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Report to the Governor and the General Assembly of Virginia

Economic Development Incentives 2025
Spending and Performance

COMMISSION DRAFT

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Economic Development Incentives 2025 – Summary

WHAT WE FOUND

- Virginia spent $5.2 billion on 97 economic development incentive programs from FY15 to FY24. This amounts to 2.3 percent of total general fund spending during this period. Total spending on incentives was $1.3 billion in FY24.
- Total incentive spending increased between FY15 and FY24, with significant increases starting in FY21 because of improved reporting requirements for the data center exemption and increases in the number of data centers in Virginia. Previous estimates for the value of the data center exemption ranged from $80 million to $100 million per year. However, the FY24 estimate is over $1 billion.
- Data centers were by far the largest beneficiary of incentive spending, which reflects the sizable capital investment by the industry. The sales and use tax exemption for data centers accounted for 53 percent of all incentive spending over the decade ($2.7 billion).

WHY WE DID THIS STUDY

Through language in the Appropriation Act, the General Assembly directs 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 ninth in the series of overall spending and business activity and focuses on incentives that were provided between FY15 and FY24.

- Total spending on incentives, excluding the data center exemption, dropped to $279 million in FY24 from $429 million in FY23. This is because several incentives had higher than typical awards in FY23, including the Virginia Business Ready Sites Program, the Tourism Development Financing Program, and the Major Research and Development Tax Credit. Program awards returned to more typical levels in FY24.
- A majority of the incentive programs that have been adopted since 2017 have been custom grants. Although custom grants constitute a fairly large share of incentive amounts awarded, payouts are generally made over many years and are contingent on meeting performance milestones. Therefore, spending on custom grants varies from year to year. Custom grant spending increased from $16 million in FY23 to $29 million in FY24.
- Nearly 80 percent of incentive spending between FY15 and FY24 was for tax incentives, primarily sales and use tax exemptions, with the remainder split between tax credits and single sales apportionment for manufacturers and data

centers. Grants made up nearly all the remaining 19 percent of incentive spending.

- Collectively, grant programs awarded $2 billion to 5,000 projects between FY15 and FY24. A substantial portion of this amount was a $750 million custom grant award for Amazon HQ2 in FY19.
- Completed projects receiving grant funds created approximately 59,000 jobs and $16 billion in capital investment or other spending. The majority of these projects met their capital investment goals, but only slightly more than one-quarter met their job creation goals.
- Business savings from tax incentives, other than the data center exemption, increased in FY23 and remained constant in FY24. This reflects increased savings from new or expanded tax incentive programs, such as the manufacturer single sales apportionment, and the expiration or repeal of other programs, such as the Virginia coal tax credits.
- Business savings from economic development tax credits will decrease in the future because the 2025 General Assembly did not extend most tax credits. As a result, all but three tax credits have expired or will expire by January 1, 2026.

Economic Development Incentives 2025

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 ninth 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 in next year's report.

This report provides summary information on 97 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 FY15 and FY24, and have a primary purpose of promoting economic activity through location or expansion of businesses. Businesses may also benefit from a variety of other state grants, tax credits, and exemptions for purposes other than economic development; these programs are not included in this report.

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

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.

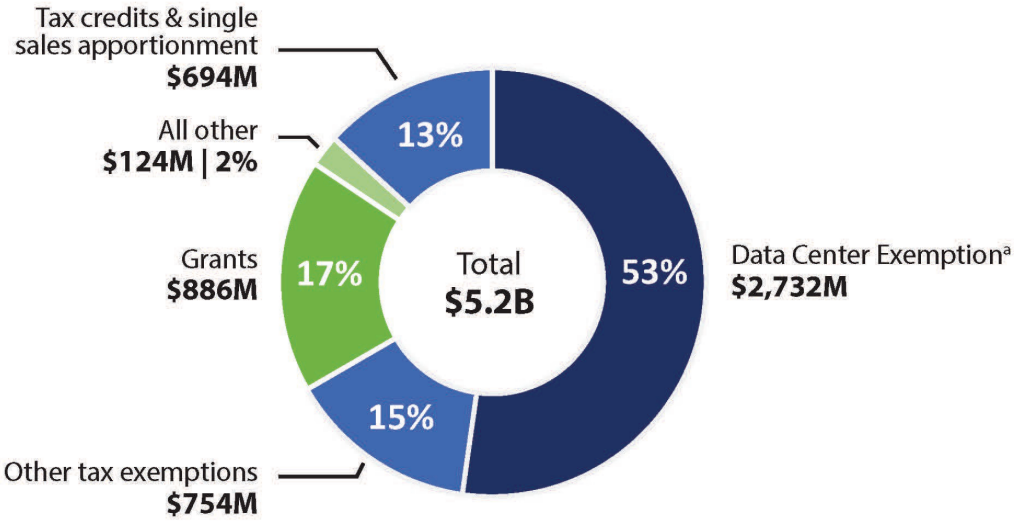
See Appendix B for more information on methods used to estimate spending for each program.

State spent $5 billion on incentives FY15–FY24

Virginia spent $5.2 billion on 97 economic development incentive programs over the past 10 fiscal years (Figure 1), for an average of $522 million per year (not adjusted for inflation). Nearly all incentives are funded by the state general fund, except for incentives provided by the Tobacco Region Revitalization Commission and several transportation infrastructure incentives. Spending on incentives represented approximately 2.3 percent of total general fund spending between FY15 and FY24. As in past reports in this series, the majority of spending on incentives was forgone revenue from tax incentives. Sales and use tax exemptions made up 66 percent of spending, and tax credits and single sales apportionment for manufacturers together accounted for 13 percent of spending (Figure 1). Almost all the remaining spending was on grants.

Spending is concentrated in a small number of incentives. Ten incentives accounted for 77 percent of the incentive spending between FY15 and FY24 (Table 1). The largest incentive during the 10-year period—the data center exemption—accounts for almost 53 percent of spending on incentives and is 11 times larger than the next-largest incentive, the manufacturing single sales factor apportionment tax incentive. (See Appendix D for more information on spending on each incentive by year.)

FIGURE 1
Over four-fifths of spending on incentives was for tax incentives (FY15–FY24)



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 localities with higher rates, such as Northern Virginia and the Historic Triangle. For custom grants, actual payments are allocated to the fiscal year in which they were paid. Estimate for single sales apportionment includes both manufacturer and data center estimates.
[a] Data center exemption amounts are reported only for FY21–FY24 because the method for collecting and reporting information on the exemption changed. Therefore, the amounts for total and data center exemption expenditures are underestimated for the 10-year period.

TABLE 1
Ten incentives are responsible for 77% of spending (FY15–FY24)

	10-year period (FY15–FY24)	
Incentive	**Spending**	**% of spending**
Data center exemption [a]	$2,732M	53%
Manufacturing single sales factor apportionment	245	5
Railroad common carriers exemption	193	4
Commonwealth's Development Opportunity Fund	158	3
Coalfield Employment Enhancement Tax Credit	134	3
Airline common carriers exemption	128	2
Real Property Investment Grant (Enterprise Zone)	108	2
Virginia Business Ready Sites Program	98	2
Certain printed materials for out-of-state distribution exemption	97	2
Tourism Development Financing Program	95	2
Subtotal	**$3,988M**	**77%**
All others	$1,202M	23%
TOTAL	**$5,191M**	**100%**

SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Excludes several tax preferences for which data was not available. Adjusted for canceled projects, recaptures, and award reductions. Exemptions exclude the 1 percent sales tax for localities and the additional amounts collected in some localities, such as Northern Virginia and the Historic Triangle. (See Appendix C for a description and Appendix D for spending for all incentives.)
[a] Amount reflects spending for only a four-year period (FY21–FY24) because the method for collecting and reporting information on the exemption changed.

Beginning with last year's report, more **precise estimates of the tax revenue impact of the data center exemption** were available. Data centers using the exemption are now required to report to the Virginia Economic Development Partnership their annual eligible exemption expenditures. Because VEDP estimates of eligible expenditures are available only for FY21–FY24, only these figures are reported here.

All but one of these incentives (the certain printed materials for out-of-state distribution exemption) were also among the top incentives for spending in FY24, with the data center exemption being the largest incentive that year ($1.02 billion in spending or 79 percent of spending). A new estimation method increased the printed materials exemption's size and led to its inclusion on Table 1.

Incentives have increased in number and spending

The state has increased its economic development incentive programs over time. The oldest is the Economic Development Access Program—a grant program designed to improve transportation access for industrial sites—which was adopted in 1956. In the 33 years between 1956 and 1989, the state adopted only 14 incentives that are still active. Since 1989, the state has adopted an additional 85 incentives, and half of the currently active incentives were adopted since 2010.

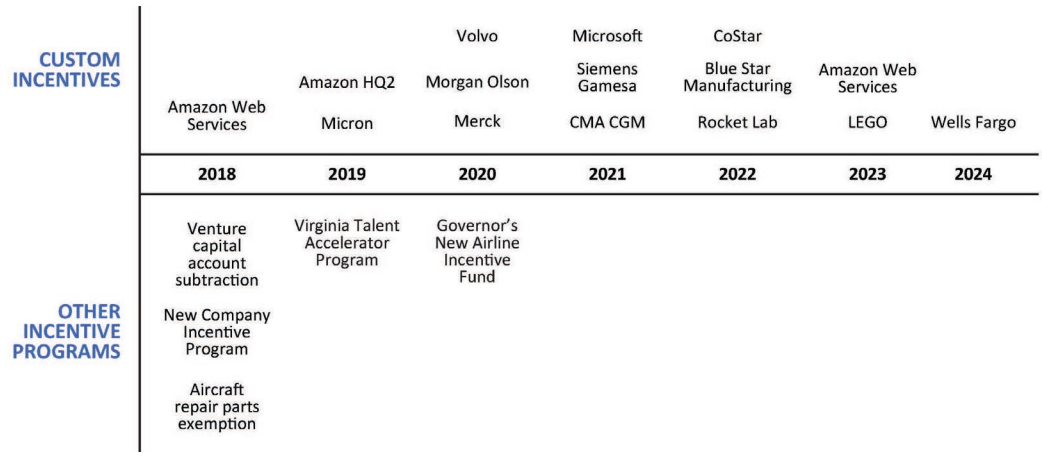
The state has also started awarding more customized performance grants, which are designed to attract specific companies to locate or expand in the state. Fourteen of the 20 incentive programs that have been adopted since 2018 have been customized performance grants (Figure 2).

Custom grants are offered to attract unique business location or expansion project opportunities to the state. The state's typical package of incentives (grants, tax credits, exemptions, etc.) is relatively modest compared with a custom grant. For example, grant awards for non-custom projects were an average of $184,000 per project between FY15 and FY24, compared with custom grants, which were an average of $73M per project (or $24M per project excluding the outsized custom grant for Amazon HQ2).

Though custom grants are created specifically for *one* rather than multiple projects, each custom grant is counted as a separate **program** for this report. Each custom grant award must be approved by the General Assembly, and the early custom grants, as well as some more recent ones, have program in their statutory name.

FIGURE 2

Majority of new economic development incentives since 2018 have been custom grants

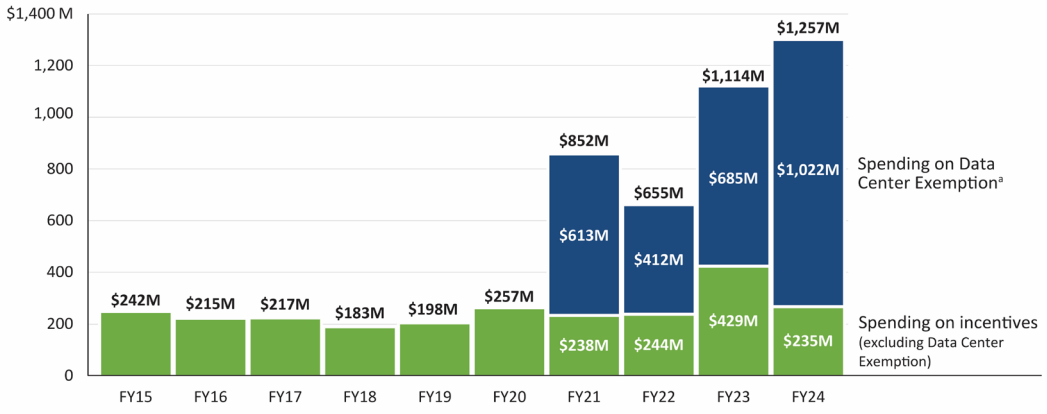


SOURCE: Weldon Cooper analysis of economic development incentive programs.
NOTE: Incentives are grouped by calendar year they were adopted by the General Assembly. Siemens Gamesa is part of a bond authorization for onsite improvements at the Port of Virginia. Custom grants for Micron, Volvo, Siemens Gamesa, and Blue Star Manufacturing have been canceled.

Total economic development incentive spending increased after FY19 (Figure 3), even when excluding the improved estimates of the data center exemption's tax revenue impact. Spending on incentives other than the data center exemption greatly increased in FY23 because of large amounts of spending for the Virginia Business Ready Sites Program, the Tourism Development Financing Program, and the Major Research and Development Tax Credit that year. Spending for the Virginia Business Ready Sites Program and the Tourism Development Financing Program returned to more recent historical levels the following year. Spending on the data center exemption nearly doubled in FY24 because of the uptick in data center locations and expansions in Northern Virginia as well as other areas of the state.

Although custom grants constitute a relatively large share of incentive award amounts, payouts are contingent on meeting performance milestones and vary from year to year. Custom grant spending increased slightly from $16 million in FY23 to $29 million in FY24. The largest custom grant spending was in FY20 because of a $50 million payment for a Micron custom grant.

FIGURE 3
Spending on incentives (even without the data center exemption) increased after FY19, particularly in FY23



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.
[a] Data center exemption amounts are reported only for FY21–FY24 because the method for collecting and reporting information on the exemption changed and amounts for prior years were underestimates. Exemption excludes the 1 percent sales tax for localities and the additional amounts collected in some localities, such as Northern Virginia and the Historic Triangle.

Approximately 5,000 projects were awarded $2 billion in grants between FY15 and FY24

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 one of the most widely recognized economic development incentives. Custom grants often receive considerable media attention because they are provided to business location or expansion projects promising to create a substantial number of jobs and make substantial capital investments. For example, Virginia's $750 million custom grant award for Amazon to locate its East Coast headquarters in Virginia (Amazon HQ2) received national attention in fall 2018 and early 2019. Grant payments are scheduled to begin in FY27 and end in FY43. To receive the full award, Amazon must create at least 37,850 jobs with average salaries of at least $150,000 and make a capital investment of at least $2 billion.

Collectively, Virginia's economic development incentive grant programs—which are typically funded with general funds with some exceptions—awarded more than $2 billion to 4,988 projects between FY15 and FY24 (Table 2). Twelve of the 39 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, only about half of the $2 billion in grant awards was paid out or "spent" between

Economic development grants are financial incentives provided to businesses in return for locating in the state or expanding business activity and increasing general fund revenue to the state. 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 paid up front must be repaid only if businesses do not meet program requirements while award amounts for grants paid after performance are reduced if requirements are not met.

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). These programs include the Commonwealth Commercialization Fund and Virginia Leaders in Export Trade (VALET) Program.

FY15 and FY24, because more than $1 billion in custom awards for 12 companies (including Amazon HQ2, Rocket Lab, and Lego Group) is not scheduled to be paid out until after FY24. Spending on grants, and thus total incentives, will increase substantially in the future as these custom grant awards are paid.

TABLE 2
Grant programs made approximately 5,000 awards totaling $2 billion (FY15–FY24)

Program	Total FY15–FY24		Annual average	
	Award amount	# of awards	Award amount	# of awards
Major Headquarters Workforce Grant (Amazon HQ2) [a]	$750.0M	1	n.a.	n.a.
Commonwealth's Development Opportunity Fund	209.5	297	$21.0M	30
Real Property Investment Grant (Enterprise Zone)	108.5	1,496	10.8	150
Virginia Business Ready Sites Program	97.9	44	12.2	6
Tobacco Region Opportunity Fund	80.1	186	8.0	19
Precision Plastic Manufacturing Grant Program (LEGO Group) [a b]	75.0	1	n.a.	n.a.
Semiconductor Manufacturing Grant (Micron 2019) [a c]	70.0	1	n.a.	n.a.
Virginia Jobs Investment Program	64.3	674	6.4	67
Virginia Investment Performance Grant	54.2	64	5.4	6
Governor's Motion Picture Opportunity Fund	53.7	42	5.4	4
Advanced Shipbuilding Production Facility Grant (Huntington Ingalls) [a]	46.0	1	n.a.	n.a.
Virginia Economic Development Incentive Grant	38.8	11	3.9	1
Transportation Partnership Opportunity Fund	28.8	11	2.9	1
Job Creation Grant (Enterprise Zone)	23.7	515	2.4	52
Commonwealth Commercialization Fund [d]	23.2	374	2.3	37
Tobacco Commission Megasite Grant	23.0	10	2.3	1
Technology Development Grant Fund (Microsoft) [a]	22.5	1	n.a.	n.a.
Virginia Talent Accelerator Program [f]	21.4	48	4.3	10
Economic Development Access Program	19.0	32	1.9	3
GO Virginia (site development grants)	17.2	25	2.2	3
Offshore Wind Component Grant Program (Siemens Gamesa) [a c e]	17.1	1	n.a.	n.a.
Truck Manufacturing Grant Fund (Volvo) [a c]	16.5	1	n.a.	n.a.

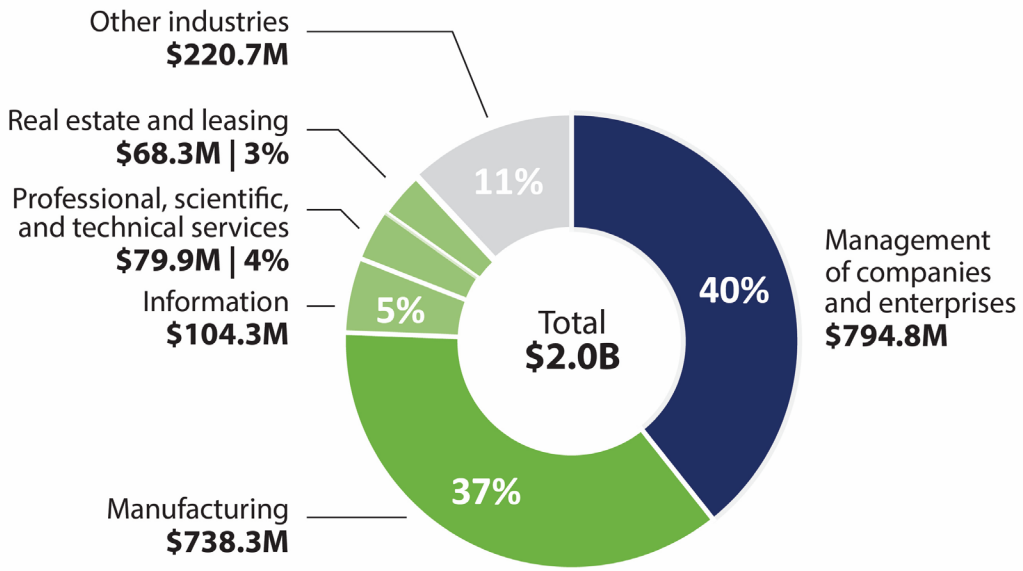
Program	Total FY15–FY24		Annual average	
	Award amount	# of awards	Award amount	# of awards
Property Analytics Firm Infrastructure Grant Fund (CoStar Group) [a]	15.0	1	n.a.	n.a.
Financial Services Expansion Grant Fund (Wells Fargo) [a]	15.0	1	n.a.	n.a.
Space Flight Operations Facilitation Program (Rocket Lab) [a]	15.0	1	n.a.	n.a.
Nitrile Glove Manufacturing Training Program (Blue Star) [a c]	13.1	1	n.a.	n.a.
Agriculture and Forestry Industries Development Grant	12.8	132	1.3	13
Rail Industrial Access Program	12.7	32	1.3	3
Special Workforce Grant Fund (Amazon Web Services) [a]	10.5	1	n.a.	n.a.
Shipping and Logistics Headquarters Grant Program (CMA CGM) [a]	9.0	1	n.a.	n.a.
Pharmaceutical Manufacturing Grant Program (Merck) [a]	7.5	1	n.a.	n.a.
Advanced Production Grant Program and Fund (Morgan Olson) [a c]	7.0	1	n.a.	n.a.
Port of Virginia Economic and Infrastructure Grant	7.0	24	0.7	2
Small Business Investment Grant Fund	6.9	167	0.7	17
VALET Program	6.6	244	0.7	24
Trade Show Assistance Program	4.7	515	0.6	64
New Company Incentive Program [g]	1.3	2	0.2	0
Small Business Jobs Grant Fund Program	1.2	25	0.1	3
Governor's New Airline Service Incentive Fund	0.3	3	0	1
All programs	**$2,006.2M**	**4,988**	**$337.2M**	**523**

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 Development 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 $10.5 million Special Workforce Grant (Amazon Web Services) and $70.0 million Semiconductor Manufacturing Grant (Micron) have been fully paid. [b] Nineteen million of the $75 million in grant funding for the Precision Plastic Manufacturing Grant (LEGO Group) is from Virginia Business Ready Sites Program funding. [c] Program has been canceled. [d] In 2020, the Commonwealth Research Commercialization Fund was combined with other programs to become the Commonwealth Commercialization Fund. [e] The Offshore Wind Component Grant (Siemens Gamesa) was not a custom grant because it was financed through a bond authorization, but it is included here as a grant because it was more like a grant than a tax incentive or loan program, and it also was a custom incentive. [f] The Virginia Talent Accelerator Program was created in 2019 and began making awards in FY20. The program provides recruitment and training services and is not a cash grant to a company. Its value is estimated and represents the internal cost of the accelerator services at the time of announcement. [g] Program expired January 1, 2025.

Grant awards targeted corporate headquarters and manufacturing sectors and urban localities

Grant awards targeted corporate headquarters and manufacturing sectors and urban localities between FY15 and FY24. Forty percent of the grant amount awarded was awarded to businesses in the corporate headquarters sector (management of companies and enterprises), the majority of which was the sizable custom grant award for Amazon HQ2 (Figure 4). Until FY20, the state generally provided fewer and smaller grants for headquarters locations or expansions. Another 37 percent of grant awards were directed to businesses in the manufacturing sector. Both of these sectors are traded industry sectors, which export at least half their goods or services outside the state. Targeting businesses in traded industry sectors is desirable because they bring new revenue into the state.

FIGURE 4
Three-quarters of the total grant award amount was awarded to corporate headquarters and manufacturers (FY15–FY24)



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.

Geographically, the largest amount of grant awards went to urban localities, such as Arlington County, Chesterfield County, the City of Richmond, City of Newport News, and Fairfax County. Rural counties—such as Pittsylvania County—also received large amounts (see Appendix E). Ten localities received approximately 66 percent of the total amount awarded for the period (Table 3).

TABLE 3
Businesses in 10 localities received 66 percent of total grant award amount (FY15–FY24)

Locality	Amount awarded	% of total amount	# awards	% of total awards
Arlington County	$785M	39.1%	102	2.0%
Chesterfield County	97	4.8	71	1.4
Richmond City	84	4.2	457	9.2
Newport News City	79	3.9	248	5.0
Fairfax County	76	3.8	298	6.0
Manassas City	71	3.5	14	0.3
Henrico County	38	1.9	252	5.1
Norfolk City	34	1.7	194	3.9
Pittsylvania County	32	1.6	89	1.8
Danville City	31	1.6	141	2.8
Subtotal	**$1,328M**	**66.2**	**1,866**	**37.4%**
All others	$679M	33.8%	3,122	62.6%
TOTAL	**$2,006M**	**100.0%**	**4,988**	**100.0%**

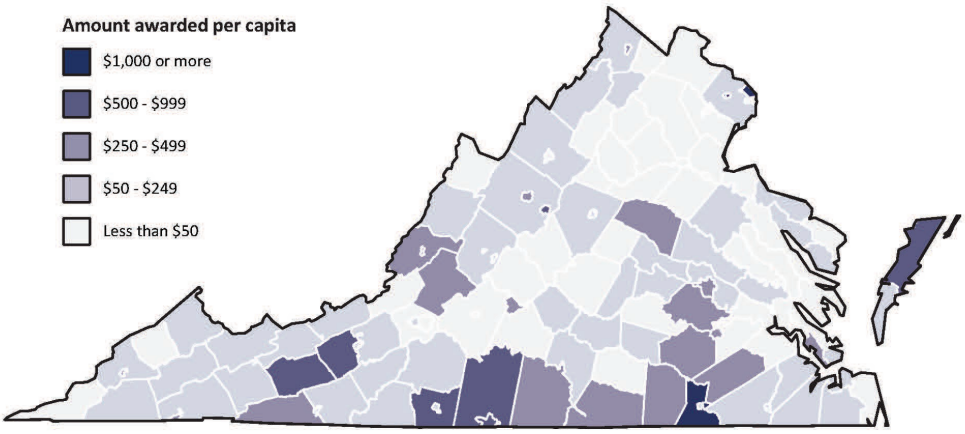
SOURCE: Weldon Cooper Center analysis of economic development incentive grants.
NOTE: Localities were not assigned to 10 Governor's Motion Picture Opportunity Fund (GMPOF), eight GO Virginia, and one Governor's New Airline Incentive Fund projects because the grants benefited more than one locality.

Businesses in urban localities in Northern Virginia and rural localities in the southern 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 49 percent of the total grant amount awarded. Businesses in Tobacco Region localities received approximately 15 percent of the total grant amount awarded, largely because of the contributions of the Tobacco Commission's Tobacco Region Opportunity Fund and Megasite Grant programs and, in Henry County, the Virginia Business Ready Sites Program. The highest per capita award amounts were in:

- Arlington County ($3,270), primarily for the location of Amazon HQ2;
- Manassas City ($1,745), primarily for the Micron expansion;
- Greensville County ($1,451), primarily for development of the Mid-Atlantic Advanced Manufacturing Center;
- Henry County ($979), primarily for the development of Commonwealth Crossing Business Centre; and
- Accomack County ($841), primarily for the location of Rocket Lab and Transportation Partnership and Opportunity Fund improvements to the Mid-Atlantic Regional Spaceport for Northrop Grumman rocket launches.

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

FIGURE 5
Highest per capita grant award amounts are in Arlington, Manassas, and rural localities in Southern Virginia (FY15–FY24)



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

The total grant amount awarded per capita has a slightly positive correlation with the local unemployment rate, poverty rate (which increases when the uniquely large Amazon HQ2 custom grant in Arlington is excluded), and percentage of population that is Black, indicating that more funds are generally provided to businesses in localities that are economically disadvantaged. The number of awards per capita has a much higher positive correlation with these variables.

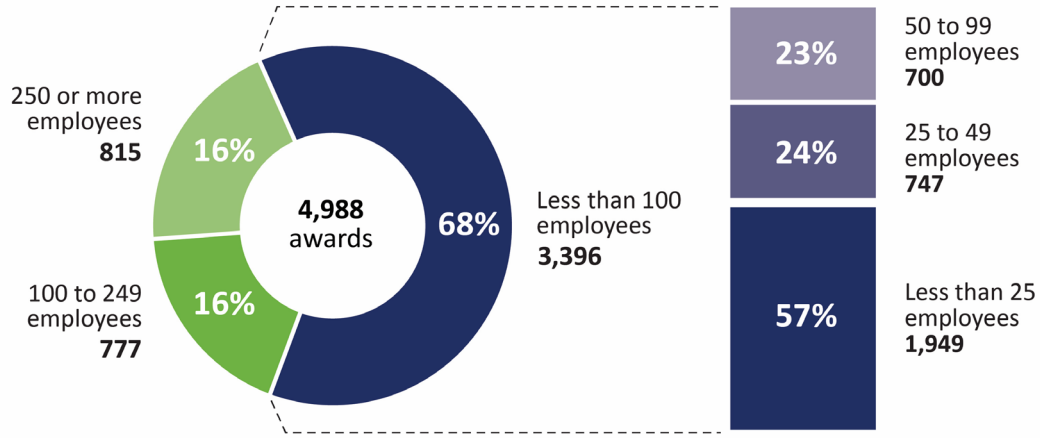
Majority of grant award amounts went to business locations that had fewer than 100 employees at the time of the award

More than two-thirds of the grant award amounts between FY15 and FY24 went to business locations that had fewer than 100 employees at the time the awards were made (Figure 6). Of this group, 57 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 Commercialization Fund, which typically make awards to startup businesses with 10 or fewer employees, on average. These projects, however, received only 17 percent of the total grant amount awarded.

In contrast, 16 percent of grant awards were for large businesses with 250 or more employees, and these projects accounted for more than three-quarters of the total grant award amounts. Custom grants and eight grant programs—the Transportation Partnership Opportunity Fund, Governor's New Airline Service Incentive Fund, Virginia Talent Accelerator Program, Virginia Investment Performance Grant, Commonwealth's Development Opportunity Fund, Port of Virginia Economic and Infrastructure Grant, Virginia Economic Development Incentive Grant, and Rail Industrial Access Program—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.)

FIGURE 6
Majority of grant awards were given to business locations with fewer than 100 employees (FY15–FY24)



SOURCE: Weldon Cooper Center analysis of economic incentive grant awards.
NOTE: Employment records were matched with 2,930 of the 4,988 awards (59 percent) and $1.3 billion of $2.0 billion (65 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.

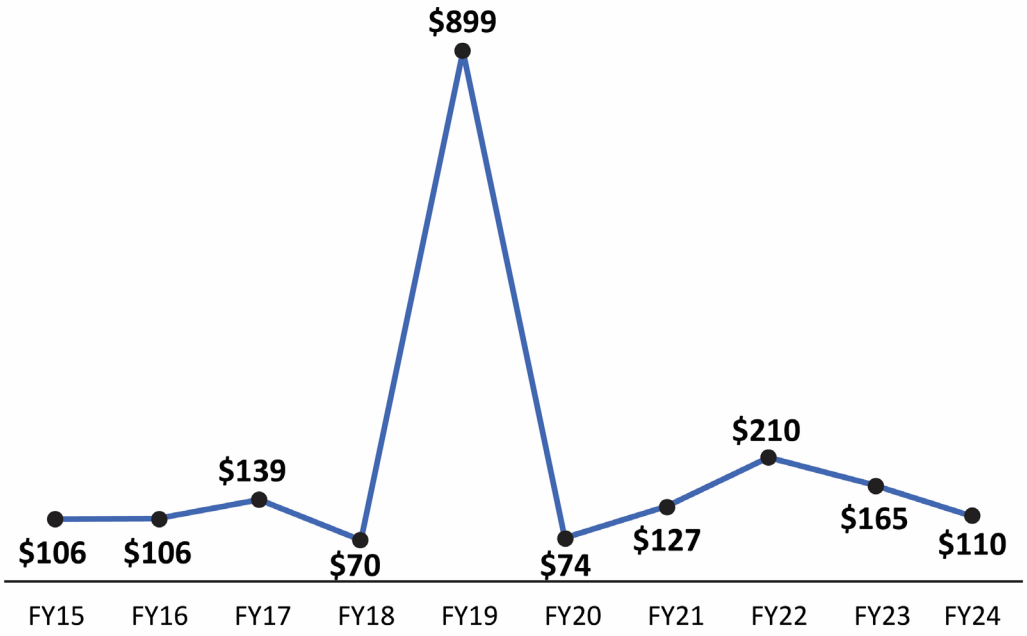
Many businesses have operations in multiple **locations**. Grants and other incentives are often provided to projects that occur at a specific business location.

Grant awards increased recently because of large custom grant awards

Grant awards had generally been stable over time until custom grant awards increased total grant spending in some recent fiscal years. For example, the state awarded large custom grant awards for Amazon HQ2, Amazon Web Services, and Micron in FY19 that totaled $830.5 million, making up 92 percent of total grant award amounts that year (Figure 7). In FY21, the state awarded Microsoft and Volvo custom grants totaling $39.0 million; in FY22 the state awarded custom grants or other incentives for Blue Star Manufacturing, CMA CGM, LEGO Group, and Siemens Gamesa, totaling $114.2 million. Since then, however, the state has awarded only one custom grant (Wells Fargo). (The Cloud Computing Cluster Infrastructure custom grant for Amazon Web Services was adopted by the 2023 General Assembly, but the performance agreement has not yet been signed so it is not included.) (See Appendix D for grant awards by program.)

FIGURE 7

Large custom grants caused a spike in total grant award amounts in FY19 and contributed to increased grant awards in FY21 and FY22 ($M)



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 $3.5 million to a low of $9,055 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 the creation of jobs paying wages over a minimum threshold and some form of business investment or spending in Virginia. The average grant award per expected job for Virginia projects was $8,194 between FY15 and FY24, but it ranged from a high of $63,291 per job (custom grant for Micron) to a low of less than $1,000 (Small Business Jobs Grant Fund, Virginia Jobs Investment Program, and Commonwealth Commercialization Fund). The average grant award for capital investment or additional spending was $41 per $1,000 spent

and ranged from a high of $352 (custom grant for Microsoft) to a low of $5 (Agriculture and Forestry Industries Development Grant).

TABLE 4
Average grant awards by program varied widely (FY15–FY24)

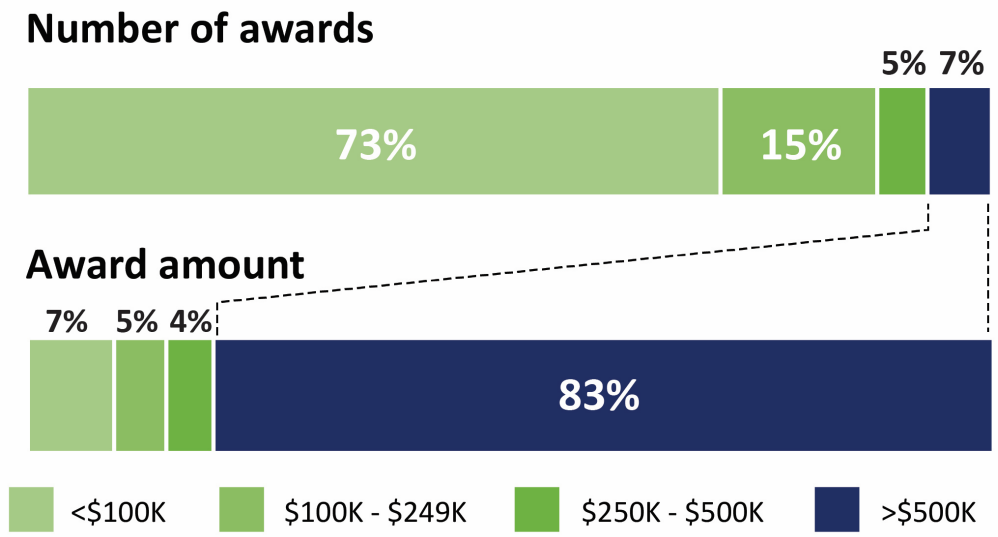
	Average award amount per		
	Project	**$1,000 in spending or investment in Virginia (expected)**	**Jobs created in Virginia (expected)**
Custom grants			
Semiconductor Manufacturing Grant (Micron) [a]	$70,000,000	$23	$63,291
Space Flight Operations Facilitation Program (Rocket Lab USA, Inc.)	15,000,000	146	60,976
Offshore Wind Component Grant (Siemens Gamesa) [a b]	17,100,000	204	55,161
Pharmaceutical Manufacturing Grant (Merck)	7,500,000	8	49,342
Advanced Shipbuilding Production Facility Grant (Huntington Ingalls)	46,000,000	61	46,000
Precision Plastic Manufacturing Grant (LEGO Group)	75,000,000	72	42,589
Shipping and Logistics Headquarters Grant (CMA CGM)	9,042,875	251	21,790
Truck Manufacturing Grant Fund (Volvo)	16,500,000	42	21,236
Major Headquarters Workforce Grant (Amazon HQ2)	750,000,000	375	19,815
Technology Development Grant (Microsoft)	22,500,000	352	15,000
Financial Services Expansion Grant (Wells Fargo)	15,000,000	172	13,636
Advanced Production Grant (Morgan Olson) [a]	7,000,000	121	9,957
Property Analytics Firm Grant (CoStar)	15,000,000	33	7,560
Special Workforce (Amazon Web Services)	10,500,000	125	7,000
Nitrile Glove Manufacturing Training Program (Blue Star) [a]	13,101,000	18	5,317
Average custom grants	**$72,616,258**	**$111**	**$20,603**
All other grants			
Economic Development Access Program	$594,664	$218	$16,490
Transportation Partnership Opportunity Fund	2,617,952	47	9,622
Virginia Investment Performance Grant	846,875	12	8,478
Small Business Investment Grant Fund	41,498	215	8,153
Virginia Economic Development Incentive Grant	3,527,273	83	5,921

	Average award amount per		
	Project	**$1,000 in spending or investment in Virginia (expected)**	**Job created in Virginia (expected)**
Commonwealth's Development Opportunity Fund	$705,409	$17	$4,326
Agriculture and Forestry Industries Devel. Grant	97,346	5	3,685
Rail Industrial Access Program	397,256	11	3,431
Tobacco Region Opportunity Fund	430,903	16	3,328
New Company Incentive Program	656,500	254	2,951
Port of Virginia Economic and Infrastructure Grant	289,583	n.a.	2,142
Job Creation Grant (Enterprise Zone)	45,946	n.a.	1,952
Small Business Jobs Grant Fund Program	48,616	84	902
Virginia Jobs Investment Program	95,353	7	833
Commonwealth Commercialization Fund	62,008	332	844
Real Property Investment Grant (Enterprise Zone)	72,511	36	n.a.
Governor's Motion Picture Opportunity Fund	1,278,216	n.a.	n.a.
Governor's New Airline Service Incentive Fund	113,333	n.a.	n.a.
GO Virginia	689,576	n.a.	n.a.
Tobacco Commission Megasite Grant	2,304,219	n.a.	n.a.
Trade Show Assistance Program	9,055	n.a.	n.a.
VALET Program	27,029	n.a.	n.a.
Virginia Business Ready Sites Program	2,225,377	n.a.	n.a.
Virginia Talent Accelerator Program	446,661	n.a.	n.a.
Average, non-custom projects	**$184,390**	**$24**	**$4,777**
Average, all projects	**$402,208**	**$41**	**$8,194**

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 (which can include positions converted to FTE) and spending or investment were used for programs for which performance already occurred prior to projects receiving a grant award. 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.
[a] Grants have been canceled. [b] The Offshore Wind Component Grant (Siemens Gamesa) is included here with other grants to keep it with other custom incentives, which are grants, and because it is more like a grant program than a tax incentive or loan.

From FY15 to FY24, only 7 percent of awards were more than $500,000. However, these larger awards accounted for 83 percent of grant funding (Figure 8). The 14 custom grant awards alone accounted for 52 percent of grant funding.

FIGURE 8
Seven percent of grant awards accounted for over 80 percent of total grant funding (FY15–FY24)



SOURCE: Weldon Cooper Center analysis of economic development incentive grants.
NOTE: Number of grants awarded is 4,988. Total amount awarded is $2.0 billion (not adjusted for cancelations, recaptures, and refunds).

Completed projects that received grants created over 59,000 jobs and $16 billion in business investment and spending

Projects that received grant awards between FY15 and FY24 and completed their location or expansion project (including those that did not perform), collectively created an estimated 59,311 jobs and $15.8 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 (33,964) and capital investment and other spending ($5.7 billion). Projects funded through the Commonwealth's Development Opportunity Fund ranked second in job creation (14,693 jobs).

TABLE 5
Completed projects created over 59,000 jobs and $16 billion in business spending or investment (FY15–FY24)

Program	# of projects	Spending or investment ($M)	Jobs created
Virginia Jobs Investment Program	551	5,742	33,964
Commonwealth's Development Opportunity Fund	177	4,047	14,693
Job Creation Grant (Enterprise Zone)	515	n.a.	12,125
Tobacco Region Opportunity Fund	109	1,022	3,869
Port of Virginia Economic and Infrastructure Grant	24	n.a.	3,244

The **59,300 jobs and $16 billion in capital investment or other spending** are only counted once (unduplicated) even though the projects creating them received multiple grants for the same job creation and capital investment. For example, Navy Federal Credit Union received a Commonwealth's Development Opportunity Fund grant, Transportation Partnership Opportunity Fund grant, and Virginia Jobs Investment Program grant to create 1,400 jobs and make a $100 million capital investment in Frederick County.

Program	# of projects	Spending or investment ($M)	Jobs created
Rail Industrial Access Program	19	356	2,286
Transportation Partnership Opportunity Fund	6	284	2,092
Special Workforce Grant Fund (Amazon Web Services)	1	113	1,682
Agriculture and Forestry Industries Devel. Grant	56	543	554
Semiconductor Manufacturing Grant (Micron) [a]	1	2,089	415
Virginia Investment Performance Grant	19	236	283
Small Business Jobs Grant Fund	15	0	224
Truck Manufacturing Grant Fund (Volvo) [a]	1	233	65
Real Property Investment Grant (Enterprise Zone)	1,496	2,988	n.a.
Governor's Motion Picture Opportunity Fund	38	481	n.a.
Economic Development Access Program	21	288	n.a.
Commonwealth Commercialization Fund	331	65	n.a.
Offshore Wind Component Grant Program (Siemens Gamesa) [a]	1	0	0
Small Business Investment Grant	2	0	0
Virginia Economic Development Incentive Grant [a]	3	0	0
Total (duplicated):	**3,386**	**$18,487**	**75,496**
Total (unduplicated):		**$15,812**	**59,311**

SOURCE: Weldon Cooper Center analysis of economic development incentive grants.
NOTE: Completed projects represented about $464 million in total awards across programs. Some grant programs, such as the Major Eligible Employer Grant 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 are estimates based on a review of projects with similar business names, locations, time periods, and other factors. VALET and Trade Show Assistance programs (196 and 515 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 Tobacco Commission Megasite Grant, Virginia Business Ready Sites Program, Virginia Talent Accelerator Program, and Governor's New Airline Service Incentive Fund (9, 10, 16, and 3 completed projects respectively) did not report job creation or investment completion attainment.
n.a. indicates that job creation or investment is not one of the criteria for receiving the grant.
[a] Projects for these programs were canceled. Some projects had job creation and capital investment, but others did not. Because these are performance-based grants, the projects received either reduced grant funding (some job creation and capital investment) or no grant funding.

Completed projects include those whose grant performance period ended during the time period analyzed, including projects that did not perform and were canceled. Not all projects that received a grant award between FY15 and FY24 had completed their performance at the end of FY24. Completed projects represent $464 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). Some programs, however, have been found to have higher rates of success in swaying business decisions.

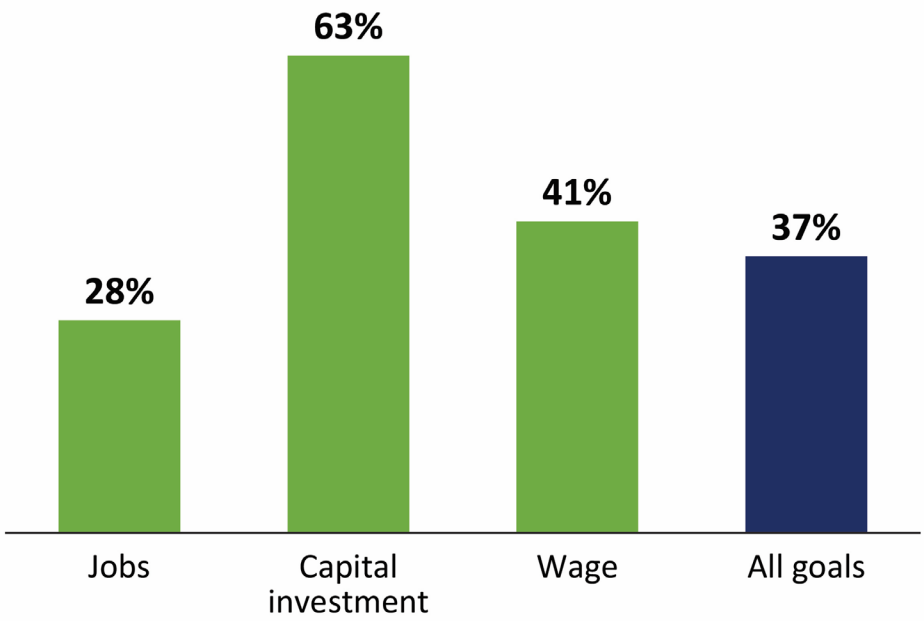
Majority of completed projects met capital investment goals, but only one-quarter met their job creation goals

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-three percent of completed projects met or exceeded their project-specific goals for capital investment or other spending (Figure 9). Forty-one percent met their average wage goals, and 28 percent met their job creation goals.

FIGURE 9
Majority of completed projects met their capital investment goals but not their job and wage goals (FY15–FY24)



SOURCE: Weldon Cooper Center analysis of economic development incentive grants.
NOTE: N=1,353 duplicated projects. Only includes projects from programs that establish project-specific goals.

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 specific goals. Goal achievement was especially low for some programs, particularly for several custom grants where the projects did not perform and were canceled.

TABLE 6
Attainment of project-specific goals varied by program (FY15–FY24)

Program	# of projects	Job creation	Capital investment	Average wage	All goals
Special Workforce Grant Fund (Amazon Web Services)	1	100%	100%	n.a.	100%
Port of Virginia Economic and Infrastructure Grant	24	100	n.a.	n.a.	100

Program	# of projects	Job creation	Capital investment	Average wage	All goals
Commonwealth Commercialization Fund	331	n.a.	n.a.	n.a.	84
Rail Industrial Access Program	19	n.a.	68	n.a.	68
Economic Development Access Program	21	n.a.	76	n.a.	76
Virginia Talent Accelerator Program	16	n.a.	n.a.	n.a.	56
Virginia Jobs Investment Program-Retraining	63	n.a.	92	43%	27
Commonwealth's Development Opportunity Fund	177	23	38	47	21
Tobacco Region Opportunity Fund	109	34	39	29	18
Virginia Investment Performance Grant	19	16	11	16	11
Virginia Jobs Investment Program-Job Creation	488	26	78	42	15
Agriculture and Forestry Industries Development Grant	56	34	45	48	13
Small Business Jobs Grant Fund	15	7	**	40	0
Transportation Partnership Opportunity Fund	6	17	50	n.a.	17
Truck Manufacturing Grant (Volvo) [a]	1	0	0	100	0
Semiconductor Manufacturing Grant (Micron) [a]	1	0	0	100	0
Offshore Wind Component Grant (Siemens Gamesa) [a]	1	0	0	0	0
Virginia Economic Development Incentive Grant	3	0	0	0	0
Small Business Investment Grant	2	0	0	**	0
Total	**1,353**	**27%**	**64%**	**44%**	**32%**

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 68 percent of the participants met or exceeded their goal for increased international sales. The goal of the Virginia Talent Accelerator Program is job training, and the percentage in all goals is based on the proportion of jobs that completed training.
n.a. indicates that job creation or investment is not one of the criteria for receiving the grant.
[a] Projects were canceled.
** indicates that data was not provided for the program.

Some grant programs were more successful overall in achieving job creation and capital investment goals, even though some of the projects did not achieve their project-specific goals. For example, only 38 percent of completed projects that received a Commonwealth's Development 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 83 percent of the total capital investment that was expected (Table 7). The Commonwealth's Development Opportunity

Fund also achieved 52 percent of its job creation and 136 percent of average wage goals collectively. Most grant programs overall achieved average wage goals, even if they did not achieve other goals overall.

TABLE 7
Projects for most grant programs collectively met or almost met their average wage goals (FY15–FY24)

Program	Job creation	Spending or investment	Average wage
Special Workforce Grant Fund (Amazon Web Services)	112%	135%	173%
Port of Virginia Economic and Infrastructure Grant	100	n.a.	n.a.
Transportation Partnership Opportunity Fund	77	56	n.a.
Rail Industrial Access Program	73	38	n.a.
Virginia Jobs Investment Program	53	88	97
Commonwealth's Development Opportunity Fund	52	83	136
Agriculture and Forestry Industries Devel. Grant	42	63	114
Semiconductor Manufacturing Grant (Micron)	38	70	164
Small Business Jobs Grant Fund Program	25	5	110
Tobacco Region Opportunity Fund	22	29	88
Virginia Investment Performance Grant	10	21	74
Truck Manufacturing Grant (Volvo)	8	59	124
Economic Development Access Program	n.a.	486	n.a.
Commonwealth Commercialization Fund	n.a.	106	n.a.
Small Business Investment Grant Fund	0	0	0
Offshore Wind Component Gant (Siemens Gamesa)	0	0	0
Virginia Economic Development Incentive Grant	0	0	0

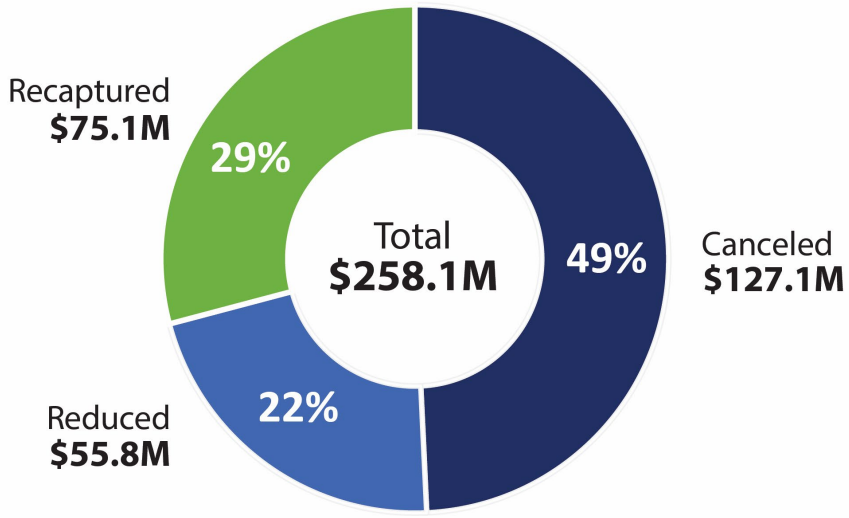
SOURCE: Weldon Cooper Center analysis of economic incentive grants.
NOTE: Not all projects collect average wage levels upon completion of the project to calculate the percentage of projects that attained wage goals. The VALET program is excluded from the table because its goal is to increase international sales. Collectively, program participants increased international sales by 109 percent of the expected goal.
n.a. indicates that job creation or investment is not one of the criteria for receiving the grant.

Grant awards totaling $258 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 $258 million (or 13 percent of the total paid or committed between FY15 and FY24) were canceled, reduced, or recaptured because the projects did not go forward or meet their goals (Figure 10). Nearly half of the $258 million was never paid because projects did not go forward

and were canceled. Another 22 percent was not paid to projects for which awards were reduced because the projects did not meet their goals.

FIGURE 10
Grant awards totaling $258 million were canceled, reduced, or recaptured (FY15–FY24)



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 $75 million was recaptured between FY15 and FY24 from 137 projects that failed to meet their performance goals. Grant programs that make upfront award payments include recaptures. Each of these programs recaptured the following percentages of the funds they awarded:

- Commonwealth's Development Opportunity Fund: 16 percent;
- Agriculture and Forestry Industries Development grant: 13 percent;
- Tobacco Region Opportunity Fund: 2 percent; and
- Small Business Investment Grant: 1 percent.

In addition, 55 percent ($38.2 million) of the original $70 million award amount for the Micron Semiconductor Manufacturing Grant Fund custom grant was recaptured.

Through tax incentives, businesses saved $3.5 billion FY15–FY24

Virginia's economic development tax incentives, which include exemptions, credits, and single sales apportionment, resulted in $3.5 billion in tax savings for businesses between FY15 and FY24. Most ($2.7 billion or 78 percent) of this amount was from the data center sales and use tax exemption. To use this exemption, data centers must meet minimum job creation and capital investment thresholds. Ten other sales and

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

Virginia's retail sales and use tax rate varies by locality: Williamsburg, James City, and York (7 percent); Northern Virginia, Hampton Roads, and Central Virginia (6 percent); Danville, Charlotte, Gloucester, Halifax, Henry, Northampton, Patrick, and Pittsylvania (6.3 percent); rest of state (5.3 percent). 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.

use tax exemptions each provided more than $20 million in incentives to businesses between FY15 and FY24 (Table 8). Many of these larger exemptions (in terms of total savings) are provided to capital-intensive industries, such as data centers, railroads, and airlines, which make substantial equipment purchases to start or upgrade their operations.

TABLE 8
Sales and use tax exemptions provided an estimated $3.5 billion in tax savings to businesses (FY15–FY24)

Exemption	Total savings ($M)	Average savings per year ($M)
Data Centers Exemption [a]	$2,732.1[a]	$683.0
Railroad Common Carriers Exemption	192.8	19.3
Airline Common Carriers Exemption	127.8	12.8
Certain Printed Materials for Out-of-State Distribution Exemption	97.5	9.7
Ships and Vessels Exemption	71.8	7.2
Research & Development Exemption	59.8	6.0
Media Provider Equipment Exemption	49.7	5.0
Pollution Control Equipment & Facilities Exemption	36.4	3.6
Aircraft Parts, Engines, and Supplies Exemption	34.6	5.8
Film, Television, & Audio Production Inputs Exemption	30.0	3.0
Railroad Rolling Stock Exemption	25.7	2.6
Uniform Rental & Laundry Businesses Exemption	8.3	0.8
Virginia Spaceport Users Exemption	8.3	0.8
Semiconductor Manufacturers Exemption	6.6	0.7
Out-of-state Nuclear Facility Repair Exemption	1.5	0.1
Semiconductor Wafers Exemption	1.3	0.1
Contractor Temporary Storage Exemption	1.2	0.1
Taxi Parts & Radios Exemption	1.1	0.1
Controlled Environment Agriculture Exemption	0.2	0.2
Electrostatic Duplicators Exemption	0.1	0.0
Total	**$3,486.5M**	**$760.9M**

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 localities with higher rates, such as Northern Virginia and the Historic Triangle. (See Appendix B for methodology used to estimate the sales and use tax exemptions.)
[a] Amount reflects spending for only a four-year period (FY21–FY24) because the method for collecting and reporting information on the exemption changed; therefore, this amount is an underestimate.

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

Unlike for grants, many tax incentives do not have specific job creation and capital investment requirements. The one exception for which information is readily available is the data center exemption because of new reporting requirements adopted in 2021.

Economic development tax credits provided $449 million in savings to businesses between FY15 and FY24 (Table 9), accounting for about 9 percent of spending on tax incentives. Two coal tax credits account for 37 percent of total economic development tax credits. The largest credit—the Coalfield Employment Enhancement Tax Credit—

was available to coal mining companies to help slow the decline of coal mining activity in Virginia.

Economic development tax credits will account for lower amounts of business tax savings going forward because many tax credits have expired or will expire by January 1, 2026. The only tax credits that remain are the:

- Biodiesel and Green Diesel Fuels Producers Tax Credit (no expiration date),
- Farm Wineries and Vineyards Tax Credit (no expiration date),
- Motion Picture Production Tax Credit (expires January 1, 2027),
- Recyclable Materials Processing Equipment Tax Credit (expires January 1, 2027).

Two of these credits will expire soon unless extended by the General Assembly. (The port-related tax credits expired January 1, 2025, but were converted to grant programs.)

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

TABLE 9
Tax credits provided nearly $449 million in tax savings to businesses (FY15–FY24)

Tax credit	Total savings ($M)
Coalfield Employment Enhancement Tax Credit [a]	$133.9M
Major Research and Development Tax Credit [a]	85.9
Motion Picture Production Tax Credit	64.3
Research and Development Expenses Tax Credit [a]	37.7
Qualified Equity and Subordinated Debt Investment Tax Credit [a]	32.9
Major Business Facility Job Tax Credit [a]	29.9
Virginia Coal Production and Employment Incentive Tax Credit [a]	25.0
Recyclable Materials Processing Equipment Tax Credit	16.4
Virginia Port Volume Increase Tax Credit [a]	15.6
International Trade Facility Tax Credit [a]	2.4
Farm Wineries and Vineyards Tax Credit	1.8
Worker Retraining Tax Credit/Worker Training Tax Credit [a]	1.5
Barge and Rail Usage Tax Credit [a]	1.3
Telework Expenses Tax Credit [a]	0.3
Green and Alternative Energy Job Creation Tax Credit [a]	0.2
Biodiesel and Green Diesel Fuels Producers Tax Credit	0.0
Total, all tax credits	**$449.0M**

SOURCE: Weldon Cooper Center analysis of tax credit information from Virginia Tax.
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.
[a] Expired or will expire by January 1, 2026.

Since 2014, Virginia has allowed manufacturers to use single sales apportionment—a method that can reduce their income tax liability—to help stem the decline of manufacturing jobs in the state. Tax savings for manufacturers using single sales apportionment are estimated to be $246 million between FY15 and FY24, or about $25 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 are estimated to be $0.2 million in FY24.

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.

Business savings from tax incentives have increased over the last two years

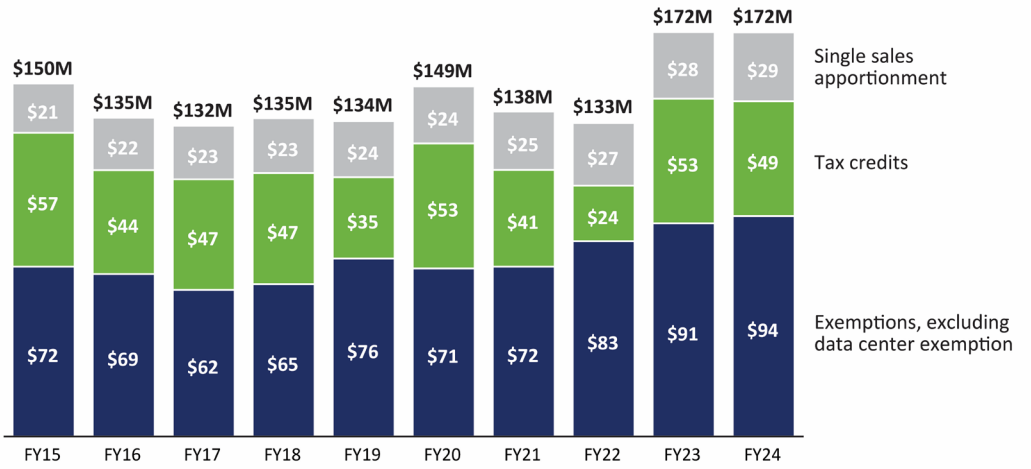
Business savings from tax incentives over the last two years have been higher than in previous years in the 10-year period. Not including the data center exemption, savings from tax incentives fluctuated over the 10-year period but increased to $172 million in FY23 and FY24 (Figure 11). (Including the data center exemption, business savings from tax incentives increased dramatically to $1.2 billion in FY24 because of improved information on the value of the exemption.)

Tax savings changes between years can partially be explained by the introduction of new or expanded tax incentive programs and expiration or repeal of other programs. Increased business savings resulted from the introduction of manufacturer single sales apportionment in 2014 and the Major Research and Development Tax Credit in 2018. Tax savings for these two programs increased to $43.7 million in FY24. Conversely, the Virginia coal tax credits were repealed in 2021. Thus, coal tax credit usage decreased from $37.3 million in FY15 to $5.5 million in FY24 because companies can no longer earn new credits. Tax savings from credits will decline significantly in future years because most of the credits have expired or will expire by January 1, 2026.

Tax incentive spending is also related to general economic conditions. Gradual improvements in the economy through FY20 led to a recovery in business spending and investment. This recovery likely resulted in overall increases in spending on sales and use tax exemptions that target capital-intensive industries, such as rail, air, and water transportation companies. Likewise, the negative impact of the COVID-19 pandemic on business spending is one reason why businesses' tax savings declined in FY21 and FY22.

Industry-specific changes also affect tax incentive usage over time. Before its termination, usage of the Virginia Coal Employment and Production Incentive Tax Credit, which was targeted at thermal coal production, had been declining. Demand for thermal coal had been decreasing because of competition from gas-fired and alternative energy power generation. The Motion Picture Production Tax Credit increased to $15 million in FY24 after an average of $5.5 million per year the previous nine years because of an increase in film and television activity supported by the credit.

FIGURE 11
Business savings from tax incentives (excluding the data center exemption) fluctuated some over the 10-year period and increased in FY23 and FY24



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 some localities, such as Northern Virginia and the Historic Triangle. Not adjusted for inflation. The trend is nearly identical if adjusted for inflation.

Businesses obtained $156 million in loans and gap funding through financing programs FY15–FY24

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

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 of these programs, which 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 two gap financing programs. The Virginia Innovation Partnership Corporation offers gap funding through its Virginia Venture Partners Growth Acceleration Program (GAP) Funds, which enable 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.

These financing programs incentivize different types of business activity than the state's grant programs. Over 58 percent of VSBFA assistance was provided to small businesses in services and trade industries between FY15 and FY24. Seventy percent of Virginia Venture Partner GAP Funds went to businesses 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.

Awards from financing programs have typically been more concentrated in metropolitan areas of the state than grant programs, although more recently grant programs have also been more concentrated in urban localities. Seventy-five percent of VSBFA loans and 99 percent of GAP Fund awards went to projects in metropolitan areas between FY15 and FY24. Nearly sixty percent of GAP Fund assistance went to firms in Northern Virginia, with 36 percent to Fairfax County companies alone. A large portion (25 percent) of the remaining award amounts were made to firms in three 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 (around 65 percent), but reached 85 percent in FY24, because custom grant awards have been significantly higher for metro areas (98 percent of all custom grants awarded during the period).

Total loan assistance and GAP Fund awards generally were provided to areas with stronger economic conditions. These funds were more likely to be awarded in communities with higher median household incomes and lower poverty and unemployment rates. The awards also tended to be awarded in localities with a lower percentage of Black residents.

VSBFA programs helped businesses obtain nearly $30 million in loans and loan enhancements

Small businesses aided by the four VSBFA programs obtained over $30 million in loan and loan enhancement financing between FY15 and FY24 (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.

The average loan or loan enhancement was $129,408, but the average varied among the four programs. The Economic Development Loan Fund provided the greatest amount of average loan assistance per project at $653,897. The SWaM Loan Fund provided the least, at $28,051 per project.

TABLE 10
VSBFA programs helped businesses secure more than $30 million in loans or equity financing (FY15–FY24)

Program	Amount awarded	# of projects	Average award	# of jobs	Loan/loan enhancement per job
Economic Development Loan Fund	$8,500,659	13	$653,897	280	$30,359
Loan Guaranty Program	16,055,880	69	232,694	461	34,828
State Cash Collateral Program	1,500,000	5	300,000	31	48,387
SWaM Loan Fund	4,095,482	146	28,051	559	7,326
Total	**$30,152,022**	**233**	**$129,408**	**1,331**	**$22,654**

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 1,331 jobs. The average loan or loan enhancement assistance per job was $22,654. This figure is not directly comparable to the average grant award per job ($8,194), because state funding for these programs represents only a small portion of the total loan and loan enhancement amount. For example, the Loan Guaranty Program provides a financial guarantee for an eligible business to secure a loan provided by a private bank. The program would be required to obligate funds only if an eligible business defaulted 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.

Virginia Venture Partner GAP Funds provided businesses $31 million in financing

Recipients of GAP Fund financing received $31.2 million between FY15 and FY24 to attract venture capital investment. This program made awards to 372 projects, for an average award of $83,861 per project. Most (75) of the 87 completed projects in the GAP Funds program met their financing objectives for the period, according to the Virginia Innovation Partnership Corporation.

Tourism Development Financing Program provided tourism projects $94.7 million in financing

The Tourism Development Financing Program was created in 2011 and provides gap financing for tourism development projects otherwise unable to access capital. The program allows eligible projects to keep a portion of state sales and use taxes that are generated by the project. Nine projects have been approved for financing by the program through FY24 with the largest being the Kalahari Resort in Spotsylvania County ($73.8 million).

Appendix A: Study mandate

2024–2026 Appropriation Act
Passed as Chapter 725 of the Acts of Assembly, May 2, 2025

§ 1-11 Item 25 E

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

SOURCE: Weldon Cooper Center.

Analysis of grant programs

For the spending analysis, program spending for discretionary and by-right grant programs 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. For purposes of this report, 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 Quarterly Census of Employment and Wages (QCEW) records obtained under a confidentiality agreement with VEC.

These grant records were matched with QCEW 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").

Nineteen grants were not assigned to localities. Nine Governor's Motion Picture Opportunity Fund awards for a total award amount of $19.4 million were also not assigned to localities because filming activities for these projects occurred in multiple locations throughout the state but principally in Central Virginia. Nine GO Virginia projects ($10.5 million) for site improvements benefited several multijurisdictional industrial parks. Lastly, one New Airline Incentive Fund grant benefited an airline (Breeze Airways) that provided new airline service to several airports ($250,000).

Grant project records do not systematically include the employment of businesses receiving awards across programs. The employment size of businesses receiving grants was estimated by matching grant records with VEC 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 FY15 through FY24 were matched by fiscal year of award with the corresponding VEC

employment data by calendar year between 2014 and 2023 (i.e., FY24 project records were matched to calendar year 2023 VEC employment records). Using this process, 59 percent of the total number of awards and 65 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 FY15–FY24 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. Except for the SWaM Loan Fund, there were no defaults over the FY15–FY24 period. Therefore, the historical default rate of approximately 4.5 percent was applied to loans still in progress but no default rate was applied to the other three VSBFA loan programs. In the same manner, no default rate was applied to awarded loans to estimate the "cost" of the loan portion of Tobacco Region Opportunity Fund (TROF) awards. In the last eight 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 Virginia Venture Partners GAP Funds

The Virginia Venture Partners GAP Funds, administered by the Virginia Innovation Partnership Corporation, generate a return on investments in early-stage firms. Gross realized returns derive from merger and acquisition activity, to include escrows, dividends, and milestone payments, along with secondary sale of assets (GAP Funds' equity positions) and convertible note repayments. Based on prior analysis of the program for the period FY11–FY20, the funds recouped nearly $20 million in gross returns for $32.3 million in state appropriations during the period (62 percent). Thus, to estimate program expenditures in this report, it is assumed that only 38 percent of total completed project investment relied on new state appropriations over the period and represented new state spending on the program.

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 (Virginia Tax). These files list tax credit redemptions by fiscal year of utilization based on when the return was processed. (See the Virginia Tax 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 (FY15–FY24) and are not included in this report. 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 FY15, and these incentives are not included in the sections pertaining to awards and performance. They are included in the spending analysis since grant payments were issued between FY15 and FY24. These grants include:

- Aerospace Engine Manufacturing Performance Grant Program (Rolls-Royce),
- Advanced Shipbuilding Training Facility Grant Program (Huntington Ingalls)
- Semiconductor Grant Program (custom grant for Micron awarded in 2005), and
- SRI custom grant.

This report describes four economic development incentive programs that were not included in the 2024 report that had not yet made awards or provided financial benefits as of FY24. They include the Cloud Computing Cluster Infrastructure Grant (Amazon Web Services), the Financial Services Expansion Grant (Wells Fargo), the Property Analytics Firm Infrastructure Grant (CoStar Group), and the Controlled Environment Agriculture Exemption.

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 Virginia Tax (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 Virginia Tax 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, Virginia Tax 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 Virginia Tax fiscal impact estimates and staff-generated estimates based on IMPLAN and other data sources (Table B-2). Virginia Tax 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 Virginia Tax in the early- and mid-1990s. More recent estimates are sometimes available when Virginia Tax issues fiscal impact estimates to inform new General Assembly legislation. Weldon Cooper Center estimates were substituted for Virginia Tax estimates in three different situations:

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

Weldon Cooper Center estimates for tax revenue rely primarily on IMPLAN data for Virginia. IMPLAN is a commercial economic impact model produced by IMPLAN Group, LLC. 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 LightcastTM, Virginia Employment Commission, Bureau of Labor Statistics, and Bureau of Transportation Statistics were 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), Lightcast™
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	IMPLAN, Economic Census, Lightcast™
Controlled Environment Agriculture Exemption	Virginia Department of Agriculture and Consumer Services, Virginia Employment Commission (VEC), and IMPLAN
Contractor Temporary Storage Exemption	Virginia Tax (Sales and use tax study 1995)
Data Centers Exemption	VEDP Data Center Exemption Survey data
Electrostatic Duplicators Exemption	IMPLAN, Lightcast™
Film, Television, & Audio Production Inputs Exemption	IMPLAN, Lightcast™
Media Provider Equipment Exemption	Virginia Tax estimates (2017 and 2022)
Out-of-State Nuclear Facility Repair Exemption	IMPLAN, VEC QCEW, Lightcast™
Pollution Control Equipment & Facilities Exemption	Weldon Cooper Center survey of Virginia Tax form ST-11A users
Railroad Common Carriers Exemption	IMPLAN
Railroad Rolling Stock Exemption	RailInc, Lightcast™, U.S. Census Commodity Flow data
Research & Development Exemption	NSF Business R&D and Innovation Survey
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 QCEW
Taxi Parts & Radios Exemption	Virginia Taxicab Association, Virginia Department of Motor Vehicles, BLS QCEW
Uniform Rental & Laundry Businesses Exemption	IMPLAN, Lightcast™
Virginia Spaceport Users Exemption	Number of Mid-Atlantic Regional Spaceport launches and revenue per launch from Federal Aviation Administration

SOURCE: Weldon Cooper Center.

For the current report, the data center exemption methodology was revised to conform with the methodology used by Virginia Tax and VEDP. Previous estimates were based on the job creation and capital investment information data centers reported to VEDP to demonstrate they met the eligibility

requirement to use the exemption. In 2021, VEDP began collecting annual job creation, capital investment, and the exemption value from all data centers using the exemption for a new biennial report required in statute. The previous method markedly underestimated actual data center exemption tax expenditures, at least in part, because it did not accurately capture information from data centers after they qualified for the exemption. Eligible data center expenditures for computer equipment and software were multiplied by the effective state tax rate (4.28 percent after adjusting for the dealer discount) to arrive at new state revenue impact estimates. Exempted amounts pertaining to the local option sales tax and regional sales taxes are excluded in this report. This new and more complete information is available only for FY21 through FY24.

For other sales and use tax exemptions, the sectors targeted vary by exemption, as do the categories of purchases that are eligible for exemption. Generally, 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., FY15 is the average of CY14 and CY15). The last calendar year of data available from IMPLAN is 2023. Therefore, FY24 revenue estimates were calculated by inflating the FY23 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 Virginia Tax. 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 performed only 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 Virginia Tax fiscal impact estimates; and

- state economic development performance evaluations published by state agencies or their consultants in Virginia and other states.

Appendix C: Incentive program descriptions

Ninety-seven economic development incentive programs are subject to this review. These include 48 grant programs, 16 tax credits, 20 tax exemptions, and 13 other programs.

Grant programs

Thirteen state agencies administer 48 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).

Programs also target 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),
- Amazon Web Services (Cloud Computing Cluster Infrastructure Grant and Special Workforce Grant Fund),
- Blue Star Manufacturing (Nitrile Glove Manufacturing Training Grant),
- CMA CGM (Shipping and Logistics Headquarters Grant),
- Costar Group (Property Analytics Firm Infrastructure Grant),
- LEGO Group (Precision Plastic Manufacturing Grant),
- Merck (Pharmaceutical Manufacturing Grant),
- Micron (Semiconductor Manufacturing Grant and Current and Mature Semiconductor Technology Grant),
- Morgan Olson (Advanced Production Grant),
- Microsoft (Technology Development Grant Fund),
- Huntington Ingalls (Advanced Shipbuilding Training Facility Grant and Advanced Shipbuilding Production Facility Grant),
- Rocket Lab (Space Flight Operations Facilitation Program),
- Rolls-Royce Corporation (Aerospace Engine Manufacturing Performance Grant),
- Siemens Gamesa (Offshore Wind Component Grant),
- Volvo (Truck Manufacturing Grant Fund), and
- Wells Fargo (Financial Services Expansion Grant Fund).

Several of these custom grants for these large projects have been canceled: Blue Star Manufacturing, Micron (Semiconductor Manufacturing Grant), Morgan Olson, Siemens Gamesa, and Volvo.

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-six percent of total spending on economic incentive grants over the FY15 to FY24 period was administered by two state agencies: the Virginia Economic Development Partnership (60 percent) and the Department of Housing and Community Development (16 percent). The Tobacco Region Revitalization Commission and Virginia Film Office also awarded large portions of total grant funding at 9 percent and 5 percent of the total, respectively.

TABLE C-1
Forty-eight incentive grant programs are administered by 13 state agencies

State agency/program *(year enacted)*	Purpose	Description
Virginia Innovation Partnership Corporation (formerly Center for Innovative Technology)		
Commonwealth Commercialization Fund *(2011)*	Promote high technology economic development through commercialization of promising research and development.	Grants are made based on 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 grants requests are made by the host political jurisdiction and must be locally matched.
Department of Small Business and Supplier Diversity		
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 $50,000 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.

State agency/program *(year enacted)*	Purpose	Description
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) site development projects *(2017)*	Promote private sector business and employment growth through regional cooperation.	Grant funds are allocated to cooperative business site development projects using the guidance of competitive assessments developed by VEDP for the Virginia Business Ready Sites Program.
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 capped at $750,000, and businesses must match Railroad Industrial Access funding with a minimum of 30% local or private funding. 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 capped at $850,000 and 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 make onsite and offsite transportation access improvements related to economic development such as road, rail, mass transit, or other transportation access improvements. Projects must meet Commonwealth's Development Opportunity Fund or Virginia Investment Performance Grant program criteria.

Department of Aviation		
Governor's New Airline Service Incentive Fund *(2020)*	Provide or assist in the provision of marketing, advertising, or promotional activities by airlines in connection with the launch of new air passenger service at Virginia airports.	Grants are available for the first 12 months of service. Grant amounts vary from $5,000 to $25,000 for one route based on whether service is year-round or seasonal and daily or less than daily. Applicant airlines may qualify for multiple routes throughout the state and receive combined grants of up to $250,000.
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 10% of qualified investments made in small businesses not to exceed $250,000 per investor.
Tobacco Region Revitalization Commission		
Agribusiness Grants *(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 Grants *(2010)*	Develop large, business-ready and publicly owned industrial sites across the tobacco region to attract major employment and investment projects.	Megasite funding is available only for the eight 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 Grants *(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 Grants *(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.

Tobacco Region Opportunity Fund *(1999)*	Attract new jobs and investments for the Tobacco Region through business attraction and expansion.	Program provides both grants and loans. Requests are initiated by the host. Eligible projects must create jobs that pay an annual average wage that is above the locality's prevailing annual average wage. Applications are evaluated using a ROI model with award amounts based on that analysis. To receive an award, the ROI results must indicate a minimum award of $10,000.
Virginia Economic Development Partnership		
Advanced Production Grant Program and Fund (Morgan Olson) *(2020; project was canceled)*	Promote the location of business truck manufacturing facility in the Commonwealth. This customized performance-based grant was 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 and annual average wage.
Advanced Shipbuilding Training Facility Grant Program (Huntington Ingalls) *(2011)*	Promote the expansion of advanced shipbuilding in the Commonwealth. This customized performance-based grant was used to support the growth of Huntington Ingalls 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 (Huntington Ingalls) *(2016)*	Promote the expansion of advanced shipbuilding in the Commonwealth. This customized performance-based grant was used to support the expansion of Huntington Ingalls 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; project was canceled)*	Attract an aerospace engine manufacturer to locate in the Commonwealth. This customized performance-based grant was 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, annual average wages, capital investment, and number of trainees.
Virginia Business Ready Sites Program *(2016)*	Encourage the development of sites and associated infrastructure for industrial and commercial uses as tools for business attraction.	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.

Cloud Computing Cluster Infrastructure Grant (Amazon Web Services) *(2023)*	Promote cloud computing by providing funds for companies creating significant numbers of jobs and making large capital investment. This customized performance-based grant is used to support the expansion of Amazon data centers in multiple Virginia localities.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the state and the company. Performance measures include employment, annual average wages, and capital investment.
Commonwealth's Development Opportunity Fund *(1996)*	Attract new businesses and support existing business expansion.	Grant program is a discretionary deal closing fund for firms exporting at least half of output outside state. Funds must be matched by host locality and are used for site acquisition and improvement, infrastructure, building construction, and employee training.
Current and Mature Semiconductor Technology Grant Fund (Micron) *(2025)*	Promote and expand semiconductor product manufacturing. This customized performance-based grant will be used to support the expansion of Micron in Manassas 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 average annual wages.
Financial Services Expansion Grant Fund (Wells Fargo) *(2024)*	Support expansion of financial services facility in the Commonwealth. This customized performance-based grant is used to support the expansion of Wells Fargo in Roanoke County.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the Commonwealth and the company. Performance measures include employment, capital investment, and average annual wages.
Lithium-Ion Battery Separator Manufacturing Grant (Microporous) *(2025)*	Attract an ion battery separator manufacturer to locate in the state. This customized performance-based grant is used to support the location of Microporous in Pittsylvania County.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the Commonwealth and the company. Performance measures include employment, capital investment, and wage levels.
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.
Major Headquarters Workforce Grant Fund (Amazon HQ2) *(2019)*	Attract a major corporate headquarters to locate in the Commonwealth. This customized performance-based grant is used to support the establishment of the Amazon HQ2 in Arlington County.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the Commonwealth and the company. Performance measures include employment, capital investment, and average annual wages.

Nitrile Glove Manufacturing Training Program (Blue Star) *(2022; project was canceled)*	Support location, recruitment and training for nitrile glove manufacturing company. This customized performance-based grant was used to support the location of Blue Star Manufacturing in Wythe County.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the Commonwealth and the company. Performance measures include employment, capital investment, and average annual wages.
Pharmaceutical Manufacturing Grant Program (Merck) *(2020)*	Support expansion of pharmaceutical manufacturing facility in the Commonwealth. This customized performance-based grant was 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, annual average wages, and capital investment.
Precision Plastic Manufacturing Grant Program (LEGO Group) *(2023)*	Support the location of a company that engages in the manufacture and distribution of precision plastic products in the Commonwealth. This customized performance-based grant is used to support the location of LEGO Group in Chesterfield County.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the Commonwealth and the company. Performance measures include employment, capital investment, and average annual wages.
Property Analytics Firm Infrastructure Grant (CoStar Group) *(2024)*	Support expansion of real estate analytics firm in the Commonwealth. This customized performance-based grant is used to support the expansion of the Costar Group in the City of Richmond.	Performance-based payments based on employment, capital investment, and average annual wages are used to reimburse the City of Richmond for funding infrastructure improvements in vicinity of firm expansion. The firm is also given option to utilize market-based sourcing in corporate income tax apportionment in lieu of cost of performance method if performance benchmarks are achieved and maintained.
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 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.
Semiconductor Manufacturing Grant Fund (Micron) *(2019; project was canceled)*	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 are based on attainment of performance milestones specified in a performance agreement between the Commonwealth and the company. Performance measures include employment, capital investment, and average annual wages.

Shipping and Logistics Headquarters Grant Program (CMA CGM) *(2021)*	Support retention and expansion of shipping and logistics company in the Commonwealth. This customized performance-based grant was used to support the retention and expansion of CMA CGM in the City of Norfolk.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the Commonwealth and the company. Performance measures include employment, capital investment, and average annual wages.
Space Flight Operations Facilitation Program (Rocket Lab) *(2024)*	Support location, including site development and construction, for guided missile and space vehicle parts company in the Commonwealth. This customized performance-based grant is used to support the location of Rocket Lab in Accomack County.	Performance-based payments based upon employment, capital investment, and average annual wages used to reimburse the Virginia Space Authority for funding construction of a shell building for the company's use.
Special Workforce Grant Fund (Amazon Web Services) *(2019)*	Attract an eservices company to locate operations in the Commonwealth. This customized performance-based grant was used to establish Amazon Web Services in Fairfax County.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the Commonwealth and the company. Performance measures include employment, capital investment, and average annual wages.
Technology Development Grant Fund (Microsoft) *(2021)*	Promote location of technology company. This customized performance-based grant was used to support attraction of the Microsoft software development and R&D facility in Fairfax County.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the Commonwealth and the company. Performance measures include employment, capital investment, and average annual wages.
Truck Manufacturing Grant Fund (Volvo) *(2021; project was canceled)*	Promote the expansion of truck manufacturer in Pulaski County. This customized performance-based grant was used to support the expansion of Volvo Trucks in Pulaski County.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the Commonwealth and the company. Performance measures include employment, capital investment, and average annual wages.
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 of 400 jobs that pay 1.5 times the local prevailing average wage (or create 300 jobs paying 2.0 times the local prevailing average wage) and make a capital investment of $6,500 per job or more.

Virginia Investment Performance Grant *(1999)*	Encourage Virginia manufacturer retention and expansion through new capital investment and R&D.	Grant is targeted to manufacturers that have operated in the state for at least 3 years, make a capital investment of at least $25 million, and face a high risk of relocating elsewhere. New job creation is not required, but current employment levels must be maintained throughout the annual grant payment period.
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. Criteria vary for small and large businesses: job creation awardees must create at least 5 or 25 new jobs and make a capital investment of at least $100,000 or $1 million.
Virginia Leaders in Export Trade Program *(2002)*	Help companies expand their markets and encourage the export of products and services to international markets.	The program provides grants, technical assistance, and training to assist eligible businesses to develop international export markets. Reimbursement is up to $30,000 per company for approved export-related expenses and is competitive. Awardees must complete a two-year program.
Virginia Talent Accelerator Program (custom workforce incentive) *(2019)*	Expedite set-up and scale-up of new tradable sector operations.	The program 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 25 jobs (for manufacturing and distribution) or 50 jobs (for other eligible operations) in the first year of operation and make a significant capital investment.
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		
Offshore Wind Component Grant Program (Siemens Gamesa) *(2021; project was canceled)*	Fund capital projects for infrastructure improvements necessary to improve the Portsmouth Marine Terminal to handle loading in and out of large, heavy offshore wind components and serve as an offshore wind hub. This customized performance incentive (bond authorization) was used to support the location of Siemens Gamesa in the City of Portsmouth.	Incentive payments are based on attainment of performance milestones specified in a performance agreement between the Commonwealth and the company. Performance measures include employment, capital investment, and average annual wages.
Port of Virginia Economic and Infrastructure 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 import/export industry. The award per job is scaled to the number of jobs created.

Includes descriptions of custom grants for Micron and Microporous which were awarded in 2025 and will be included in subsequent reports.

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/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. Most of the tax credits on Table C-2 will expire by January 1, 2026.

TABLE C-2
Sixteen economic development tax credits are available through state's corporate and individual income tax

Program	Purpose	Description
Barge and Rail Usage Tax Credit *(2011)* *(expired January 1, 2025)*	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 based on 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 two 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)* *(expired 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 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 and Alternative Energy Job Creation Tax Credit *(2010)* *(expired January 1, 2025)*	Promote creation of jobs in renewable and alternative energy industries.	Tax credit for creating green jobs during the taxable year. The annual credit amount is $500 per green full-time job created that pays at least $50,000 per year in wages. The credit is first allowed for the taxable year in which the job has been filled for at least one year and for each of the four succeeding taxable years.
International Trade Facility Tax Credit *(2011)* *(expired January 1, 2025)*	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. Job credit is equal to $3,500 per job. Capital investment credit is equal to 2 percent of capital investment.
Major Business Facility Job Tax Credit *(1995)* *(expired July 1, 2025)*	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 exceeding threshold of 50 jobs or 25 jobs for enterprise zone/economically distressed areas.

Program	Purpose	Description
Major Research and Development Tax Credit *(2016)* *(expired January 1, 2025)*	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 bonuses rates for Virginia resident payroll and production in economically distressed areas.
Qualified Equity and Subordinated Debt Investment 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.
Research and Development Expenses Tax Credit *(2011)* *(expired January 1, 2025)*	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 is equal to up to $1,200 per teleworking employee or $20,000 for conducting a telework assessment. Maximum credit is $50,000 per calendar year.
Virginia Coal Employment and Production Incentive Tax Credit *(2001)* *(expired January 1, 2022)*	Encourage use of Virginia coal by Virginia power generators to increase Virginia coal production and employment.	Tax credit of $3 per ton of Virginia mined coal purchased and consumed by qualified electricity generator or person with an economic interest in coal.

Program	Purpose	Description
Virginia Port Volume Increase Tax Credit *(2011)* *(expired January 1, 2025)*	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.
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.
Worker Training Tax Credit (replaces Worker Retraining Tax Credit) *(2019)* *(expired July 1, 2025)*	Encourage worker training to improve productivity and employment retention.	Tax credit 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

Twenty 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 their actual capital investment and job creation. 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
Twenty sales and use tax exemptions reduce taxes at point of sale

Exemption	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.
Aircraft Parts, Engines, and 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.
Controlled Environment Agriculture Exemption *(2023)*	Promote growth of indoor, closed, controlled-environment commercial agricultural facilities including indoor vertical farming and greenhouses.	Tax exemption for Controlled Environment Agriculture (CEA) enterprises. Exemption applies to items needed to create, support, and maintain the necessary growing environment for plants, including internal, external, and structural components.
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 Centers 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.

Exemption	Purpose	Description
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 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.
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.

Exemption	Purpose	Description
Semiconductor Manufacturers Exemption *(2006)*	Promote semiconductor manufacturing industry.	Tax exemption for semiconductor cleanrooms or equipment, fuel, and supplies used when 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 and 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 rental or lease 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 Virginia Innovation Partnership Corporation 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
Thirteen other tax incentives, loan, and gap financing programs target economic development

Program	Purpose	Description
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.
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 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 helps 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.
Manufacturing Single Sales Factor Apportionment *(2009)*	Promote manufacturing employment growth.	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.

Program	Purpose	Description
New Company Incentive Program *(2018)* *(expired January 1, 2025)*	Promote economic development in 51 qualified economically distressed counties.	Program offers modified corporate income tax apportionment factor and consideration for grant from Commonwealth's Development Opportunity Fund for new traded 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. Investment must be made between April 1, 2010, and June 30, 2020. Qualified businesses must have gross revenues of less than $3 million and have received less than $3 million in equity or debt investments.
SWaM Loan 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 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 apply, demonstrate a tourism deficiency, and provide tax incentives or regulatory flexibility for a designated tourism zone where the project occurs.

Program	Purpose	Description
Venture Capital Account Subtraction *(2018)*	Promote investment in Virginia early-stage companies.	Income tax subtraction or certain income attributable to an investment in a Virginia venture capital account, defined as an investment fund that (i) invests at least 50 percent of its funds invested during the year in which the taxpayer claims a subtraction, or any of the previous five years, in qualified portfolio companies and (ii) employs at least one investor who has either at least four years of professional experience in venture capital investment or substantially equivalent experience. Investment must be made between January 1, 2018, and December 31, 2023.
Virginia Venture Partners 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 Virginia Innovation Partnership Corporation (VIPC) holds an ownership position in the company while the company grows operations and value.
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 with the Commercial Orbital Transportation Services division of the National Aeronautics and Space Administration or other space flight entity.

Appendix D: Spending or tax expenditures by incentive

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

Incentive	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	Total
Advanced Production Grant Program and Fund (Morgan Olson)	--	--	--	--	--	0.0	0.5	0.0	0.0	0.0	$0.5M
Advanced Shipbuilding Training Facility Grant Program (Huntington Ingalls)	8.03	7.59	7.16	--	--	--	--	--	--	--	22.8
Advanced Shipbuilding Production Facility Grant Program (Huntington Ingalls)	--	--	0.0	0.0	6.0	0.0	8.0	8.0	8.0	8.0	38.0
Aerospace Engine Manufacturing Performance Grant Program (Rolls Royce)	0.0	0.0	0.0	0.0	0.0	11.0	0.0	--	--	--	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	0.6	0.8	1.6	0.5	1.2	0.6	0.8	2.7	1.3	0.2	10.2
Virginia Business Ready Sites Program	--	--	0.9	0.0	0.4	0.0	0.0	7.0	89.3	0.0	97.6
Commonwealth's Development Opportunity Fund	15.0	14.4	22.0	6.6	9.6	10.2	13.8	19.4	18.8	28.2	158.1
Commonwealth Commercialization Fund	1.0	1.5	1.3	0.9	1.3	1.9	3.2	2.7	6.5	2.6	22.9
Economic Development Access Program	0.7	0.7	3.6	2.1	1.5	1.3	2.0	0.7	0.9	2.3	15.7
Financial Services Expansion Grant (Wells Fargo)	--	--	--	--	--	--	--	--	--	0.0	0.0
GO Virginia (site development projects)	--	--	0.0	0.4	2.8	0.0	5.7	2.2	5.7	0.4	17.2
Governor's Motion Picture Opportunity Fund	2.9	12.1	0.8	5.8	1.4	3.0	5.5	0.5	9.3	2.8	44.2
Governor's New Airline Service Incentive Fund	--	--	--	--	--	--	--	0.2	0.0	0.1	0.2
Job Creation Grant (Enterprise Zone)	3.1	2.7	1.8	2.2	2.7	2.9	1.9	2.5	1.8	2.0	23.7
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)	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Incentive	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	Total
Tobacco Commission Megasite Grant	6.2	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	10.9
New Company Incentive Program (grant portion)	--	--	--	0.0	0.0	0.0	0.6	0.7	0.0	0.0	1.3
Nitrile Glove Manufacturing Training Program (Blue Star)	--	--	--	--	--	--	--	0.0	0.0	0.0	0.0
Offshore Wind Component Grant Program (Siemens Gamesa)	--	--	--	--	--	--	--	0.0	0.0	0.0	0.0
Pharmaceutical Manufacturing Grant Program (Merck)	--	--	--	--	--	0.0	0.0	2.5	2.5	0.0	5.0
Port of Virginia Economic and Infrastructure Grant	0.0	0.3	2.2	0.5	0.1	1.3	0.7	1.0	0.5	0.5	7.0
Precision Plastic Manufacturing Grant Program (LEGO Group)	--	--	--	--	--	--	--	0.0	0.0	8.4	8.4
Property Analytics Firm Infrastructure Grant Fund (CoStar Group)	--	--	--	--	--	--	--	--	--	0.0	0.0
Rail Industrial Access Program	0.3	0.9		1.3	0.7	0.6	1.3	2.2	3.0	1.6	12.0
Real Property Investment Grant (Enterprise Zone)	9.1	9.3	10.9	10.7	10.8	11.6	12.6	11.1	9.4	13.2	108.5
Semiconductor Custom Grant (Micron 2004)	5.4	3.8	--	--	--	--	--	--	--	--	9.2
Semiconductor Manufacturing Grant Fund (Micron 2019)[a]	--	--	--	--	0.00	50.0	20.0	0.0	0.0	-38.2	31.8
Shipping and Logistics Headquarters Grant Program (CMA CGM)	--	--	--	--	--	--	--	0.0	0.0	1.4	1.4
Small Business Investment Grant Fund	0.1	0.1	1.2	0.5	0.8	0.8	0.8	0.8	0.8	0.8	6.9
Small Business Jobs Grant Fund Program	0.2	0.0	0.4	0.0	0.0	--	--	--	--	--	0.6
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
Space Flight Operations Facilitation Program (Rocket Lab)	--	--	--	--	--	--	--	--	--	5.6	5.6
Special Workforce Grant Fund (Amazon Web Services)	--	--	--	--	0.0	0.0	0.0	10.5	0.0	0.0	10.5
Technology Development Grant Fund (Microsoft)	--	--	--	--	--	--	0.0	0.0	5.6	5.6	11.3
Tobacco Region Opportunity Fund	5.5	9.1	2.9	2.8	3.5	1.9	1.1	1.8	0.9	0.2	29.8
Transportation Partnership Opportunity Fund	6.0	0.0	0.0	0.0	11.2	0.0	1.0	0.0	2.8	0.0	21.0

Incentive	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	Total
Truck Manufacturing Grant Fund (Volvo)	--	--	--	--	--	--	2.0	2.0	0.0	0.0	4.0
Virginia Economic Development Incentive Grant	2.0	0.0	13.3	0.0	0.0	0.0	0.0	2.0	9.0	3.5	29.8
Virginia Investment Performance Grant	5.5	5.0	1.6	1.0	3.4	4.3	8.1	9.9	0.0	0.0	38.7
Virginia Jobs Investment Program	5.9	9.1	8.4	3.8	2.0	2.3	3.1	3.5	1.7	1.3	41.1
VALET Program	0.3	0.3	0.6	0.7	0.5	0.6	0.5	0.8	0.7	0.8	5.7
Virginia Talent Accelerator Program	--	--	--	--	--	1.3	2.8	9.8	1.3	3.9	19.0
Virginia Trade Show Assistance Program	--	--	0.6	0.5	0.6	0.7	0.4	0.5	0.6	0.7	4.7
Total, all grants	**77.7**	**77.7**	**81.1**	**45.0**	**60.5**	**106.2**	**96.5**	**105.0**	**180.4**	**94.2**	**$924.3M**
Total, noncustom grants	64.31	66.30	73.93	45.04	54.51	45.20	65.97	81.97	164.32	65.13	726.69
Total, custom grants	13.43	11.39	7.16	0.00	6.00	61.00	30.50	23.00	16.13	29.04	197.64

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 sum because of rounding. Spending on the New Company Incentive Program is included here because the incentive payments were in the form of grants.
[a] The negative amount shown in FY24 is the amount recaptured when the grant was canceled in FY24.
-- 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	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	Total
Barge and Rail Usage Tax Credit	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.1	$1.3M
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	28.4	23.4	18.9	15.2	16.1	7.9	9.3	0.3	8.9	5.5	133.9
Farm Wineries and Vineyards Tax Credit	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	1.8
Green and Alternative Energy Job Creation Tax Credit	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
International Trade Facility Tax Credit	0.1	0.3	0.3	0.3	0.9	0.1	0.1	0.0	0.1	0.1	2.4
Major Business Facility Job Tax Credit	4.1	0.8	6.8	1.8	1.3	6.3	2.2	0.8	4.0	1.8	29.9
Major Research and Development Tax Credit	--	--	--	6.1	4.8	17.2	12.0	9.9	21.3	14.6	85.9

Incentive	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	Total
Motion Picture Production Tax Credit	7.2	5.5	6.6	6.1	0.0	7.2	5.8	4.5	6.5	15.0	64.3
Qualified Equity and Subordinated Debt Investment Tax Credit	2.1	2.4	2.2	2.8	3.2	3.9	4.2	3.2	5.0	4.0	32.9
Recyclable Materials Processing Equipment Tax Credit	0.6	2.1	1.7	1.4	1.5	2.2	2.2	1.3	1.8	1.5	16.4
Research and Development Expenses Tax Credit	4.2	4.7	4.2	4.2	4.1	5.2	2.6	2.7	2.4	3.4	37.7
Telework Expenses Tax Credit	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	--	--	0.3
Virginia Coal Employment and Production Incentive Tax Credit	8.9	3.1	3.7	6.8	0.5	1.3	0.6	0.1	0.0	--	25.0
Virginia Port Volume Increase Tax Credit	0.7	0.9	2.2	1.8	1.8	1.4	1.8	0.3	2.2	2.4	15.6
Worker Retraining Tax Credit	0.2	0.2	0.2	0.3	0.0	0.2	0.0	0.0	--	--	1.1
Worker Training Tax Credit	--	--	--	--	--	0.0	0.1	0.0	0.1	0.1	0.4
Total	**56.9**	**44.1**	**47.0**	**47.1**	**34.5**	**53.0**	**41.1**	**23.6**	**52.9**	**48.8**	**$449.0M**

SOURCE: Weldon Cooper Center analysis of Virginia Tax's Annual Reports for Fiscal Years 2015–2024.
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 sum 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	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	Total
Airline Common Carriers Exemption	10.5	11.4	11.0	9.8	9.9	8.7	9.7	14.9	20.6	21.3	$127.8M
Aircraft Parts, Engines, and Supplies Exemption	--	--	--	--	5.5	5.6	5.7	5.8	6.0	6.1	34.6
Certain Printed Materials for Out-of-State Distribution Exemption	11.3	10.3	10.0	10.5	10.4	9.5	8.5	8.6	9.0	9.3	97.5
Contractor Temporary Storage Exemption	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.2
Controlled Environment Agriculture Exemption	--	--	--	--	--	--	--	--	--	0.2	0.2
Data Center Exemption	**	**	**	**	**	**	613.5	411.5	685.2	1,021.9	2,732.1
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	0.8	1.0	1.0	2.2	3.8	4.2	4.0	4.5	4.1	4.3	30.0

Incentive	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	Total
Media Provider Equipment Exemption	4.5	4.5	4.6	4.7	4.8	4.9	5.0	5.3	5.7	5.8	49.7
Out-of-state Nuclear Facility Repair Exemption	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	1.5
Pollution Control Equipment & Facilities Exemption	4.2	4.1	3.2	3.2	3.3	3.4	3.4	3.7	3.9	4.0	36.4
Railroad Common Carriers Exemption	25.7	24.2	17.7	17.5	20.3	16.4	14.9	18.6	18.4	19.0	192.8
Railroad Rolling Stock Exemption	2.1	2.3	2.4	2.4	2.5	2.6	2.6	2.8	2.9	3.0	25.7
Research & Development Exemption	3.5	2.9	3.4	5.1	5.4	6.4	7.9	8.0	8.5	8.8	59.8
Semiconductor Manufacturers Exemption	0.8	0.6	0.6	0.5	0.4	0.5	0.5	0.7	1.0	1.1	6.6
Semiconductor Wafers Exemption	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	1.3
Ships and Vessels Exemption	6.3	6.3	6.5	6.4	7.0	7.1	7.3	7.8	8.3	8.6	71.8
Taxi Parts & Radios Exemption	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1
Uniform Rental & Laundry Businesses Exemption	0.9	1.0	1.0	1.0	0.9	0.8	0.7	0.6	0.7	0.8	8.3
Virginia Spaceport Users Exemption	0.9	0.0	0.5	1.0	1.0	1.0	1.6	1.1	0.6	0.6	8.3
Total	**72.1**	**69.0**	**62.3**	**64.7**	**75.6**	**71.4**	**685.6**	**494.4**	**775.8**	**1,115.6**	**$3,486.5M**

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 localities with higher rates, such as Northern Virginia and the Historic Triangle. Numbers may not sum because of rounding. Spending amounts for the Out-of-state Nuclear Facility Repair Exemption are different from the 2024 report because of updated data.
-- indicates exemption had not been adopted yet.
** indicates estimates are not available.

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

Incentive	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	Total
Data Center Single Sales Factor Apportionment	--	--	--	--	0.1	0.1	0.1	0.2	0.2	0.2	$1.0M
Economic Development Loan Fund	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Manufacturing single sales factor apportionment	20.9	22.3	22.7	23.3	23.7	24.1	24.7	26.4	28.1	29.0	245.2

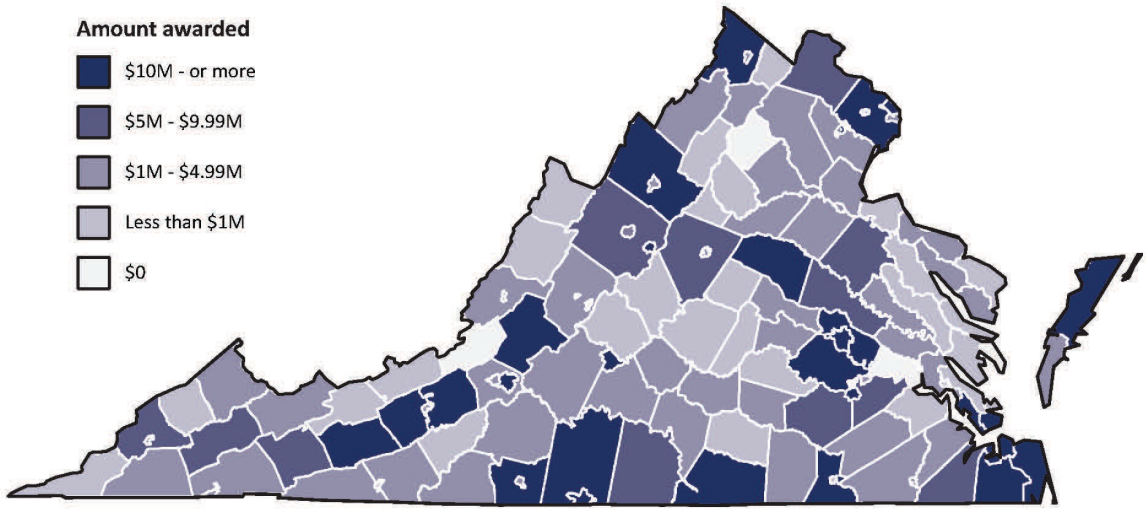
Incentive	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	Total
New Company Incentive Program (Corporate Apportionment Portion)	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Qualified Business Long-Term Capital Gain Subtraction	3.0	1.5	1.9	1.2	0.8	0.9	2.6	1.0	1.1	1.1	15.1
State Cash Collateral Program	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.1	0.3
Tobacco Region Opportunity Fund (Loan Portion)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tourism Development Financing Program	10.6	0.0	0.9	0.6	1.8	0.0	0.0	2.0	73.8	5.0	94.7
Venture Capital Account Subtraction	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	**	0.0
Virginia Venture Partners GAP Funds	0.6	0.6	0.8	0.8	1.0	1.2	1.3	2.7	2.1	0.7	11.9
Zero G Zero Tax Act (Part I) Subtraction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Zero G Zero Tax Act (Part II) Subtraction	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7
Total	**35.2**	**24.4**	**26.4**	**25.9**	**27.6**	**26.5**	**28.8**	**32.5**	**105.3**	**36.3**	**$368.9M**

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 data was not provided for the program.

Appendix E: Regional distribution of grant awards

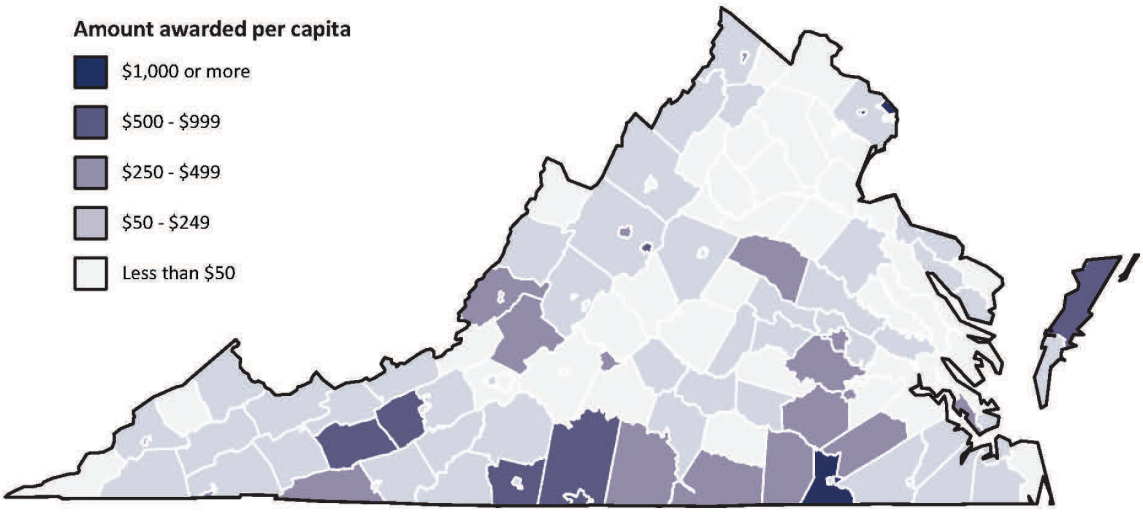
The largest amount of grant awards went to businesses in highly populated localities such as Arlington County, Chesterfield County, Richmond City, Newport News City, and Fairfax County and to rural localities in the tobacco region and in the West Central regions (Figure E-1). Adjusted for population 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 (FY15–FY24)



SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Localities were not assigned to nine Governor's Motion Picture Opportunity Fund (GMPOF) projects, nine Go Virginia site development projects, one Virginia Business Ready Sites Program project, and one Governor's New Airline Incentive Fund project because the grants benefited more than one locality.

FIGURE E-2
Awards are concentrated in urban areas in Northern Virginia and in rural southern and eastern shore localities, adjusted for population size (FY15–FY24)

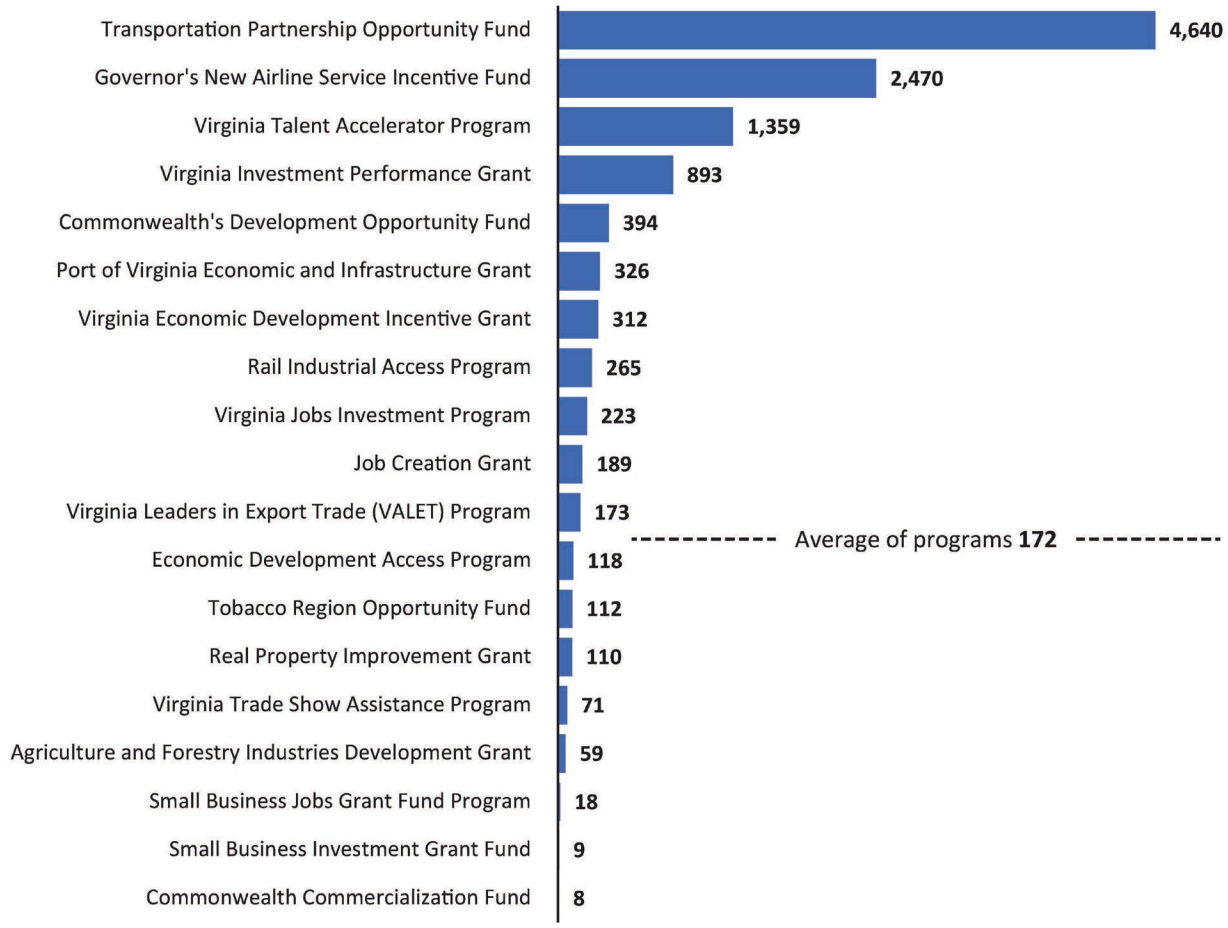


SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Localities were not assigned to nine Governor's Motion Picture Opportunity Fund (GMPOF) projects, nine Go Virginia site development projects, one Virginia Business Ready Sites Program project, and one Governor's New Airline Incentive Fund project because the grants benefited more than one locality.

Appendix F: Average employment size of grant recipients by program

The average establishment size of a grant recipient was 172 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 (4,640 employees), Governor's New Airline Service Incentive Fund (2,470), Virginia Talent Accelerator Program (1,359), and the Virginia Investment Performance Grant (893). The smallest average employee sizes were for finance programs for startups—the Small Business Investment Grant Fund (nine employees) and Commonwealth Commercialization Fund (eight).

Figure F-1
Average employment size of business location at time of award varies widely by program (FY15– FY24)



SOURCE: Weldon Cooper Center analysis of economic development incentive grants and VEC data.
NOTE: Employment records were matched with 2,930 of the 4,988 awards (59%) and $1.3B of $2.0B in total awards (65%).

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).

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 (Morgan Olson)	X	X	X	
Advanced Shipbuilding Training Facility Grant (Newport News)	X	X	X	Number of apprentices, training expenses
Advanced Shipbuilding Production Facility Grant (Newport News)	X		X	
Aerospace Engine Manufacturing Performance Grant (Rolls Royce)	X	X	X	
Agriculture and Forestry Industries Development Grant	X	X	X	Value of Virginia agricultural products
Cloud Computing Cluster Infrastructure Grant (Amazon Web Services)	X	X	X	
Commonwealth's Development Opportunity Fund	X	X	X	
Commonwealth Commercialization Fund				Capital attracted from other sources
Economic Development Access Program			X	
Financial Services Expansion Grant (Wells Fargo)	X	X	X	
Virginia Venture Partners GAP Funds				Capital attracted from other sources
Go Virginia (site development)	X		X	
Governor's Motion Picture Opportunity Fund	X			Total Virginia spending, Value of advertising
Governor's New Airline Service Incentive Fund				Frequency of air service
Job Creation Grant	X			
Major Eligible Employer Grant	X	X	X	
Major Headquarters Workforce Grant (Amazon HQ2)	X	X	X	
Nitrile Glove Manufacturing Training Program (Blue Star)	X	X	X	

Grant program	Job creation	Wages	Capital expenditures	Other
Offshore Wind Component Grant (Siemens Gamesa)	X	X	X	
Pharmaceutical Manufacturing Grant (Merck)	X	X	X	
Port of Virginia Economic and Infrastructure Grant	X			Port user
Precision Plastic Manufacturing Grant (LEGO Group)	X	X	X	
Property Analytics Firm Infrastructure Grant (CoStar Group)	X	X	X	
Rail Industrial Access Program			X	Carloads
Real Property Investment Grant			X	
Semiconductor Custom Grant (Micron)	X		X	
Semiconductor Manufacturing Grant (Micron)	X	X	X	Establishment of R&D facility
Shipping and Logistics Headquarters Grant (CMA CGM)	X	X	X	
Small Business Investment Grant Fund	X			Private equity investment
Small Business Jobs Grant Fund Program	X	X	X	
Space Flight Operations Facilitation Program (RocketLab)	X	X	X	
Special Workforce Grant (Amazon Web Services)	X	X	X	
Technology Development Grant (Microsoft)	X	X	X	
Tobacco Commission Megasite Grant				
Tobacco Region Opportunity Fund	X	X	X	
Transportation Partnership Opportunity Fund	X		X	
Truck Manufacturing Grant (Volvo)	X	X	X	
Virginia Business Ready Sites Program				
Virginia Economic Development Incentive Grant	X	X	X	
Virginia Investment Performance Grant	X	X	X	
Virginia Jobs Investment Program	X	X	X	Job retraining
Virginia Leaders in Export Trade (VALET) Program				International sales
Virginia Talent Accelerator Program		X		Workers receiving recruitment and training services
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, Virginia Tax, secretary of commerce and trade, secretary of finance, and secretary of transportation.

Appropriate corrections resulting from technical and substantive comments are incorporated in this version of the report. This appendix includes a response letter from the Virginia Economic Development Partnership and Virginia Tax.

VEDP | Virginia Economic Development Partnership

October 29, 2025

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

Re: VEDP response to the draft JLARC report, *Economic Development Incentives 2025: 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 2025: Spending and Performance.*

The report notes that both incentive spending and the number of programs have increased over time. Nationally, business incentive spending tripled between 1990 and 2015 (Bartik, 2017). Virginia has had to adapt to this increasingly competitive environment by developing a broader array of incentive programs to safeguard and grow our economy. JLARC's continued oversight remains essential to ensuring that the Commonwealth's efforts are as effective as possible.

The robust analysis in the report provides a valuable 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 FY15 and FY24 and completed their location or expansion project collectively created over 59,000 jobs and nearly $16 billion in capital investment and other spending in Virginia.

Your report underscores the impact of VEDP's key incentive programs. Notably, completed projects supported by the Virginia Jobs Investment Program (VJIP) accounted for the largest share of job creation (33,964) and business spending ($5.7 billion) among Virginia's grant programs. Similarly, projects funded through the Commonwealth's Development Opportunity Fund (COF) ranked second in job creation (14,693 jobs) and business spending ($4.0 billion). Sixty-three percent of completed projects receiving grant awards met or exceeded their project-specific goals for investment or other spending, and COF recipients collectively achieved 136 percent of their wage goals. The report also highlights the effectiveness of the Virginia Leaders in Export Trade (VALET) program, noting that participants collectively increased international sales by 109 percent of their targeted goal.

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VEDP.org

While headlines are often dominated by large projects in urban areas, we appreciate the report's finding that incentive funds are generally concentrated in economically disadvantaged localities, and that most grant awards go to business locations with fewer than 100 employees. This reflects VEDP's longstanding commitment to ensuring that Virginia's economic growth benefits all regions.

We recognize that the report's purpose is to evaluate the effectiveness of economic development incentives and appreciate the rigor of JLARC's annual analysis. However, as noted in VEDP's previous response letters, the sidebar on page 16 makes a broad generalization about incentive effectiveness. In practice, the influence of incentives on company location decisions varies by program design, incentive magnitude, and project characteristics. While VEDP supports the use of advanced research and modeling techniques, it is important to recognize that such methodologies may understate the competitive influence and broader economic impact of Virginia's incentive programs.

Regarding the data center retail sales and use tax exemption, we are pleased that the enhanced reporting requirements are contributing to greater transparency. While this year's report does not cover economic benefits, your report dedicated to the data center industry published last year underlined the significant and growing contribution of this industry. Notably, the analysis estimated that the data center industry supports an impressive 74,000 jobs, $5.5 billion in labor income, and $9.1 billion in Virginia GDP overall to the state economy annually.

The report correctly notes that incentive spending on data centers is rising in proportion to capital investment. Virginia – and the nation – are experiencing the highest levels of infrastructure-related capital expenditure, as a share of GDP, since the railroad boom of the 1880s. These investments are driving critical economic activity and generating substantial tax revenues across the Commonwealth at a time when federal workforce reductions and spending cuts are exerting temporary pressure on Virginia's economy. These investments are underpinning much of the net employment growth Virginia continues to enjoy in 2025, led by strong gains in construction.

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

Sincerely,

Jason El Koubi
President & CEO

COMMONWEALTH of VIRGINIA

Department of Taxation

October 29, 2025

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

Dear Mr. Greer:

Thank you for the opportunity to review and comment on the exposure draft report: *Economic Development Incentives, 2025*. We believe the report is well done and will be useful to the members of the General Assembly going forward.

Please contact me if you have any questions.

Sincerely,

James J. Alex
Tax Commissioner
Commonwealth of Virginia

c: The Honorable Stephen E. Cummings, Secretary of Finance
Kristin Collins, Deputy Tax Commissioner

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