	0	0	**	0
Total	**1,580**	**25**	**68**	**46**	**27**

SOURCE: Weldon Cooper Center analysis of economic development incentive grants.
NOTE: Some programs have other goals, which are reflected in the "All goals" column. Some programs do not collect information on average wage levels upon completion of the project. The goal of the VALET program is to increase international sales, and 72 percent of the participants met or exceeded their goal for increased international sales. Some programs, such as the Commonwealth's Opportunity Fund, allow projects to attain 90 percent of specific goals before award reduction or recapture is made. For simplicity of making calculations across programs, projects that exceeded 90 percent (or other established percentage) for a specific goal but did not achieve 100 percent are not shown. For the Commonwealth's Opportunity Fund, 44 percent of projects met a least 90 percent of their job creation goal and 60 percent met at least 90 percent of their capital investment goal.
n.a. indicates that job creation or investment is not one of the criteria for receiving the grant.
** indicates that data was not provided for program.

Some grant *programs* were more successful overall in achieving goals for job creation and capital investment, even though some of the *projects* did not achieve their project-specific goals. For example, only 56 percent of completed projects that received a Commonwealth's Opportunity Fund grant fully achieved their capital investment goals (Table 6). However, because some projects far exceeded their capital investment goals, collectively all projects created 94 percent of the total capital investment that was expected (Table 7). The Commonwealth's Opportunity Fund also achieved 74 percent of its job creation and 123 percent of average wage goals collectively. Most grant programs had overall success in achieving average wage goals even if they did not have overall success in achieving other goals.

TABLE 7
Projects for most grant programs collectively met their average wage goals (FY11–FY20)

Program	% of collective goals met		
	Job creation goals	Spending or investment goals	Average wage goals
Advanced Shipbuilding Training Facility Grant	152%	119%	n.a.
Commonwealth's Opportunity Fund	74	94	123
Port of Virginia Economic and Infrastructure Grant	100	n.a.	n.a.
Virginia Jobs Investment Program	52	92	95
Agriculture and Forestry Industries Devel. Grant	31	76	125
Small Business Jobs Grant Fund Program	36	**	103
Tobacco Region Opportunity Fund	29	60	136
Virginia Investment Partnership Grant	34	58	91
Small Business Investment Grant Fund	0	0	n.a.
Commonwealth Research Commercialization Fund	n.a.	100	n.a.
Economic Development Access Program	n.a.	61	n.a.
Rail Industrial Access Program	n.a.	98	n.a.

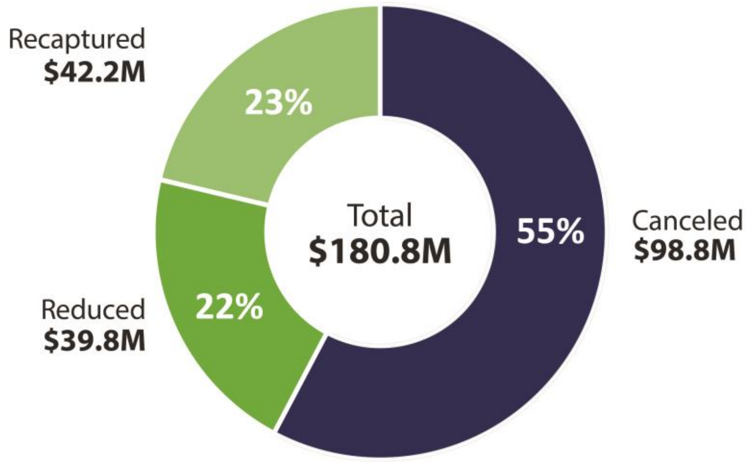
SOURCE: Weldon Cooper Center analysis of economic incentive grants.
NOTE: Not all programs collect average wage levels upon completion of the project to calculate the percentage of projects that attained wage goals. The VALET program is excluded from the table because its goal is to increase international sales. Collectively, program participants increased international sales by 121 percent of the expected goal.
n.a. indicates that job creation or investment is not one of the criteria for receiving the grant.
** indicates that data was not provided for program.

Grant awards totaling $181 million were canceled, reduced, or recaptured because projects did not achieve goals

When projects do not go forward or do not meet their goals, the grant awards may be canceled, reduced, or recaptured. Grant awards totaling $181 million (or 10 percent of the total paid or committed between FY11 and FY20) were canceled, reduced, or recaptured because the projects did not go forward or meet their goals (Figure 10). Nearly 55 percent of the $181 million was never paid because projects did not go forward and were canceled. Another 22 percent came from reductions in award amounts for projects that did not meet their goals.

Agencies administering grants reported **recapturing** $42.2 million in grant awards. In some cases, this may be less than the full amount that should have been recaptured according to grant guidelines. The upcoming in-depth reports on these incentives will provide more information about agency efforts to recapture funding when projects do not achieve their goals.

FIGURE 10
Grant awards totaling $181 million were canceled, reduced, or recaptured (FY11–FY20)



SOURCE: Weldon Cooper Center analysis of economic development incentive grant awards or award commitments and program information of recaptures, reductions, and cancelations. Numbers may not sum because of rounding.

Approximately $42 million was recaptured between FY11 and FY20 from 121 projects that failed to meet their performance goals. Recaptures are a feature of grant programs that make up-front award payments. Each of these programs recaptured small percentages of the funds they awarded:

- Commonwealth's Opportunity Fund: 16 percent;
- Agriculture and Forestry Industries Development grant: 9 percent;
- Tobacco Region Opportunity Fund: 7 percent;
- Rail Industrial Access Program: 4 percent;
- Small Business Investment Grant: 1 percent
- Economic Development Access Program: 1 percent; and
- Commonwealth Research Commercialization Fund: 1 percent.

Exemptions to Virginia's **retail sales and use tax** can be claimed by businesses for qualifying purchases.

Virginia's retail sales and use tax is currently 7 percent of eligible purchases in the Historic Triangle (the city of Williamsburg and the counties of James City and York), 6 percent of eligible purchases in Northern Virginia and Hampton Roads, and 5.3 percent of eligible purchases in the rest of the state. One percent is retained by the locality where the purchase is made.

The **sales tax** applies to the sale of certain goods and services purchased in the state and is generally collected by the merchant at the point of sale.

The **use tax** is levied on out-of-state purchases that are used in Virginia and is self-assessed and remitted to the state by the consumer.

Through tax incentives, businesses saved $2.1 billion FY11–FY20

Virginia's economic development tax incentives, such as exemptions, credits, and single sales apportionment, resulted in $2.1 billion in tax savings to businesses between FY11 and FY20. Most ($1.4 billion or 70 percent) of this amount was from sales and use tax exemptions that provide savings to businesses on their purchases of equipment and supplies that qualify for the exemption. Nine of the 19 sales and use tax exemptions each provided more than $20 million in incentives to businesses between FY11 data and FY20 (Table 8). Some of these exemptions are provided to capital-intensive industries, such as data centers and airlines, which make substantial equipment purchases to start or upgrade their operations.

TABLE 8
Sales and use tax exemptions provided an estimated $1.4 billion in tax savings to businesses (FY11–FY20)

Exemption	Total savings ($M)	Average savings per year ($M)
Data Centers (Broad) Exemption	$837.1M	$83.7M
Railroad Common Carriers Exemption	210.3	21.0
Airline Common Carriers Exemption	93.5	9.3
Ships and Vessels Exemption	62.7	6.3
Research & Development Exemption	44.4	4.4
Media Provider Equipment Exemption	44.3	4.4
Certain Printed Materials for Out-of-State Distribution Exemption	39.8	4.0
Pollution Control Equipment & Facilities Exemption	32.4	3.2
Railroad Rolling Stock Exemption	23.1	2.3
Film, Television, & Audio Production Inputs Exemption	16.4	1.6
Aircraft Parts, Engines, and Supplies Exemption	11.0	5.5
Semiconductor Manufacturers Exemption	8.3	0.8
Uniform Rental & Laundry Businesses Exemption	8.3	0.8
Out-of-state Nuclear Facility Repair Exemption	5.3	0.5
Taxi Parts & Radios Exemption	3.2	0.3
Semiconductor Wafers Exemption	1.3	0.1
Virginia Spaceport Users Exemption	1.1	0.1
Contractor Temporary Storage Exemption	1.0	1.0
Electrostatic Duplicators Exemption	0.1	<0.1
Total	**$1,443.1M**	**$151.5M**

SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Exempted amounts are estimates and exclude the 1 percent sales tax for localities and, in most cases, the additional amounts collected in the Historic Triangle, Northern Virginia, and Hampton Roads. (See Appendix B for methodology used to estimate the sales and use tax exemptions.) Aircraft parts, engines, and supplies exemption was approved in 2018 therefore the annual average savings reflects two years.

Economic development tax credits provided $475 million in savings to businesses between FY11 and FY20 (Table 9), accounting for about 40 percent of spending on tax incentives. Two coal tax credits account for 62 percent of total economic development tax credits. The largest credit—the Coalfield Employment Enhancement Tax Credit—is available to coal mining companies to help slow the decline of coal mining activity in Virginia. These credits will account for lower amounts of business tax savings in future years because both credits are scheduled to expire effective January 1, 2022. Five other credits awarded more than $20 million in credits during this period. While many of the older tax credits are designed to encourage businesses such as manufacturers to locate or expand in Virginia, the credits adopted more recently are designed to incentivize businesses in other industries (film, wineries, and transportation or distribution companies).

Tax credits allow businesses or their owners to reduce their income tax liability, dollar for dollar, according to the amount allowed under the credit.

Information on **job creation, spending, and other business requirements** in return for receiving tax incentives is not readily available as it is for grants.

Tax incentives' performance will be included in upcoming reports detailing the findings of in-depth evaluations of individual incentives. As part of this effort, JLARC staff will collect performance data—which is either not currently collected or not readily available—on tax incentives.

TABLE 9
Tax credits provided nearly $475 million in tax savings to businesses (FY11–FY20)

Tax credit	Total savings ($M)
Coalfield Employment Enhancement Tax Credit	$205.4M
Virginia Coal Production and Employment Incentive Tax Credit	90.5
Motion Picture Production Tax Credit	35.5
Research and Development Expenses Tax Credit	31.5
Major Business Facility Job Tax Credit	28.6
Major Research and Development Tax Credit	28.0
Qualified Equity and Subordinated Debt Investment Tax Credit	24.5
Recyclable Materials Processing Equipment Tax Credit	14.7
Virginia Port Volume Increase Tax Credit	9.3
International Trade Facility Tax Credit	2.3
Worker Retraining Tax Credit	1.7
Farm Wineries and Vineyards Tax Credit	1.2
Barge and Rail Usage Tax Credit	0.6
Telework Expenses Tax Credit	0.4
Green Job Creation Tax Credit	0.2
Biodiesel and Green Diesel Fuels Producers Tax Credit	<0.1
Total, all tax credits	**$474.6M**

SOURCE: Weldon Cooper Center analysis of tax credit information from the Department of Taxation.
NOTE: The average tax credit award per year is not reported for tax credits because several new programs were adopted during this time period and several other programs provided too few awards for disclosure purposes. The Telework Expenses Tax Credit expired January 1, 2019.

Apportionment formulas are used to ensure that states do not tax more than their fair share of income from multistate companies. Virginia's standard formula uses three factors (property, payroll, and sales) and double-weights the sales factor.

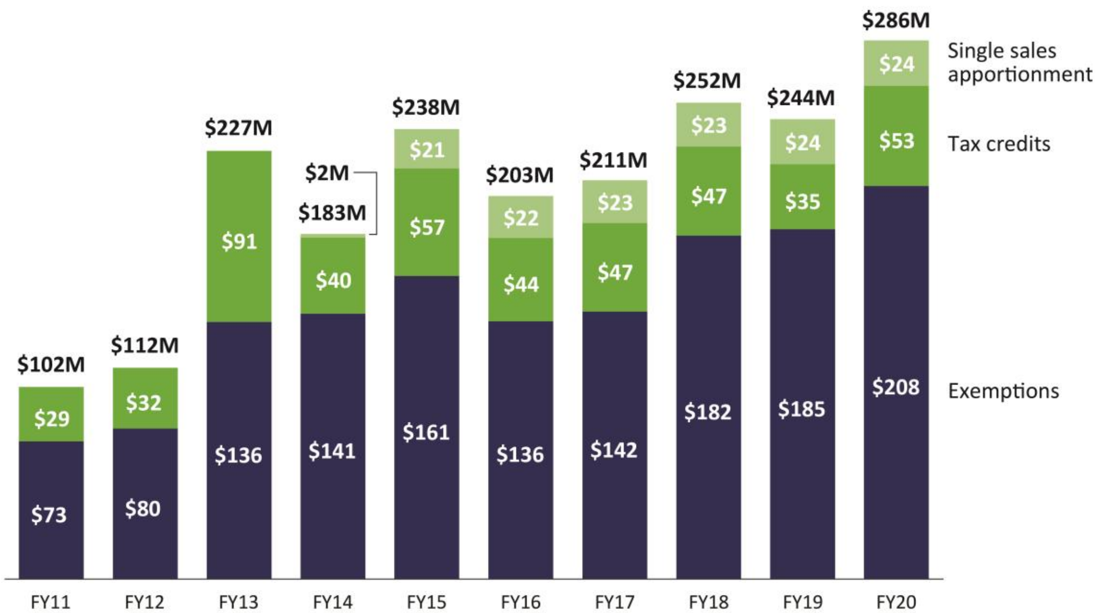
Manufacturers and data centers can use **single sales apportionment** to calculate their taxable income in Virginia based solely on their proportion of total sales that are in Virginia.

Since 2014, Virginia has allowed manufacturers to use single sales apportionment—a method that could reduce their income tax liability—to help stem the decline of manufacturing jobs in the state. Tax savings for manufacturers using single sales apportionment is estimated to be $139 million between FY14 and FY20, or about $20 million per year. Since 2017, Virginia has allowed data centers meeting certain eligibility requirements to also use single sales apportionment. Tax savings for data centers using single sales apportionment is estimated to be $0.1 million in FY20.

Business savings from tax incentives more than doubled FY11–FY20

Annual tax savings realized by businesses from economic development tax exemptions and credits nearly tripled between FY11 and FY20 (Figure 11). This occurred for several reasons. The Data Center Exemption became effective in FY10; by FY18 its annual tax savings to businesses are estimated to exceed $100 million. Manufacturers single sales apportionment became effective in FY15; by FY20 its annual tax savings to businesses are estimated to be $24 million. Gradual improvements in the economy since FY10 also led to a recovery in business spending and investment. Increased investment magnified the fiscal impact of sales and use tax exemptions that target capital intensive industries, such as rail, air, and water transportation companies. Tax credit savings were highest in FY13 because the Virginia Coal Production and Employment Incentive Tax Credit experienced a large amount of credit redemptions ($59.5 million). According to the Department of Taxation, a large number of carryover credits were claimed in FY13.

FIGURE 11
Business savings from tax incentives increased (FY11–FY20)



SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Exempted amounts are estimates and exclude the 1 percent sales tax for localities and the additional amounts collected in the Historic Triangle, Northern Virginia and, Hampton Roads. Not adjusted for inflation. The trend is nearly identical if adjusted for inflation.

Businesses obtained $52 million in loans and gap funding through financing programs FY11–FY20

Virginia offers six incentive programs that are designed to assist firms in securing additional debt and equity financing. The Virginia Small Business Financing Authority (VSBFA) administers four programs that provide loan assistance to eligible businesses:

- Economic Development Loan Fund provides loan financing for eligible small businesses that create permanent full-time jobs;
- Loan Guaranty Program helps small businesses obtain loans by reducing bank credit risk;
- State Cash Collateral Program assists small businesses that lack the necessary collateral to obtain a loan, and
- SWaM Loan Fund provides small loans to small businesses to use for working capital, financing accounts receivable and inventory, and other short-term financing needs.

Virginia also offers several gap financing programs. The Center for Innovative Technology offers gap funding through its Growth Acceleration Program, which enables technology firms with high growth potential to obtain additional venture capital investment. The Virginia Tourism Corporation administers the Tourism Development Financing Program to large-scale tourism projects. This program was created in 2011 and allows eligible projects to keep a portion of state sales and use taxes that are generated by the project. Eight projects have received $13.4 million in state funding through FY20.

Venture capital is financing that investors provide to startup companies and small businesses that are believed to have long-term growth potential.

These financing programs incentivize different types of business activity than the state's grant programs. Over 70 percent of VSBFA assistance was provided to small businesses in services and trade industries between FY11 and FY20. Eighty-seven percent of Growth Acceleration Program recipients were in professional, scientific, and technical services and information industries, which include businesses in high-tech fields such as biotechnology and software development. In contrast, 77 percent of grant funding was for corporate headquarters and manufacturers.

Financing programs have also tended to concentrate more awards in metropolitan areas of the state than grant programs until recently. Seventy-eight percent of VSBFA awards went to projects in metropolitan areas between FY11 and FY20. Almost three-fourths of Growth Acceleration Program assistance went to firms in Northern Virginia, with 48 percent to Fairfax County companies alone. A large portion of the remaining award amounts were made to firms in localities that are home to the state's major research universities. In contrast, the percentage of grant funding that went to projects in metropolitan areas has historically been lower (63 to 65 percent in the prior three reports in this series) but it has increased (81 percent in this report) because three companies that received custom grants in FY19 are all located in Northern Virginia.

VSBFA programs helped businesses obtain more than $31 million in loans and loan enhancements

Small businesses aided by the four VSBFA programs obtained $31 million in loan and loan enhancement financing between FY11 and FY20 (Table 10). In most cases, state appropriations were not directly used to finance the loans or provide the obligation to secure the loans. While programs may have received appropriations in the past, the programs use revolving loan funds, which means they utilize interest and principal payments on old loans to issue new ones, or receive funding from other self-financing programs offered by VSBFA.

Loan enhancements include collateral or guaranty assistance provided to a commercial bank to help the business secure a loan.

The average loan or loan enhancement was $101,656, but the average varied among the four programs. The Economic Development Loan Fund provided the greatest amount of average loan assistance at $603,017 per project. The SWaM Loan Fund provided the least, at $20,317 per project.

TABLE 10
VSBFA programs helped businesses secure nearly $31 million in loans or equity financing

Program	Amount awarded	# of projects	Average award	# of jobs	Loan/loan enhancement per job
Economic Development Loan Fund	$4,221,118	7	$603,017	299	$14,117
Loan Guaranty Program	20,424,650	88	232,098	616	33,157
State Cash Collateral Program	1,930,000	8	241,250	56	34,464
SWaM Loan Fund	4,022,713	198	20,317	539	7,463
Total	**$30,598,481**	**301**	**$101,656**	**1,510**	**$20,264**

SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: VSBFA programs use only a small portion of state funding to secure loan financing. Jobs reported are expected jobs.

The four programs collectively were expected to add 1,510 jobs. The average loan or loan enhancement assistance per job was $20,264, on average. This figure is not directly comparable to the average grant award per job ($6,587) because state funding for these programs represents only a small portion of the total loan and loan enhancement amount. For example, the VSBFA Loan Guaranty Program provides the financial guarantee to secure a loan provided by a private bank on behalf of an eligible business. The program would only be required to obligate funds if an eligible business were to default on its loan. The SWaM loan is a direct loan provided by VSBFA, but funding for the loan is derived from fees from other bond financing provided by VSBFA and not state appropriations.

Growth Acceleration Program provided businesses a total of $22 million in financing

Recipients of the Growth Acceleration Program financing received $21.6 million between FY11 and FY20 to attract venture capital investment. This program made awards to 304 projects, for an average award of $71,161. Program expenditures reached $3.3 million in FY20, which was the highest award amount since $3.5 million in FY14. Ninety-nine of the 114 completed projects in the Growth Acceleration Program met their financing objectives for the period, according to the Center for Innovative Technology.

Appendix A: Study mandate

2020–2022 Appropriation Act
Passed as Chapter 552 of the Acts Assembly, April 7, 2021

§ 1-11 Item 32 F

F.1. The General Assembly hereby designates the Joint Legislative Audit and Review Commission (JLARC) to conduct, on a continuing basis, a review and evaluation of economic development initiatives and policies and to make such special studies and reports as may be requested by the General Assembly, the House Appropriations Committee, or the Senate Finance Committee.

2. The areas of review and evaluation to be conducted by the Commission shall include, but are not limited to, the following: (i) spending on and performance of individual economic development incentives, including grants, tax preferences, and other assistance; (ii) economic benefits to Virginia of total spending on economic development initiatives at least biennially; (iii) effectiveness, value to taxpayers, and economic benefits to Virginia of individual economic development initiatives on a cycle approved by the Commission; and (iv) design, oversight, and accountability of economic development entities, initiatives, and policies as needed.

3. For the purpose of carrying out its duties under this authority and notwithstanding any contrary provision of law, JLARC shall have the legal authority to access the facilities, employees, information, and records, including confidential information, and the public and executive session meetings and records of the board of VEDP, involved in economic development initiatives and policies for the purpose of carrying out such duties in accordance with the established standards, processes, and practices exercised by JLARC pursuant to its statutory authority. Access shall include the right to attend such meetings for the purpose of carrying out such duties. Any non-disclosure agreement that VEDP enters into on or after July 1, 2016, for the provision of confidential and proprietary information to VEDP by a third party shall require that JLARC also be allowed access to such information for the purposes of carrying out its duties.

4. Notwithstanding the provisions of subsection A or B of § 58.1-3 or any other provision of law, unless prohibited by federal law, an agreement with a federal entity, or a court decree, the Tax Commissioner is authorized to provide to JLARC such tax information as may be necessary to conduct oversight of economic development initiatives and policies.

5. The following records shall be excluded from the provisions of the Virginia Freedom of Information Act (§ 2.2-3700 et seq.), and shall not be disclosed by JLARC:

(a) records provided by a public body as defined in § 2.2-3701, Code of Virginia, to JLARC in connection with its oversight of economic development initiatives and policies, where the records would not be subject to disclosure by the public body providing the records. The public body providing the records to JLARC shall identify the specific portion of the records to be protected and the applicable provision of the Freedom of Information Act or other provision of law that excludes the record or portions thereof from mandatory disclosure.

(b) confidential proprietary records provided by private entities pursuant to a promise of confidentiality from JLARC, used by JLARC in connection with its oversight of economic development initiatives and policies where, if such records are made public, the financial interest of the private entity would be adversely affected.

6. By August 15 of each year, the Secretary of Commerce and Trade shall provide to JLARC all information collected pursuant to § 2.2-206.2, Code of Virginia, in a format and manner specified by JLARC to ensure that the final report to be submitted by the Secretary fulfills the intent of the General Assembly and provides the data and evaluation in a meaningful manner for decision-makers.

7. JLARC shall assist the agencies submitting information to the Secretary of Commerce and Trade pursuant to the provisions of § 2.2-206.2, Code of Virginia, to ensure that the agencies work together to effectively develop standard definitions and measures for the data required to be reported and facilitate the development of appropriate unique project identifiers to be used by the impacted agencies.

8. The Chairman of JLARC may appoint a permanent subcommittee to provide guidance and direction for ongoing review and evaluation activities, subject to the full Commission's supervision and such guidelines as the Commission itself may provide.

9. JLARC may employ on a consulting basis such professional or technical experts as may be reasonably necessary for the Commission to fulfill its responsibilities under this authority.

10. All agencies of the Commonwealth shall cooperate as requested by JLARC in the performance of its duties under this authority.

Appendix B: Research methods and activities

JLARC contracted with the University of Virginia's Weldon Cooper Center for Public Service (Weldon Cooper Center) for this review. Key research activities performed by Weldon Cooper Center for this study included

- data collection and analysis,
- estimation of sales and use tax exemptions,
- agency staff interviews, and
- review of documents and research.

Data collection and analysis

Weldon Cooper Center collected project data from 13 state agencies that administer Virginia economic development incentive programs. Data was provided for grant, tax credit, and loan or gap financing programs that have made awards. Among the data elements collected for the incentive programs were business identifiers, location, industry type, amount of grant approved and paid, and program performance metrics, such as number of jobs created, average wage levels, and capital investment (Table B-1). Some programs, namely the small business loan and tax incentive programs, do not collect performance data or maintain it electronically.

TABLE B-1
Data and information were collected from 13 state agencies on incentive awards

Agencies	Types of information
Center for Innovative Technology	Business identifiers (name, federal tax ID number)
Dept. of Housing and Community Development	Industry
Department of Rail and Public Transportation	Location (locality) of project
Tobacco Region Revitalization Commission	Amount of incentive approved and paid
Virginia Department of Agriculture and Consumer Services	Number of jobs promised and created and timing
Virginia Department of Taxation	Capital investment promised and delivered and timing
Virginia Department of Transportation	Average wages promised and delivered and timing
Virginia Department of Small Business and Supplier Diversity	Other performance metrics as specified
Virginia Economic Development Partnership	
Virginia Film Office	
Virginia Port Authority	
Virginia Small Business Financing Authority	
Virginia Tourism Corporation	

SOURCE: Weldon Cooper Center.

Analysis of grant programs

For discretionary and by-right grant programs, program spending by fiscal year was computed as the funds paid for completed projects and grant funds still committed toward active but unfinished projects. For most grant programs, spending was assigned to the same date/year when awards were approved. The approval date represents when a contract between the agency and the business is signed in either a memorandum of understanding or performance agreement. Many programs make award payments upon approval or soon after. Because custom grants are often large awards with long performance periods, spending is assigned to the fiscal year in which payments are made. Program expenditures by fiscal year were computed as the funds paid for completed projects and grant funds still committed toward active but unfinished projects.

For the grant award analysis, awards for all grant awards and amounts were assigned to the year in which the award was approved. Grant program awards and amounts were also categorized by location and industry using North American Industrial Classification System (NAICS) codes provided by the agency administering the grant or from information available from the Virginia Employment Commission (VEC) or other sources. Several agencies did not provide NAICS codes for each project.

For many grant projects, project awards were matched with VEC unit-level ES202 records obtained under a confidentiality agreement with VEC. These grant records were matched with VEC records using firm name, address, and when available, taxpayer identification numbers. In some instances, matches could not be found. In these cases, additional online research using Manta.com, other business directories, and company websites was conducted to characterize the primary industry of the establishment and/or firm primary. When information was not available, certain assumptions about the nature of the firm or prospective firm were made. For Enterprise Zone Real Property Investment Grant projects that could not be otherwise identified (generally Limited Liability Corporation beneficiaries set up for commercial real estate development purposes), a NAICS code of "531120" ("Real Estate and Rental and Leasing") was assigned. Governor's Motion Picture Opportunity Fund projects were characterized as NAICS 512110 ("Motion Picture and Video Production"). Speculative infrastructure projects funded by the Tobacco Commission Megasite Program, Virginia Business Ready Sites Program, and Economic Development Access Program were assumed to be NAICS 333000 ("Machinery Manufacturing").

Thirteen Governor's Motion Picture Opportunity Fund awards for a total award amount of $6.4 million were also not assigned to localities. The filming activities for these projects occurred in multiple locations throughout the state but principally in Central Virginia.

Grant project records do not systematically include the employment of businesses receiving awards across programs. Estimation of the employment size of the business that received the grant was conducted by matching grant records with VEC Quarterly Census of Employment and Wages (QCEW) payroll employment records that corresponded to the year of the award. Many companies have more than one location in Virginia, and only the employment levels for the specific location of the business that qualified for the grant were included in the analysis. Project records for FY11 through FY20 were matched by fiscal year of award with the corresponding VEC employment data by calendar year between 2010 and 2019 (i.e., FY20 project records were matched to calendar year 2019 VEC employment records). Using this process, 61 percent of the total number of awards and 69 percent of the award amounts were accounted for. Project awards were weighted to account for the underrepresentation of smaller awards (and correspondingly small establishments) relative to their occurrence in the grant files to improve the representation of smaller establishments in the tabulations.

Analysis of loan programs

For the four loan programs administered by the Virginia Small Business Financing Authority—the Economic Development Loan Fund, Loan Guaranty Program, State Cash Collateral Program, and SWaM Loan Fund—there were no state appropriations for the programs for the FY11–FY20 period. These programs are primarily revolving loan funds or secure funding outside the legislative appropriation process, but some have received state appropriations in the past. Since some programs have relied or continue to rely on federal funding, only those projects that could be attributed to previous state funding were included in this analysis. The costs of the programs were estimated to be the actual or projected defaults. The average default rate (1.7 percent) for these loans was also applied to awarded loans to estimate the "cost" of the loan portion of Tobacco Region Opportunity Fund (TROF) awards. In the last three years, the Tobacco Region Revitalization Commission has begun to issue a larger portion of its TROF awards in the form of revolving loans.

Analysis of tax credits

For quantifying the revenue impact of state economic development-related tax credits, Weldon Cooper Center used corporate and individual tax credit files obtained from the Virginia Department of Taxation. These files list tax credit redemptions by fiscal year of utilization based on when the return was processed. (See Virginia Department of Taxation annual report, Table 3.1: Fiscal Year Tax Credits.)

Incentives excluded from the analysis and report

Several programs did not make awards during the period of analysis (FY10–FY19) and are not included in this report. One custom grant program is not included in this report because a formal memorandum of understanding has not been filed:

- Pulp, Paper, and Fertilizer Advanced Manufacturing Grant Program.

Three grant programs have been active for over a decade but have not yet funded private business projects:

- Tobacco Commission Agribusiness Grant Program,
- Tobacco Commission Southside Economic Development Grant Program, and
- Tobacco Commission Southwest Economic Development Grant Program.

Four grant programs made awards that occurred earlier than FY10. These grants include:

- Aerospace Engine Manufacturing Performance Grant Program (Rolls-Royce),
- Semiconductor Grant Program (Micron),
- Semiconductor Grant Program (Qimonda), and
- SRI custom grant.

The award analysis does not include these four custom grants, but the spending analysis includes payments made to Rolls-Royce, Micron, and SRI.

Several tax incentives were also not included in this analysis. The Worker Training Tax Credit, which replaced the Worker Retraining Tax Credit, became effective January 1, 2019 and was not claimed in either FY19 or FY20. For some tax incentives, information from the Department of Taxation based on individual and corporate tax forms could not be obtained and processed within the time frame for this report. These incentives include

- Qualified Business Long-Term Capital Gain Subtraction and
- Zero G Zero Tax Act Subtractions (Parts I and II).

This report includes program expenditures for five economic development incentive programs that were not included in the 2020 report: the Virginia Talent Accelerator Program, the Venture Capital Account Subtraction, the New Company Incentive Program, the Advanced Production Grant Program (Morgan Olson), and Pharmaceutical Manufacturing Grant Program (Merck). FY20 data for the Venture Capital Account Subtraction and New Company Incentive programs had not yet been released by the Department of Taxation as of writing of this report.

Estimation of business savings from sales and use tax exemptions

Sales and use exemptions provide relief from sales and use taxes on selected taxable goods and services for businesses in targeted industries. For most exemptions, eligible businesses obtain a sales and use exemption certificate from the Department of Taxation (available online) and present it to merchants at the point of sale to claim the exemption. Neither the merchant nor the purchaser is required to report the tax savings to the Department of Taxation outside of an audit process. Therefore, the size of these tax savings to businesses must be estimated by other means. For other exemptions, such as the data center and pollution control equipment exemptions, the department issues the exemption certificate after approving an application. The business may not have the certificate at the time of eligible purchases and can apply for a refund once the exemption certificate is obtained.

For quantifying forgone revenue because of sales and use tax exemptions, Weldon Cooper Center relied on Department of Taxation fiscal impact estimates and staff-generated estimates based on IMPLAN and other data sources (Table B-2). Department of Taxation estimates are based on a variety of approaches, including industry surveys, industry association tallies, and imputations made from secondary data sources such as federal statistical data. Some estimates rely on sales and use tax exemption estimates published as part of detailed tax expenditure studies conducted by the Department of Taxation in the early- and mid-1990s. More recent estimates are sometimes available when the Department of Taxation issues fiscal impact estimates to inform new General Assembly legislation. Weldon Cooper Center estimates were substituted for Department of Taxation estimates in three different situations:

- if the Department of Taxation estimates were based on much older estimates and credible estimates could be generated using more recent data and alternative methods;
- if Department of Taxation estimates were not available for a specific sales and use tax exemption; and
- if an alternative methodology had practical or conceptual advantages over the Department of Taxation estimates.

Weldon Cooper Center estimates for tax revenue rely primarily on IMPLAN data for Virginia. IMPLAN is a commercial economic impact model produced by MIG, Inc. It is based on input-output analysis, which requires estimates of the value of intermediate input purchase for each industry. The intermediate input purchase estimates for Virginia formed the basis of the relevant sales tax base for sales and use tax revenue impact calculations. Spending on durable and leased good inputs is estimated by multiplying industry output by gross absorption coefficients for relevant IMPLAN commodity sectors, using the most recent data for industries and commodities. These coefficients represent the input purchases for various commodities per dollar of output. For example, the construction machinery manufacturing industry spent $0.00170 per dollar of output on commodity railroad rolling stock. This absorption coefficient was multiplied by the output of the construction machinery equipment industry for 2015 ($122,220,940) to obtain the estimated expenditure on this input ($208,000).

Because the exemptions are sometimes more narrowly targeted than the individual IMPLAN sectors available, supplemental data from EMSI, Virginia Employment Commission, Bureau of Labor Statistics, and Bureau of Transportation Statistics was used to apportion the sector purchases to narrower industry subsets. For example, the airline common carrier exemption is available for air common carriers that provide scheduled service to Virginia airports at least once per week. Eligible purchases were imputed by apportioning IMPLAN input purchase estimates by the percentage of the air transportation industry (NAICS 481) providing scheduled service (NAICS 4811---Scheduled Air Transportation) and apportioning again based on the percentage of scheduled departures performed by airlines that provide service at least once per week based on Bureau of Transportation Statistics T-100 Air Carrier Traffic Segment data.

TABLE B-2
Estimates of business savings from sales and use tax exemptions were based on different methods and sources

Exemption	Sources used to derive estimate
Airline Common Carriers Exemption	IMPLAN, Bureau of Transportation Statistics (BTS), EMSI
Aircraft Parts, Engines, and Supplies Exemption	Federal Aviation Administration aircraft registration data and Conklin& de Decker Aircraft Cost Evaluation V18.20
Certain Printed Materials for Out-of-State Distribution Exemption	TAX (Sales and use tax study 1991)
Contractor Temporary Storage Exemption	TAX (Sales and use tax study 1995)
Data Centers Exemption	Weldon Cooper Center based on VEDP MOU data
Electrostatic Duplicators Exemption	IMPLAN, EMSI
Film, Television, & Audio Production Inputs Exemption	IMPLAN, EMSI
Media Provider Equipment Exemption	TAX estimate (updated) for legislative proposal
Out-of-State Nuclear Facility Repair Exemption	IMPLAN, VEC, EMSI
Pollution Control Equipment & Facilities Exemption	Weldon Cooper Center survey of TAX ST-11A users
Railroad Common Carriers Exemption	IMPLAN
Railroad Rolling Stock Exemption	RailInc, EMSI, U.S. Census Commodity Flow data
Research & Development Exemption	TAX estimate, updated by Weldon Cooper Center
Semiconductor Manufacturers Exemption	IMPLAN, industry use estimate
Semiconductor Wafers Exemption	IMPLAN, industry use estimate
Ships and Vessels Exemption	Weldon Cooper Center survey of ship repair and dredging firms, VEC
Taxi Parts & Radios Exemption	TAX fiscal impact, HB1488 (2004)
Uniform Rental & Laundry Businesses Exemption	IMPLAN, EMSI
Virginia Spaceport Users Exemption	TAX fiscal impact, HB1488 (2004)

SOURCE: Weldon Cooper Center.

The sectors targeted vary by sales and use tax exemption, as do the categories of purchases that are eligible for exemption. Generally speaking, tangible personal property purchases and leases are covered though the specific items sometimes differ. For instance, the railroad rolling stock exemption gives Virginia manufacturing firms an exemption on purchases of rolling stock. The tax base is determined by aggregating purchases of rolling stock across all Virginia manufacturing industries.

Other adjustments are needed to convert calendar years to fiscal years. IMPLAN purchases are expressed in terms of calendar years; thus fiscal year estimates were calculated by averaging two calendar years (e.g., FY12 is the average of CY11 and CY12). The last calendar year of data available from IMPLAN is 2019. Therefore, FY20 revenue estimates were calculated by inflating the FY19 estimates by the consumer price index (CPI).

Agency interviews

In 2017, Weldon Cooper Center and JLARC staff conducted structured interviews with state agency staff that administered and/or provided research support for economic development incentive programs. The interviewees included representatives of each of the 13 agencies that administer grants, loans, and gap financing and several staff from the Department of Taxation. Topics included the purpose of each program, criteria used in selecting award recipients and amounts, and data availability and quality for tracking program performance. Additional interviews are only performed as needed, such as when new incentive programs are adopted, programs are substantially changed, or programs are selected as part of an intensive review for that year.

Review of documents and research

Weldon Cooper Center reviewed several sources of information, including documents, reports, and published or unpublished research. The purpose of this literature review was to understand the purpose and goals of Virginia economic development incentive programs, determine the best approach to quantify the revenue impacts of sales and use tax exemptions, and develop an approach for performance evaluation that draws on best practices from other states. Sources consulted included

- Virginia agency documents that describe economic development incentive program purpose, application requirements, award criteria, and other features;
- Virginia Legislative Information System documents describing grant and sales and use exemption statutes and Department of Taxation fiscal impact estimates;
- State economic development performance evaluations published by state agencies or their consultants in Virginia and other states.

Appendix C: Incentive program descriptions

Eighty-six economic development incentive programs are subject to this review. These include 38 grant programs, 16 tax credits, 19 tax exemptions, and 13 other programs.

Grant programs

Ten state agencies administer 38 economic development incentive grant programs that are subject to this review. These programs reflect a variety of economic development goals and often target different activities, including development in disadvantaged regions (Tobacco Region Opportunity Fund and Enterprise Zone grants), transportation enhancements for business expansion and recruitment (Economic Development Access Program, Rail Industrial Access Program, and Transportation Partnership Opportunity Fund grants), and small business development (Small Business Investment Grant Fund and Small Business Jobs Grant Fund Program).

Programs also target particular industries such as agriculture and forestry (Agriculture and Forestry Industries Development Grant), corporate headquarters (Virginia Economic Development Incentive Grant), motion picture production (Governor's Motion Picture Opportunity Fund), and port-related industries (Port of Virginia Economic and Infrastructure Development Grant).

The state has also created customized grants for individual large industrial attraction and expansion projects, such as

- Amazon HQ2 (Major Headquarters Workforce Grant),
- Micron (Semiconductor Manufacturing Grant),
- Newport News Shipbuilding (Advanced Shipbuilding Training Facility Grant and Advanced Shipbuilding Production Facility Grant),
- Rolls-Royce Corporation (Aerospace Engine Manufacturing Performance Grant),
- Merck (Pharmaceutical Manufacturing Grant),
- Morgan Olson (Advanced Production Grant), and
- Amazon Web Services (Special Workforce Grant Fund).

The Major Eligible Employer Grant program likewise targets large expansions; so far both Booz Allen Hamilton and Philip Morris have received awards for expanding their state footprints.

Seventy-three percent of total spending on economic incentive grants over the FY11 to FY20 period was administered by two state agencies, the Virginia Economic Development Partnership and Tobacco Region Revitalization Commission. The Department of Housing and Community Development and Department of Transportation also awarded large portions of total grant funding at 15 percent and 8 percent of the total, respectively.

TABLE C-1
Thirty-eight incentive grant programs are administered by 10 state agencies

State agency/program *(year enacted)*	Purpose	Description
Center for Innovative Technology		
Commonwealth Research Commercialization Fund *(2011)*	Promote high technology economic development through commercialization of promising research and development.	Grants are made on the basis of scientific merit and economic development potential for technology at the proof-of-concept stage or earlier in targeted high-technology industries. Funds must be matched by recipient.
Department of Agriculture and Consumer Services		
Agriculture and Forestry Industries Development Grant *(2012)*	Attract new and expanding agriculture and forestry processing value-added facilities that use Virginia-grown products.	Eligible projects must produce value-added agricultural or forestry products that derive at least 30% of agricultural or forestry product inputs from Virginia. Incentive grant requests are made by the host political jurisdiction and must be locally matched.
Department of Small Business and Supplier Diversity – Virginia Small Business Financing Authority		
Small Business Investment Grant Fund *(2012)*	Assist small businesses obtain investment capital.	Grant for equity or subordinated debt investment in eligible small business. Grant amount equals the lessor of 25% of qualified investments made in small businesses or $50,000, not to exceed $250,000 per investor.
Small Business Jobs Grant Fund Program *(2010)* *(eliminated 2020)*	Support small business job creation and investment.	Grants are made to small businesses in targeted sectors that create at least five full-time positions paying at least 1.35 times the federal minimum wage and making a capital investment of at least $100,000 within two years. Funding ($500–$2,000) per job is based on job characteristics.
Department of Housing and Community Development		
Job Creation Grant (Enterprise Zone) *(2005)*	Encourage job creation in distressed communities designated as enterprise zones.	Grants are awarded to qualified businesses that create at least four permanent full-time jobs in an enterprise zone. Qualifying jobs must pay at least 1.75 times the federal minimum wage (lowered to 1.5 times for high unemployment areas) and offer health benefits.
Real Property Investment Grant (Enterprise Zone) *(2005)*	Encourage private investment in distressed communities designated as enterprise zones.	Grants are awarded to investors making qualified investments in industrial, commercial, or mixed-use real property in an enterprise zone. The grant is computed as 20% of the investment amount minus a base investment with a project cap of $200,000.
GO Virginia (Virginia Growth and Opportunity Fund Grants) *(2017)*	Promote private-sector business and employment growth through regional cooperation.	The new grant includes funds allocated to regions on the basis of population and competitive grant funds. Performance parameters of grants are still being developed.

State agency/program *(year enacted)*	Purpose	Description
Department of Rail and Public Transportation		
Rail Industrial Access Program *(1987)*	Encourage construction, reconstruction, or improvement of railroad tracks serving new or expanding industrial sites and divert truck traffic to the freight rail network.	The grant is available to businesses that seek access to a common carrier railroad. Funding is limited to 15% of the business capital investment with a cap of $450,000. The program evaluates applicants using a project scoring system.
Department of Transportation		
Economic Development Access Program *(1956)*	Encourage construction, improvement, or maintenance of roads serving new or expanding industrial sites.	The grant is made in support of road enhanced access for basic employers that export at least half of output outside state. Award amount is based on value of capital investment by qualifying companies who locate at the economic development site.
Transportation Partnership Opportunity Fund *(2006)*	Improve transportation access for business development projects.	Grants of up to $5 million are available to companies that develop transportation facilities, such as on- and off-site road, rail, mass transit or other transportation access improvements. Projects must meet Commonwealth's Opportunity Fund or Virginia Investment Partnership Grant program criteria.
Tobacco Region Revitalization Commission		
Agribusiness Grant *(2002)*	Promote agricultural and agribusiness growth, development and diversification in the tobacco region to help the agricultural industry pursue market opportunities and reduce dependence on tobacco and tobacco-related business.	Awards are made to projects likely to generate new income and investment and align with targeted categories such as applied research and education, product processing, livestock and crop demonstration, local foods, multi-purpose agriculture centers, and wholesale/retail cooperatives.
Megasite Grant *(2010)*	Develop large, business-ready and publicly owned industrial sites across the tobacco region to attract major employer and investment projects.	Megasite funding is only available for the nine sites that have been developed to date with Tobacco Commission support. Megasite projects are defined as those that create at least 400 jobs and $250 million in private investment.
Southside Economic Development Grant *(1999)*	Promote economic development in the Southside localities of the Tobacco Region.	Funds are allocated by locality. Awards fall into strategic funding categories identified as important for economic development including infrastructure improvements, workforce training, regional tourism, building industry clusters, and entrepreneurial development.
Southwest Economic Development Grant *(1999)*	Promote economic development in the Southwest localities of the Tobacco Region.	Awards fall into strategic funding categories identified as important for economic development, including infrastructure improvements, workforce training, regional tourism, building industry clusters, and entrepreneurial development.

State agency/program *(year enacted)*	Purpose	Description
Tobacco Region Opportunity Fund *(1999)*	Attract new jobs and investments for the Tobacco Region through business attraction and expansion.	Grant requests are initiated by the host community. Grant criteria include a minimum private capital investment of $1 million and 10 jobs created within 36 months. Applications are evaluated using a ROI model with award amounts based on that analysis.
Virginia Economic Development Partnership		
Advanced Production Grant (Morgan Olson) *(2020)*	Promote the location of business truck manufacturing facility in the Commonwealth. This customized performance-based grant is used to support the location and expansion of Morgan Olson, LLC in Pittsylvania County.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures include employment and capital investment.
Advanced Shipbuilding Training Facility Grant Program (Newport News) *(2011)*	Promote the expansion of advanced shipbuilding in Virginia. This customized performance-based grant is used to support the growth of Newport News Shipbuilding in Newport News City.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures include employment, capital investment, and training expenditures.
Advanced Shipbuilding Production Facility Grant Program (Newport News) *(2016)*	Promote the expansion of advanced shipbuilding in Virginia. This customized performance-based grant is used to support the expansion of Newport News Shipbuilding in Newport News City.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures include employment and capital investment.
Aerospace Engine Manufacturing Performance Grant Program (Rolls-Royce) *(2007)*	Attract an aerospace engine manufacturer to locate in Virginia. This customized performance-based grant is used to support the growth of the Rolls-Royce turbine plant in Prince George County and industry cluster firms.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures include employment, capital investment, and number of trainees.
Business Ready Sites Program *(2016)*	Encourage the development of sites and associated infrastructure for industrial and commercial uses as tools for business attraction, retention, and expansion.	Incentive grants consist of two types. Site characterization grants fund site needs assessment. Site development grants fund site development costs. Eligible sites must have at least 100 contiguous, developable acres and meet additional criteria.
Commonwealth's Opportunity Fund *(1996)*	Attract new businesses and support existing business expansion.	Grant program is discretionary deal closing fund for firms exporting at least half of output outside Virginia. Funds must be matched by host locality and are used for site acquisition and improvement, infrastructure, building construction, and employee training.

State agency/program *(year enacted)*	Purpose	Description
Major Eligible Employer Grant *(1999)*	Attract new or expanding large employers to the state.	The grant is targeted to major employers that make a capital investment of at least $100 million and create at least 1,000 jobs. This job threshold is reduced if high-paying jobs are created. The grant amount per job ranges from $500 to $800.
Major Headquarters Workforce Grant Fund (Amazon HQ2) *(2019)*	Attract a major corporate headquarters to locate in the state. This customized performance-based grant is used to support the establishment of the Amazon HQ2 headquarters in Arlington County.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures include employment, capital investment, and average annual wages.
Pharmaceutical Manufacturing Grant (Merck) *(2020)*	Support expansion of pharmaceutical manufacturing facility in the Commonwealth. This customized performance-based grant is used to support the expansion of Merck Sharp & Dohme Corp. in Rockingham County.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures include employment and capital investment.
Pulp, Paper, and Fertilizer Advanced Manufacturing Performance Grant Program *(2016)*	Promote the expansion of pulp, paper, and fertilizer advanced manufacturing in Virginia. This customized performance-based grant was used to support the location and expansion of Shandong Tranlin, Inc. in Chesterfield County.	Incentive payments based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures include employment and capital investment. Shandong Tranlin ultimately canceled its plans to build its Virginia plant.
Semiconductor Custom Grant (Micron)--Semiconductor Memory or Logic Wafer Manufacturing Performance Grant *(2004)*	Promote and expand semiconductor product manufacturing. This customized performance-based grant was used to support the expansion of Micron in Manassas.	Incentive payments were based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures included employment and capital investment.
Semiconductor Custom Grant (Qimonda)--Semiconductor Memory or Logic Wafer Manufacturing Performance Grant *(2004)*	Promote and expand semiconductor product manufacturing. This customized performance-based grant was used to support the attraction of the now defunct Qimonda semiconductor plant in Henrico County.	Incentive payments were based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures included employment and capital investment.
Semiconductor Manufacturing Grant (Micron) *(2019)*	Promote and expand semiconductor product manufacturing and research. This customized performance-based grant was used to support the expansion of Micron in Manassas City.	Incentive payments were based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures included employment and capital investment.

State agency/program ***(year enacted)***	**Purpose**	**Description**
Special Workforce Grant (Amazon Web Services) *(2019)*	Attract an e-services company to locate operations in the state. This customized performance-based grant is used to establish Amazon Web Services in Fairfax County.	Incentive payments were based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures included employment and capital investment.
SRI custom grant *(2006)*	Promote public-private R&D and commercialization activities to facilitate economic growth. This customized grant is used to support SRI Shenandoah Valley in the establishment of the Center for Advanced Drug Research in Rockingham County.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures include employment and capital investment.
Virginia Economic Development Incentive Grant *(2005)*	Encourage the location of significant headquarters, administrative, research and development, and basic service companies.	Grants are awarded to eligible companies based on ROI analysis, subject to the governor's approval. Companies must agree to create a minimum number of jobs (200–400) that pay 1.5 times the local prevailing average wage and make a capital investment of $6,500 per job or more.
Virginia Investment Partnership Grant *(1999)*	Encourage Virginia manufacturer retention and expansion though new capital investment and R&D.	Grant is targeted to manufacturers that have operated in the state for at least 3 years, will make a capital investment of at least $25 million, and face high risk of relocating elsewhere. New job creation is not required, but current employment levels must be maintained.
Virginia Jobs Investment Program *(1965)*	Support private business job creation and worker training and retraining.	Grants are awarded for creating new jobs or upgrading skills for existing workers. Job creation awardees must create at least 25 new jobs and make a capital investment of at least $1 million (or 5 new jobs and $100,000 capital investment if a small business.) Retraining awardees must retrain 10 full-time workers and make a capital investment of $500,000 (or 5 full-time workers and $100,000 capital investment if a small business.)
Virginia Leaders in Export Trade (VALET) Program *(2002)*	Help companies expand their markets and encourage the export of products and services to international markets.	The VALET program provides technical assistance, training, and reimbursement for approved expenses to help eligible businesses develop international export markets. Reimbursements of up to $30,000 per company for approved export-related expenses. Awardees must complete a two-year program.
Virginia Talent Accelerator Program *(2019)*	Expedite set-up and scale-up of new tradeable or basic sector operations.	VTAP provides training and recruitment services in partnership with the Virginia Community College System to qualifying competitive economic projects in the manufacturing, distribution, IT, corporate headquarters, R&D and shared service center sectors that create at least 15-50 jobs and make a significant capital investment.

State agency/program *(year enacted)*	Purpose	Description
Virginia Trade Show Assistance Program *(2016)*	Help companies expand their markets and encourage the export of products and services to international markets.	The grant reimburses company trade show attendees for up to $10,000 of the cost of trade exhibits.
Virginia Film Office		
Governor's Motion Picture Opportunity Fund *(1999)*	Support growth of the film and television industries in Virginia.	Grants are awarded to production companies that film in Virginia. Awards are made on a discretionary basis considering project expenditures in Virginia, employment, presence of any local commitment, geographic diversity, and industry or company growth potential in Virginia.
Virginia Port Authority		
Port of Virginia Economic and Infrastructure Development Grant *(2014)*	Encourage maritime companies to locate or expand to promote the growth of the Port of Virginia.	Grants are awarded to companies in maritime industries that create at least 25 permanent full-time jobs and are involved in maritime commerce or an import/export industry. The award per job is scaled to the number of jobs created.

Tax credits

Sixteen economic development tax credits, which are available to eligible applicants when filing income tax forms, were subject to this review. The state offers three types of credits: transferable, refundable, and non-refundable and non-transferable. Most economic development tax credits in this report are the latter two types. In most cases, non-refundable and non-transferable tax credits can be credited against a company's tax liability over a designated "carryover" period. For these programs, carryover periods vary from a low of three years to a high of 15 years. Three of the economic development tax credit programs offer refundable credits: Coalfield Employment Enhancement Tax Credit, Motion Picture Production Tax Credit, and Research and Development Expenses Tax Credit. A refundable tax credit allows taxpayers to be reimbursed by the difference between the credit amount and tax liability. The Virginia Port Volume Increase Tax Credit was changed from a non-refundable and non-transferable tax credit to a transferable one in 2019.

TABLE C-2

Sixteen economic development tax credits are available through the state corporate and individual income tax

Program *(year enacted)*	**Purpose**	**Description**
Barge and Rail Usage Tax Credit *(2011)*	Encourage use of rail and waterway transportation and decrease Virginia road congestion.	Tax credit for facilities engaged in port-related activities utilizing barge and rail rather than motor transportation. Credit is awarded on basis of amount of increased cargo shipped by barge and rail over previous tax year.
Biodiesel and Green Diesel Fuels Producers Tax Credit *(2008)*	Promote biodiesel and green diesel production.	Tax credit for biodiesel and green diesel fuel producers making up to 2 million gallons of fuel per year. The credit amount is $0.01 per gallon but cannot exceed $5,000 per year.
Coalfield Employment Enhancement Tax Credit *(1996)* *(scheduled to expire January 1, 2022)*	Encourage production of Virginia metallurgical coal and coalbed methane.	Tax credit for metallurgical coal and coalbed methane producers that is based on mining method and seam thickness.
Farm Wineries and Vineyards Tax Credit *(2011)*	Promote the growth of the Virginia wine industry.	Tax credit for eligible vineyards and winery qualified expenditures such as equipment and supplies used in winemaking. Credit is 25% of all qualified expenditures.
Green Job Creation Tax Credit *(2010)*	Promote creation of jobs in renewable and alternative energy industries.	Tax credit for creating green jobs during the taxable year. The credit amount is $500 per green full-time job created that pays at least $50,000 per year in wages.
International Trade Facility Tax Credit *(2011)*	Encourage port-related economic activity by increasing capital investment or new hiring connected to international trade facilities.	Tax credit for international trade facilities that show at least 5% increase in Virginia port shipments. Employee credit is equal to $3,500 per job. Capital investment credit is equal to 2 percent of capital investment.

Program *(year enacted)*	**Purpose**	**Description**
Major Business Facility Job Tax Credit *(1995)*	Promote growth of company headquarters; manufacturing, agricultural, and transportation businesses; and export-oriented service industries such as legal and financial services. Retail industries are excluded.	Tax credit of $1,000 per job for creation of new, full-time jobs in excess of threshold of 50 jobs or 25 jobs for enterprise zone/economically distressed areas.
Major Research and Development Expenses Tax Credit *(2016)*	Promote research and development activities.	Tax credit for qualified R&D expenses greater than $5 million. Credit is based on difference between R&D expenses during taxable year and 50% of the average expenses incurred during previous 3 years.
Motion Picture Production Tax Credit *(2011)*	Encourage motion picture production and use of Virginia resident labor and merchants in production	Tax credit for qualifying expenses of eligible productions that complete a motion picture. Tax credit is equal to 15% of qualifying expenses, with bonus rates for Virginia resident payroll and production in economically distressed areas.
Qualified Equity and Subordinated Debt Investments Tax Credit *(1999)*	Encourage investment in high-tech small business ventures.	Tax credit for equity or subordinated debt investment in qualified small businesses engaged in technology-related fields. Credit amount is equal to 50% of qualified investments during the taxable year but may not exceed tax liability or $50,000.
Recyclable Materials Processing Equipment Tax Credit *(1991)*	Encourage recycling of waste and pollution control.	Tax credit for qualifying purchases of equipment to produce items from recyclable materials. Credit is equal to 20% of the purchase price of the recycling equipment. The allowable credit cannot exceed 40% of tax liability. Beginning January 1, 2020, the credit may also be claimed for machinery and equipment used in advanced recycling.
Research and Development Expenses Tax Credit *(2011)*	Promote research and development activities.	Tax credit for qualified R&D expenses. Credit is equal to 15% of first $300,000 of expenses or 20% if conducted with Virginia higher education. Alternatively, credit may be computed as 10% of difference of expenses and 50% of previous 3-year average.
Telework Expenses Tax Credit *(2012)* *(expired January 1, 2019)*	Encourage telework to ease road congestion.	Tax credit for eligible expenses incurred for permitting employees to telework. Credit was equal to up to $1,200 per teleworking employee or $20,000 for conducting a telework assessment. Maximum credit is $50,000 per employer per year. This credit expired January 1, 2019.
Virginia Coal Production and Employment Incentive Tax Credit *(2001)* *(scheduled to expire January 1, 2022)*	Encourage use of Virginia coal by Virginia power generators to increase Virginia coal production and employment.	Tax credit for Virginia coal that is both purchased and consumed by Virginia electricity generator. Credit is equal to $3-per-ton.
Virginia Port Volume Increase Tax Credit *(2011)*	Promote use of state port facilities.	Tax credit for qualified agricultural, manufacturing, or mining entities that use Virginia port facilities and increase cargo volume by at least 5%. Credit is $50 per 20-foot equivalent unit.

Program *(year enacted)*	Purpose	Description
Worker Retraining Tax Credit *(1999)* *(expired January 1, 2019)*	Encourage worker retraining to improve productivity and employment retention.	Tax credit for training costs of providing eligible worker retraining for qualified employees. The retraining must occur with a pre-designated program such as a noncredit course or apprenticeship. Tax credit is up to 30% of qualified training costs. Modified in 2018 to allow manufacturers that conduct qualifying orientation, instruction, or other programs to claim a credit equal to 35% of the direct cost of the program not to exceed $2,000 for any year.
Worker Training Tax Credit (replaces Worker Retraining Tax Credit) *(2019)*	Encourage worker training to improve productivity and employment retention.	Tax credit in an amount equal to 35 percent of the expenses incurred for eligible worker training up to $500 per qualified employee or $1,000 for training related to each non-highly compensated worker. Manufacturing businesses that currently qualify for the Worker Retraining Tax Credit for conducting orientation, instruction, and training in Virginia related to its manufacturing activities are also eligible. The annual aggregate credit cap is $1 million.

NOTE: The Worker Training Tax Credit replaced the Worker Retraining Tax Credit, and they are counted as one credit for purposes of this review.

Sales and use tax exemptions

Nineteen sales and use tax exemptions reduce taxes for eligible firms that purchase or lease selected tangible personal property. Sales and use tax exemptions are generally realized at the point of sale when eligible items are purchased. Eligible firms must complete Department of Taxation forms (Commonwealth of Virginia Sales and Use Tax Certificate of Exemption) and present them to merchants at time of sale. Two exemptions require additional authorization before use. The data center exemption statutorily requires qualifying firms to meet minimum employment, capital investment, and wage requirements and enter into a memorandum of understanding with VEDP. The MOU requires data centers to provide annual reports to VEDP to demonstrate that the minimum requirements were met. Companies using the pollution control equipment and facilities exemption must first obtain certification from a state monitoring agency (i.e., Department of Environmental Quality, Department of Energy) before applying for the exemption. For these exemptions, the certificate may not have been issued at the time of eligible purchases, but the business can request a refund once the certificate is obtained.

TABLE C-3
Nineteen sales and use tax exemptions reduce taxes at point of sale

Exemption *(year enacted)*	Purpose	Description
Airline Common Carriers Exemption *(1966)*	Encourage commercial airline service to and from Virginia airports.	Tax exemption for tangible personal property sold or leased to an airline operating in intrastate, interstate, or foreign commerce as a common carrier. The airline must provide scheduled air service on a continuing basis to one or more Virginia airports at least one day per week.

Exemption *(year enacted)*	**Purpose**	**Description**
Aircraft Parts, Engines, & Supplies Exemption (2018)	Encourage growth of aviation sector, including unscheduled common carriers, private planes, and unmanned aviation systems.	Tax exemption for parts, engines, and supplies used for maintaining, repairing, or reconditioning aircraft.
Certain Printed Materials for Out-of-State Distribution Exemption (1976)	Encourage out-of-state business purchases of printing materials from state firms.	Tax exemption for catalogs, letters, brochures, reports, and similar printed materials, and paper furnished to a printer for fabrication into such printed materials, when stored for 12 months or less in Virginia and distributed outside the state.
Contractor Temporary Storage Exemption *(1989)*	Promote competitiveness of state construction material supply firms.	Tax exemption for personal property purchased by a contractor for use solely in another state or in a foreign country and temporarily stored in Virginia pending shipment, if such property could be similarly purchased free from sales tax in such other state or foreign country.
Data Center Exemption *(2010)*	Promote the establishment of large-scale data centers.	Tax exemption for Virginia data centers and tenants meeting certain minimal investment, employment, and wage-level criteria. Exemption is for processing, storage, retrieval, and communication equipment.
Electrostatic Duplicators Exemption *(1986)*	Promote small-scale printing businesses by providing exemption comparable to industrial printers.	Tax exemption for high-speed electrostatic duplicators or any other duplicators having a printing capacity of 4,000 impressions or more per hour purchased or leased by persons engaged primarily in the printing or photocopying of products for sale or resale.
Film, Television, & Audio Production Inputs Exemption *(1995)*	Promote motion picture production and sound recording industries.	Tax exemption for audiovisual works acquired for licensing, distributing, broadcasting, commercially exhibiting, or reproducing, or production services or fabrication connected with such production. The exemption applies to purchases and leasing of tangible personal property.
Media Provider Equipment Exemption *(1966)*	Promote radio and television broadcasting, cable television, and broadband media industries.	Tax exemption for broadcasting equipment, parts and accessories used by radio, television, cable, and broadband media companies. The exemption also applies to amplification, transmission, and distribution equipment used by cable television systems or other video systems.
Out-of-State Nuclear Facility Repair Exemption *(2000)*	Promote nuclear maintenance and repair industry by exempting purchases of supplies used for the purpose of providing services to out-of-state buyers.	Tax exemption for tangible personal property purchased for use or consumption in the performance of maintenance and repair services at Nuclear Regulatory Commission-licensed nuclear power plants located outside the state.
Pollution Control Equipment & Facilities Exemption *(1972)*	Encourage business adoption of pollution control equipment and technologies by reducing capital costs.	Tax exemption for pollution control equipment and facilities used for air and water pollution abatement certified by a state certifying authority.

Exemption ***(year enacted)***	**Purpose**	**Description**
Railroad Common Carriers Exemption *(1978)*	Promote maintenance and expansion of state railroads.	Tax exemption for tangible personal property sold or leased to a public service corporation that is a common carrier of property or passengers by railway.
Railroad Rolling Stock Exemption *(2007)*	Encourage capital investment in railroad rolling stock.	Tax exemption for railroad rolling stock when sold or leased by the manufacturer.
Research & Development Exemption *(1966)*	Encourage research and development of new and improved products and processes.	Tax exemption for tangible personal property purchased for use or consumption directly and exclusively in basic research or research and development in the experimental or laboratory sense.
Semiconductor Manufacturers Exemption *(2006)*	Promote semiconductor manufacturing industry.	Tax exemption for semiconductor cleanrooms or equipment, fuel, and supplies used in the process of designing, developing, manufacturing, or testing semiconductor products or equipment.
Semiconductor Wafers Exemption *(2006)*	Promote semiconductor manufacturing industry.	Tax exemption for semiconductor wafers for use or consumption by a semiconductor manufacturer.
Ships & Vessels Exemption *(1966)*	Promote maritime shipping industries, including commercial ship building, repairing, supplying, and dredging.	Tax exemption for ships or vessels used or to be used exclusively or principally in interstate or foreign commerce. The tax exemption also applies to fuel and supplies for use or consumption aboard ships or vessels plying the high seas, either in intercoastal trade or in foreign commerce.
Taxi Parts & Radios Exemption *(1984)*	Encourage commercial taxi operations and prevent their further decline.	Tax exemption for parts, tires, meters, and dispatch radios sold or leased to taxicab operators for use in their services.
Uniform Rental & Laundry Businesses Exemption *(1980)*	Promote the commercial uniform rental industry by providing a tax exemption similar to other industrial manufacturers and processors.	Tax exemption for machinery and tools, supplies and materials used directly in maintaining and preparing textile products for renting or leasing by an industrial processor engaged in commercial leasing or renting of laundered textile products.
Virginia Spaceport Users Exemption *(1997)*	Promote spaceport operations at facilities owned, leased, or operated by the state and the commercial space industry.	Tax exemption for space facilities and hardware, including inputs, components and supplies such as special fuels, machinery and equipment, and other goods and services for activities undertaken at a Virginia Commercial Space Flight Authority facility.

Other incentive programs

Thirteen other incentive programs included in this report fall into a "miscellaneous" category. These incentives include tax preferences such as corporate income tax apportionment methods and income tax subtractions as well as gap and loan financing programs that are difficult to classify elsewhere. The latter programs are administered by the Virginia Small Business Financing Authority and the Center for Innovative Technology and are designed to provide alternative funding sources for business startups and established small businesses that face financing constraints. Based on current estimates, the Manufacturing Single Sales Apportionment Factor is the largest of these miscellaneous incentives. The single sales formula allows manufacturers to calculate their taxable income in Virginia based solely on the proportion of total sales that are in Virginia rather than a weighted average of sales, property, and payroll. This creates tax savings for multistate firms that have sizeable operations within the state but ship substantial amounts of products outside the state.

TABLE C-4
Twelve other tax incentives, loan, and gap financing programs target economic development

Program *(year enacted)*	**Purpose**	**Description**
Income tax apportionment methods and subtractions		
Data Center Single Sales Factor Apportionment *(2017)*	Promote the establishment and growth of data centers.	This tax rule allows eligible multistate corporations that make a capital investment of at least $150 million in a data center to use the single sales factor method of apportionment to reduce tax liability. Companies that choose to use this apportionment method must enter into an MOU with VEDP.
Manufacturing Single Sales Factor Apportionment *(2009)*	Incentivize the state's manufacturing industry and slow the decline of manufacturing jobs.	This tax rule allows manufacturing companies to choose single sales factor apportionment to reduce tax liability. Companies must certify that full-time employee average wages are above the state industry average and that employment is at least 90 percent of base-year employment for three years.
New Company Incentive Program (*2018*)	Promote economic development in 51 eligible economically distressed counties.	Program offers modified corporate income tax apportionment factor and consideration for grant from Commonwealth's Opportunity Fund for new traded or basic sector companies creating minimum of 10 new jobs paying at least 1.5 times the Virginia minimum wage and $5 million in capital investment that locate in eligible counties.
Qualified Business Long-Term Capital Gain Subtraction *(2010)*	Promote high technology business investment.	Tax subtraction for income attributable to an investment in certain high technology businesses that is taxed as long-term capital gain. Qualified businesses must have gross revenues of less than $3 million and received less than $3 million in equity or debt investments. The investment must have been made between the dates of April 1, 2010 and June 30, 2020.
Venture Capital Investment Subtraction *(2018)*	Promote investment in early-stage companies in Virginia.	Tax subtraction on certain income attributable to an investment in a Virginia venture capital account, which is an investment fund certified by TAX. The account must intend to invest at least 50% of its capital in qualified portfolio companies and employ at least 1 investor with at least 4 years of professional experience in venture capital investment or substantially equivalent experience. A qualified portfolio company has its principal place of business in Virginia; has a primary purpose of production, sale, research, or development of a product or service; and provide equity in the company to the account in exchange for capital investment.

Program *(year enacted)*	**Purpose**	**Description**
Zero G Zero Tax Act (Part I) Subtraction *(2009)*	Encourage the location and expansion of companies at a Virginia airport or spaceport involved in flying or training humans in suborbital flight.	Tax deduction for gains realized from the sale of launch services to space flight participants or launch services intended to provide individuals the training or experience of a launch, without performing an actual launch.
Zero G Zero Tax Act (Part II) Subtraction *(2009)*	Encourage the location and expansion of companies at a Virginia spaceport involved in resupplying the space station.	Tax deduction for gains realized from resupply services contracts for delivering payload entered into with the Commercial Orbital Transportation Services division of the National Aeronautics and Space Administration or other space flight entity.
Loan and gap financing programs		
CIT Gap Funds *(2005)*	Promote expansion of early stage high-science and technology companies in targeted fields with rapid growth potential.	Seed-stage equity investments in Virginia-based technology, green technology, and life science companies with a high-growth potential. The Center for Innovative Technology holds an ownership position in the company while the company grows operations and value.
Economic Development Loan Fund *(2007)*	Promote small business job creation and retention by providing gap financing.	Loans are targeted to small businesses in technology, tourism, manufacturing, and services that generate a majority of sales outside the state. Project must create permanent full-time jobs that pay a minimum of $10 per hour. Maximum loan available is 40% or $1 million, whichever is less.
Loan Guaranty Program *(1985)*	Promote small business capital investment.	This program helps small businesses obtain loans by reducing bank credit risk. The maximum guarantee is the lessor of $750,000 or 75% of the loan amount. The program does not have job creation requirements but considers job creation in financing decisions.
State Cash Collateral Program *(2013)*	Promote small business capital investment.	This program assists small businesses obtain loans by reducing bank credit risk. The maximum guarantee is the lessor of $500,000 or 40% of the loan amount. The program does not have job creation requirements but considers job creation in financing decisions.
SWaM Business Microloan Fund *(2012)*	Promote small, women-owned, and minority-owned business capital investment and expansion.	This fund provides a maximum of $10,000 to eligible businesses, or $25,000 if business received counseling from a Small Business Development center. Loans are allocated on a credit score basis. Loans may be used for working capital, financing accounts receivable and inventory, and other purposes.
Tourism Development Financing Program *(2012)*	Promote tourism and economic development in Virginia.	The program provides gap financing for tourism development projects otherwise unable to access capital. The locality must make application, demonstrate a tourism deficiency, and provide tax incentives or regulatory flexibility for a designated tourism zone where the project occurs.

Appendix D: Spending or tax expenditure by incentive

TABLE D-1
State spending on incentive grant payments ($ millions)

Incentive	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Total
Advanced Production Grant Program and Fund (Morgan Olson)	--	--	--	--	--	--	--	--	--	0.0	$0.0M
Advanced Shipbuilding Training Facility Grant Program (Newport News)	--	--	5.00	5.00	8.03	7.59	7.16	--	--	--	32.8
Advanced Shipbuilding Production Facility Grant Program (Newport News)	--	--	--	--	--	--	--	--	6.0	0.0	6.0
Aerospace Engine Manufacturing Performance Grant Program (Rolls Royce)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	11.0
Tobacco Commission Agribusiness Grant	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Agriculture and Forestry Industries Development Grant	--	--	0.3	0.5	0.7	0.9	1.9	1.1	1.3	0.6	7.4
Virginia Business Ready Site Program	--	--	--	--	--	--	1.2	0.0	0.4	0.0	1.6
Commonwealth's Opportunity Fund	9.3	12.6	6.1	9.4	15.6	17.1	26.5	13.2	11.9	17.2	138.9
Commonwealth Research Commercialization Fund	--	1.9	2.5	0.9	1.0	1.5	1.3	0.9	1.3	1.9	13.3
Economic Development Access Program	2.3	3.4	1.1	1.4	0.7	1.0	3.6	3.1	1.7	2.0	20.2
GO Virginia	--	--	--	--	--	--	0.00	0.2	2.8	0.0	3.0
Governor's Motion Picture Opportunity Fund	2.1	2.4	0.6	1.7	2.9	12.1	0.8	5.8	2.5	3.0	33.9
Job Creation Grant (Enterprise Zone)	2.7	3.0	2.9	2.9	3.1	2.7	1.8	2.2	2.7	2.9	26.9
Major Eligible Employer Grant	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Major Headquarters Workforce Grant Fund (Amazon HQ2)	--	--	--	--	--	--	--	--	--	0.00	0.0
Tobacco Commission Megasite Grant	24.9	27.2	21.0	12.8	6.2	0.0	0.0	4.9	0.0	0.0	96.9
Pharmaceutical Manufacturing Grant Program (Merck)	--	--	--	--	--	--	--	--	--	0.0	0.0

Incentive	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Total
Port of Virginia Economic and Infrastructure Grant	--	--	--	0.5	0.0	0.3	2.2	0.5	0.1	1.3	4.8
Pulp, Paper, and Fertilizer Advanced Manufacturing Grant Program	--	--	--	--	--	--	--	--	--	--	0.0
Rail Industrial Access Program	1.5	1.2	0.5	2.1	0.3	0.9	0.0	1.3	0.7	0.6	9.2
Real Property Improvement Grant (Enterprise Zone)	9.5	11.2	11.2	11.3	9.1	9.3	10.9	10.7	10.8	11.6	105.5
Semiconductor Custom Grant (Micron)	1.60	5.40	5.40	5.40	5.40	3.80	--	--	--	--	27.0
Semiconductor Custom Grant (Qimonda)	--	--	--	--	--	--	--	--	--	--	0.0
Semiconductor Manufacturing Grant Fund (Micron)	--	--	--	--	--	--	--	--	--	20.0	20.0
Small Business Investment Grant Fund	--	--	--	0.0	0.1	0.1	1.2	0.5	0.8	0.8	3.6
Small Business Jobs Grant Fund Program	0.2	0.4	0.8	1.2	0.3	0.0	0.3	0.0	0.0	--	3.2
Southside Economic Development Grants	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Southwest Economic Development Grants	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Special Workforce Grant Fund (Amazon Web Services)	--	--	--	--	--	--	--	--	--	0.0	0.0
SRI custom grant	1.00	1.00	1.00	--	--	--	--	--	--	--	3.0
Tobacco Region Opportunity Fund	11.9	7.3	14.8	27.0	5.8	9.7	4.0	4.5	6.4	14.7	106.1
Transportation Partnership Opportunity Fund	3.3	10.0	10.2	0.7	6.0	0.0	0.0	0.0	11.3	0.0	41.5
Virginia Economic Development Incentive Grant	10.0	5.0	0.0	5.0	6.0	0.0	13.3	0.0	1.5	0.0	40.8
Virginia Investment Partnership Grant	2.8	2.0	12.1	0.8	9.6	6.2	1.6	4.4	3.7	4.3	47.2
Virginia Jobs Investment Program	8.2	5.2	5.6	7.4	4.1	7.2	6.6	7.9	7.3	1.9	61.5
VALET Program	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.7	0.6	0.8	4.5
Virginia Talent Accelerator Program	--	--	--	--	--	--	--	--	--	1.5	1.5
Virginia Trade Show Assistance Program	--	--	--	--	--	--	0.6	0.5	0.6	0.7	2.4

SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Adjusted for canceled projects, recaptures, and award reductions. Not adjusted for inflation. Numbers may not add because of rounding.
-- indicates program had not been adopted or was no longer in effect.

TABLE D-2
Tax savings to businesses because of tax credits ($ millions)

Incentive	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Total
Barge and Rail Usage Tax Credit	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	$0.6M
Biodiesel and Green Diesel Fuels Producers Tax Credit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coalfield Employment Enhancement Tax Credit	27.3	25.0	21.8	21.5	28.4	23.4	18.9	15.2	16.1	7.9	205.4
Farm Wineries and Vineyards Tax Credit	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.1	1.2
Green Job Creation Tax Credit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2
International Trade Facility Tax Credit	0.0	0.0	0.2	0.2	0.1	0.3	0.3	0.3	0.9	0.1	2.3
Major Business Facility Job Tax Credit	-0.9	4.3	2.8	1.3	4.1	0.8	6.8	1.8	1.3	6.3	28.6
Major Research and Development Tax Credit	--	--	--	--	--	--	--	6.1	4.8	17.2	28.0
Motion Picture Production Tax Credit	0.0	0.0	0.0	3.0	7.2	5.5	6.6	6.1	0.0	7.2	35.5
Qualified Equity and Subordinated Debt Investment Tax Credit	1.6	2.1	1.9	2.4	2.1	2.4	2.2	2.8	3.2	3.9	24.5
Recyclable Materials Processing Equipment Tax Credit	0.6	0.7	2.7	1.2	0.6	2.1	1.7	1.4	1.5	2.2	14.7
Research and Development Expenses Tax Credit	0.0	0.0	1.5	3.4	4.2	4.7	4.2	4.2	4.1	5.2	31.5
Telework Expenses Tax Credit	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.4
Virginia Coal Production and Employment Incentive Tax Credit	0.0	0.0	59.4	6.7	8.9	3.1	3.7	6.8	0.5	1.3	90.5
Virginia Port Volume Increase Tax Credit	0.0	0.0	0.1	0.4	0.7	0.9	2.2	1.8	1.8	1.4	9.3
Worker Retraining Tax Credit	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.0	0.2	1.7
Worker Training Tax Credit	--	--	--	--	--	--	--	--	--	0.0	0.0

SOURCE: Weldon Cooper Center analysis of the Department of Taxation's Annual Reports for Fiscal Years 2011–2020.
NOTE: Credits were claimed for the Biodiesel and Green Diesel Fuels Producers Tax Credit, but amounts were very minimal. Not adjusted for inflation. Numbers may not add because of rounding.
-- indicates no credits were claimed in that year because they had not been adopted yet.

TABLE D-3
Estimated tax savings to businesses on sales and use tax exemptions ($ millions)

Incentive	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Total
Airline Common Carriers Exemption	7.0	6.6	7.6	8.5	10.5	11.4	10.9	10.9	10.0	10.1	$93.5M
Aircraft Parts, Engines, and Supplies Exemption	--	--	--	--	--	--	--	--	5.4	5.5	11.0
Certain Printed Materials for Out-of-State Distribution Exemption	3.5	3.6	3.7	4.0	4.0	4.0	4.1	4.2	4.3	4.4	39.8
Contractor Temporary Storage Exemption	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.0
Data Center Exemption	23.1	26.2	80.5	79.8	94.8	71.3	83.8	122.9	116.4	138.3	837.1
Electrostatic Duplicators Exemption	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Film, Television, & Audio Production Inputs Exemption	1.1	1.2	0.9	0.7	0.9	1.0	1.0	2.2	3.7	3.8	16.4
Media Provider Equipment Exemption	3.9	4.0	4.1	4.4	4.5	4.5	4.6	4.7	4.8	4.9	44.3
Out-of-state Nuclear Facility Repair Exemption	0.4	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	5.3
Pollution Control Equipment & Facilities Exemption	3.1	2.6	3.1	2.3	4.2	4.1	3.2	3.2	3.3	3.4	32.4
Railroad Common Carriers Exemption	17.4	21.0	21.3	24.6	25.7	24.2	17.7	17.5	20.3	20.7	210.3
Railroad Rolling Stock Exemption	2.0	2.0	2.0	2.2	2.3	2.4	2.5	2.5	2.5	2.6	23.1
Research & Development Exemption	3.9	4.0	4.1	4.5	4.5	4.5	4.6	4.7	4.8	4.9	44.4
Semiconductor Manufacturers Exemption	1.1	1.3	1.3	1.2	0.8	0.6	0.6	0.5	0.4	0.4	8.3
Semiconductor Wafers Exemption	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	1.3
Ships and Vessels Exemption	5.5	5.6	5.7	6.2	6.3	6.3	6.5	6.4	7.0	7.1	62.7
Taxi Parts & Radios Exemption	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	3.2
Uniform Rental & Laundry Businesses Exemption	0.5	0.5	0.7	0.8	0.9	1.0	1.0	1.0	0.9	0.9	8.3
Virginia Spaceport Users Exemption	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1

SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Exempted amounts exclude the 1 percent sales tax for localities and, in most cases, the additional amounts collected in Northern Virginia and Hampton Roads. Not adjusted for inflation. Numbers may not add because of rounding.
-- indicates exemption had not been adopted yet.

TABLE D-4
State spending on other incentives ($ millions)

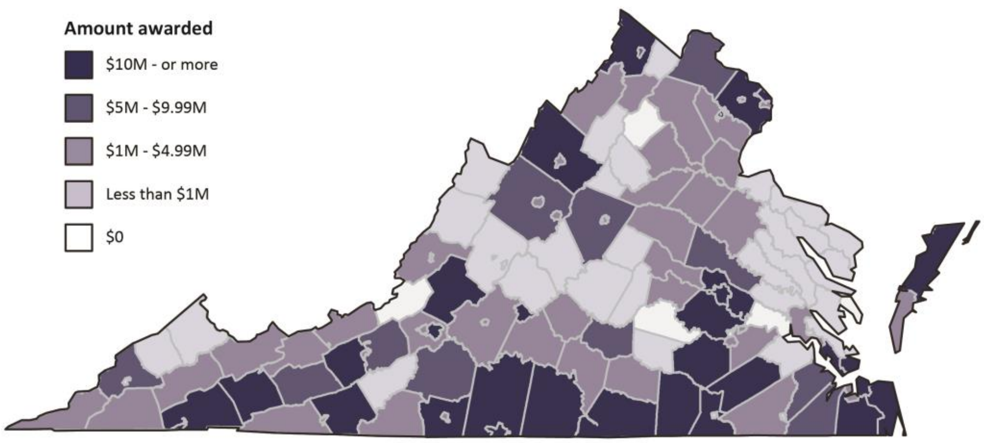
Incentive	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Total
Income tax apportionment methods and subtractions											
Data Center single sales factor apportionment	--	--	--	--	--	--	--	--	--	0.1	$0.1M
Manufacturing single sales factor apportionment	--	--	--	--	1.9	20.9	22.3	22.7	23.3	23.7	114.8
New Company Incentive Program	--	--	--	--	--	--	--	0.0	0.0	**	
Qualified Business Long-Term Capital Gain Subtraction	No data collected; estimates will be calculated during in-depth review.										
Venture Capital Account Subtraction	--	--	--	--	--	--	--	--	0.0	0.0	0.0
Zero G Zero Tax Act (Part I) Subtraction	No data collected; estimates will be calculated during in-depth review.										
Zero G Zero Tax Act (Part II) Subtraction	No data collected; estimates will be calculated during in-depth review.										
Loan and gap financing programs											
CIT Gap Fund	0.3	0.4	2.1	2.3	3.5	1.6	1.6	2.0	2.1	2.7	18.7
Economic Development Loan Fund	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loan Guaranty Program	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
State Cash Collateral Program	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SWaM Loan Fund	--	--	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2
Tobacco Region Opportunity Fund (loan portion)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Tourism Development Financing Program	0.0	0.0	0.3	1.3	0.0	8.4	0.0	0.9	0.6	1.8	13.4

SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Not adjusted for inflation. Virginia Small Business Financing Authority loan program amounts listed are legislative appropriations since these revolving loan program costs are not equal to the loan award amount.
-- indicates incentive had not been adopted yet.**
** indicates that data was not provided for the program.

Appendix E: Regional distribution of grant awards

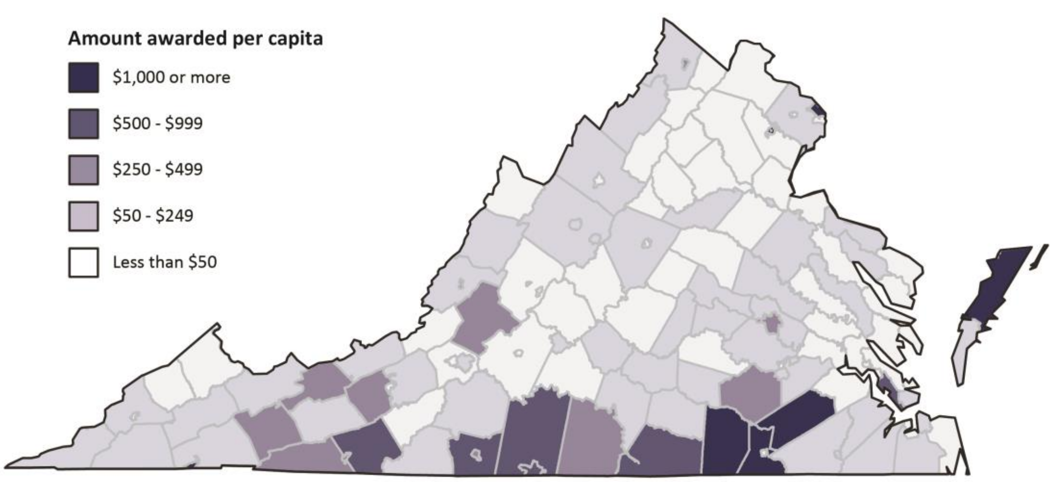
The largest amount of grant awards went to businesses in highly populated localities such as Arlington County, Newport News City, Fairfax County, and Richmond City and to rural localities in the tobacco region and on the Eastern Shore (Figure E-1). Adjusted for population size, awards are concentrated in urbanized localities in Northern Virginia and in rural southern and Eastern Shore localities (Figure E-2).

FIGURE E-1
Awards are concentrated in several highly populated areas and the southern region (FY11–FY20)



SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Localities were not assigned to 13 Governor's Motion Picture Opportunity Fund projects because filming occurred in multiple localities.

FIGURE E-2
Awards are concentrated in urban areas in Northern Virginia and in rural southern and eastern shore localities, adjusted for population size (FY11–FY20)

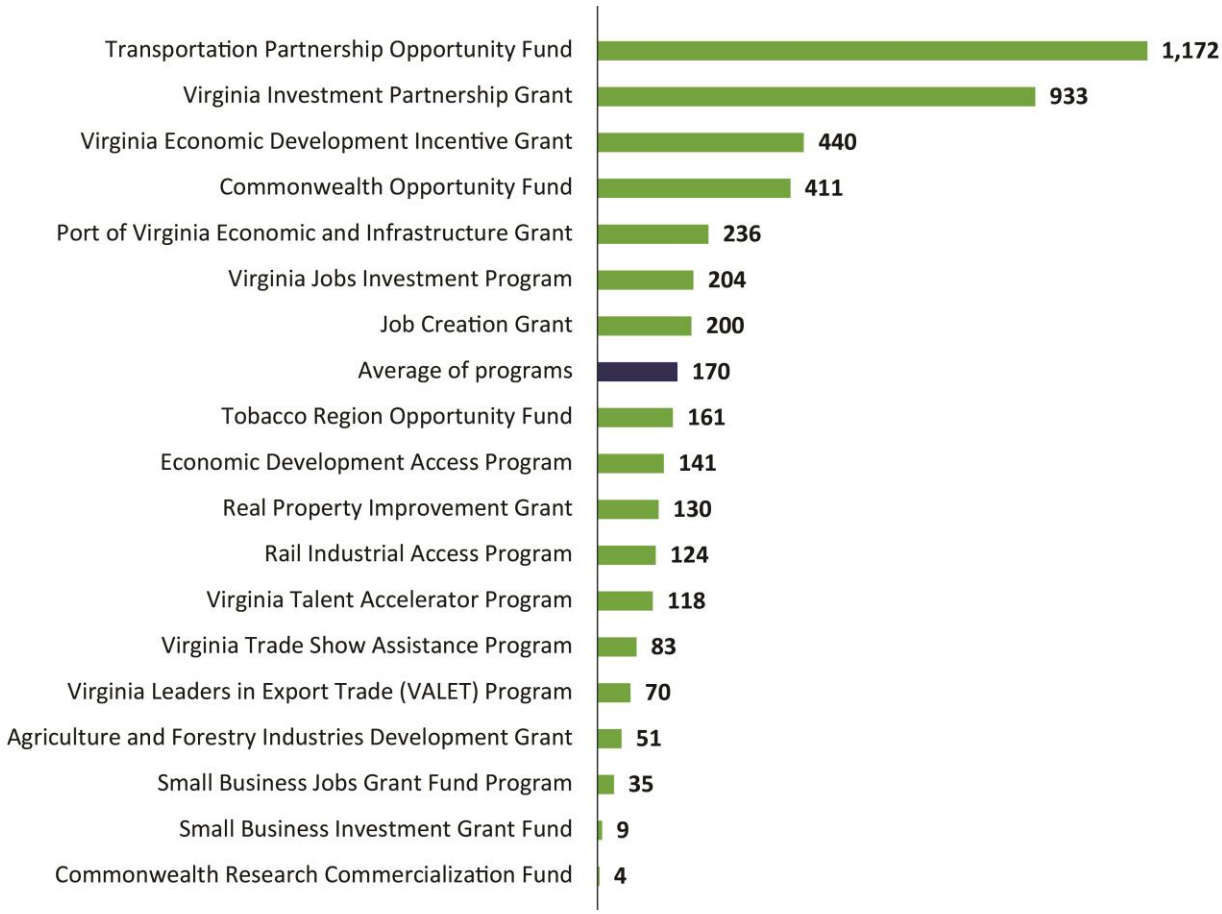


SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Localities were not assigned to 13 Governor's Motion Picture Opportunity Fund projects because filming occurred in multiple localities.

Appendix F: Average employment size of grant recipients by program

The average establishment size of a grant recipient was 170 employees across all programs. However, the average size varied widely by program (Figure F-1). The largest average sizes were for the Transportation Partnership Opportunity Fund (1,172 employees), the Virginia Investment Partnership Grant (933), and the Virginia Economic Development Incentive Grant (440). The smallest average employee sizes were for finance programs for startups—the Commonwealth Research Commercialization Fund (four employees) and the Small Business Investment Grant Fund (9).

Figure F-1
Average employment size of business location at time of award varies widely by program (FY11–FY20)



SOURCE: Weldon Cooper Center analysis of economic development incentive grants and VEC data.
NOTE: Employment records were matched with 3,048 of the 5,003 awards (61%) and $1.292B of $1.8862B in total awards.

Appendix G: Project-specific goals used by grant programs

Some programs award grants or make award commitments before projects begin. These programs require projects to achieve specific goals to obtain or keep the full award promised. Job creation, capital investment, and average wages paid are the most common goals, but several programs establish other goals that are more aligned with the purpose of the program.

TABLE G-1
Job creation, average wages, and capital investment are most common performance measures

Grant program	Job creation	Wages	Capital expenditures	Other
Advanced Production Grant Program and Fund (Morgan Olson)	X	X	X	
Advanced Shipbuilding Production Facility Grant Program (Newport News)	X	X	X	
Advanced Shipbuilding Training Facility Grant Program (Newport News)	X	X	X	Number of apprentices, training expenses
Aerospace Engine Manufacturing Performance Grant Program (Rolls-Royce)	X	X	X	
Agriculture and Forestry Industries Development Grant	X	X	X	Value of Virginia agricultural products
Commonwealth Research Commercialization Fund				Capital attracted from other sources
Commonwealth's Opportunity Fund	X	X	X	
Economic Development Access Program			X	
Governor's Motion Picture Opportunity Fund	X			Total Virginia spending, value of advertising
GO Virginia	X		X	
Growth Acceleration Program				Capital attracted from other sources
Major Eligible Employer Grant	X	X	X	
Major Headquarters Workforce Grant (Amazon HQ2)	X	X	X	
Pharmaceutical Manufacturing Grant Program (Merck)	X	X	X	
Port of Virginia Economic & Infrastructure Development Grant	X			Port user
Pulp, Paper, and Fertilizer Advanced Manufacturing Performance Grant Program	X		X	
Rail Industrial Access Program			X	Carloads
Semiconductor Custom Grant (Micron)	X		X	
Semiconductor Custom Grant (Qimonda)	X	X	X	
Semiconductor Manufacturing Grant (Micron II)	X	X	X	Establishment of R&D facility
Small Business Investment Grant Fund	X			Private equity investment
Small Business Jobs Grant Fund Program	X	X	X	

Grant program	Job creation	Wages	Capital expenditures	Other
Special Workforce Grant Fund (Amazon Web Services)	X	X	X	
SRI custom grant	X	X		
Tobacco Commission Megasite Grant				
Tobacco Region Opportunity Fund	X	X	X	
Transportation Partnership Opportunity Fund	X		X	
VALET Program				International sales
Virginia Business Ready Sites Program				
Virginia Economic Development Incentive Grant	X	X	X	
Virginia Investment Partnership Grant	X	X	X	
Virginia Jobs Investment Program	X	X	X	Job retraining
Virginia Talent Accelerator Program	X	X		
Virginia Trade Show Assistance Program				International sales

SOURCE: Weldon Cooper Center analysis of agency documents.

Appendix H: Agency responses

As part of an extensive validation process, the state agencies and other entities that are subject to a JLARC assessment are given the opportunity to comment on an exposure draft of the report. JLARC staff sent an exposure draft of this report to the Virginia Economic Development Partnership, Department of Taxation, secretary of commerce and trade, and secretary of finance.

Appropriate corrections resulting from technical and substantive comments are incorporated in this version of the report. This appendix includes response letters from the Virginia Economic Development Partnership, Department of Taxation, and secretary of finance.

November 2, 2021

Mr. Hal E. Greer, Director
Joint Legislative Audit & Review Commission
919 East Main Street, Suite 2101
Richmond, VA 23219

Re: VEDP response to draft JLARC report, *Economic Development Incentives 2021: Spending and Performance*

Dear Mr. Greer:

Thank you for providing an opportunity for us to comment on the Joint Legislative Audit & Review Commission's (JLARC's) draft report, Economic Development Incentives 2021: Spending and Performance.

The report provides a helpful overview of economic development incentive spending and performance in the Commonwealth. Among other things, we appreciate your analysis showing that projects that received grant awards between FY11 and FY20 and completed their location or expansion project collectively created an estimated 72,000 jobs and $18.1 billion in capital investment and other spending in Virginia.

Your report demonstrates the impact of some of VEDP's most important economic development incentive programs. Notably, completed projects that received Virginia Jobs Investment Program (VJIP) grants accounted for the largest share of jobs (46,235) and capital investment and other spending ($7.9 billion) associated with Virginia's economic development grant programs during this time period. Similarly, projects funded through the Commonwealth's Opportunity Fund (COF) ranked second in job creation (20,748 jobs) and business spending ($7.6 billion).

We understand that the goal of the report is to review and evaluate the effectiveness of economic development initiatives, and we appreciate the level of analysis that goes into this report each year. However, as noted previously, the sidebar on page 15 makes a generalization about the effectiveness of economic development incentive programs, that is not based on this analysis. In practice, the effectiveness of economic development incentives in influencing company location decisions varies by program design and the amount of incentives offered relative to job creation and investment, among other factors.

Finally, the New Company Incentive Program (NCIP) consists of two distinct components, including the modified state income tax program administered by the Department of Taxation, and the discretionary grant program administered by VEDP. VEDP entered into an Administrative Agreement for the first NCIP during FY21, so we would anticipate that it would be added as a new data element in a future report.

901 E. Cary Street, Suite 900
Richmond, Virginia 23219
VEDP.org

As usual, we appreciated the professionalism of JLARC staff during the project, as well as compliment your team on its insightful analysis and reporting.

Sincerely,

Stephen Moret

Stephen Moret
President & CEO

COMMONWEALTH of VIRGINIA

Department of Taxation

October 29, 2021

Mr. Hal E. Greer, Director
Joint Legislative Audit and Review Commission
919 East Main Street, Suite 2101
Richmond, Virginia 23219

Dear ~~Mr. Greer~~ Hal:

Thank you for the opportunity to review and comment on the exposure draft report: *Economic Development Incentives 2021*. We believe the report is very well done and will be useful to the members of the General Assembly going forward. We also appreciate you incorporating our technical comments and suggestions into the final report.

Thank you again for the opportunity to review the draft report. Should you have any additional questions, please feel free to contact me.

Sincerely,

Craig M. Burns
Tax Commissioner

c: The Honorable K. Joseph Flores, Secretary of Finance

COMMONWEALTH of VIRGINIA
Office of the Governor

K. Joseph Flores
Secretary of Finance

November 1, 2021

Mr. Hal E. Greer
Director
Joint Legislative Audit & Review Commission (JLARC)
919 East Main Street – Suite 2101
Richmond, Virginia 23219

Dear Mr. Greer:

Thank you for the advance submission of JLARC's 2021 report on economic development incentives. I have reviewed the draft report and would like to commend JLARC staff on its comprehensive analysis of the Commonwealth's economic development incentives that continue to grow in size, necessitating rigorous review and analysis of the efficacy of such incentives.

I am happy to work with you on this issue as we head into the budget development process this fall. Again, thank you for your correspondence and your service to the Commonwealth.

Sincerely,

K. Joseph Flores

Cc: Ellen J. Miller, Chief Economic Development and Quantitative Analyst
Joint Legislative Audit & Review Commission

JLARC.VIRGINIA.GOV
919 East Main Street Suite 2101 Richmond, VA 23219