Commonwealth of Virginia
September 12, 2023

Report to the Governor and the General Assembly of Virginia

Business Location & Expansion Incentives

Economic Development Incentives Evaluation Series

COMMISSION DRAFT

JLARC
JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION

JLARC staff

Hal E. Greer, Director

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

Information graphics: Nathan Skreslet
Managing editor: Jessica Sabbath

Economic analysis

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

JLARC Report 576

http://jlarc.virginia.gov

Contents

Summary: Location and Expansion Incentives

Virginia provides nine incentives to encourage businesses to locate and expand in the state. Spending on these incentives totaled $35 million in FY21 and $274 million between FY12 and FY21. Nearly all of the spending was for three grants administered by the Virginia Economic Development Partnership (VEDP), the largest being the Commonwealth's Development Opportunity Fund (COF). The location and expansion incentives comprised about 9 percent of total spending on state economic development incentives in FY21.

WHY WE DID THIS STUDY

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

JLARC releases two reports each year: a high-level summary report on overall spending and business activity and an in-depth report on the effectiveness of 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 seventh in the series of in-depth reports on the effectiveness of individual incentives and focuses on Virginia's business location and expansion incentives.

WHAT WE FOUND

COF may sway some business decisions and has higher economic benefits than other Virginia incentives

The COF grant is Virginia's "deal-closing" fund. The COF's estimated level of influence on business location and expansion decisions depends on how it is assessed. However, COF grant recipients rated its influence as higher than the average Virginia incentive, according to a recent survey. Local economic development staff also ranked the COF grant as the state's third most useful incentive. Because the incentive is well designed and requires a local match, it generates high economic benefits for the state compared to other economic development incentives.

COF met its job creation and capital investment goals *collectively* across projects from FY12 to FY21, which is a key performance measure for the overall program. However, only about 35 percent of projects met their individual job creation goals, likely because of project cancelations or projects failing to meet performance targets. Some of these projects failed before VEDP adopted a more in-depth due diligence and committee view process.

VEDP's other location and expansion grants have varying usefulness and economic benefits by businesses

VEDP offers four other location and expansion incentives. The usefulness and economic benefits of these grants vary.

The **Virginia Investment Performance Grant (VIP),** VEDP's second-largest location and expansion incentive, encourages the retention and expansion of the state's manufacturers. Incentive recipients report VIP's ability to sway business decisions is less than the average incentive, but local economic development staff rated the VIP grant favorably. The VIP grant generates low economic benefits compared with other incentives because it does not require job creation, only job retention.

The **Virginia Economic Development Incentive Grant** (**VEDIG**) encourages the location of company headquarters and service-based companies creating significant numbers of high-wage jobs. The grant generated high economic benefits compared with other state incentives, but its performance could not be fully assessed because only one project was completed during the 10-year study period.

The **Major Eligible Employer (MEE) Grant** is designed to attract new or expanding large employers to the state. However, VEDP has not made any MEE program awards since FY06 because the grant has been replaced by custom grants, which offer more flexible eligibility requirements and payouts.

The **New Company Incentive Program**, which encourages companies to locate in distressed areas of the state and create jobs. Only two grant awards have been made since the state created the program, and both were to low-paying call centers in Southwest Virginia. A particularly problematic feature of the program is that COF money funds the grants, which allows projects that do not qualify for the better-designed COF to access COF funds.

Major Business Facility Job Tax Credit is not well designed and unlikely to influence business decisions

Virginia offers the Major Business Facility Job Tax Credit to encourage businesses to locate or expand in Virginia and create jobs. However, the tax credit is not well designed because, for example, it does not require businesses to pay a certain wage level as do most other Virginia incentives with job creation requirements. It also lacks either a program cap or per taxpayer cap. Lack of a per taxpayer cap, in particular, has allowed a few businesses to receive substantial awards representing the vast majority (70 percent) of tax credits awarded during the 10-year study period. The tax credit also is unlikely to influence many business decisions because of its low value ($1,000 per job compared with nearly $4,000 per job for the average grant program in Virginia).

Despite its design flaws, the Major Business Facility Job Tax Credit generates moderate economic benefits. This is because the tax credit requires businesses to create jobs (a main driver of economic benefits), and it has a very low cost to the state. In addition, even though it does not target businesses in high impact industries, over half of the awards were to companies in industries with high employment multipliers.

Agriculture and Forestry Industries Development Facility Grant has a limited impact on location and expansion decisions but has other benefits

Virginia offers the Agriculture and Forestry Industries Development (AFID) Facility Grant to attract and expand agricultural and forestry businesses that use raw commodities grown and harvested in Virginia. The AFID facility grant has limited ability to influence location and expansion decisions likely because of its low value relative to the cost of businesses' operations. In addition, the commodity purchase threshold is too low (recipients are required to purchase at least 30 percent of raw commodities from Virginia sources), but most Virginia businesses purchasing raw commodities buy more than 30 percent from state sources.

Still, the grant was rated as the state's second most useful incentive by local economic development staff, and AFID facility grant recipients collectively met their job creation goals. In addition, the grant may be useful for bolstering Virginia commodities that have seen a decline in purchases from Virginia-based buyers (such as forestry products) and helping grant recipients purchase machinery and equipment. AFID is estimated to generate moderate economic benefits and returns in state revenue.

Factors other than the Farm Wineries and Vineyards Tax Credit have likely led to the rapid growth of Virginia's wine industry

Virginia offers the Farm Wineries and Vineyards Tax Credit to promote growth of the state's wine industry. Virginia's wine industry has grown substantially over the past two decades, but this growth is likely not due to the farm wineries and vineyards tax credit. The tax credit does not reduce wine production costs by much because it is overly subscribed and heavily prorated, limiting its impact on location and expansion decisions. Other state policies and programs, such as the state wine distribution program and programs targeting wine tourism, likely promote the state's wine industry growth more than the tax credit. The farm wineries and vineyards tax credit also generates negligible economic benefits and returns in state revenue.

Location and expansion incentives have economic benefits ranging from high to negligible

Program	Spending FY21	Incentive type	Economic benefit per $1M of spending
Commonwealth's Development Opportunity Fund (COF)	$19.0M	Grant	●●●●
Virginia Economic Development Incentive Grant (VEDIG)	3.5	Grant	●●●○
Major Business Facility Job Tax Credit	2.2	Tax credit	●●●○
Agriculture and Forestry Industries Development (AFID) Facility Grant	0.8	Grant	●●●○
Virginia Investment Partnership (VIP) Grant	8.4	Grant	●●○○
Farm Wineries and Vineyards Tax Credit	0.1	Tax credit	●○○○
New Company Incentive Program	0.6	Grant [a]	--
Total	**$34.7M**		

Negligible ●○○○ Low ●●○○ Moderate ●●●○ High ●●●●

SOURCE: Weldon Cooper Center economic impact analysis of incentives.
NOTE: The economic benefits of each incentive are assessed relative to the economic benefits of other incentives evaluated in this series to date. Economic benefits can range from negligible to high. See Appendix C for methodology for categorizing the economic benefits of each incentive. There was no economic impact for the New Company Incentive Program because no projects have completed performance yet. The Major Eligible Employer Grant and Virginia Collaborative Economic Development Performance Grant are not shown because no grants were issued during the 10-year study period. Two MEE projects were awarded prior to FY06, and analysis indicates they generated high economic benefits. Only one VEDIG project during the study period had completed and was included in this analysis; therefore, the results may not be representative. [a] Companies are also eligible to use a special tax apportionment through the program, but this feature has not yet been used.

WHAT WE RECOMMEND

Legislative action

- Eliminate the Major Eligible Employer Grant program.
- Allow the New Company Incentive Program to expire.
- Improve the Major Business Facility Job Tax Credit by targeting it only to export-base employers, adopting a wage requirement, and adopting an annual program cap or taxpayer cap. The tax credit should be allowed to expire if these changes are not adopted.
- Require a wage threshold for the AFID Facility Grant.
- Eliminate the Farm Wineries and Vineyards Tax Credit.

Executive action

- Revise the commodity purchase requirements for the AFID Facility Grant.

The complete list of recommendations and options is available on page v.

Recommendations: Location and Expansion Incentives

RECOMMENDATION 1
The General Assembly may wish to consider eliminating the Major Eligible Employer Grant Program.

RECOMMENDATION 2
The General Assembly may wish to consider allowing the New Company Incentive Program to expire on January 1, 2025.

RECOMMENDATION 3
The General Assembly may wish to consider amending § 2.2-5101 and § 2.2-5102.1 of the Code of Virginia to allow payouts for the Virginia Investment Performance Grant and the Virginia Economic Development Incentive Grant to be paid out beginning in the first year after performance.

RECOMMENDATION 4
The General Assembly may wish to consider amending § 2.2-5101 of the Code of Virginia to require that projects seeking grants from the Virginia Investment Performance Grant be required to pay at least the prevailing average wage when job creation is included in the Virginia Economic Development Partnership's award determination.

RECOMMENDATION 5
The General Assembly may wish to consider amending § 58.1-439 of the Code of Virginia to (i) require that businesses eligible for the Major Business Facility Job Tax Credit be export-base (basic) employers and pay wages that meet or exceed a certain wage threshold, and (ii) adopt an annual program cap or annual per taxpayer cap.

RECOMMENDATION 6
The General Assembly may wish to consider amending § 58.1-439 of the Code of Virginia to require that the Virginia Economic Development Partnership approve Major Business Facility Job Tax Credit applications, ensure that tax credit recipients are compliant with maintaining the incentivized jobs, and determine when recapture or reduction of tax credit amounts is warranted.

RECOMMENDATION 7
If the recommendation to improve the Major Business Facility Job Tax Credit is not adopted, the General Assembly may wish to consider allowing the tax credit to expire on June 30, 2025.

RECOMMENDATION 8
The secretary of agriculture and forestry, in consultation with the Virginia Department of Agriculture and Consumer Services, Virginia Economic Development Partnership, and Department of Forestry, should revise the guidelines for the Agriculture and Forestry Industries Development Fund Facility Grant pertaining to the commodity purchase requirements. Specifically, the guidelines should be revised to (i) increase the state commodity purchase threshold to 50 percent; (ii) clarify that minimum requirements be based on commodity market values or expenditures only; (iii) clarify that only commodities for processing, manufacturing, and value-added activities are eligible for meeting the requirements; and (iv) clarify that all raw commodity inputs purchased by the project must be reported and that additional purchase information may be requested by the program.

RECOMMENDATION 9
The General Assembly may wish to consider amending § 3.2-305 of the Code of Virginia to require that guidelines for the Agriculture and Forestry Industries Development Fund Facility Grant include a wage threshold for jobs created as part of the grant project.

RECOMMENDATION 10
The secretary of agriculture and forestry, in consultation with the Virginia Department of Agriculture and Consumer Services, Virginia Economic Development Partnership, and Department of Forestry, should revise the guidelines for the Agriculture and Forestry Industries Development Fund Facility Grant to incorporate guidance for due diligence processes, performance extensions, grant award recapture, and performance agreement features used by the Virginia Economic Development Partnership where appropriate.

RECOMMENDATION 11
The secretary of agriculture and forestry, in consultation with the Virginia Department of Agriculture and Consumer Services, Virginia Economic Development Partnership, and Department of Forestry, should review and revise the return on investment methodology used for Agriculture and Forestry Industries Development Fund Facility grants to ensure it produces accurate results.

RECOMMENDATION 12
The General Assembly may wish to consider eliminating the Farm Wineries and Vineyards Tax Credit.

RECOMMENDATION 13
The General Assembly may wish to consider eliminating the Collaborative Economic Development Performance grant.

Location and Expansion Incentives

Economic Development Incentives Evaluation Series

Virginia provides economic development incentives to encourage business growth 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 conduct, on a continuing basis, an evaluation of the effectiveness and economic benefits of economic development incentives such as grants, tax preferences, and other assistance. (See Appendix A for the study mandate.) This report is part of a series of annual reports that provide comprehensive information about the effectiveness and economic benefits of individual economic development incentives offered by the state. JLARC contracted with the University of Virginia's Weldon Cooper Center for Public Service to perform the evaluation.

This report examines nine economic development incentives to encourage companies to locate or expand their operations in the state by incentivizing job creation, job retention, or capital investment (Table). Five programs provide incentives specifically for employment creation or retention—four Virginia Economic Development Partnership (VEDP) grants and the Major Business Facility Job Tax Credit. The largest incentive in this group is the Commonwealth's Development Opportunity Fund (COF) administered by VEDP, which is also the governor's "deal closing" fund. The Virginia Investment Program (VIP) grant administered by VEDP is the second largest of these programs. The VIP grant encourages the expansion of existing manufacturers in Virginia by incentivizing capital investment in addition to job retention.

Two programs provide incentives for the location and expansion of agricultural-related firms. The Agriculture and Forestry Industries Development (AFID) facility grant is administered by the Virginia Department of Agriculture and Consumer Services to encourage the creation and expansion of agribusinesses, many of which are too small to be eligible for other incentives. The Farm Wineries and Vineyards Tax Credit is designed to promote the growth of the state's wine industry.

Two programs have a regional dimension. The New Company Incentive Program encourages companies to locate in certain distressed areas of Virginia and create jobs. The Virginia Collaborative Economic Development Performance Grant encourages local governments to cooperate to attract companies to locate or expand in their region and create new high-paying jobs.

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

State spending occurred for seven of the nine incentives, with no spending for the MEE grant and Collaborative Economic Development Performance Grant. Spending totaled $274 million over the past decade (FY12–FY21), representing approximately 9 percent of economic development expenditures over the 10-year period. This percentage has fluctuated annually during the period from a low of 6 percent (FY14) to a high of 17 percent (FY17) when spending was higher than average for several programs, particularly the COF.

Spending growth rates for these seven incentives appear to be slightly correlated to overall business activity growth rates, such as the gross domestic product growth rate, with more grants awarded during economic upturns and proportionally fewer during periods of slower growth. This pro-cyclical spending bias has been observed in other categories of incentives studied as well.

TABLE: Nine incentives to encourage company location and expansion in Virginia are covered in this report, but spending occurred for only seven between FY12 and FY21

Program	Spending FY21	Spending FY12–FY21
Commonwealth's Development Opportunity Fund (COF)	$19.0M	$145.9M
Virginia Investment Partnership (VIP) Grant	8.4	52.1
Virginia Economic Development Incentive Grant (VEDIG)	3.5	34.3
Major Business Facility Job Tax Credit	2.2	31.7
Agriculture and Forestry Industries Development (AFID) Fund	0.8	7.9
New Company Incentive Program	0.6	0.6
Farm Wineries and Vineyards Tax Credit	0.1	1.4
All programs	**$34.7M**	**$273.9M**

SOURCE: Weldon Cooper Center review of Code of Virginia and agency documents.
NOTE: Spending on tax credits is amounts claimed. The Major Eligible Employer Grant and Collaborative Economic Development Performance Grant are not included in the table because no grants were awarded during the study period.

1. VEDP's Location and Expansion Incentives

The Virginia Economic Development Partnership Authority (VEDP) administers five incentives (which are primarily grants) to encourage business location and expansion in the state (Table 1-1):

- **Commonwealth's Development Opportunity Fund (COF)** – the state's "deal-closing" fund to be used as a final resource to secure a project in which Virginia is in serious competition with other states or countries.
- **Virginia Investment Performance Grant (VIP)** – the state's only employee retention program for existing manufacturers, which also encourages them to expand and modernize their facilities and equipment while maintaining current employment levels.
- **Virginia Economic Development Incentive Grant (VEDIG)** – targets headquarters and service-based companies creating significant numbers of high-wage jobs.
- **Major Eligible Employers Grant (MEE)** – targets employers with sizable location or expansion projects making substantial capital investments and creating significant numbers of jobs in the state.
- **New Company Incentive Program** – targets employers in specified distressed localities of the state.

While each of these incentives has unique features, they have some similarities. All of the programs

- are grants (the New Company Incentive Program can provide tax incentives in addition to grants, though it has yet to do so);
- incentivize job creation (or retention) and capital investment;
- are targeted to businesses in export-base industry sectors; and
- rely on a return on investment (ROI) analysis to determine grant awards.

Export-base industry sectors are those that export a majority of their goods and services outside of the region. These sectors are also referred to as **basic industry sectors** in the Code and **traded-sector industries** in the research literature and by VEDP.

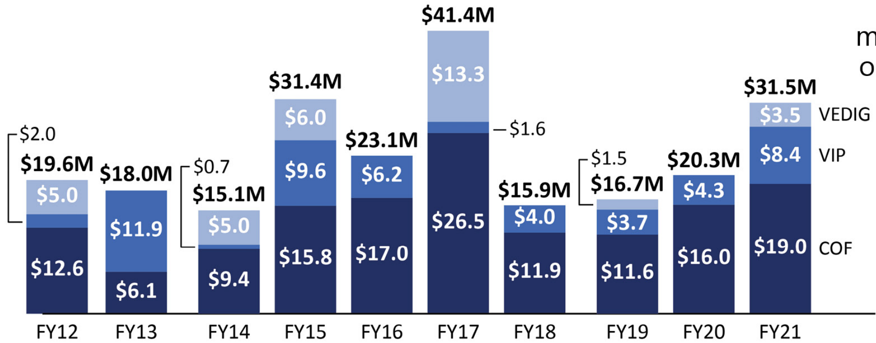
Twenty-one other states offer job creation grants, but most offer only one grant program and do not split their offerings into multiple programs like Virginia. Having multiple programs likely makes it easier for VEDP to develop specific eligibility guidelines and also makes Virginia's programs more transparent than those in other states. In fact, Good Jobs First rated Virginia fourth in transparency across all states for availability of grant award eligibility information based on several VEDP programs, including the COF. Generally, programs in other states do not specify eligibility conditions such as minimum levels of job creation, capital investment, or wage levels.

VEDP LOCATION AND EXPANSION INCENTIVES

Encourage companies to locate or expand in Virginia

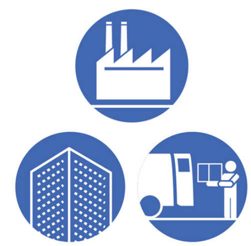
VALUE TO BENEFICIARIES FY12–FY21

Total grant spending: $233M



Beneficiaries

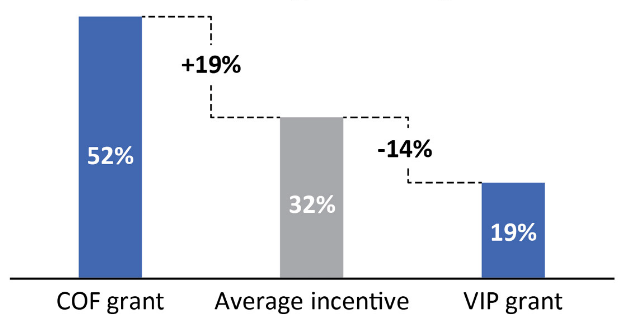
Predominantly large manufacturing, headquarters, or service-related companies



ACHIEVEMENT OF PURPOSE

COF grant appears to sway more business decisions than the average incentive, but the VIP grant may sway less

Estimated percentage of projects that *would not* have happened without grants



MEE and New Company Incentive Program have seen little use and few VEDIG projects have completed performance

- MEE grant used by only 2 companies since its adoption with no awards since FY06
- New Company Incentive Program has only made 2 awards
- Only one VEDIG project has completed its performance, but it met its job creation goal.

IMPACT TO STATE ECONOMY FY12–FY21

●●●● High
●●●○ Moderate
●●○○ Low
●○○○ Negligible

Economic benefit per $1M in incentives (Jobs, state GDP, and personal income)	Return in revenue (per $1 spent)	
●●●●	●●●●	COF grant
●●○○	●●●●	VIP grant
●●●○	●●●●	VEDIG grant
●●●●	●●●●	MEE grant

TABLE 1-1
VEDP administers five incentives (which are primarily grants) for location and expansion

	Commonwealth's Development Opportunity Fund (COF) (adopted 1996)
Purpose	Secure final decision for new businesses to locate or for existing businesses to expand in Virginia; considered a deal closing incentive.
Eligible beneficiaries	Businesses in export-base industry sectors that meet minimum job creation, average wage, and capital investment requirements. The business must be considering at least one other state or country for the project. A business is *ineligible* if the project involves relocating existing jobs from an existing Virginia facility that is closing or is undergoing a substantial reduction in jobs unless the project is considering another state (is competitive), will create net new jobs (over the existing job baseline), and is approved by the Major Employment and Investment Project Approval Commission.
Grant features	Discretionary performance-based grant [a] to eligible businesses that meet one of several minimum thresholds. - General eligibility threshold: create 50 new jobs at local average annual wage and make $5 million in capital investment. Job creation requirement can be reduced to 25 with a $100 million capital investment or if the jobs pay twice the local average annual wage. Jobs must be full time. - Single distressed locality threshold: create 25 new jobs with wages of at least 85 percent of the local annual average wage and $2.5 million in capital investment. - Double distressed locality threshold: create 15 new jobs and $1.5 million in capital investment. The secretary of commerce and trade can waive the wage requirement if wages are less than 85 percent of the local annual average wage. Grant awards are negotiated based on an ROI analysis and other factors [b]. The company must enter into a performance agreement with VEDP that stipulates the job, wage, and capital investment targets (above the minimum threshold) that must be achieved within a specific period of time, usually 36 months (but can be longer if extensions are granted) to receive the grant. At least a third of the funds over a 5-year period must be awarded to counties and cities in distressed regions. Statute requires program guidelines to specify a per project cap, which is set at $1.5 million (can be exceeded for projects determined to be of statewide or regional interest). Grant is awarded to host locality on behalf of the project. The locality must provide matching funds (cash or in-kind $1:$1 match). COF grants are typically not released by VEDP until after the project has achieved its performance targets.
Grant use	Reimbursement for infrastructure, site acquisition, development, and construction or training.
	Virginia Investment Performance Grant (adopted 1999)
Purpose	Encourage retention and expansion of existing Virginia manufacturers or R&D companies supporting manufacturers.
Eligible beneficiaries	Manufacturers or R&D service providers to manufacturers that have operated in the state at least three years and are at high risk of relocating outside of Virginia. The beneficiary must be an export-base business, and there must be an active effort by another state or country to incentivize the business to relocate.

Grant features	Discretionary performance based grant to businesses that make a minimum capital investment of $25 million and retain existing jobs; new job creation is not required because many times major capital investments by existing manufacturers may not require many (or any) new jobs. Grant awards are negotiated based on an ROI analysis and other factors [b]. The company must enter into a performance agreement with VEDP that stipulates the job, wage, and capital investment targets (above the minimum threshold) that must be achieved within a specific period of time, usually 36 months, to receive the grant. Grants are paid in five equal annual installments three years after the capital investment is achieved (or two years after in fiscally distressed regions). If the project creates jobs, they must be retained until one year after completion of the capital investment to receive the grant. Matching local funds of at least 50% is expected. Awards are capped at $3 million per project ($5 million for exceptional projects) and no more than $6 million in grants can be paid out in a given year. Total outstanding awards cannot exceed $20 million.
Grant use	There are no restrictions on how the company can use VIP funds.
	Virginia Economic Development Incentive Grant – VEDIG (adopted 2005)
Purpose	Encourage the location of headquarters and certain companies that plan significant job creation but lower amounts of capital investment.
Eligible beneficiaries	Headquarters, administrative, R&D, and service companies that meet minimum eligibility thresholds and are actively and realistically considering locations in other states or countries for the project.
Grant features	Discretionary performance-based grant to businesses that meet minimum eligibility requirements that vary based on locality of the project. If the locality is in a metropolitan statistical area (MSA) with a population over 300,000, the project must create at least 400 jobs with an average wage at 150 percent of the prevailing average wage (or 300 jobs paying 200 percent of the prevailing average wage) and make a capital investment of $5 million or $6,500 per job, whichever is greater. In the rest of the state, the project must create at least 200 jobs paying 150 percent of the prevailing average local wage and make a capital investment of $6,500 per job. Grant awards are negotiated based on an ROI analysis and other factors [b]. The company must enter into a performance agreement with VEDP that stipulates the job, wage, and capital investment targets (above the minimum threshold) that must be achieved within a specific period of time, usually 36 months, to receive the grant. Grants are paid in five equal annual installments three years after the capital investment and job creation or retention are achieved. Awards are capped at $4 million per year. There are no restrictions on how VEDIG funds can be used by the company.
	Major Eligible Employer Grant – MEE (adopted 1999)
Purpose	Attract new or expanding large employers to the state.
Eligible beneficiaries	Major employers in export-base industry sectors that create significant jobs and make significant capital investments in the state and are actively and realistically considering locations in other states/countries for the project.

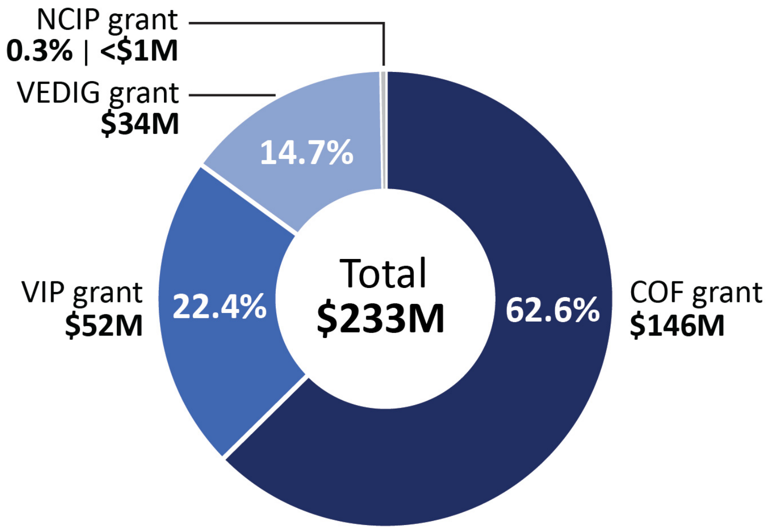
Grant features	Discretionary performance-based grant to businesses that create a minimum of 1,000 new jobs and $100 million in capital investment. Jobs are reduced to 400 if they pay twice the average prevailing wage. Program cap is $25 million. If the award is greater than $10 million, it must be approved by the Major Employment & Investment Project commission. There are no restrictions on how the company uses MEE funds.
	New Company Incentive Program – NCIP (adopted 2018)
Purpose	Encourage companies to locate in distressed areas of Virginia and create jobs.
Eligible beneficiaries	Companies that are export-base employers that start new operations (had neither property nor payroll) in Virginia between 2018 and 2024 in qualified localities and meet minimum requirements.
Incentive features	Provides grants and tax incentives to businesses that create 10 jobs and make a real property capital investment of at least $5 million. No investment is required if the company creates at least 50 new jobs. New jobs must pay at least 150 percent of the Virginia minimum wage. Grant portion of the program allows company to receive up to $2,000 per job from the COF for up to six years (if jobs and investment are maintained). The tax incentive portion of the program allows the company to use a special apportionment for up to six years, which results in a zero percent tax rate on income connected to the new facility. Qualified localities: 51 distressed localities in southwest, southern, eastern, and central Virginia (Appendix G).
Grant use	Companies receiving grant funding are expected to distribute, or expend for direct benefit of employees, at least 50 percent of the proceeds to employees.

SOURCE: Weldon Cooper Center review of §§ 2.2-115, 2.2-1501 et seq, and 58.1-405.1 of the Code of Virginia and program documents.
NOTE: [a] COF awards can also be in the form of a loan; no loans were issued during the study period. [b] Grant amounts are determined based on a return on investment (ROI) analysis and other factors such as new jobs, wage levels, overall employment, capital investment, area and regional unemployment, poverty and fiscal stress, the locality's financial support of the project, and company growth potential. VEDP recommends an award, which is approved by the secretary of commerce and trade and the governor. Single distressed means the locality's unemployment rate OR poverty rate is above the statewide average; double distressed means BOTH rates are above the statewide average.

Virginia spent $31 million on VEDP-administered grants in FY21, mostly from the frequently used COF and VIP programs

Virginia spent $31 million on VEDP-administered location and expansion grants in FY21, and $233 million on these grants during the 10-year period from FY12 to FY21. Most of this spending was on COF and VIP, which are the most frequently used of these grants (Figure 1-1). VEDIG represented a relatively small portion of the spending over the 10-year period because only a small number of grants have been awarded since program inception, and few projects have received payments. However, VEDIG awards (which average $3.8 million per project) tend to be larger than either COF or VIP awards (which average $0.6 million and $0.8 million per project, respectively).

FIGURE 1-1
Most of the spending on VEDP's location and expansion grants has been by the COF and VIP programs (FY12–FY21)



SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Spending amounts are based on year of grant award. No spending for MEE is shown because the grant awards were made before FY12. NCIP is the New Company Incentive Program.

The MEE grant and New Company Incentive Program have been used only minimally since they were adopted. Only two MEE awards have been made since program inception, with the last award in FY06. Grants were offered to two additional companies before FY06, but these grants were not paid because performance targets were not met. Two grant awards have also been made from the New Company Incentive Program. One grant was awarded in FY21, and the second was awarded in FY22 (which is outside of the 10-year study period). Neither of the New Company Incentive Program projects has used the tax incentive portion of the program yet.

Manufacturers have been the main recipients of most VEDP location and expansion grants. Nearly all of the amount awarded by the VIP program (96 percent), which targets manufacturers, and half of COF awards have been to manufacturers. One of the two MEE projects was a manufacturing company (Philip Morris), and it accounted for over 75 percent of the amount awarded by the program. In contrast, the VEDIG and New Company Incentive Program have made no awards to manufacturers.

Businesses receiving VEDP location and expansion grants tend to be larger than the average business receiving state incentive grants because of the programs' high job creation and capital investment requirements. The average incentive grant recipient (between FY12 and FY21) had 185 employees (JLARC, *Economic Development Incentives*, 2022), but VEDP's location and expansion grant recipients had significantly more employees, on average, during that 10-year period:

- COF – 363 employees,
- VEDIG – 466 employees,
- VIP – 860 employees, and
- MEE – 5,344 employees.

The COF program served the most diverse group of businesses in terms of size, providing 32 percent of awards to small businesses (less than 50 employees), 24 percent to medium-size businesses (50 to 249 employees), and 44 percent to large businesses (250 employees or more). (See Appendix D for more information on characteristics of incentive projects, including industry and employment size.)

Both COF and VIP awards have been distributed geographically around the state, with COF awards having the widest geographical distribution. This dispersion occurs partially because state law requires that at least a third of COF awards over five fiscal years go to localities with an annual average unemployment rate greater than the statewide unemployment rate. VEDP reports that 62 percent of total COF awards and 48 percent of COF funds awarded went to localities with above average unemployment rates, exceeding the level required by statute. (See Appendix E for maps on the geographical dispersion of VEDP grant awards.)

Additional information collected by VEDP from project applicants includes wage levels of the project compared to local average wages; project needs in terms of infrastructure, site development and training; the contribution made to the project by the locality; the economic distress level for the locality; the last time a locality received a project incentive award; and the potential for the project to make a significant contribution to local, regional, or state economic development.

Most VEDP grants are well designed, and the COF and VIP grants appear useful to businesses and effective at meeting their goals

VEDP's location and expansion grants are generally well designed, and two are particularly well liked by businesses and meet their job creation goals. With the exception of the New Company Incentive Program, the grants generally have features of well-designed economic development incentives. Two incentives—COF and VIP—appear to be useful to businesses and effective at meeting their performance goals based on survey results and other analysis. Too few projects have received and completed their performance for a more thorough evaluation of the MEE, VEDIG, and New Company Incentive Program.

PRACC is a committee that reviews and recommends whether to approve each project seeking a VEDP grant award. PRACC consists of the VEDP CEO, general counsel, vice presidents of multiple VEDP sections (such as Business Investment, Incentives, and Research), and other key staff.

VEDP location and expansion grants meet criteria of well-designed incentives, with exception of the New Company Incentive Program

Several factors indicate that the VEDP location and expansion grants are generally well designed. With the exception of the New Company Incentive Program, the grants generally meet the design features research literature says are needed for effective economic development incentives (Table 1-2). In addition, VEDP's policies subject prospective projects to a more in-depth due diligence process and return on investment (ROI) analysis than other Virginia agencies that administer incentives. VEDP's due diligence process involves collecting standard data from project applicants, which includes requesting financial statements and reviewing those documents when available. Staff use the standard data and other information collected to perform an ROI analysis, prepare a financial summary assigning a risk rating, and assemble other materials needed for review by a

Project Review and Credit Committee (PRACC). PRACC uses this material, information about the project, and professional judgment to determine whether to recommend grant approval.

TABLE 1-2
VEDP grants generally meet features of effective incentive design with exception of New Company Incentive Program

Requirement	COF	VIP	VEDIG	MEE	New Company Incentive Program
Minimum eligibility thresholds	●	●	●	●	●
Due diligence review	●	●	●	●	●
ROI-based award	●	●	●	●	◐
Export-base industry	●	●	●	●	●
Pay average local wage or higher	●	○	●	◐	○
Competitive project	●	●	●	●	○
Project/program cap	●	●	●	●	◐
Special provisions to target distressed area	●	◐	◐	○	●

SOURCE: Weldon Cooper Center review of program documentation and economic development incentive research.
NOTE: The VIP grant requires expanding companies to only retain existing jobs. If companies create new jobs as part of the VIP grant project, there is no requirement that jobs pay average local wages or higher. New Company Incentive Program has a wage threshold (150 percent of Virginia minimum wage).
Legend: ● Meets criteria ◐ Partially meets criteria ○ Does not meet criteria

The **scale** estimating the amount of economic activity attributed to an incentive is based on the incentive amount as a percentage of the business's new or expanded operations over a 20-year period. The estimate is based on costs only, and therefore a limitation is that it does not account for other factors that may influence a business's location or expansion decisions. See Appendix R [online only] for more detail on the difficulty of precisely estimating incentives' effects and the methodology used in this report.

Although some grant programs administered by other agencies use a basic ROI analysis for award determination, VEDP's ROI analysis is more in-depth and uses the timing of the project's job creation, capital investment, wage levels, industry, and incentive size to compute an economic and fiscal impact analysis. The analysis also determines the payback period in terms of state tax revenue generated for an incentive.

COF and VIP grants may sway some business location and expansion decisions

COF and VIP grants are estimated to influence a portion of the grant projects that locate or expand in Virginia. However, their estimated level of influence depends on the method by which their influence is assessed.

According to a scale developed by a leading expert, Tim Bartik (2018), the grants have a small to modest influence on business decisions to locate or expand in Virginia. Using this scale, the COF is expected to induce 5.4 percent of economic activity, and the VIP is expected to induce 23.8 percent of economic activity for grant projects that receive them. (These percentages are consistent with Bartik's research, which suggests that, typically, a realistic assumption is that between 2 percent and 25 percent of projects would not occur without incentives.) Bartik's scale estimates the amount of economic activity attributed to an incentive based on the incentive's amount compared to the business's new or expanded operations. Bartik's scale estimates the influence of the COF and VIP grants on business decisions to be small to moderate because both types of grants typically represent a small or moderate fraction of the total cost of the new or expanded operations of the businesses that receive them.

Responses by grant recipients to a Weldon Cooper Center survey indicate the COF grant may have influenced a more substantial portion of projects to locate or expand in Virginia, while the VIP grant may have influenced a modest portion. Half of COF grant awardees (52 percent) and one-fifth of VIP grant awardees (19 percent) indicated that they would not have undertaken the location or expansion project without the grant. These estimates, however, are likely inflated. Research indicates that survey responses overstate incentives' positive results, potentially by as much as a factor of two to three times for some incentives.

Though likely overstated, the COF survey results yield an estimated higher rate of influence than the average rate of influence indicated by respondents across all economic development incentives (32 percent). The higher rate may be because the COF grant is a "deal closing" fund to secure a project for Virginia. Allowable uses of the grant funding are also flexible to address the project needs for a specific location, according to VEDP staff. In contrast, the lower than average rate of influence of the VIP grant indicated by survey respondents may be because grant payments are delayed until two or three years after performance ends. Incentives also generally have only a small impact on manufacturers' decisions, according to the research. For existing manufacturers, other factors, such as investments needed to remain competitive and in operation may have a much greater impact on expansion decisions. Conclusions could not be made about the effectiveness of the other VEDP grants in influencing decisions because too few or no survey responses were received.

Weldon Cooper Center staff surveyed companies that had received incentives from eight programs and 14 custom grants to assess the importance of incentives on their business performance. The response rate was 30 percent. Specific to this study, adequate survey responses were received from COF (N=42) and VIP (N=12) awardees, but only one survey response was received from a VEDIG awardee, and no survey responses were received from MEE awardees. New Company Incentive Program awardees were not surveyed.

(See Appendix B for more information on the survey and Appendix H for select survey results.)

COF and VIP grants were rated favorably by grant awardees and local economic development staff

Both COF and VIP grant awardees generally rated the grants more favorably than awardee ratings for other incentives on specific areas of performance, such as their ability to create jobs, invest in machinery, and expand their facilities. COF awardees rated the grant more favorably than awardees for the average incentive on 10 out of 12 areas of performance, while VIP awardees rated the grant more favorably on all but one area. COF and VIP grant awardees gave the highest average ratings to their company's decisions to create new jobs followed by the decision to invest in machinery and equipment. (See Appendix H for more information on the survey results.)

Local economic development staff also rated the COF and VIP grants as useful in a 2020 survey of economic development incentives by the Weldon Cooper Center. Out of 34 state incentives, COF was rated the third most useful and VIP the sixth. VEDIG was rated the 12th most useful incentive. It is rated higher than the average for all incentives, but slightly lower than the average grant (JLARC, *Infrastructure and Regional Incentives*, 2020.)

COF and VIP programs met their reported job creation goals collectively across projects after five to six years

Both the COF and VIP programs met their reported employment creation goals reported on grant applications collectively across projects after five to six years (Figure 1-2). Whether a grant program *collectively* achieves its job creation goal is a key measure of success because it is not reasonable (according to incentive research nationally and in Virginia) to expect every *project* to meet its employment goal. It is reasonable, however, to expect that some projects will exceed their employment goals such that, overall, the program collectively meets its goal.

Grant programs that make upfront award payments include **recapture provisions,** which are employed if performance targets are not met. COF grants were typically paid up front prior to 2016, but are now mostly paid after performance, reducing the need to recapture funds going forward.

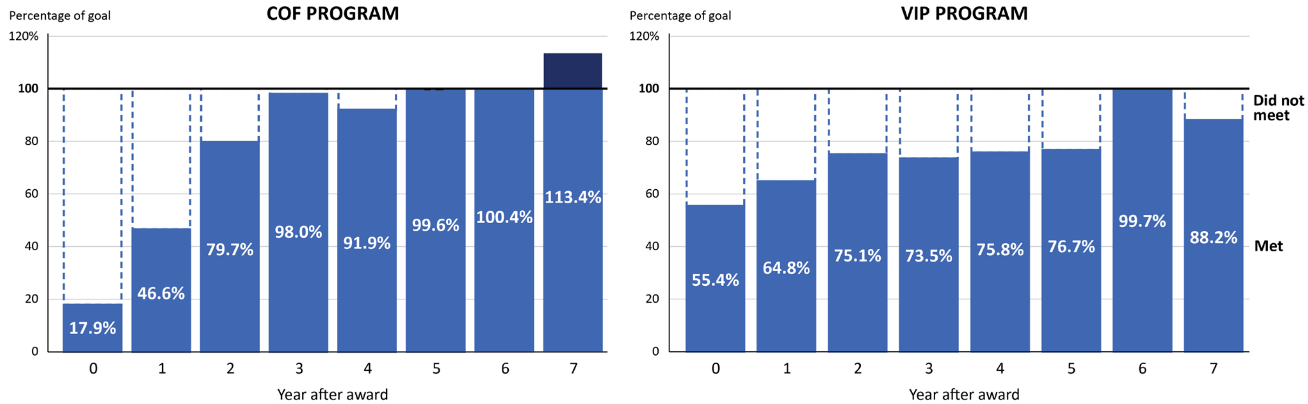
The COF program nearly met its collective job creation program within three years, which is similar to the length of time for several other incentives, such as the Virginia Jobs Investment Program (*Workforce and Small Business Incentives*, JLARC, 2018), to collectively meet their job creation goals. The VIP program took longer to collectively achieve its job creation goal, likely because the performance period for the grant is longer and the program focuses more on job retention than creation.

Job attainment on a per project basis is also an important measure to assess, particularly to verify which projects achieved their goals and to ensure those that did not achieve their goals either did not receive the award or received a reduced award. Assessing job attainment on a per project basis also better enables the program to identify future successful projects when making awards. Only 35 percent of COF and 28 percent of VIP closed projects met their job creation goals. While these percentages are low, they are about the average for grant programs. (See JLARC, *Economic Development Incentives 2022*, 2022). Low percentages for both the COF and VIP programs are because both programs have a relatively high rate of cancelations or "failed" projects, in which awards were never paid or have been fully recaptured. Of the 182 COF closed projects, 37 percent did not come to fruition because they were canceled or funds were fully recaptured. For the 18 VIP closed projects, 67 percent were canceled.

Closed projects are those for which the performance period has ended, because the project has reached the end of its agreed upon "performance period," or the project ended because of lack of performance. In prior reports, these projects have been referred to as "completed projects."

VEDP staff predict that the proportion of projects achieving job creation (and other) goals should improve in the future. This prediction is based on their stated goal to become more strategic and selective in awarding grants with adoption of VEDP's current due diligence and PRACC review process in 2016 (some of the canceled COF projects and most of the canceled VIP projects were awarded prior to 2016) and the "Innovative Framework for Economic Growth" in 2023.

FIGURE 1-2
COF and VIP programs met their reported employment goals collectively across closed projects after five to six years (FY12–FY21)



SOURCE: Weldon Cooper Center analysis of COF and VIP grant recipients and VEC employment data.
NOTE: Analysis includes closed projects that were not canceled, or for COF, awards that were not fully recaptured for which employment information is available. VEDIG is not included because only one project during the 10-year period completed, and it met 100 percent of its job creation goal. There were no MEE grants awarded during the study period, and only one New Company Incentive Program grant was awarded, which was in 2021, so project performance data is not yet available.

VEDP's location and expansion grants have low to high economic benefits and high returns in state revenue

VEDP's location and expansion incentive grants are estimated to generate additional economic activity (Table 1-3). VEDP's grant programs are estimated to have increased private employment by 979 jobs, Virginia GDP by $217 million, and personal income by $114 million per year, on average. These measures of economic activity increased the most for the COF and MEE grants—the programs that either provided the most awards per year (COF) or that provided the largest award to a project (MEE). The largest MEE award was $25 million, which is more than the annual spending by each of the other three programs. This analysis assumes only a portion of the economic activity is attributable to the grants. (The MEE grant was included in the economic impact analysis because even though no grants were approved during the study period, projects received final payments during the study period. The New Company Incentive Program was not included because no projects have completed performance, so it had no economic impact during the study timeframe.)

When assessed per $1 million spent on the grants, the COF and MEE grants have high economic benefits compared with the economic benefits across other incentives, while the economic benefits of the VEDIG grant are moderate and the VIP grant are low compared with other incentives. (See Appendix C for more detail on the comparison of economic benefits generated by Virginia incentives.) The economic benefits of the MEE grant are high because the one project was for a major manufacturing headquarters

Economic impact analysis of expenditures by incentive recipients between FY12 and FY21 was conducted using economic modeling software developed by REMI, Inc.

(See Appendix R [online only] for the economic impact analysis used in this study.)

Net impact is the increase in economic activity induced by the incentive, adjusted for the opportunity cost of increasing taxes to pay for the incentive.

(See online Appendix S for information on the total economic impact and the opportunity cost of increasing taxes.)

Incentives, on average, are estimated to generate an additional 56 jobs, $11 million in GDP, and $5 million on personal income per $1 million spent and have a return in revenue of 37¢ per $1 spent. (See *Economic Development Incentives 2022*, JLARC 2022.)

(Philip Morris) and included many high paying jobs. Economic benefits of the COF grant are high because, in addition to being generally well targeted to high impact projects, the grant requires a local match (cash or in-kind), which increases the total award amount and, thus, the ability of the incentive to influence business location decisions. The economic benefits of the VIP grant are low compared with other incentives because, though the grant is well targeted to high impact projects, the grant does not require job creation. (See Appendix D for more information on targeting to high-impact projects.)

The returns in state revenue for every $1 spent on all four VEDP grants is high compared with the return in revenue across other incentives (37¢ per $1 spent). The COF grant nearly pays for itself, generating an estimated 95¢ per $1 spent. The VIP grant is estimated to have a high return in state revenue (79¢ per $1 spent), likely because of the sales tax revenue generated from the high level of capital investment required to receive the grant.

TABLE 1-3
Economic benefits of VEDP's location and expansion grants vary from low to high, but returns in revenue are high for all grants (FY12–FY21)

	Annual average (FY12–FY21)				
	COF	**VIP**	**VEDIG**	**MEE**	**Total**
Net impact to Virginia economy					
Private employment	558 jobs	25 jobs	86 jobs	310 jobs	979 jobs
Virginia GDP	$121.8M	$5.2M	$19.8M	$70.4M	$217M
Personal income	$60.5M	$2.6M	$12.1M	$38.9M	$114M
Impact to Virginia economy per $1 million in incentives					
Private employment	113 jobs	32 jobs	94 jobs	117 jobs	104 jobs
Virginia GDP	$24.2M	$6.3M	$20.1M	$25.9M	$22.7M
Personal income	$12.3M	$3.3M	$13.0M	$14.6M	$12.2M
Impact to state revenue					
Total revenue	$5.0M	$0.8M	$0.8M	$2.5M	$9.1M
Cost of grants	$5.3M	$1.0M	$1.0M	$2.9M	$10.1M
Net revenue	($0.3M)	($0.2M)	($0.2M)	($0.3M)	($1.0M)
Return in revenue for every $1 spent	95¢	79¢	79¢	88¢	90¢

SOURCE: Weldon Cooper Center economic impact analysis of the economic activity of completed grant projects (FY12–FY21) induced by the incentives.
NOTE: Includes direct, indirect, and induced impacts. Assumes only a portion of activity is because of the grant (5.4 percent for COF, 23.8 percent for VIP, 16.5 percent for VEDIG, and 4.4% for MEE). See Appendix R [online only] for how these percentages were estimated. Only one VEDIG project during the study period had completed and was included in this analysis; therefore, the results may not be representative. The gross impact on Virginia's economy is used to calculate the impact per $1 million in incentive awards. This is consistent with how the economic development research literature typically calculates these impacts. (See Appendix S [online only] for detailed results on total impact of the incentives, impact of raising income taxes by the amount of the incentives [opportunity cost], and revenue generated by source.)

MEE and the New Company Incentive Program could be eliminated, and minor changes could improve VIP and VEDIG grants

Even though the VEDP location and expansion grants are generally effective and useful, several improvements to these incentives should be considered. The MEE grant and New Company Incentive Program, which have seen little use, should be eliminated. Several changes should be made to improve the attractiveness and the economic benefits of the VIP and VEDIG grants. No changes were identified for the COF grant, which is well designed and has among the highest economic benefits and returns in revenue of the VEDP location and expansion grants.

Eliminate the MEE grant because it is not used and has been supplanted by custom grants

The MEE grant should be eliminated for several reasons. The grant has been used by only two companies since it was adopted, and no awards have been made since FY06. The grant is unattractive to firms, according to VEDP staff, because of

- high eligibility thresholds (businesses must create a minimum of 1,000 new jobs and $100 million in capital investment),
- delayed payment schedule (payments begin three years after job creation and capital investment is completed), and
- a long payout period during which performance must be maintained (over 5–7 years).

Similar grants offered by other states provide more funding upfront, which improves the net present value of the award and makes the grants more competitive.

The MEE grant has been supplanted by the use of custom grants, which offer more flexible terms but still must meet agency return on investment and due diligence criteria. Since FY04, Virginia has awarded 19 custom grants (13 since 2018). The MEE program does not have an expiration date, so the General Assembly would need to pass legislation to eliminate the program.

RECOMMENDATION 1
The General Assembly may wish to consider eliminating the Major Eligible Employer Grant Program.

Allow the New Company Incentive Program to expire because it has seen little use, is not well designed, and other programs can likely fulfill its purpose

The General Assembly also should allow the New Company Incentive Program to expire (scheduled for 2025) because it is not well used, and more importantly, is not well designed. The program has provided only two incentives to companies since its inception in 2018. The program also does not meet some criteria for effective incentive design

(Table 1-2) and is not targeted to high impact projects. The two awards issued were low-paying call centers (eHealth Technologies and Earthlink) locating in Southwest Virginia.

New Company Incentive Program grants have been provided to call centers in Southwest Virginia.

In FY21, eHealth Technologies, an online insurance firm, was awarded a $626,000 grant for establishing a customer support center in Scott County. It anticipated creating 160 jobs paying $36,567 in wages and $375,000 in capital investment.

In FY22, EarthLink, a high-speed internet service provider, was awarded a $686,500 grant for establishing a customer support center in the City of Norton. It promised to create 285 jobs paying $33,751 in wages and $5.4 million in capital investment.

A particularly problematic feature of the New Company Incentive Program is that it allows projects that do not qualify for COF, which is a better designed incentive, to access COF funds and receive potentially higher awards than they would have if they were eligible for the COF grant. (New Company Incentive Program grants are paid from the COF fund.) eHealth would not have qualified for the regular COF grant because it failed to meet the minimum capital investment requirement. Earthlink would not have qualified because its average wage level was too low (82 percent of the prevailing average annual wage). However, both projects were awarded sizable grants from the New Company Incentive Program: Earthlink was awarded $686,500 and eHealth was awarded $626,000. These amounts are higher than the average COF award *per project* ($580,048). Had eHealth met the minimum capital investment requirement for COF (and all other requirements), it could have received a COF grant of $573,440 based on the average COF award per job, which is substantially less than the award it received from the New Company Incentive Program. Both projects could potentially receive additional tax incentives through the New Company Incentive Program (Table 1-1), but neither have used these incentives to date.

The overall intent of the New Company Incentive Program appears to have been to incentivize job creation in distressed areas of the state, but other existing programs could likely serve the businesses eligible for the program. Both of the call center projects were eligible for other Virginia programs that incentivize job creation, including the Virginia Jobs Investment Program grant, the Major Business Facility Job Tax Credit, and the Job Creation Grant. Both projects were also awarded grants from the Tobacco Region Opportunity Fund. If both projects create all of their expected jobs, they could receive sizable amounts from other programs (Table 1-4).

TABLE 1-4
The New Company Incentive Program projects could receive sizable incentives from other programs

	Project	
Estimated award	eHealth (160 jobs)	Earthlink (285 jobs)
Virginia Jobs Investment Program	$140,480	$250,230
Major Business Facility Tax Credit	110,000	235,000
Job Creation Grant	78,000	140,500
Tobacco Region Opportunity Fund	94,000	62,500
Total estimated award	**$422,480**	**$688,230**

SOURCE: Weldon Cooper Center analysis.
NOTE: Award calculation is the number of jobs times the average VJIP award per job ($878), $1,000 per job created over a 50-job threshold for the major business facility tax credit, $500 per job created over a four job threshold for the Job Creation Grant, and the actual award amount from the Tobacco Region Opportunity Fund. The Earthlink grant from TROF was later canceled, according to information on awards provided by staff.

RECOMMENDATION 2
The General Assembly may wish to consider allowing the New Company Incentive Program to expire on January 1, 2025.

Improve the attractiveness and economic benefits of the VIP and VEDIG grants

Several changes should be considered to improve the attractiveness and the economic benefits of the VIP and VEDIG grants. The performance period for VIP and VEDIG grants could be shortened to provide payments earlier. Current economic research indicates that upfront incentives with recapture provisions are more effective in influencing business location decisions than substantially delayed performance-based ones. While having to recapture payments presents other difficulties, the results of this research implies providing earlier payments would be more attractive to potential VIP and VEDIG projects. Both programs currently do not begin making payments until the third year after projects achieve their performance targets (or the second year for VIP if the company is locating in a fiscally distressed area of the state). The timing of the first payment could be the same as COF grants, which are typically paid in the first year after the company has reached its performance date and achieved its capital investment and new jobs targets. COF payments can also be made before the performance date in multiple payouts if milestones are met under certain circumstances.

RECOMMENDATION 3
The General Assembly may wish to consider amending § 2.2-5101 and § 2.2-5102.1 of the Code of Virginia to allow payouts for the Virginia Investment Performance Grant and the Virginia Economic Development Incentive Grant to be paid out beginning in the first year after performance.

In addition, projects seeking VIP awards should be required to meet a minimum wage threshold for jobs created, similar to the COF and VEDIG grants. The VIP grant does not require the creation of new jobs or have a minimum wage threshold because it is an employment retention grant designed to encourage capital investment; the focus of the grant is on expansion and job retention rather than job creation. However, most (85 percent) of the projects approved for a VIP award during the 10-year period had job creation as one of their performance criteria. The VIP award process includes an ROI analysis that typically awards larger grants for higher wage job creation projects. However, since there is no statutory minimum wage threshold, VIP grant awards could, in theory, still account for jobs paying relatively low wages compared with other VEDP grants. To improve the economic benefits of the program, VIP projects that include job creation as part of the ROI analysis should be required to pay at least 100 percent of the prevailing local average wage (the COF wage threshold).

RECOMMENDATION 4

The General Assembly may wish to consider amending § 2.2-5101 of the Code of Virginia to require that projects seeking grants from the Virginia Investment Performance Grant be required to pay at least the prevailing average wage when job creation is included in the Virginia Economic Development Partnership's award determination.

Finally, the Virginia Investment Partnership Act should be updated, particularly if the MEE grant is eliminated. The act, which contains language regarding funding and other criteria for the VIP, MEE, and VEDIG programs, is out of date. Independent statutes for VIP and VEDIG that reflect their current eligibility requirements could be considered.

2. Major Business Facility Job Tax Credit

Virginia, like most states, offers a general job creation tax credit to encourage businesses to locate and expand in the state and create jobs. Virginia adopted its jobs tax credit—the Major Business Facility Job Tax Credit—in 1994, around the time when other states were beginning to adopt job creation tax credits. The major business facility tax credit was adopted prior to the establishment of VEDP's job creation grant programs, such as the COF, VIP, and MEE.

The major business facility job tax credit is available to a wider variety of businesses than VEDP's job creation grants because its eligibility requirements are far less strict than the grant programs. The tax credit only excludes the retail trade industry and has no minimum capital investment requirement or minimum wage threshold. Stakeholders report that the tax credit gives the state a tool to target projects that create a lot of jobs but generate little capital investment, which often prevents these projects from being eligible for VEDP grants in particular. However, some businesses have qualified for both the tax credit and a VEDP grant.

TABLE 2-1
Virginia offers a general job creation tax credit

	Major Business Facility Job Tax Credit (adopted 1994)
Purpose	Encourage businesses to locate or expand in Virginia and create jobs.
Eligible beneficiaries	Non-retail businesses that create new full-time jobs in the state over a minimum job threshold.
Credit features	Credit is $1,000 per new job over a 50 job threshold, or over a 25 job threshold if project is in an enterprise zone or economically distressed area (a locality with unemployment rate at least 0.5 percent higher than the average statewide unemployment rate). Jobs must be full time and the threshold amount of jobs must be created within a 12-month period. The credit is paid over a 2-year period ($500 per year), and the employment level must be maintained for a minimum of 6 years or the credit will be recaptured. Credit can be claimed against multiple taxes, not just corporate and individual income taxes, but it cannot exceed tax liability. The credit has a 10-year carryover period. Credit cannot be claimed if the following incentives were also awarded: Job Creation Grant, Port of Virginia Economic and Infrastructure Development Grant, International Trade Facility Tax Credit, Green Job Creation Tax Credit, and the Coalfield Employment Enhancement Tax Credit. Credit cannot be used for the same jobs used to claim a Job Creation Grant. Expires June 30, 2025.

SOURCE: Weldon Cooper Center review of § 58.1-439 of the Code of Virginia and program documents.
NOTE: The credit was adopted in 1994 but not effective until 1995.

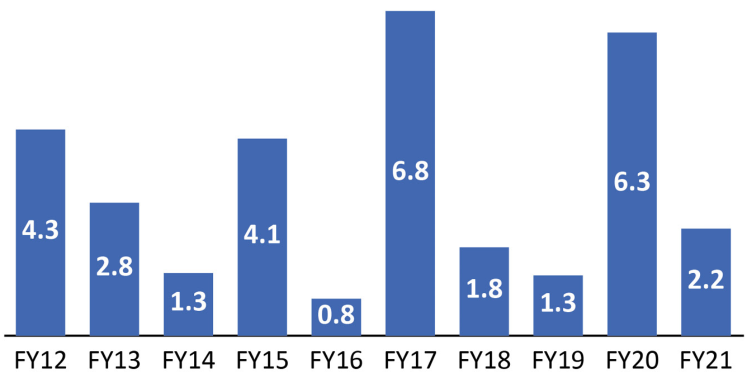
MAJOR BUSINESS FACILITY JOB TAX CREDIT

Encourage companies to locate or expand in Virginia and create jobs

VALUE TO BENEFICIARIES

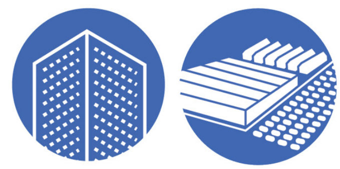
FY12-FY21

Total tax savings: $32M



Beneficiaries

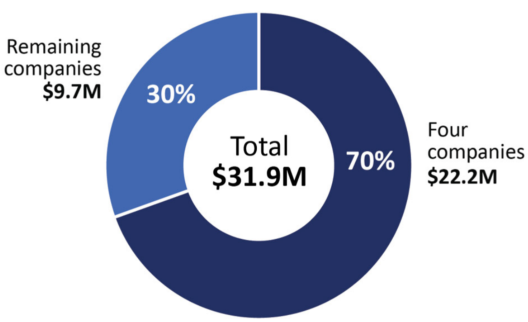
44 companies awarded credits



mostly headquarters or transportation and warehousing companies

ACHIEVEMENT OF PURPOSE

Four companies dominated vast majority of tax credit awards



Tax credit value per job is too low to likely influence many business decisions

$1,000

Major business facility job tax credit

$4,000

Average incentive

IMPACT TO STATE ECONOMY

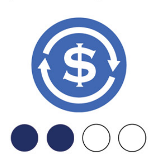
FY12-FY21

Economic benefit per $1M in grants

Jobs, state GDP, and personal income

Return in revenue

per $1 spent



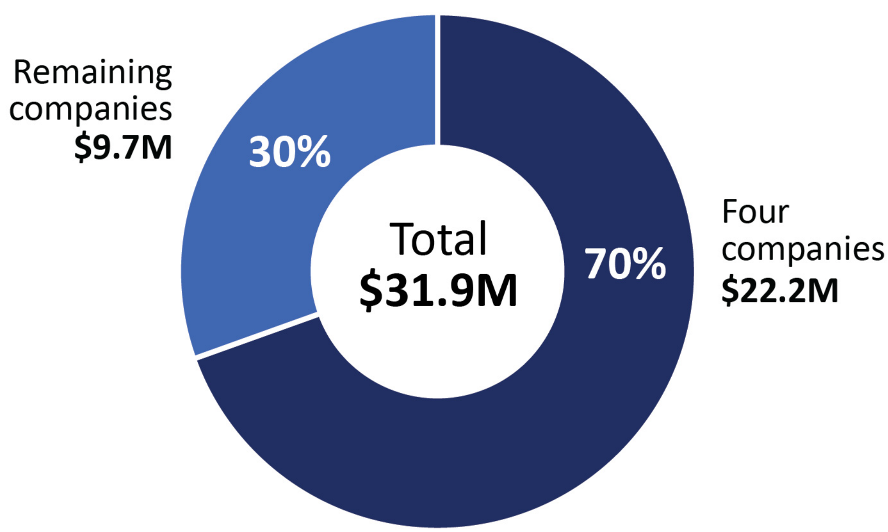
●●●● High
●●●○ Moderate
●●○○ Low
●○○○ Negligible

Businesses saved $2 million with the major business facility job tax credit in FY21 and $32 million over the 10-year period

Tax savings from Virginia's major business facility job tax credit were $2.2 million in FY21 and totaled nearly $32 million during the 10-year period from FY12 to FY21. Tax savings varied from year to year, from a low of $0.8 million in FY16 to a high of $6.8 million in FY17.

While 44 companies were awarded major business facility job tax credits between FY12 and FY21, a small number of companies received most of the total amount awarded. Four companies received 70 percent of the awarded credits over the 10-year period (Figure 2-1). The majority of awards overall were to businesses in the management and headquarters sectors (44 percent) or transportation and warehousing (21 percent). Unlike many other incentives, manufacturing represents a very small portion (4 percent) of credit users. (See Appendix D for more information on project characteristics, including industry and employment size.) However, like many other Virginia tax credits, major business facility job tax credit awards were concentrated in population centers like Northern Virginia (49 percent) and the Richmond metropolitan area (33 percent). (See Appendix F for regional distribution of credits.)

FIGURE 2-1
Four companies received 70 percent of total major business facility job tax credit award amount (FY12–FY21)



SOURCE: Weldon Cooper Center analysis of Virginia Tax data.
NOTE: The amount shown represents the amount awarded between FY12 and FY21 rather than the amount claimed on tax returns during the 10-year period. Data available from Virginia Tax provides more insight into the characteristics of companies that are awarded credits than it does companies that ultimately claim credits. Some of the companies are pass-through entities whose owners claim credits on their individual income tax return; therefore, company affiliation and characteristics are unknown.

Companies awarded major business facility job tax credits are larger than users of most other incentives for which employment information is known (primarily grants). Companies awarded credits had an average of 612 employees, and two-thirds of companies had more than 500 employees. (The average sized company receiving an economic development grant is 185 employees. See Appendix D for more information on size of establishments receiving tax credits.) Companies awarded major business facility job tax credits are larger than those using other incentives for several reasons. Larger companies likely have: less difficulty meeting the job creation requirements and sustaining those jobs for six years; higher tax liability to use the credit; and an accounting department with the resources to research and apply for a credit with a relatively low benefit ($1,000) per job. Only four other programs provide incentives to companies that typically have more employees, on average, than companies awarded major business facility job tax credits: MEE grant (5,344), Transportation Partnership Opportunity Fund (3,178), Virginia Talent Accelerator Program (2,525), and the VIP grant (860) (JLARC, *Economic Development Incentives*, 2022).

Major business facility job tax credit is not well designed and unlikely to influence many business decisions

The major business facility job tax credit lacks most features of a well-designed economic development incentive identified by research literature (Table 2-2). For example, it does not include a due diligence review or have a program or project cap. The credit only partially meets the requirements of having a minimum eligibility threshold (i.e., it has a jobs creation threshold but no capital investment or wage requirements) and targeting export-base sectors. The only features that it fully meets are encouraging location and expansion in distressed areas (by reducing the job creation threshold from 50 to 25) and having an expiration date. (The credit also does not allow companies that transfer jobs between locations within the state to claim credits.)

TABLE 2-2
Major business facility job tax credit lacks most features of a well-designed economic development incentive

Requirement	Major business facility job tax credit
Minimum eligibility thresholds	◐
Due diligence review	○
ROI-based award	○
Export-base industry	◐
Pay average local wage or higher	○
Competitive project	○
Project/program cap	○
Special provisions to target distressed area	●
Expiration date	●

SOURCE: Weldon Cooper Center review of program documentation and economic development incentive research.
Legend: ● Meets criteria ◐ Partially meets criteria ○ Does not meet criteria
NOTE: Credit has minimum job creation threshold but no capital investment and minimum wage thresholds. Only retail industries are excluded, which allows non export-base sectors such as accommodation and food services, health-care services, and personal services to qualify.

Economic impact analysis of expenditures by incentive recipients between FY12 and FY21 was conducted using economic modeling software developed by REMI, Inc.

(See Appendix R [online only] for the economic impact analysis used in this study.)

Net impact is the increase in economic activity induced by the incentive, adjusted for the opportunity cost of increasing taxes to pay for the incentive.

(See online Appendix S for information on the total economic impact and the opportunity cost of increasing taxes.)

Other states tend to have better designed job tax credit programs. (See Appendix O [online only] for more detail about job tax credits by state.)

- Nearly all programs target mainly export-base industries.
- Most programs (70 percent) stipulate that jobs created must pay at least a certain wage level (and often benefits).
- Majority of states (58 percent) have discretionary tax credit programs, where program administrators (usually the economic development agency rather than taxation or revenue department) apply selection criteria to identify eligible beneficiaries.
- Majority of states (58 percent) have job creation requirements and many (25 percent) programs have minimum capital investment requirements; some provide higher credit values to projects creating more jobs and making larger capital investments.

The major business facility job tax credit is also unlikely to influence many business decisions because of its low value ($1,000 per job). This value is substantially lower than other Virginia grant programs (averaging nearly $4,000 per job for non-custom grants, JLARC, *Economic Development Incentives*, 2022) and the average credit per job offered by other states ($8,800). In a prior review of the tax credit, stakeholders reported the credit functions more as a reward than a factor influencing business decisions because of its low reimbursement (JLARC, *Review of the Effectiveness of Virginia Tax Preferences*, 2012).

The poor design and low value of Virginia's major business facility tax credit likely reduce its effectiveness. Though much of the research on job creation tax credits finds they either have a small or no impact on employment, recent studies have found some well-designed credits have had positive impacts. For example, one study found that a discretionary selection process favoring firms that are actively considering sites outside of the state (competitive projects) made California's credit successful at influencing business decisions. A larger body of research on incentives generally, including job creation tax credits, indicates incentive design has important implications for incentive success. These studies indicate that influential incentives typically are larger and targeted to companies that are considering multiple locations (competitive projects), have a financing gap, or are capital intensive. (See Appendix T [online only] for more detail on the research.)

Major business facility job tax credit generates moderate economic benefits and a low return in state revenue

The major business facility job tax credit is estimated to have generated a small amount of economic activity for the state between FY12 and FY21. Estimates show that each year private sector employment increased by 66 jobs, Virginia GDP increased by $12.1 million, and personal income increased by $8.3 million because of the tax credit (Table 2-3).

The economic benefits of the major business facility job tax credit are estimated to be moderate compared with the economic benefits of other incentives. When assessed per $1 million spent, the major business facility job tax credit generated 53 additional jobs, nearly $10 million in additional state GDP, and nearly $7 million in additional statewide personal income each year between FY12 and FY21, which is similar to the economic benefits calculated across all incentives per $1 million spent during the 10-year period (JLARC, *Economic Development Incentives*, 2022).

The major business facility job tax credit generates moderate economic benefits despite its poor design for several key reasons. The tax credit requires businesses to create jobs, and incentives that require job creation typically generate higher economic benefits. The tax credit has a very low cost to the state ($1,000 per job created), which results in higher economic benefits when they are assessed per $1 million spent. Though the tax credit is not well targeted to businesses in high impact industries (the only restriction is businesses cannot be in the retail industry), over half of the awards were to companies in industries with high employment multipliers. (See Appendix D for more information on the extent to which incentive programs target industries with high economic impacts.)

TABLE 2-3
Major business facility job tax credit generates moderate economic benefits and a low return in state revenue

	Annual average FY12–FY21
Net impact to Virginia economy	
Private employment	66 jobs
Virginia GDP	$12.1M
Personal income	$8.3M
Impact to Virginia economy per $1 million of incentives	
Private employment	53 jobs
Virginia GDP	$9.6M
Personal income	$6.5M
Impact to state revenue	
Total revenue	$0.6M
Incentive awards	$2.4M
Revenue net of awards	($1.8M)
Return in revenue	26¢ for every $1 spent

SOURCE: Weldon Cooper Center economic impact analysis of the economic activity (FY12–FY21) induced by the incentives.
NOTE: Includes direct, indirect, and induced impacts. The gross impact on Virginia's economy is used to calculate the impact per $1 million in incentive awards. This is consistent with how the economic development research literature typically calculates these impacts. (See Appendix S [online only] for detailed results on total impact of the incentives, impact of raising income taxes by the amount of the incentives [opportunity cost], and revenue generated by source.) This estimate is an average of two estimates. The tax credit requires job creation but available job information was based on awards not credit claims because credit claim information was unavailable to determine when and if jobs were created and maintained. One estimate assumed no job creation (low estimate) and a second estimate assumed the full number of jobs was created at time of award and maintained (high estimate). See Appendix R for further information on the methods used for this estimate.

When compared specifically to tax incentives versus grants, the major business facility tax credit's economic benefits fare better. Its economic benefits are higher than those of almost all other tax incentives (the exception being the data center exemption), primarily because it requires job creation, whereas other tax incentives typically do not. However, its economic benefits are lower than those of most grants. A key reason is because the tax credit is estimated to induce less than 1 percent of the economic activity of its recipients, according to a scale developed based on incentive activity across the nation (Bartik 2018b). This estimate is lower than the estimated business activity induced by many other grants evaluated in this series because the credit amount is much lower ($1,000 per job) than the average grant award ($4,000 per job).

The return in state revenue for every $1 spent on the major business facility job tax credit is low compared to the returns in state revenue for other incentives. As with economic benefits, the estimated return in state revenue is higher than the estimated returns for many tax incentives but lower than returns for many grant programs.

Several changes would improve the major business facility job tax credit; otherwise it should be allowed to expire

The major business facility job tax credit should be improved to increase its economic benefits to the state. By better targeting high economic impact businesses and adopting other incentive best practices, the tax credit could likely generate high or moderate-to-high economic benefits and returns in revenue. If changes are not made to improve the tax credit, it should be allowed to expire.

The **original major business facility job tax credit** was better designed. The credit had more restrictions on qualifying companies, and it had a per taxpayer cap of $1 million. Also, the Department of Economic Development (predecessor to VEDP) previously certified to Virginia Tax that the company was eligible for the credit. It is unknown why these requirements were removed; most were removed before 2000.

Several changes would improve the design and economic impact of the major business facility job tax credit

The major business facility job tax credit could be modified to better incorporate the features of well-designed economic development incentives and align with job creation tax credits in other states. The original version of the credit was better designed and included these features that should be adopted again, including:

- restricting eligibility for the credit to businesses that are in export-base industries and pay at least a certain wage;
- having a program or per taxpayer cap; and
- requiring VEDP to administer the process for approving credits, including reviewing and approving credit applications to ensure recipients meet eligibility criteria.

Restricting eligibility requirements to businesses that are export-base employers would improve the tax credit's economic impact and be similar to the requirement for the COF and other VEDP grants. Export-base employers typically have a larger economic impact than employers providing local services, because they bring new revenue into the state. Current requirements for the tax credit prohibit only businesses in retail sectors from eligibility, and only 17 percent of major business facility job tax credit recipients are export-base employers. This has allowed low impact businesses, such as a dialysis center company that provides local health services, to qualify for the credit.

Wage thresholds are recommended because higher wage jobs are associated with greater employment multiplier effects (meaning every incentivized job creates one or more additional jobs in the economy) and thus have larger economic impacts. Currently the tax credit has no wage threshold, which is not aligned with other Virginia job creation incentives and job creation tax credits in other states.

The minimum wage threshold for the tax credit could be set to one of the thresholds used by other Virginia programs:

- COF – 100 percent of the prevailing local average wage;
- Job Creation Grant – 150 percent (125 percent for high unemployment areas) of the federal or state minimum wage (whichever is higher); or
- Virginia Jobs Investment Program - 120 percent of the Virginia minimum wage.

Program or per taxpayer caps are a best practice because caps provide fiscal protection to the state by preventing tax credits from being unlimited. All other Virginia economic development tax credits have either a program cap, a taxpayer cap, or both. The average annual *program cap* for Virginia tax credit programs is $5.1 million. (Annual tax expenditures for the major business facility tax credit have been around this level—ranging from $1.3 million to $6.8 million over the past decade.)

If a *per taxpayer cap* were adopted for the major business facility tax credit, it would need to be higher than the average per taxpayer cap for Virginia tax credits ($70,625). If the per taxpayer cap was set at the average tax credit, each project would only be incentivized for 70 jobs over the credit's minimum threshold (i.e., 50 jobs or 25 jobs if the project is in an economically distressed area). However, records from Virginia Tax indicate that about half of the businesses receiving the tax credit had created about 150 or more jobs over the threshold, and one-quarter of the businesses had more than 400 jobs over the threshold. (See Appendix I for a list of Virginia's tax credits and their program or taxpayer caps.)

RECOMMENDATION 5

The General Assembly may wish to consider amending § 58.1-439 of the Code of Virginia to (i) require that businesses eligible for the Major Business Facility Job Tax Credit be export-base (basic) employers and pay wages that meet or exceed a certain wage threshold, and (ii) adopt an annual program cap or annual per taxpayer cap.

Finally, VEDP should be given primary responsibility for administering the major business facility job tax credit, particularly if the recommendations to improve the credit are adopted. Virginia Tax currently administers the tax credit, including approving eligibility and ensuring compliance with job creation requirements. Companies apply for credits by filing required tax forms, and continue to file tax forms to ensure compliance with job creation requirements for six years. VEDP is likely better positioned to administer the credit if additional eligibility requirements are adopted, particularly ensuring projects meet export-base requirements, because of the more extensive due diligence procedures it has adopted for its grant programs. Virginia Tax would still issue the credits, but VEDP would be responsible for

- reviewing and approving tax credit applications,
- developing program policies and guidelines, and
- ensuring compliance with job creation requirements.

This approach is used for some other tax incentives, such as the data center exemption. Other states typically require their economic development agency to administer their job creation tax credits.

VEDP could develop a process to review the tax credit applications and select tax credit recipients that is similar to the process it uses for existing grant programs. The Partnership could update its *Incentives Administration Policy and Procedural Guidelines* manual to incorporate guidelines for the tax credit. A more in-depth review process would better ensure eligible businesses qualify for the credit. (Several awards appear to have been to companies in retail distribution industries, which are prohibited from receiving credits.) A more in-depth review process would also help prevent businesses from receiving incentives from multiple programs, which is prohibited in some cases. (At least one company appears to have used both the major business facility job tax credit and grant funding for the same project [which is prohibited], based on a review of incentive records.)

VEDP could also create a job creation verification process similar to its grant programs, which would likely reduce the burden for tax credit recipients. Survey responses from tax credit recipients and information from Virginia Tax suggest that compliance reporting for tax credits, which is typically done on separate tax forms, is often burdensome. However, VEDP has improved its job creation verification process over time and responses from companies receiving VEDP grants generally did not find the grant application and award process (which includes compliance reporting) complex or requiring too much paperwork.

RECOMMENDATION 6

The General Assembly may wish to consider amending § 58.1-439 of the Code of Virginia to require that the Virginia Economic Development Partnership approve Major Business Facility Job Tax Credit applications, ensure that tax credit recipients are compliant with maintaining the incentivized jobs, and determine when recapture or reduction of tax credit amounts is warranted.

If VEDP administered the major business facility job tax credit, VEDP would be well positioned to make policy recommendations to further improve the credit. Specifically, VEDP should evaluate whether the credit per job ($1,000) should be increased, *but only if* the other recommendations to improve the tax credit are adopted. The value of the credit has not changed since the credit was adopted in 1994; therefore, inflation has greatly eroded its value. Most other states provide higher credit reimbursement amounts, and responses to a Weldon Cooper Center survey included a suggestion to increase the tax credit's value to make it more competitive with job creation tax credits offered by other states. VEDP could also assess whether the credit per job should be inflation-adjusted so that if increased, it continues to maintain its value over time.

The General Assembly could consider increasing staff at VEDP if the agency assumes responsibility of administering this tax credit. Approximately 12 companies receive major business facility job tax credit awards per year, which means the tax credit would become the second largest VEDP-administered incentive program in terms of the number of projects (this number of projects is fewer than COF but more than VIP).

If changes are not adopted, the tax credit should be allowed to expire

If the changes to improve the major business facility tax credit are not made, the tax credit should be allowed to expire on its expiration date of June 30, 2025. The current credit is not well designed and appears to be more of a reward for businesses rather than an incentive. Additionally, companies that use the tax credit also frequently use other incentives this evaluation series has found to be more effective and that yield larger economic benefits to the state. For example, 12 companies that received almost $10 million in major business facility job tax credits also received $27 million in economic development grants, mostly VEDP grants. Rather than continuing a poorly designed credit, the state should focus on its stronger programs to incentivize the businesses it wants to attract.

RECOMMENDATION 7

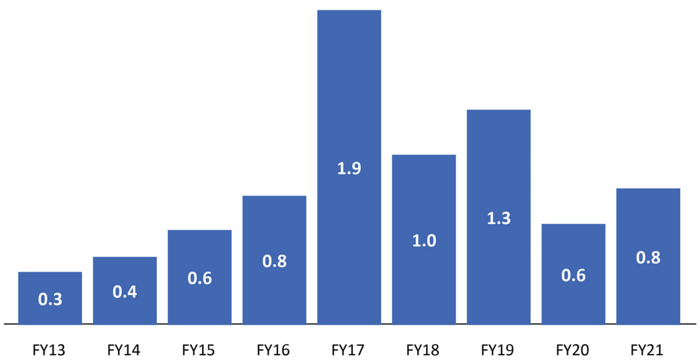
If the recommendation to improve the Major Business Facility Job Tax Credit is not adopted, the General Assembly may wish to consider allowing the tax credit to expire on June 30, 2025.

AGRICULTURE AND FORESTRY INDUSTRIES DEVELOPMENT FUND

Attract and expand agricultural and forestry businesses in Virginia.

VALUE TO BENEFICIARIES FY12-FY21

Total tax savings: $8M

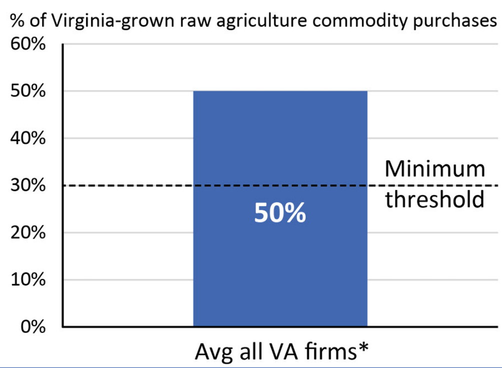


Beneficiaries

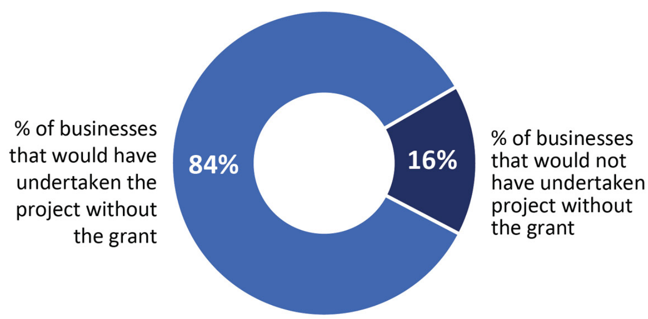
Mostly meat processors, greenhouses, craft breweries, and forestry-related businesses

ACHIEVEMENT OF PURPOSE

Threshold for Virginia-grown commodity purchases is too low, and may not sufficiently influence purchasing behavior



AFID facilities grant has limited impact on location and expansion decisions



IMPACT TO STATE ECONOMY

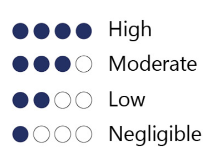
FY12-FY21

Economic benefit per $1M in grants

Jobs, state GDP, and personal income

Return in revenue

per $1 spent



3. Agriculture and Forestry Industries Development Facility Grant

Virginia offers the Agriculture and Forestry Industries Development (AFID) facility grant to attract and expand agricultural and forestry businesses that use raw materials grown and harvested in Virginia. Grant recipients must be value-added businesses involved in processing, manufacturing, or distribution. The AFID program (adopted in 2012) resulted from long-term efforts to enhance the state's agriculture and forestry industries. The grant fills a capital funding gap in the state's incentive offerings for agricultural and forestry businesses that do not meet the minimum job creation, capital investment, and other eligibility requirements of most other state incentives. The grant also indirectly benefits Virginia farms and other businesses that grow crops and harvest timber, because value-added businesses are incentivized to buy from them.

A **value-added business** modifies or enhances raw products to form a product with a higher market value.

The AFID facility grant was modeled after the Commonwealth's Development Opportunity Fund (COF) grant and has several similar eligibility requirements, such as requiring job creation and capital investment (though it has no minimum threshold) (Table 3-1). The AFID facility grant also has some unique requirements, such as requiring eligible businesses to purchase a minimum of 30 percent of the raw materials they use in production (such as crops, livestock, or timber) from Virginia sources.

The AFID program provides two grants in addition to the facility grant. These grants are not used to directly attract and retain businesses and are not included in this report.

The **planning grant** provides funding of up to $35,000 for localities to conduct agriculture and forestry studies such as strategic plans, feasibility analyses, and business plans to support agriculture and forestry economic development.

The **Local Food and Farming Infrastructure grant** provides up to $50,000 to political jurisdictions for projects that support local and regional food systems such as farmers markets, food hubs, commercial kitchens, and animal slaughtering and food processing facilities.

TABLE 3-1
Virginia offers the AFID facility grant to attract and expand agricultural and forestry businesses

	Agriculture and Forestry Industries Development Fund (AFID) Facility Grant (adopted 2012)
Purpose	Attract and expand agricultural and forestry businesses in Virginia.
Eligible beneficiaries	Agricultural and forestry value-added processing, manufacturing, or distribution businesses that create jobs and make a capital investment in Virginia. The business must purchase a minimum amount (30%) of their agricultural (e.g., crops, poultry, dairy, livestock, other animals, and aquaculture) and forestry (e.g., timber, pulpwood and other tree and wood products) raw commodities used in production from Virginia sources.

Grant features	Discretionary grant to eligible businesses that must meet the performance requirements specified in their performance agreements. There are no minimum requirements for job creation or capital investment, but targets for these measures are established in the performance agreement. Capped at $500,000 per project but can be increased for projects of statewide or regional significance. Grant is awarded to host locality on behalf of the project. Localities must provide matching funds for each project and are responsible for reimbursing the state when projects do not come to fruition. Program guidelines allow for lowering the 30% minimum commodity threshold for projects of statewide or regional importance. Also, thresholds can be lowered if applicants can demonstrate that Virginia products are not grown or produced in sufficient quantities to meet firm production needs or state commodity production is affected by severe weather or disease.
Grant use	Infrastructure, site acquisition, development, and construction or training.

SOURCE: Weldon Cooper Center review of the Code of Virginia and agency documents.
NOTE: Authorized by § 3.2-305 of the Code of Virginia.

Businesses receive about $1 million in grants per year from the AFID facilities grant

Businesses received about $1 million in AFID facility grants each year between FY12 and FY21, for a total of $7.9 million during the 10-year period. AFID facility grant spending has been relatively stable over time but increased in FY22. AFID facility grant awards were just over $2.7 million in FY22 and included several above average awards of $250,000 or more (the average award was about $87,000 between FY12 and FY21).

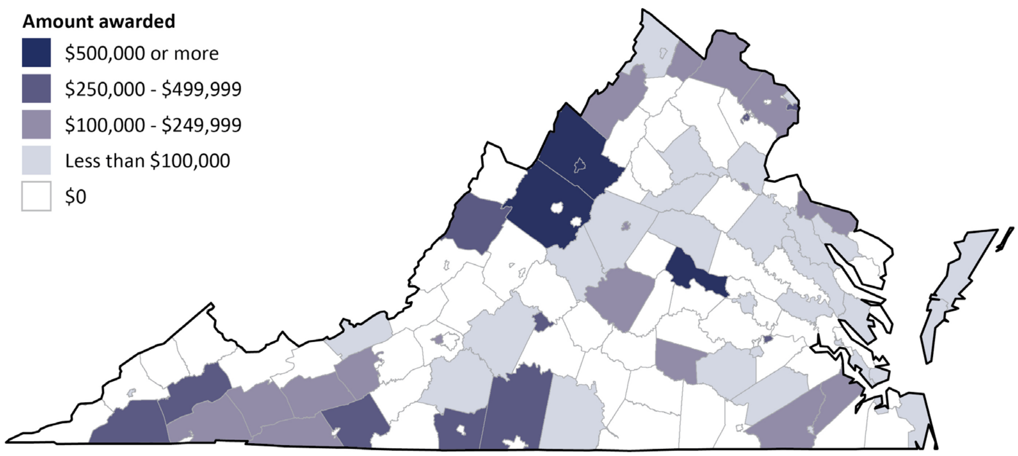
About half of AFID facility grant awards (53 percent) during the 10-year period were for agricultural processing businesses, such as meat and poultry processors, and "controlled environment agriculture" businesses (i.e., greenhouses or vertical farms). The remaining businesses receiving awards were in the forestry or craft beverage industry.

The AFID program was designed for small agribusinesses, and the grant generally serves smaller businesses than most other state incentives. AFID facility grant recipients between FY12 and FY21 employed an average of 56 workers, and more than 25 percent had nine or fewer workers. In contrast, the average business receiving a state incentive grant during the 10-year period had 185 workers. Only two incentive grant programs typically make awards to smaller businesses than the AFID facility grant: the Small Business Investment Grant Fund and the Commonwealth Commercialization Fund.

AFID facility grant recipients are geographically dispersed and more likely to be in nonmetropolitan areas than other state grants. While the *amount* of AFID facility grant awards to businesses in nonmetropolitan areas is similar to other programs (32 percent versus 31 percent), the percentage of AFID facility grant *projects* in nonmetropolitan areas is higher than other programs (33 percent versus 24 percent). Only two grant programs have higher percentages of both awards and projects in nonmetropolitan areas than the

AFID facility grant: the Tobacco Region Opportunity Fund (TROF) and the Transportation Partnership Opportunity Fund. Like TROF, AFID facility grants are concentrated in Southwest Virginia, but unlike other incentives reviewed in this series, the AFID facility grant also has a high percentage of awards in the Shenandoah Valley (Figure 3-1).

FIGURE 3-1
AFID facility grant awards are more concentrated in the Shenandoah Valley and Southwest Virginia



SOURCE: Weldon Cooper Center analysis of incentive awards.

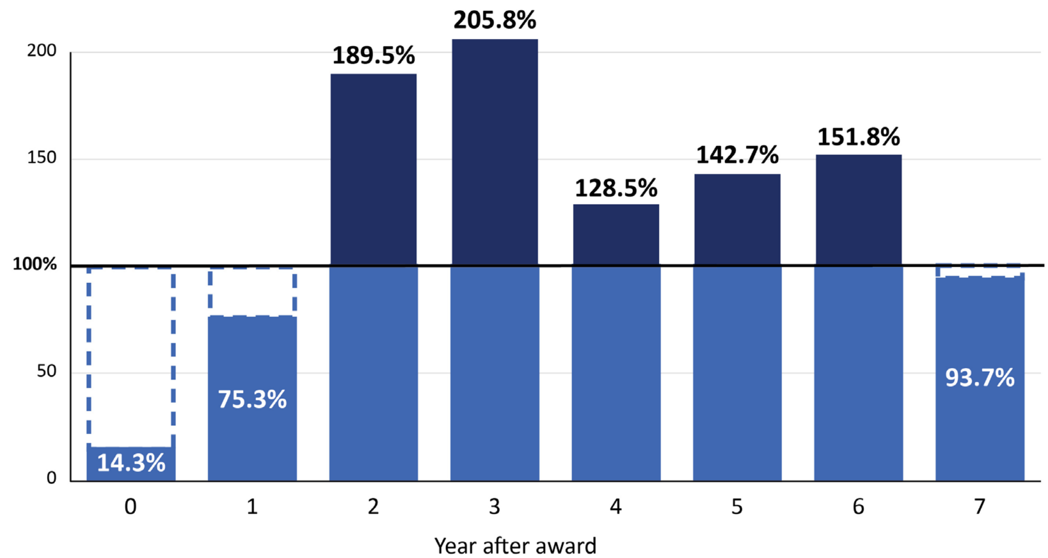
AFID facility grant recipients collectively met job creation and commodity purchase requirements, but the commodity threshold is low and applied inconsistently

AFID facility grant recipients collectively met job creation goals, and all but three projects met the 30 percent minimum purchase threshold of Virginia-based commodities (which can be lowered in certain circumstances). Assessing grants' job creation performance is important because the more new jobs (and especially high paying jobs) that can be attributed to a grant, the higher its economic benefits will be. Assessing the typical percentage of Virginia-grown commodities purchased by recipients is important to ensure the grant threshold is not so low that it 1) allows businesses that are not very reliant on Virginia-grown commodities to receive grants and 2) does not sufficiently incentivize businesses to purchase more Virginia products than they would have without receiving the grant.

AFID facility grant program met its reported job creation goal collectively across projects within three years

The AFID facility grant program met its reported job creation goals collectively across projects within three years (Figure 3-2). Whether a grant program collectively achieves its job creation goal is a key measure of success because it is not reasonable (according to incentive research nationally and in Virginia) to expect *every* project to meet its employment goal. It is reasonable, however, to expect that some projects will exceed their employment goals such that overall, the program collectively meets its goal.

FIGURE 3-2
AFID facility grant program met its reported job creation goal collectively across projects within three years



SOURCE: Weldon Cooper Center of AFID facility grant recipients and VEC employment data.

Similar to VEDP grants, job creation attainment on a *per project* basis was low. The program does not have minimum job creation requirements, but job creation goals are established in grant recipients' performance agreements. While job creation attainment on a per project basis was low, it is similar to the average (26 percent) for grant programs. This percentage was low, in part, because 61 percent of closed AFID projects did not meet their performance goals and awards were recaptured in part or in full. (See JLARC, *Economic Development Incentives 2022*, 2022.)

Most projects exceed the minimum commodity purchase threshold for Virginia-grown products, but the threshold is too low and applied inconsistently

Most AFID facility grant projects, and state agriculture and forestry firms in general, greatly exceeded the 30 percent minimum commodity purchase threshold for Virginia-grown products. This result indicates the minimum commodity purchase threshold is set too low. AFID facility grant projects purchased 65 percent of their commodities from Virginia sources, on average, with nearly all (89 percent) projects purchasing at least 40 percent. Overall, Virginia firms that purchase agricultural and forestry products purchased an estimated 45 percent of their products from state sources, on average, with purchases ranging from 6 percent for fruit to 64 percent for timber (Table 3-2). When purchases are adjusted to account for the mix of commodities purchased by AFID facility grant recipients, this average is slightly higher (50 percent).

TABLE 3-2
Average percentage of agriculture and forest commodities sourced from Virginia by state-based firms exceeds the 30 percent threshold

Commodity	Percentage of commodity purchases from Virginia sources
Forestry, forest products, and timber tract production	63.6%
Poultry and egg products	59.7
Oilseeds	58.4
All other crops	46.5
Animal products, except cattle and poultry and eggs	41.7
Dairy cattle and milk products	38.9
Beef cattle	38.2
Greenhouse, nursery, and floriculture products	38.0
Cotton	32.0
Grains	26.5
Vegetables and melons	16.2
Tobacco	15.8
Fruit	5.7
Sugarcane and sugar beets	1.4
Tree nuts	0.1
Average for agricultural and forest commodities	**44.5%**
Average for AFID-adjusted bundle of commodities	**49.8%**

SOURCE: Weldon Cooper Center Analysis using 2020 IMPLAN data on regional purchase coefficients.
NOTE: All commodities listed are qualifying purchases for the AFID facilities grant. The average for AFID-adjusted bundle of commodities is a weighted commodity index, adjusted for the mix of AFID incentivized commodity purchases for completed projects and projects that have reported purchases for milestone reporting. For example, the 63.6 percent of all forestry related products purchased from Virginia sources was reweighted by the 22.9 percent of Virginia purchases from AFID facility grant recipients (63.6% x 22.9%).

The minimum commodity threshold is applied inconsistently, likely because program requirements are vague. In most cases, eligibility is determined based on commodity expenditures (e.g., the project will source 30 percent of its agricultural and forest commodity expenditures from Virginia sources). However, it appears that a volume (or weight) threshold (e.g., the project will purchase 30 percent of its agricultural input volume from Virginia producers) is used when expenditures on Virginia based commodities do not meet the 30 percent requirement. As a result, projects may qualify on lower-valued commodities if they meet the threshold on weight or volume. This inconsistency likely occurs because the AFID program statute and eligibility requirement guidelines are unclear—

the statute refers to the "amount of products" and guidelines to the "quantity of products." Businesses report their input purchase goals by commodity in their application in terms of both weight or volume (e.g., in pounds or bushels) *and* dollar values.

AFID facility grant has limited influence on state agriculture and forestry activity but may be useful for some commodities and to stakeholders

The value of Virginia-grown commodities purchased by AFID facility grant recipients has grown—from $7 million in 2016 to $444 million in 2021—but this increase does not reflect growth in total Virginia commodities sold. By 2021, grant recipients' purchases are estimated to represent approximately 11 percent of the value of Virginia production of agriculture and forest commodities. However, total Virginia agribusiness receipts and employment (adjusted for the bundle of commodities purchased by AFID facility grant recipients) have changed little, and both have tracked national growth rates since 2012 when the grant was adopted. (See Appendix J for comparison of receipts and employment for incentivized commodities.) For the grant to noticeably boost the state's agricultural and forestry production and activity, it would need to affect Virginia agribusiness location decisions, which does not appear to be the case, in part because grant amounts are small (half of grant awards are $50,000 or less). However, the grant may be useful for bolstering Virginia commodities that have seen a decline in purchases from Virginia-based buyers (such as forestry) and helping grant recipients purchase machinery and equipment.

The **scale** estimating the amount of economic activity attributed to an incentive is based on the incentive amount as a percentage of the business's new or expanded operations over a 20-year period. The estimate is based on costs only and therefore a limitation is that it does not account for other factors that may influence a business's location or expansion decisions. See Appendix R [online only] for more detail on the difficulty of precisely estimating incentives' effects and the methodology used in this report.

AFID facilities grant has limited impact on location and expansion decisions

The AFID facility grant influences a relatively small portion of projects to locate or expand in Virginia. The grant is estimated to induce only about 2 percent of the economic activity of its recipients using the scale based on the cost of operations developed by a leading researcher of incentives (Bartik 2018b). A survey of AFID facility grant recipients suggests this percentage may be somewhat higher. Sixteen percent of AFID facility grant recipients that responded to a 2023 Weldon Cooper Center survey reported they would *not* have undertaken their location or expansion project without the grant. (Research indicates survey responses likely overstate incentives' impact on decision-making by as much as a factor of two to three times for certain types of incentives). This estimate is also less than the survey-based estimate for the average Virginia incentive. This limited influence on location and expansion decisions is likely because the AFID facility grant value is low relative to the cost of new or expanded business operations.

Research on the effectiveness of incentives for agricultural industries is limited because these programs are uncommon. However, research on the agricultural and forestry industry more generally indicates that other factors—particularly the proximity of raw inputs and markets or population centers—influence the location and expansion decisions of these businesses. Most of the research has been on food manufacturing, but research on factors influencing craft breweries and microbreweries (a sizable portion of

AFID facility grant recipients) has also been conducted. This research suggests that Virginia has some characteristics (relatively high income and early to legalize brewpubs) that attract the location and expansion of craft breweries.

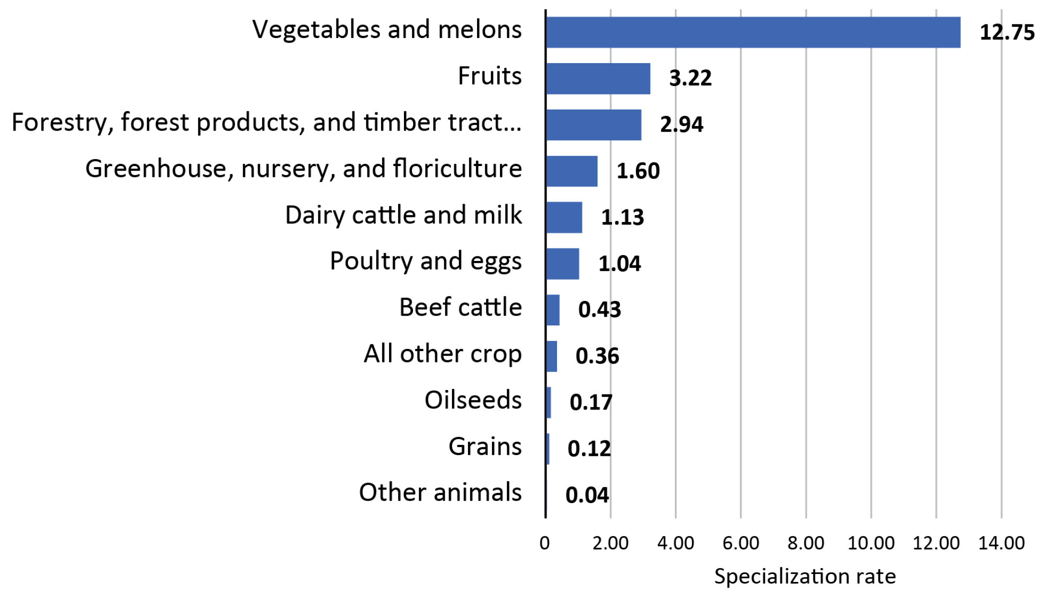
Grant may be particularly useful for some declining commodities, and stakeholders report it has been useful

The AFID facility grant may be useful for bolstering purchases of certain declining commodities. Grant recipients purchase proportionally more vegetable, fruit, greenhouse, dairy, and forestry and timber commodities than these commodities' share of total state agricultural and forest production, according to analysis of purchases by AFID recipients and all Virginia firms (Table 3-3). However, most of these commodities (with the exception of greenhouse, nursery, and floriculture products) have experienced substantial declines since 2013; forestry has also declined since 2015. To the extent that the AFID facility grant is influencing location and expansion decisions for firms purchasing these commodities, it may be bolstering purchases of these commodities.

Stakeholders also reported that the AFID facility grant is a very useful incentive, even if it has a limited effect on influencing agribusiness location and expansion decisions. Local economic developers responding to a Weldon Cooper Center survey in 2020 rated the program as the second-most useful incentive (behind the Virginia Jobs Investment Program) among 33 other state incentives. Two-thirds of AFID facility grant recipients responding to a 2023 Weldon Cooper Center survey indicated that the incentive was "very important" in their ability to invest in machinery and equipment. Half responded that it was "very important" for their ability to increase purchases of Virginia products. (See Appendix H for more information about these surveys.)

The **AFID specialization rate** (calculated as AFID incentivized receipts / all receipts for that commodity) is used to identify commodities for which AFID recipients disproportionally purchase. A rate higher than 1 means more specialization and less than 1 means less specialization.

FIGURE 3-3
AFID facility grant recipients purchased five commodities at higher rates than their statewide share of agricultural and forest product purchases (2016–2021)



SOURCE: Weldon Cooper Center analysis of agriculture and forestry data (USDA, ERS Farm Income Case Receipts and Virginia Tax forestry stumpage value).
NOTE: Purchases are from 2016 to 2021 receipts.

In addition to providing assistance to small businesses that are not eligible for other programs, stakeholders reported several benefits of the AFID facility grant. Though AFID facility grant projects are typically small compared with projects using other incentives, the projects are often economically significant for rural areas. The AFID facility grant also serves as a gateway for businesses to receive additional assistance from the AFID program and other VDACS staff, including assistance with navigating regulatory hurdles and with business feasibility studies and planning.

Collectively, **all incentives** are estimated to generate an additional 56 jobs, $11 million in Virginia GDP, and $5 million in personal income per $1 million spent and have a return in revenue of 37¢ per $1 spent, on average. (See *Economic Development Incentives 2022*, JLARC 2022.)

AFID facility grant generates moderate economic benefits and moderate returns in state revenue

Because of the AFID facility grant's small size, it is estimated to have generated only a small amount of economic activity for the state between FY12 and FY21. Estimates show that each year private sector employment increased by nine jobs, Virginia GDP increased by $2.5 million, and personal income increased by just over $1 million because of the grant (Table 3-3). Economic activity is small because the program awards only $1 million per year in grants on average, and the analysis assumes only 2 percent of the additional economic activity from incentivized businesses is because of the grant.

Economic benefits generated by the AFID facility grant per $1 million in grant spending are moderate compared with economic benefits of other incentives per $1 million spent. The AFID facility grant generates an additional 41 jobs, $11 million in state GDP, and

$5 million in personal income per $1 million spent, which is similar to the economic benefits per $1 million spent generated by all incentives (JLARC, *Economic Development Incentives*, 2022.)

The return in state revenue for every $1 spent on the AFID facility grant is also moderate compared to other incentives. The return in revenue for the AFID facility grant is estimated to be 47 cents per $1 spent, which is slightly higher than the return in revenue for all incentives, on average.

TABLE 3-3
AFID facility grant generates moderate economic benefits and a moderate return in state revenue (FY12–FY21)

	Annual average FY12–FY21
Net impact to Virginia economy	
Private employment	9 jobs
Virginia GDP	$2.5M
Personal income	$1.2M
Impact to Virginia economy per $1 million of incentives	
Private employment	41 jobs
Virginia GDP	$11.1M
Personal income	$5.2M
Impact to state revenue	
Total revenue	$0.1M
Incentive awards	$0.2M
Revenue net of awards	($0.1M)
Return in revenue	47¢ for every $1 spent

SOURCE: Weldon Cooper Center economic impact analysis of the economic activity (FY12–FY21) induced by the incentive.
NOTE: Includes direct, indirect, and induced impacts. The gross impact on Virginia's economy is used to calculate the impact per $1 million in incentive awards. This is consistent with how the economic development research literature typically calculates these impacts. (See Appendix S [online only] for detailed results on total impact of the incentives, impact of raising income taxes by the amount of the incentives [opportunity cost], and revenue generated by source.) This estimate is an average of two estimates.

The economic benefits and returns in state revenue for the AFID facility grant are lower, however, than for other *grants*, on average. These lower benefits may be because of VDACS's grant awards process. Weldon Cooper Center staff assessed the grant features used in the process for determining award amounts and found that VDACS's return on investment (ROI) analysis awards lesser amounts for job creation and higher amounts for capital investment and agricultural commodity purchases relative to their economic impacts. The award process also appears to decrease the award for export-base industry projects and does not provide higher awards for higher multiplier and higher wage projects. (See Appendix Q [online only] for more information.)

Several changes to the AFID facility grant would improve its effectiveness and economic benefits

Several changes to the AFID facility grant would improve its effectiveness, which is mixed, and its economic benefits to the state. The AFID facility grant has some features of a well-designed incentive (Table 3-5), but several changes would better align the program with best practices and other state incentives, which would be especially important if program awards continue to increase. While the program has been relatively small (approximately $1 million in grants annually) since inception, grant awards tripled in FY22 (to $2.7 million).

TABLE 3-4
AFID facility grant lacks some features of a well-designed incentive program

Requirement	AFID facility grant
Minimum eligibility thresholds	◐
Due diligence review	◐
ROI-based award	◐
Export-base industry	◐
Pay average local wage or higher	○
Competitive project	○
Project/program cap	●
Special provisions to target distressed area	○
Prohibition of award for relocating jobs	●

SOURCE: Weldon Cooper Center review of program documentation and economic development incentive research.
Legend: ● Meets criteria ◐ Partially meets criteria ○ Does not meet criteria

Commodity purchase threshold should be increased and program guidelines clarified

The commodity purchase threshold for the AFID facility grant should be increased to target firms that rely more on Virginia-grown commodities. The current threshold is 30 percent, but Virginia firms are already purchasing a greater percentage of their raw commodities from Virginia sources. The threshold could be increased to 50 percent, which represents the portion of commodities that firms would likely purchase from Virginia sources without an incentive. A 50 percent threshold was considered initially when program guidelines were being developed. This percentage would not exclude many projects because 81 percent of AFID recipients would have met a 50 percent threshold (though some projects may have met the threshold on volume rather than value). Lower thresholds could be allowed for seasonally available, perishable commodities such as fruits and vegetables that cannot be stored. The ability of the secretary of agriculture and forestry to reduce the commodity threshold for projects of statewide or regional importance could be maintained.

A number of clarifications should also be made to the program guidelines:

- The guidelines should clearly state that the commodity input amount is based on expenditures (value) rather than volume or weight to improve the economic benefits of the program. Currently the guidelines are unclear, which creates the risk that applicants could "game" the program by purchasing a large volume of low value commodities from Virginia.
- The guidelines should clarify that the project must report all raw commodity inputs purchased to ensure it meets the minimum content threshold. In addition, guidelines should state that the program can request other purchase-related information to verify eligibility. Under the current guidelines, a microbrewery qualified by purchasing at least 30 percent of a few crops from Virginia sources while other firms qualified by purchasing 30 percent of a much larger budget of multiple crops (hops, grains, flavoring agents) and other commodities. Some breweries may report fewer inputs because they are using already milled or processed commodity inputs, such as malt, from non-state sources instead of purchasing and processing the grain to mill or process themselves, but this is unclear.
- The guidelines should specify that only commodities for processing, manufacturing, and value-added activities are eligible to meet grant minimum requirements. One Virginia microbrewery appears to have used oysters as one of its qualifying purchases, but the oysters appear to have been used for its restaurant business instead of beer production.

AFID program staff should also develop a standardized method of evaluating commodity purchases. Staff should use data from the U.S. Economic Census on Commodity Purchases to identify businesses receiving AFID facility grants over the past 10 years and then develop a profile of typical commodity purchases for each NAICS industry. These profiles could be used as "benchmarks" against which staff could evaluate program applications and progress reports. The analysis could also identify, by type of business, the approximate percentage of agricultural and forestry raw input expenditures typically required per value of output to determine whether they meet the program purchase requirement.

RECOMMENDATION 8

The secretary of agriculture and forestry, in consultation with the Virginia Department of Agriculture and Consumer Services, Virginia Economic Development Partnership, and Department of Forestry, should revise the guidelines for the Agriculture and Forestry Industries Development Fund Facility Grant pertaining to the commodity purchase requirements. Specifically, the guidelines should be revised to (i) increase the state commodity purchase threshold to 50 percent; (ii) clarify that minimum requirements be based on commodity market values or expenditures only; (iii) clarify that only commodities for processing, manufacturing, and value-added activities are eligible for meeting the requirements; and (iv) clarify that all raw commodity inputs purchased by the project must be reported and that additional purchase information may be requested by the program.

Wage threshold should be adopted to improve the design and the economic benefit of the grant

A wage threshold for new jobs incentivized by the AFID facility grant should be adopted to improve its economic benefits and prevent the potential of incentivizing low-wage jobs. Program staff indicate that there is currently not a minimum wage threshold because of the seasonal and part-time nature of some of the jobs and the tendency of agriculture and forestry firms to pay below regional average wages and salaries. However, this feature sets the program apart from most other Virginia economic incentive programs that have minimum wage and benefit standards and does not align with the features of well-designed incentive programs. The wage standard could be set similar to that of other less stringent Virginia programs, such as the Virginia Jobs Investment Program, which requires wages be 1.2 times the Virginia minimum wage.

RECOMMENDATION 9

The General Assembly may wish to consider amending § 3.2-305 of the Code of Virginia to require that guidelines for the Agriculture and Forestry Industries Development Fund Facility Grant include a wage threshold for jobs created as part of the grant project.

Align program processes and ROI model more closely to VEDP's practices

AFID program guidelines should be revised to incorporate VEDP's due diligence processes, performance extensions, grant award recapture, and performance agreement features where appropriate. The AFID facility grant guidelines and performance agreement were modeled after the COF guidelines and performance agreement in effect in 2012. Since then, VEDP developed an extensive guidelines document, *Incentives Administration and Procedure Guidelines*, which represents "best practice" for state incentive policy procedures generally. These guidelines can serve as a model for other state agency incentive programs, including the AFID program. For example, VEDP's guidelines now specify (1) a list of information to collect from each grant applicant and (2) how project outcomes will be verified. Revising AFID guidelines, where appropriate, will ensure the program is using current best practices and that procedures are transparent. AFID program staff indicated that they are planning to review and update their guidelines.

AFID program staff should also consult with VEDP to ensure they are giving an appropriately high weight to job creation in the grant's ROI award methodology. Specifically, staff should consider changing the low weight currently given to job creation in award determination versus capital investment and Virginia commodity purchases. More weight should also be given to projects in export-base and higher multiplier industries that pay higher wages.

RECOMMENDATION 10
The secretary of agriculture and forestry, in consultation with the Virginia Department of Agriculture and Consumer Services, Virginia Economic Development Partnership, and Department of Forestry, should revise the guidelines for the Agriculture and Forestry Industries Development Fund Facility Grant to incorporate guidance for due diligence processes, performance extensions, grant award recapture, and performance agreement features used by the Virginia Economic Development Partnership where appropriate.

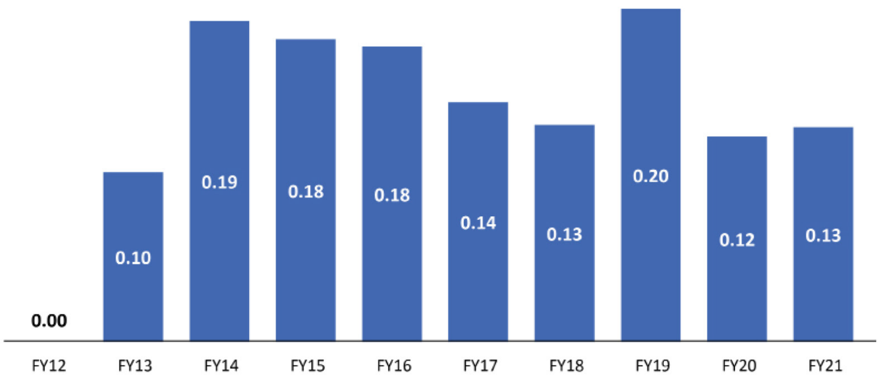
RECOMMENDATION 11
The secretary of agriculture and forestry, in consultation with the Virginia Department of Agriculture and Consumer Services, Virginia Economic Development Partnership, and Department of Forestry, should review and revise the return on investment methodology used for Agriculture and Forestry Industries Development Fund Facility grants to ensure it appropriately weights job creation.

FARM WINERIES AND VINEYARDS TAX CREDIT

Promote the growth of the Virginia wine industry

VALUE TO BENEFICIARIES FY12-FY21

Total tax savings: $1.4M

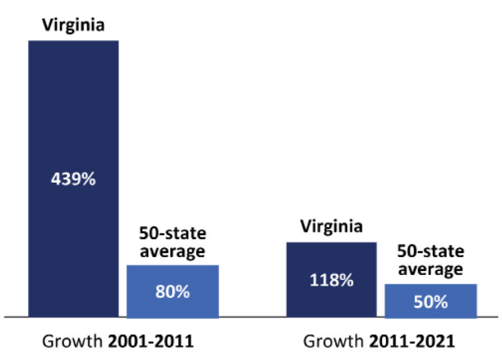


Beneficiaries

Farm wineries and vineyards

ACHIEVEMENT OF PURPOSE

Virginia wine industry employment has grown faster than the nation, with most of the growth before the tax credit was adopted in 2011



Tax credit value too small to influence wine production decisions

Tax credit as a percentage of wine production costs

25.0%

Statutory value of credit

2.6%

Actual value of credit

IMPACT TO STATE ECONOMY

FY12-FY21

Economic benefit per $1M in grants

Jobs, state GDP, and personal income

Return in revenue

per $1 spent

High
Moderate
Low
Negligible

4. Farm Wineries and Vineyards Tax Credit

Virginia offers a Farm Wineries and Vineyards Tax Credit to promote the growth of the state's wine industry. The tax credit allows farm wineries and vineyards to reduce their income taxes by an amount equal to 25 percent of the cost of eligible purchases of equipment and materials to start or improve a farm winery or vineyard. Adoption of the tax credit was recommended by Governor McDonnell's commission on economic development and jobs (2010), which found that Virginia's wine industry was not competitive with leading producers nationally even though the state's wine industry was growing rapidly. The report recommended establishing the credit to lower capital costs of equipment and materials to encourage wine production and increase cost competitiveness.

A **farm winery** is a winemaker that sources at least 51 percent of its fruit from land it owns or leases with no more than 25 percent sourced from outside the state. Farm wineries are licensed by the Alcoholic Beverage Control board.

A Virginia **vineyard** is agricultural land with at least one acre dedicated to growing grapes that a Virginia farm winery will use to make wine.

TABLE 4-1
Virginia offers an income tax credit for Virginia farm wineries and vineyards

	Farm Wineries and Vineyards Tax Credit (enacted 2011)
Purpose	Promote the growth of the Virginia wine industry.
Eligible beneficiaries	Virginia wineries licensed as a farm winery and Virginia vineyards.
Credit features	Income tax credit valued at 25 percent of qualified expenditures related to starting or improving a farm winery or vineyard. Annual program cap of $250,000 per calendar year. The credit is prorated if the total amount applied for exceeds the cap. Credit is nonrefundable, and unused credits can be carried over for 10 years. Users cannot claim both the credit and a federal income tax deduction (under IRC §179) for the same expenses. Credit has no expiration date.
Qualifying expenditures	Equipment and materials to grow grapes for winemaking such as dirt, fertilizer, grape harvesters, grape plants, irrigation equipment, poles, tractors, weeding and spraying equipment, etc. Equipment and materials for winemaking such as wine barrels, bottling equipment, corkers, crushers and de-stemmers, fermenters, labeling equipment presses, etc.

SOURCE: Weldon Cooper Center review of the Code of Virginia and agency documents.
NOTE: Authorized by § 58.1-339.12 of the Code of Virginia. See the statute for a full list of qualifying expenditures.

Farm wineries and vineyards saved about $140,000 per year because of the credit between FY12 and FY21

Virginia farm wineries and vineyards saved about $140,000 per year on their income taxes because of the tax credit between FY12 and FY21, for a total of $1.4 million during the 10-year period. This low amount makes the farm wineries and vineyards tax credit one of the smallest tax credits reviewed in this incentive evaluation series (ranking 12th out of 16 credits). (See JLARC, *Economic Development Incentives 2022*, 2022.)

About 162 farm wineries and vineyards were awarded farm wineries and vineyeards tax credits during the 10-year study period. The vast majority of tax credit recipients (between 80 and 85 percent) appear to be farm wineries, and the remaining recipients are vineyards, according to analysis of firm industry sector information. Though most Virginia wineries are relatively small (95 percent of Virginia wineries are estimated to produce under 10,000 cases per year), farm wineries receiving credits tend to be among the larger wineries in the state. Only one-quarter of farm wineries receiving tax credits had fewer than 10 employees in 2021, while about half of the state's wineries have fewer than 10 employees.

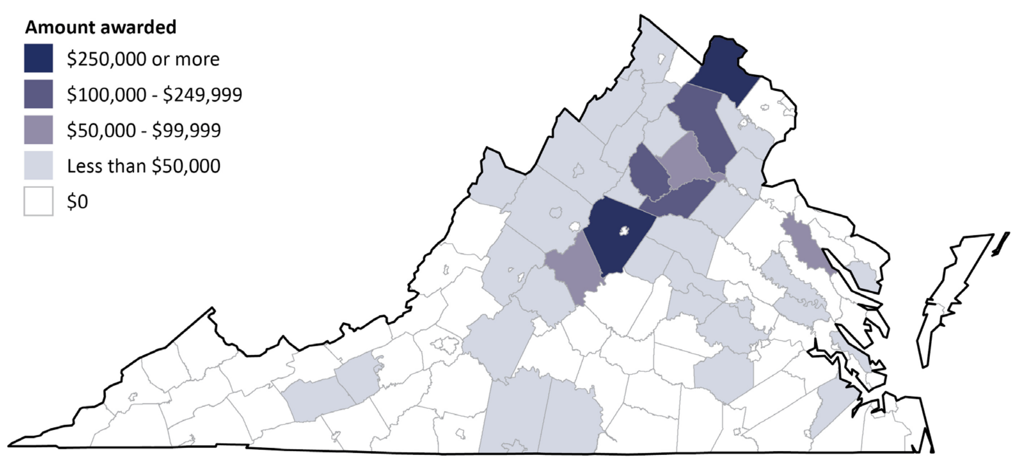
Employment figures for farm wineries and vineyards may underestimate actual average employment because the data excludes most seasonal farm laborers, many of which are furnished by contractors (Rephann 2022).

Farm winery and vineyard tax credit recipients tend to be concentrated in regions where wineries are most common in Virginia, namely Northern Virginia, the Charlottesville region, and the Shenandoah Valley. Three counties account for approximately two-thirds of credit issuance—Albermarle County (37 percent); Loudoun County (20 percent); and Orange County (8 percent) (Figure 4-1).

Virginia has adopted numerous **policies and programs to promote the wine industry** since 1979 when the Virginia Vineyards Association was founded. Several policies and programs have been created since 2011, when the farm wineries and vineyards tax credit was created, including the Virginia Wine Trails program.

See Appendix K for a full list of policies and programs to support the Virginia wine industry.

FIGURE 4-1
Two-thirds of Farm Wineries and Vineyard Tax Credits issued were to businesses located in Albemarle, Loudoun, and Orange counties



SOURCE: Weldon Cooper Center analysis of tax credit information.

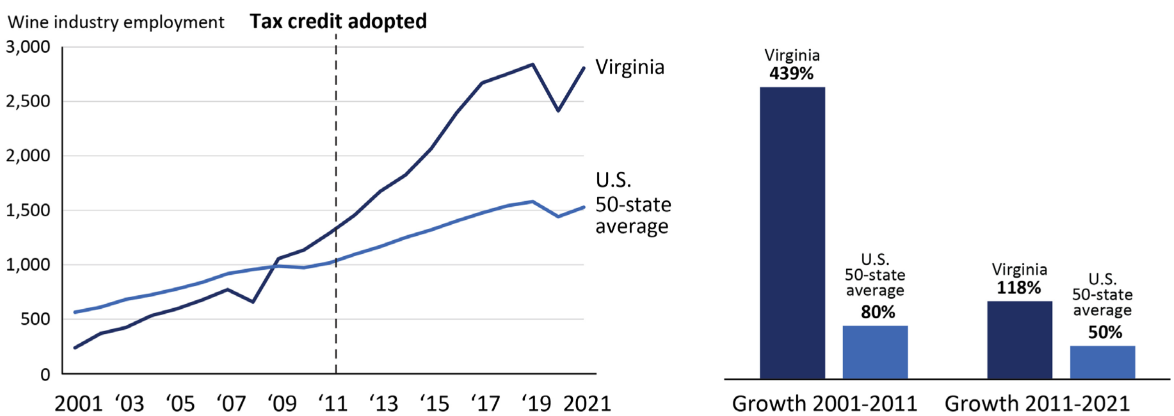
Virginia's wine industry has grown substantially but not likely because of the farm wineries and vineyards tax credit

Virginia's wine industry has grown substantially, but this growth is likely due to factors other than the farm wineries and vineyards tax credit. Virginia's wine industry growth is more likely because of the same factors that account for industry growth nationwide, including rising incomes, changes in consumer preferences (especially preference for local farm products), federal and state policy affecting the regulation and distribution of wine, and other industry-friendly state policies.

Virginia's wine industry has grown signficantly since 2001, growing faster before adoption of the tax credit

Virginia's wine industry has grown signficantly since 2001, with Virginia's industry employment growth outpacing national growth both before and after the tax credit was adopted (Figure 4-2). In fact, Virginia's employment growth was signficantly faster before the tax credit was adopted in 2011. Similarly, the number of Virginia wineries has grown significantly over time, from six wineries in 1976 to 306 wineries in 2021, with the fastest growth occuring before the tax credit was adopted.

FIGURE 4-2
Virginia wine industry employment has grown faster than the nation, though the industry's fastest growth rate was before adoption of the tax credit adopted



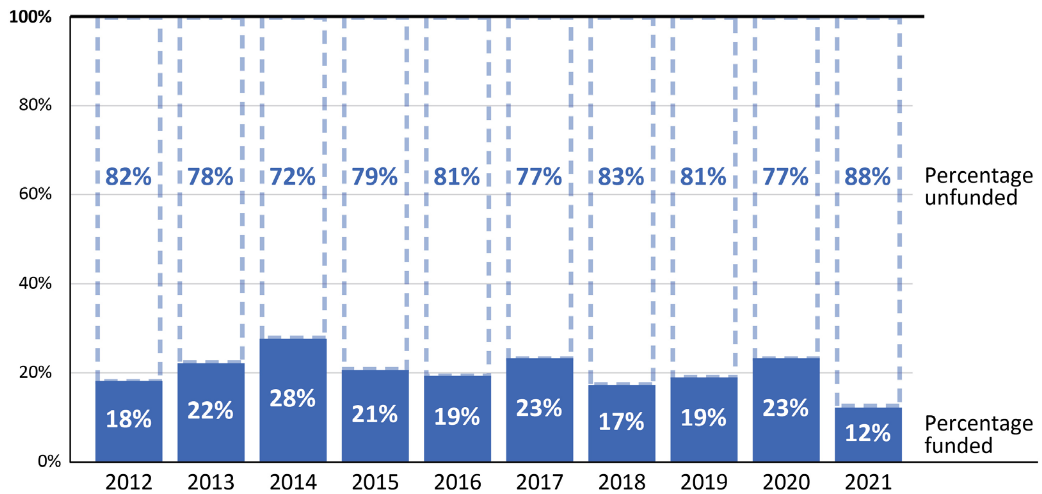
SOURCE: LightcastTM (formerly Emsi Burning Glass) industry employment data.

Tax credit has limited effect on reducing wine production costs and on winery and vineyard location and expansion decisions

The farm wineries and vineyards tax credit has a limited impact on farm winery and vineyard location and expansion decisions. Only 19 percent of tax credit recipients responding to a Weldon Cooper Center survey in 2023 reported they would *not* have located or expanded their farm winery or vineyard in Virginia without the tax credit. This is much lower than the average percentage for respondents across all incentives (32 percent) reporting that they would *not* have undertaken a business location or expansion project without the relevant incentive.

The tax credit likely has a limited impact on location and expansion decisions because it reduces wine production costs only minimally. Tax savings is estimated to be only 2.6 percent of credit recipients' eligible expenses rather than 25 percent (the tax credit amount). This occurs because the tax credit, which is capped at $250,000 per year, has been oversubscribed and heavily prorated (Figure 4-3). For example, the amount requested in 2021 exceeded the credit cap by a factor of eight, making it one of the most heavily oversubscribed economic development tax credits.

FIGURE 4-3
Farm wineries and vineyards have received far less than the full credit amount requested, because the tax credit is heavily oversubscribed



SOURCE: Virginia Tax.

Weldon Cooper Center staff surveyed companies that had received incentives from eight programs, including the farm wineries and vineyards tax credit, and 14 custom grants to assess the importance of incentives on their business performance. The response rate was 30 percent.

(See Appendix B for more information on the survey and Appendix H for select survey results.)

In addition to being oversubcribed, tax credit recipients use only about half of the amount they are allocated, even though the credit has a 10-year carryover period. While $2.5 million credits were issued over the 2012–2021 period, only $1.4 million credits have been used. This partial utilization suggests that some recipients do not have sufficient income tax liability to use the credits. More than one-fourth (27 percent) of tax credit users responding to a Weldon Cooper Center survey in 2023 reported that the tax credit was “not very important at all” to decisions to invest in machinery and equipment.

Other state policies and programs promoting the wine industry likely promote Virginia wine industry growth more than the tax credit

Other state policies and programs promoting Virginia’s wine industry likely have a greater impact on wine industry growth in Virginia, particularly wine employment growth. Many of these programs and policies predated the farm wineries and vineyards tax credit when the fastest growth occurred.

State wine industry programs targeting winery visitors and wine tourism likely account for the bulk of recent wine industry employment growth. Virginia grape production has grown much slower than winery employment since 2011 (41 percent versus 118 percent), suggesting much of this employment growth is unrelated to wine production or wine sales. In addition, credit recipients earn revenue on activities beyond just the production and sale of wine. In response to a Weldon Cooper Center survey in 2023, 85 percent of farm winery and vineyard tax credit respondents reported receiving revenue from sales of other merchandise; 68 percent reported offering weddings, meetings, and special event space; and 44 percent reported providing dining, catering, or other food services. For example, wineries that hosted events and weddings were estimated to have made $37 million in revenue beyond wine sales in 2019, according to a report on the economic impact of Virginia's wine industry.

Farm wineries and vineyards also rated other state programs as more important for growing their wine business than the tax credit. Tax credit users were asked to rate the importance of various state policies and programs in a 2023 Weldon Cooper Center survey (Table 4-2). The farm wineries and vineyards tax credit was rated fifth among 10 economic development programs, suggesting that the tax credit is only moderately useful. The Virginia Winery Distribution Company, which allows small state wineries to distribute their products more widely to stores and restaurants, received the highest rating overall. (See Appendix H for more information on survey responses.)

Economic impact analysis of expenditures by incentive recipients between FY12 and FY21 was conducted using economic modeling software developed by REMI, Inc.

(See Appendix R [online only] for the economic impact analysis used in this study.)

Net impact is the increase in economic activity induced by the incentive, adjusted for the opportunity cost of increasing taxes to pay for the incentive.

(See online Appendix S for information on the total economic impact and the opportunity cost of increasing taxes.)

TABLE 4-2
Farm wineries and vineyards tax credit was rated fifth out of 10 programs in terms of importance in the growth of their wine business

Program	Mean rating
Virginia Winery Distribution Company	3.26
Technical advice and assistance from Virginia Tech extension service	3.10
Virginia Wine Board Marketing Office (education, marketing, and promotion)	3.03
Public higher education programs in viniculture/viticulture	2.94
Farm wineries and vineyards tax credit	**2.84**
State Winery Signage Program	2.78
Agriculture and Forestry Industries Development (AFID) Facility Grant	2.11
Land preservation tax credit	2.08
Other Virginia economic development incentive	1.93
Agricultural and Forestal District program	1.74

SOURCE: Weldon Cooper Center survey of incentive recipients 2023.
NOTE: N=34. Ratings are on a four-point scale.

Farm wineries and vineyards tax credit generates negligible economic benefits and returns in state revenue

The farm wineries and vineyards tax credit is estimated to have generated economic losses for the state between FY12 and FY21. Estimates show that each year private sector employment decreased by one job, Virginia GDP decreased by $200,000, and personal income decreased by $100,000 because of the tax credit (Table 4-3). Economic losses occur because the negative economic impact of increasing taxes to pay for the tax credit was greater than the small amount of jobs, Virginia GDP, and personal income generated by the credit.

When assessed per $1 million spent on incentives, economic benefits generated by the farm wineries and vineyards tax credit are negligible compared with other incentives. The tax credit generates an additional two jobs and $0.3 million in personal income per $1 million spent, but Virginia GDP decreased slightly ($10,000). Overall, these results are the lowest of all incentives evaluated to date in this series, with exception of the aircraft repair parts exemption (JLARC, *Trade and Transportation Incentives*, 2021).

The return in state revenue for every $1 spent on the farm wineries and vineyards tax credit is also negligible compared with other incentives. The return in revenue for the tax credit is estimated to be 2¢ per $1 spent, which makes it among the incentives evaluated to date with the lowest returns in state revenue per $1 spent.

TABLE 4-3
Farm wineries and vineyards tax credit generates negligible economic benefits and returns in state revenue (FY12–FY21)

	Annual average FY12–FY21
Net impact to Virginia economy	
Private employment	-1 job
Virginia GDP	($0.2M)
Personal income	($0.1M)
Impact to Virginia economy per $1 million of incentive	
Private employment	2 jobs
Virginia GDP	(>$0.1M)
Personal income	$0.3M
Impact to state revenue	
Total revenue	<$0.1M
Incentive awards	$0.1M
Revenue net of awards	($0.1M)
Return in revenue	2¢ for every $1 spent

SOURCE: Weldon Cooper Center economic impact analysis of the economic activity (FY12–FY21) induced by the incentive.
NOTE: Includes direct, indirect, and induced impacts. The gross impact on Virginia's economy is used to calculate the impact per $1 million in incentive awards. This is consistent with how the economic development research literature typically calculates these impacts. (See Appendix S [online only] for detailed results on total impact of the incentives, impact of raising income taxes by the amount of the incentives [opportunity cost], and revenue generated by source.) This estimate is an average of two estimates.

Farm wineries and vineyards tax credit should be eliminated

The farm wineries and vineyards tax credit should be eliminated. The credit reduces the cost of wine equipment and materials minimally; is viewed as only somewhat useful by recipients; and generates the lowest economic benefits per $1 million spent of the incentives evaluated to date. Recipients of the tax credit indicated that other state programs are more useful for the growth of their wine business, suggesting the state could redirect savings from eliminating the tax credit to these other programs to more effectively promote growth of Virginia's wine industry.

RECOMMENDATION 12

The General Assembly may wish to consider eliminating the Farm Wineries and Vineyards Tax Credit.

If the farm wineries and vineyards tax credit is not eliminated, the General Assembly should adopt changes to improve its usefulness and better align it with economic incentives best practices. However, even with these changes, the tax credit may not be as useful to wineries and vineyards as other programs that provide hands-on technical assistance (e.g., business planning, marketing and regulatory assistance, information on new farming techniques, etc.) or that have a higher economic benefit to the state. (The credit's economic impacts may improve if out-of-state wine sales increase.) Changes to improve the credit include

- adopting a lifetime per taxpayer cap on usage,
- making the credit refundable for vineyards and small wineries, and
- adding an expiration date.

The wineries and vineyards tax credit could help smaller wineries and vineyards if the state adopted a per taxpayer cap and made the credit refundable. Some studies suggest that small wineries face significant obstacles in becoming profitable, but the state's tax credit is currently used mostly by larger wineries that are less likely to need the assistance to be profitable. A lifetime per taxpayer cap could be set at $25,000, which is higher than the total amount requested by the majority of farm wineries and vineyards over the 10-year period from 2012 to 2021 (75 percent requested amounts less than $23,000, and 50 percent requested less than $9,500). This would potentially allow smaller wineries to benefit multiple times from the tax credit if they continue to expand. The per taxpayer cap would also prevent larger, more profitable wineries from benefiting from the credit year after year, and would therefore, reduce proration of the credit.

Making the tax credit refundable could help small wineries even if they have no income tax liability. Sixty-three percent of farm wineries and tax credit users responding to the Weldon Cooper Center survey reported that making the tax credit refundable would be "very useful."

5. Collaborative Economic Development Performance Grant

The **GO Virginia grant program** was created to incentivize and encourage cooperation among business, education, and government on regional economic development and workforce development efforts. Regional activities eligible for grants include high-impact, collaborative projects that promote new job creation, entrepreneurship, and capital investment; leverage non-state resources to enhance collaboration; and foster research, development, and commercialization activities.

The **GO Virginia Board** is a policy board consisting of 24 members, including seven legislative members, 14 citizen members with significant private sector business experience, and three ex officio cabinet secretaries.

Virginia offers the Collaborative Economic Development Performance Grant to encourage local governments to cooperate to attract companies to locate or expand in their region and create new high-paying jobs (Table 5-1). The grant is part of a legislative package adopted by the 2016 General Assembly that created the Virginia Collaborative Economic Development Act and the Virginia Growth and Opportunity (GO Virginia) Act. Both laws created grant programs to incentivize regional collaboration on economic development efforts to stimulate regional growth and diversification. They were created in response to Virginia's slow economic growth after the Great Recession. This slow growth occurred, in part, because the federal budget sequestration that followed disproportionately affected Virginia's economy because of the state's heavy reliance on federal spending.

The collaborative economic development performance grant has several features that distinguish it from other state economic development incentive grants.

- **Requires regional collaboration**. At least two local governments must participate in the economic development plan or venture that attracted the project.
- **Directly benefits local governments, not businesses.** Grant funds are to be used by local governments for economic and workforce development purposes and cannot be used to provide a cash grant to the company.
- **Funded from state income tax withholdings of the employees in the new jobs created by the project**. The withholding amount is appropriated to the collaborative economic development performance grant fund.
- **Administered by four entities.** The GO Virginia board, Department of Housing and Community Development (DHCD), Virginia Economic Development Partnership (VEDP), and Virginia Department of Taxation (Virginia Tax).

TABLE 5-1
Virginia offers a Collaborative Economic Development Performance Grant to localities to collaborate and attract location or expansion projects

	Collaborative Economic Development Performance Grant (enacted 2016)
Purpose	Promote private sector business and employment growth and encourage cooperative local investments.
Eligible beneficiaries	Localities with approved economic development plans. Eligible localities must have a certified business(es) operating within an area included in a collaborative economic development plan approved by VEDP, and a cost and revenue-sharing agreement.
Grant features	Grant to localities that form collaborative economic development plans and revenue-sharing agreements and that attract a certified company to expand or locate in the region. Projects must create at least 200 new jobs, make at least a $25 million capital investment, and be certified by the Virginia Economic Development Partnership (VEDP). Job creation and capital investment thresholds can be reduced to 25 jobs and $1 million in capital investment if the GO Virginia board finds the localities are in "significant fiscal distress" or the project is an "extraordinary economic opportunity." A project can count up to 100 existing jobs to meet the 200 job requirement if the wages of the existing jobs increase by more than 10 percent. Project must create export-base jobs and pay at least the average wage of participating localities. Grants cannot be used for projects that shift jobs from other company locations within Virginia. Grant amount can be no more than (i) 45% of the annual state personal income tax withheld from employees holding new jobs at certified companies, and (ii) 50% of the total investment or contributions by participating localities (cash, revenue sharing, dedication of locally owned or controlled assets to the regional project, etc.). Grants can be authorized up to 6 years. Annual total grant amounts cannot exceed $20 million. Expires July 1, 2026.
Use of grant	Site development, utility extension, transportation access, career and technical education and other workforce training programs, small business assistance, development of local supply chains, commercialization of research and development, and other uses approved by the GO Virginia board.

SOURCE: Weldon Cooper Center review of the Code of Virginia and agency documents.
NOTE: Authorized by § 2.2-5105 et seq of the Code of Virginia.

A key feature that makes the collaborative economic development performance grant different from most other incentives is the regional collaboration requirement. Research on the impact of regional collaboration on economic growth is limited, but evidence suggests that it can be beneficial in certain situations. Partnerships to provide capital intensive services (such site development) can reduce costs by minimizing duplication and achieving economies of scale. Labor intensive services such as economic development planning and marketing may be better organized on a regional level because of substantial spillover benefits.

Collaborative economic development performance grant has not been used, likely because of low awareness and uncertainty of program parameters

To date, the collaborative economic development performance grant has not been used, likely because of 1) a lack of awareness among localities about the program, 2) vagueness about how grant awards are determined, and 3) uncertainty about the collaboration requirements. Staff of several GO Virginia regional councils that were interviewed reported low awareness of the collaborative economic development performance grant or its benefits. In fact, support staff for one council were not aware the program exists.

Localities likely are not aware of the collaborative economic development performance grant because the four entities responsible for administering it have not marketed it and have only limited, if any, information about it on their website or in other informational materials. For example, program guidelines were adopted by the GO Virginia board, but they are not available on the website of any of the administering entities. The lack of program marketing may exist because no entity is designated as the lead in administering the program. Program guidelines state the program will be implemented, verified, and tracked through a partnership of three state agencies (DHCD, VEDP, and Virginia Tax) and the GO Virginia board and lists their respective responsibilities. VEDP appears to have the broadest level of responsibility across programs functions (Table 5-2).

TABLE 5-2
Collaborative economic development performance grant guidance specifies no lead agency, but VEDP appears to have the broadest level of responsibility

Responsibility	GO Virginia board	DHCD	VEDP	Virginia Tax
Develop program guidelines	●	○		
Assist localities with collaborative economic development plans		●	●	●
Certifies companies are eligible for grant			●	
Receives grant applications			●	
Approves grant awards	●	○		
Ensures compliance with grant requirements			●	●
Responsible for distribution of funds				●

SOURCE: Code of Virginia and program guidelines.
LEGEND: ● Responsibility specified in statute or program guidelines. ○ Assumes DHCD would be involved in developing guidelines and approving grant awards as part of supporting the GO Virginia board.

Support staff for several GO Virginia regional councils, who may help localities in their region pursue funding from this grant, indicated it was unclear how grant awards would be determined, making it difficult to assess whether pursuing a grant would be beneficial and worth the time and investment. Program guidelines give the GO Virginia board substantial discretion on making awards, and program guidelines do not provide more information about how the board will make grant approval decisions.

- **GO Virginia Board has broad discretion to lower minimum eligibility thresholds**. The board can reduce the 200 job and $25 million capital investment eligibility thresholds to *not fewer than* 25 jobs and *no less than* $1 million in capital investment if it finds the localities are in "significant fiscal distress" or the project is an "extraordinary economic opportunity," which will be determined on a case-by-case basis, according to program guidelines.
- **Board has broad discretion on award amount**. The board can approve a grant in the annual amount of *up to* 45 percent of the income tax withholding from employees in the new jobs for *up to* six years. The board can increase the award cap of 50 percent of the local contribution to the project *up to* 100 percent if it finds the localities are in significant fiscal distress or the project is an extraordinary economic opportunity.

This broad discretion leads to uncertainty about how large grant awards could be, because the board could choose to approve grants of far less than 45 percent of the withholding amount and for only one or two years, for example.

Finally, requirements that localities must have 1) collaborative economic development plans and 2) cost and revenue sharing agreements to be eligible for the grant are unclear. Neither statute nor program guidelines define what these should look like. GO Virginia regional council support staff indicated the most obvious way to meet the cost and reveue sharing requirement is for localities to form a regional industrial facility authority (RIFA), but support staff in one region indicated that the localities in their region showed little interest in creating a RIFA. Many regions outside of the Tobacco Region lack RIFAs, which, in addition to unclear guidance, may have precluded localities from pursuing grant funding. (See Appendix G for a map of localities that are part of a RIFA.)

A **RIFA** is an authority governing an industrial site or business park that is owned and governed by multiple localities. The purpose of RIFAs is to enhance the economic base for the member localities by developing, owning, and operating one or more facilities on a cooperative basis. RIFA member localities may agree to a revenue and economic growth-sharing arrangement with respect to tax revenues and other income and revenues generated by any facility located in the industrial site owned by the RIFA.

Collaborative economic development performance grant would likely have lower economic benefits than other, better designed incentives

Data is not available on the economic benefits of the collaborative economic development performance grant because it has not been used, but they would likely be lower than other, better designed incentives for several reasons.

- The collaborative economic development performance grant could result in a much higher cost per job than other economic development incentive grants. For example, an employer creating 200 new jobs at an average annual wage of $54,000 could receive an award of $6,153 per job if the GO Virginia board awarded the maximum amount (45 percent of the withholding amount for six years). This amount is much larger than the amount offered by the average Virginia incentive program ($3,997, excluding custom grants) and the average Commonwealth Opportunity Fund award ($3,584), which has a similar average wage threshold.

- Collaborative economic development performance grant funds are restricted to capacity building purposes such as job training and site development, which generally have longer term impacts. Therefore, the economic benefits from the grant will likely be lower than other programs, at least in the near term.
- Collaborative economic development performance grant funds are provided to localities and cannot be used to provide direct incentives to the business, so the grant likely will not influence the location or expansion decision of companies at all.
- The collaborative economic development performance grant lacks several features of effective design (Table 5-3). In particular, the grant does not require projects to be competitive (i.e., involved in a multistate site search). Research has found that programs that fund noncompetitive projects are less likely to affect business location and expansion decisions, limiting the economic benefits of the project. In contrast, the COF is well designed (and potentially awards a smaller amount per job) and generates high economic benefits.

TABLE 5-3
Collaborative economic development performance grant is not as well designed as COF

Requirement	COF	Collaborative economic development performance grant
Minimum eligibility thresholds	●	●
Due diligence review	●	◐
ROI-based award	●	○
Export-base industry	●	●
Pay average local wage or higher	●	●
Competitive project	●	○
Project/program cap	●	◐
Special provisions to target distressed area	●	●

SOURCE: Weldon Cooper Center review of program documentation and economic development incentive research.
NOTE: Program guidelines specify documents that projects should submit as part of their application for collaborative economic development performance grants, but no other information about the due diligence process is specified.
Legend: ● Meets criteria ◐ Partially meets criteria ○ Does not meet criteria

Collaborative economic development performance grant should be eliminated

The collaborative economic development performance grant should be eliminated, or allowed to expire on January 1, 2026. The grant has not been used. Local and regional entities appear to have limited knowledge about the program and how it might work. Project eligibility and award criteria are not well defined in statute or program guidelines, and broad discretion is given to the GO Virginia board. Additionally, the grant will potentially provide much higher awards per job and less economic benefit to the state than more effective programs, such as COF.

RECOMMENDATION 13

The General Assembly may wish to consider eliminating the Collaborative Economic Development Performance grant.

Although some states have or had programs to incentivize regional collaboration in economic development, the collaborative economic development performance grant is unique to Virginia, likely contributing to vague program guidelines and confusion about how the program would work. If the state wishes to maintain a grant that focuses on regional collaboration to attract company location or expansion projects, it should consider a less burdensome way to incentivize this activity, such as adding a bonus to an existing state incentive. At least two other states encourage regional collaboration and job creation by providing bonuses for projects in localities that participate in regional collaborative agreements. Unlike, the collaborative economic development performance grant, the incentives go directly to businesses.

- The Georgia Job Tax Credit Program provides a $500 bonus tax credit for each new full-time job created as part of location or expansion projects in a jointly owned site.
- South Carolina offers the New Jobs Tax Credit, which entitles businesses in a multicounty park to qualify for a bonus $1,000 tax credit per full-time new job created. South Carolina also offers the Job Development Tax Credit, which provides varying credit amounts to projects based on a 'tier' system based on development status. The credit amount for projects in a multicounty park with a revenue-sharing agreement is based on the credit amount for the locality with the lowest development status (the lower the development status of the locality, the higher the credit amount).

Support staff to one regional GO Virginia council indicated it would be more predictable and easier to use Virginia's benefit if a bonus were simply added to another existing state incentive program for projects that locate or expand at a site that is part of a regional collaborative economic development agreement.

If the state extends the expiration date of the collaborative economic development performance grant, it should make several improvements to the program:

- Designate a lead agency (such as VEDP) to administer the program.
- Require the GO Virginia board to revise program guidelines to more clearly specify program requirements and decision-making processes.

- Require the board to revise program eligibility criteria to better align with incentive best practices, including requiring projects to be competitive, specifying a due diligence process, and using an ROI formula to determine awards.

Appendix A: Study mandate

2022–2024 Appropriation Act
Passed as Chapter 2 of the Acts Assembly, June 22, 2022

§ 1-12 Item 36 E

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

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

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

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

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

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

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

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

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

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

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

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

Appendix B: Research methods and activities

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

- collection and analysis of national-and state-level financial and economic data and state agency incentive program data;
- program employment performance tracking and employment size assessment;
- quantitative analysis of the economic and fiscal impacts of incentives using a dynamic economic model (See Appendix R, available online, for more detail on the analyses);
- surveys of firms that received incentives;
- interviews with agencies and stakeholders;
- review of other states' location and expansion incentive programs; and
- review of documents and literature.

Collection and analysis of national- and state-level financial and economic data and state agency incentive program data

This report drew on over a dozen federal, state, and private industry sources of economic data (Table B-1). Some of this data was used primarily for descriptive purposes, including to highlight trends in state economic activity such as winery employment or agricultural commodity sales. Incentive program information from state agencies, including Virginia Tax, Virginia Department of Housing and Community Development, Virginia Department of Agriculture and Consumer Services, Virginia Economic Development Partnership, and Virginia Employment Commission (VEC), was used for both descriptive and analytical purposes. Project-level information was aggregated to show characteristics of program users and features of the programs, including industry and geographical location. Agency data was used in combination with other data such as confidential VEC Quarterly Census of Wages (QCEW) payroll employment records to track employment outcomes and measure firm employment size.

TABLE B-1
Multiple data sources were collected and used for several analyses

Data source	Description of data	Analysis
State financial and economic data		
Lightcast™	Employment by 6-digit NAICS industry	Compute state and national agribusiness and winery employment trends.
USDA, Economic Research Service	U.S. and State-Level Farm Income and Wealth Statistics, Cash Receipts data	Analyze composition and trends in Virginia and national agricultural commodity production.
USDA, National Agricultural Statistical Service	Quickstats	Analyze grape production trends in state and nation
Virginia Wineries Association	Commercial Wine Grape Report	Analyze grape production trends in state
Virginia incentive programs		
Department of Agriculture and Consumer Services and Virginia Economic Development Partnership	Award amount, date, completion, and milestone information	Project targeting analysis, analysis of award factors, economic impact analysis.
Department of Agriculture and Consumer Services	Commodity composition of AFID Virginia purchase goals	Determine state purchase goals relative to average state commodity purchase pattern.
Department of Housing and Community Development	List of Regional Industrial Facility Authorities	Determine extent of formal regional collaboration efforts.

Data source	Description of data	Analysis
Virginia Tax	Tax credit awards and utilization	Computation of tax credit awards and usage; compute proration factors.
Virginia Tax/Department of Forestry	Timber stumpage (timber severance tax)	Analyze relative size of AFID timber purchases and trends in Virginia timber production.
Other		
Annual State Tax Revenue, Census of Government	State tax revenue by tax category and fiscal year	Tax revenue impact analysis.
IMPLAN	Regional purchase coefficients	Estimation of Virginia commodity sourcing.
REMI PI+	Demand by industry, GDP, personal income, and transfer receipts by year	Tax revenue impact analysis.
Virginia Employment Commission	Quarterly Census of Employment and Wages (QCEW) payroll employment records	Track employment performance and determine incentive program average firm size, location, and industry.

SOURCE: Weldon Cooper Center.

Program employment performance and employment size assessment

VEC QCEW data was joined with program establishment beneficiary data to assess program participant employment characteristics. These characteristics included the employment size distribution and average size of establishment incentive beneficiaries. It was also used to assess program participant employment growth over the 10-year study period (FY12–FY21) for the Agriculture and Forestry Industries Development Facility (AFID), Commonwealth's Opportunity Fund (COF), and Virginia Investment Performance (VIP) grant programs.

Employment size characteristics are based on the size of the establishment when its award was received, or tax credit utilized. For example, if a company received an AFID grant in FY18, it was matched with an establishment-level 2017 annual employment record. In addition, employment growth for AFID-, COF-, and VIP-funded companies was computed. This was obtained by computing employment change before and after a program award was received. For example, for a COF grant recipient in FY15, employment change in each of the years 2014–2021 would be compared to base year 2013. This was done for every firm in the project file by year. The firm employment changes were then aggregated by year.

To conduct these analyses, program project records for FY12–FY21 were matched with 2007–2021 VEC payroll employment data using the Federal Employer Identification Number (FEIN), company name, company location, and NAICS industry information provided for AFID, COF, and VIP projects. The FEIN is a unique nine-digit number that identifies a firm for federal tax purposes.

The total firm match rate was approximately 58 percent, which is lower than other recent studies that linked establishment employment data with economic incentive project data (Table B-2). For example, earlier reports achieved a 90 percent match rate (*Workforce and Small Business Incentives*, JLARC, 2018) and an 86 percent match rate (*Infrastructure and Regional Incentives*, JLARC, 2020). These programs may have lower rates because a sizeable portion of establishments represent new locations rather than expanding pre-existing establishments. Therefore, they may not have had payroll activity at the time that the grants were awarded.

TABLE B-2:
Project-establishment employment record matching success rate by program

Program	Project records	Employment record matches	Success rate
Major Eligible Employer grant	2	2	100.0%
Virginia Investment Performance grant	60	70	85.7
Major business facility job tax credit	29	47	61.7
Virginia Economic Development Incentive grant	5	9	55.6
Commonwealth's Opportunity Fund grant	173	317	54.6
Farm wineries and vineyards tax credit	85	162	52.5
Agriculture and Forestry Industries Development grant	57	103	55.3
Total	**411**	**710**	**57.9%**

SOURCE: Weldon Cooper Center analysis.

Survey of firms using incentives

A survey of firms using economic development incentives over the FY12–FY21 period for the following programs was conducted by the Weldon Cooper Center's Center for Survey Research: the Agriculture and Forestry Industries Development Fund, Commonwealth's Development Opportunity Fund, Farm Winery and Vineyard Tax Credit, Major Business Facility Job Tax Credit, Tourism Development Financing Program, Virginia Economic Development Incentive Grant, Virginia Investment Partnership Grant, the Virginia Talent Accelerator Program, and 14 large custom grants. These programs include six programs evaluated in the current report and three (Tourism Development Financing Program, Virginia Talent Accelerator Program, and custom grants) scheduled for future review. The survey was sent to over 550 firms that accounted for 628 different grant awards and tax credits (or 628 projects). Firms with more than one incentive were requested to fill out a survey that solicited information about the particular program. If the firm received more than one incentive, they completed multiple surveys. In some instances, the contact information was different for different incentive programs for the same economic development project.

The incentive list was compiled using information from agency grant award records and Virginia Tax tax credit files over the FY12–FY21 period. Agencies provided contact information for each incentive grant recipient. Information on appropriate contacts for tax credits was obtained from researching appropriate business contacts using online information. The survey was designed to provide specific information (both quantitative and qualitative) for programs undergoing current and future (FY24–FY26) review.

The survey instrument was based on an abbreviated version of an instrument used to assess incentives used in an earlier phase of the evaluation (i.e., 2017–2021). Core questions from that questionnaire were used with some modifications, and additional questions were added for the Farm Wineries and Vineyards Tax Credit and Virginia Talent Accelerator Program to account for unique aspects of those programs (Table B-3). The previous survey was more comprehensive, however, and intended to provide generalizable information about all Virginia incentives rather than more detailed information about specific incentives.

TABLE B-3
Firm survey questions

Question recipient/topic area	Questions
All businesses	
Firm economic development incentive usage	Received a state economic incentive? Status of incentive (received, not received, terminated, never used) Types of projects that incentive was used for (e.g., startup, expansion, relocation) Role of incentive in location/expansion decision Importance of incentive in firm expansion and improvements Alternative expansion/relocation sites under consideration Rating of Virginia incentives compared to other states
Assessment of economic development incentive	Difficulties (if any) in using incentives Programmatic or procedural improvements (if any) needed in existing programs Other types of economic development incentives needed Other steps state could take to assist business
Firm characteristics	Geographical scope of operations Geographical location of customers Percentage of sales to customers outside state
Businesses using relevant incentive only	
Farm wineries and vineyards tax credit	Whether firm is a farm winery or vineyard Products and services offered by vineyard/winery to the public Number and source (out-of-state) of visitors Importance of various state policies (including tax credit) to firm growth Changes desired in tax credit to make more beneficial Other changes in state policies needed to support industry
Virginia Talent Acceleratory Program	Importance of incentive in firm training decision Number of workers trained

Question recipient/topic area	Questions
	Wage increases received (if any) as result of training Ratings of specific services offered by program Types of improvements realized as result of VTAP services Suggestions for program improvements or additional services

SOURCE: Weldon Cooper Center.

In late December 2022 and January 2023, survey participants were sent a mail packet containing a cover letter from the Center for Survey Research at the Weldon Cooper Center, a supporting letter encouraging participation from the JLARC director, and information about the survey, including the URL of the web-based survey and unique firm-level access code. For non-responders, e-mail and telephone follow-ups were made to encourage participation. Of the initial contact list of 628 incentive contacts, responses were received for 187 incentives yielding a crude response rate of 29.8 percent.

Interviews with agencies and stakeholders

Meetings and phone calls were arranged with agency staff to discuss programs on the evaluation list. Staff from Virginia Tax, Virginia Economic Development Partnership, the Virginia Department of Agriculture and Consumer Services and Office of the Secretary of Agriculture and Forestry, and the Department of Housing and Community Development were included. For the Virginia Collaborative Economic Development Act grant, staff for two Go Virginia regional councils were interviewed. In addition, industry stakeholders were interviewed, including representatives for the Virginia Farm Bureau and Virginia Agribusiness Council regarding the Agriculture and Forestry Industries Development grant and Farm Wineries and Vineyards Tax Credit.

Review of other states' location and expansion incentives

Weldon Cooper Center staff reviewed several sources of information to obtain information on comparable agricultural, job creation, headquarters, and regional economic collaboration incentives. Sources sometimes varied by the type of incentive since there is no authoritative comprehensive source on all state incentives. The primary source was information from the Council for Community and Economic Research (C2ER) incentives database. For job creation tax credit programs, this was supplemented with information from Wolters Kluwer VitalLaw, an inventory of state programs compiled by Neumark and Grijalva (2016), and state departments of taxation and revenue websites. For grant programs, information was also obtained from reviewing state departments of commerce and economic development websites.

Review of documents and literature

During this study, several sources of information, including documents, reports, and published or unpublished research were examined. The purpose of this literature review was to understand the purpose and goals of Virginia incentive programs, industry locational factors, the role and importance of economic incentives, market imperfection rationales for programs, empirical research on the economic effects of various location and expansion incentive programs at the state level, and methodological approaches for quantifying the economic and tax revenue impacts of economic incentives. Sources consulted included:

- program materials describing the programs, Virginia agency reports describing program usage, and legislative statutes authorizing the programs;
- state evaluations and economic impact studies published by state agencies or their consultants in other states;
- scholarly books and articles that examine agribusiness and winery growth and the economic effects of job creation incentives, winery growth, and regional cooperation.

Appendix C: Economic benefits and return in revenue for all Virginia incentives reviewed to date

Economic development incentives vary in their economic benefit and return in revenue to the state. To provide context to the economic benefits and return in revenue generated by each incentive, incentives have been categorized as having a negligible, low, moderate, or high economic benefit and return in revenue. To determine the category, each incentive is scored from 0 to three on four measures: the amount of jobs, Virginia GDP, and personal income generated per $1 million spent on the incentive and the return in revenue generated per $1 spent on the incentive. The scoring is based on the distribution of all 59 incentives reviewed to date for each of the four measures, with a score of '0' meaning the incentive fell below the 25th percentile (or first quartile) of the distribution for the measure and a score of 'three' meaning the incentive was in the highest quartile (above the 75th percentile) for the measure.

The scores for the three measures of economic benefits (jobs, Virginia GDP, and personal income) were averaged to arrive at an overall average score for economic benefits for each incentive. Incentives with average scores for the three measures near '0' were categorized as having negligible economic benefits relative to other incentives. Incentives with average scores near '1', '2', or '3' were categorized as having low, moderate, or high economic benefits, respectively, relative to other incentives. For return in revenue, an incentive with a '0' score on that measure was categorized as having a negligible return in revenue relative to other incentives. An incentive with a score of '1', '2', or '3' was categorized as having a low, moderate, or high return in revenue, respectively, relative to other incentives.

An incentive's category may change over time. Fifty-nine of more than 70 Virginia economic development incentives have been evaluated so far, and because incentives are categorized relative to other incentives evaluated, incentives may change categories as additional incentives are evaluated each year. Once all incentives are evaluated, re-evaluation of incentives will begin. The category may change for re-evaluated incentives because of new or improved outcomes data, program changes, and changes to the state economy and industry mix.

Of the incentives evaluated through June 2023, grants tend to generate moderate or relatively high economic benefits and returns in revenue. Tax incentives tend to generate low or negligible economic benefits and returns in revenue (Table C-1). Grant programs have higher economic benefits than other types of incentives because a higher percentage of grant funding is directed to businesses in manufacturing industries, which generally have high economic multipliers and pay higher wages. In addition, businesses that receive grants must agree to create jobs and make capital investments, and usually make above minimum job creation and capital investment levels, but other incentives may not have similar requirements for businesses to receive an award.

TABLE C-1
Grants tend to generate higher economic benefits and returns in revenue than tax incentives

Incentive	Incentive type	Economic benefits	Return in state revenue
Aircraft parts, engines, and supplies exemption	Exemption	●○○○	●○○○
Airline common carrier exemption	Exemption	●○○○	●○○○
Coal Employment and Production Incentive Tax Credit [a]	Tax credit	●○○○	●○○○
Coalfield Employment Enhancement Tax Credit [a]	Tax credit	●○○○	●○○○
Farm Wineries and Vineyard Tax Credit	Tax credit	●○○○	●○○○
Film exemption	Exemption	●○○○	●○○○
Green Job Tax Credit	Tax credit	●○○○	●○○○
Major Research and Development Tax Credit	Tax Credit	●○○○	●○○○
Qualified Business Long-Term Capital Gains Subtraction	Subtraction	●○○○	●○○○
Qualified Equity and Subordinated Debt Investment Tax Credit (angel investment tax credit)	Tax credit	●○○○	●○○○
R&D exemption	Exemption	●○○○	●○○○
R&D expenses tax credit	Tax Credit	●○○○	●○○○
Railroad rolling stock exemption	Exemption	●○○○	●○○○
Recyclable Materials Tax Credit	Tax credit	●○○○	●○○○
Ships and vessels exemption	Exemption	●○○○	●○○○
Spaceport users exemption	Exemption	●○○○	●○○○
Telework Tax Credit [a]	Tax credit	●○○○	●○○○
Transportation Partnership Opportunity Fund	Grant	●○○○	●○○○
Zero G Zero Tax resupply subtraction	Subtraction	●○○○	●○○○
Biodiesel and Green Diesel Tax Credit	Tax credit	●○○○	●●○○
Pollution control equipment exemption	Exemption	●●○○	●○○○
Semiconductor manufacturing exemption	Exemption	●●○○	●○○○
Commonwealth Commercialization Fund (formerly Commonwealth Research Commercialization Fund)	Grant	●●○○	●●○○
Motion Picture Production Tax Credit	Tax credit	●●○○	●●○○
Railroad common carrier exemption	Exemption	●●○○	●●○○
Semiconductor wafer exemption	Exemption	●●○○	●●○○
Tobacco Commission Megasite Grant	Grant	●●○○	●●○○
Worker Retraining Tax Credit [a]	Tax credit	●●○○	●●○○

Incentive	Incentive type	Economic benefits	Return in state revenue
Barge and Rail Usage Tax Credit	Tax credit	●●○○	●●●○
Economic Development Access Program	Grant	●●○○	●●●○
International Trade Facility Tax Credit	Tax credit	●●○○	●●●○
Real Property Investment Grant	Grant	●●○○	●●●○
Virginia Investment Partnership Grant	Grant	●●○○	●●●●
Major Business Facility Job Tax Credit	Tax credit	●●●○	●●○○
Agriculture and Forestry Industries Development Grant	Grant	●●●○	●●●○
Governor’s Motion Picture Opportunity Fund	Grant	●●●○	●●●○
Job Creation Grant	Grant	●●●○	●●●○
Manufacturers SSF apportionment	Other	●●●○	●●●○
Port of Virginia Economic and Infrastructure Grant	Grant	●●●○	●●●○
Port Volume Increase Tax Credit	Tax credit	●●●○	●●●○
Qimonda (semiconductor) grant	Grant	●●●○	●●●○
Rail Industrial Access Program	Grant	●●●○	●●●○
Tobacco Region Opportunity Fund	Grant	●●●○	●●●○
Virginia Economic Development Incentive Grant	Grant	●●●○	●●●●
Cash Collateral Program	Loan	●●●●	●●●●
Commonwealth's Opportunity Fund Grant	Grant	●●●●	●●●●
Data center exemption	Exemption	●●●●	●●●●
Economic Development Loan Fund	Loan	●●●●	●●●●
Virginia Venture Partners (formerly GAP Funds Program)	Other	●●●●	●●●●
Loan Guaranty Program	Loan	●●●●	●●●●
Major Eligible Employer Grant	Grant	●●●●	●●●●
Micron (semiconductor) grant	Grant	●●●●	●●●●
Small Business Investment Grant	Grant	●●●●	●●●●
Small Business Jobs Grant [a]	Grant	●●●●	●●●●
SWaM Loan Fund	Loan	●●●●	●●●●
Trade Show Assistance Program	Grant [b]	●●●●	●●●●
Virginia Jobs Investment Program	Grant	●●●●	●●●●
Virginia Leaders in Export Trade (VALET)	Grant [b]	●●●●	●●●●

Incentive	Incentive type	Economic benefits	Return in state revenue
Virginia Business Ready Sites Program	Grant	n.a.	n.a.

SOURCE: JLARC staff analysis of economic impact and return in revenue estimates generated by the Weldon Cooper Center.
NOTE: Includes incentives evaluated as of June 2023. Time period for which incentives are evaluated varies. Estimates are sensitive to the assumptions used to determine the percentage of economic activity that can be attributed to the incentive.
[a] Programs have been eliminated. [b] Not technically grants but provide financial assistance similar to grants.

Appendix D: Characteristics of incentivized projects

Industry data for awarded projects between FY12 and FY21 and county level economic and industry data were used to analyze whether programs targeted projects in industries with the greatest economic impact potential. All programs had a majority of projects that met at least one indicator of high economic impact (Table D-1). Project industry codes—based on North American Industry Classification System (NAICS) codes—were matched with IMPLAN industry codes using a NAICS/IMPLAN code crosswalk to assess the export orientation and magnitude of the employment multiplier for each project. Projects whose industries exported at least 50 percent of their output outside the state, and had Social Accounting Matrix (SAM) employment multipliers greater than 2.0, were judged to meet criteria for high economic impact.

TABLE D-1
Majority of projects for all programs met at least one indicator of high economic impact

	Indicators of high economic impact			
Program	**% projects with high employment multiplier**	**% projects in export-base industries**	**% projects that met at least 1 indicator**	**Number of projects**
MEE grant	100%	50%	100%	2
AFID grant	80	91	94	103
VIP grant	81	89	94	70
COF grant	62	66	86	317
Farm wineries and vineyards tax credit	81	81	81	499
VEDIG grant	67	11	78	9
Major business facility job tax credit	54	17	61	117
All programs	**48%**	**44%**	**63%**	**4,975**

SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: All programs reflects FY12–FY21 projects from all economic development incentive programs where industry data is available. See *Economic Development Incentives 2022*, JLARC, 2022. Some programs require that projects be in export-base industries. Projects can be export-base (export 50 percent of their products or services outside of the state) even if the industry sector typically is not considered export-base.

Analysis of project-level information for location and expansion program projects between FY12 and FY21 indicate these programs mainly serve mid-size establishments (Table D-2) and manufacturers (Table D-3).

TABLE D-2
AFID grant and farm wineries and vineyards tax credit typically serve small firms and the other location, and expansion programs mainly serve mid-sized to large establishments

Employees	AFID grant	Farm wineries and vineyards tax credit	Major business facility job tax credit	COF grant	MEE grant	VEDIG grant	VIP grant
Less than 9	31%	25%	0%	20%	0%	0%	4%
10 to 24	8	21	1	6	0	0	1
25 to 49	23	29	6	6	0	0	2
50 to 99	21	20	1	7	0	0	7
100 to 249	3	6	10	17	0	26	11
250 to 1,000	15	0	65	32	76	48	42
1,000 or more	0	0	18	12	24	26	32
Average size	**56**	**20**	**612**	**363**	**5,344**	**466**	**860**

SOURCE: Weldon Cooper Center analysis of incentive grant and tax credit data.
NOTE: Based on award amounts.

TABLE D-3
Majority of programs mostly provide grants to manufacturers

Industry (based on NAICS sectors)	AFID grant	Farm wineries and vineyards tax credit	Major business facility job tax credit	COF grant	MEE grant	VEDIG grant	VIP grant
Agriculture, forestry, fishing and hunting	10%	14%	0%	1%	0%	0%	2%
Construction	0	0	0	1	0	15	0
Manufacturing	82	84	4	49	76	0	96
Retail trade	1	0	8	5	0	6	0
Transportation and warehousing	3	0	21	4	0	0	1
Professional, scientific, and technical services	0	0	6	9	24	36	0
Management of companies and enterprises	0	0	44	8	0	27	0
All others	4	3	18	22	0	16	0

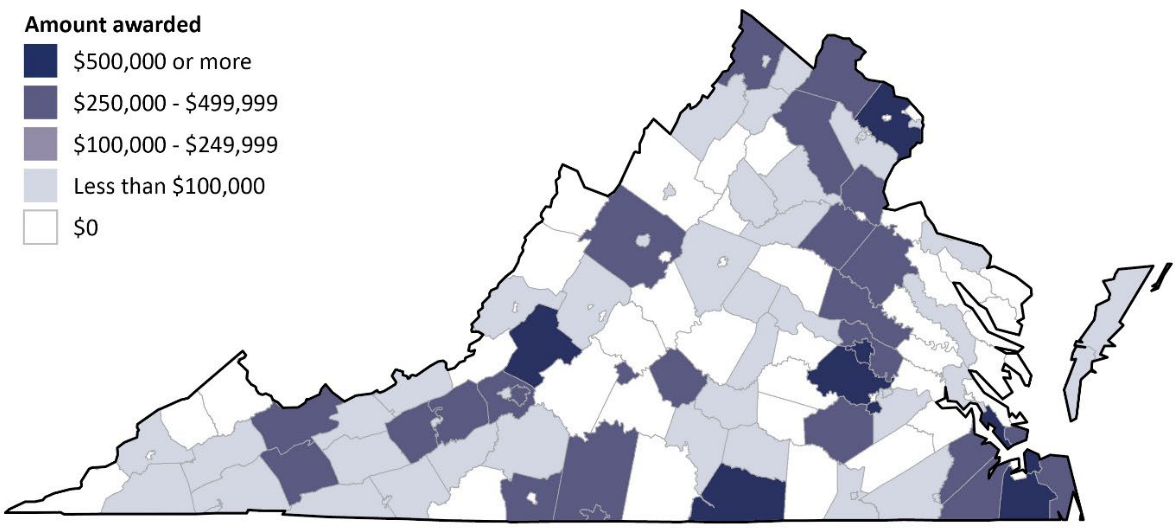
SOURCE: Weldon Cooper Center analysis of incentive grant and tax credit data.
NOTE: Based on award amounts.

Appendix E: Regional distribution of VEDP grant awards

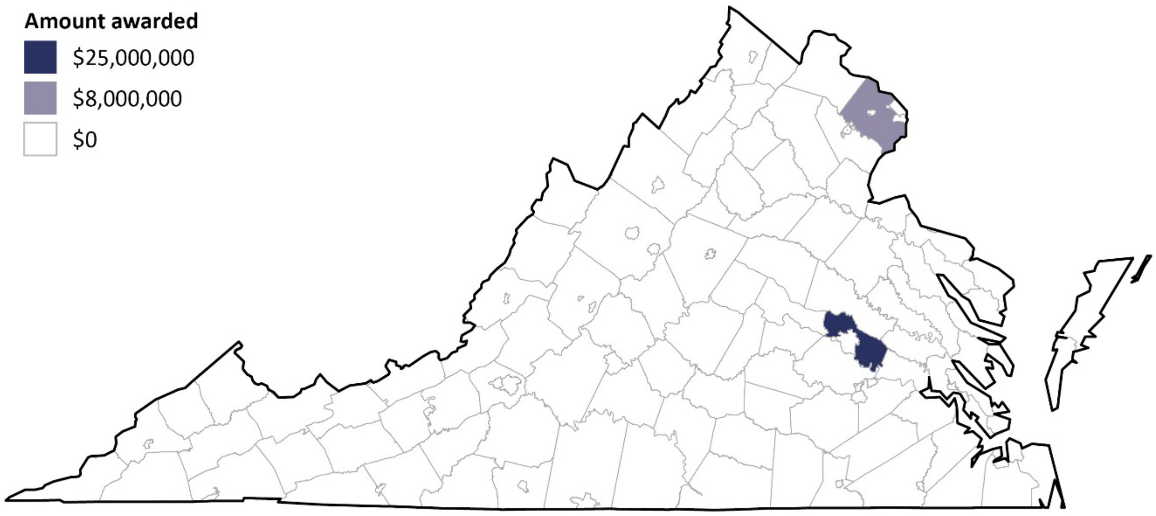
COF program awards are widely geographically distributed (Figure E-1), perhaps partially because of the statutory requirement that at least one-third of funds over five fiscal years be awarded to counties and cities having an annual average unemployment rate that is greater than the statewide unemployment rate. VEDP reports that their awards clear this barrier by a wide margin, with the most recent report showing that 62 percent of total awards and 48 percent of the total amount awarded went to localities with above average unemployment rates. The other programs, in comparison, have issued far fewer awards; hence most areas of the state have not received awards.

FIGURE E-1
COF awards are widely distributed, while the other programs have issued far fewer grants

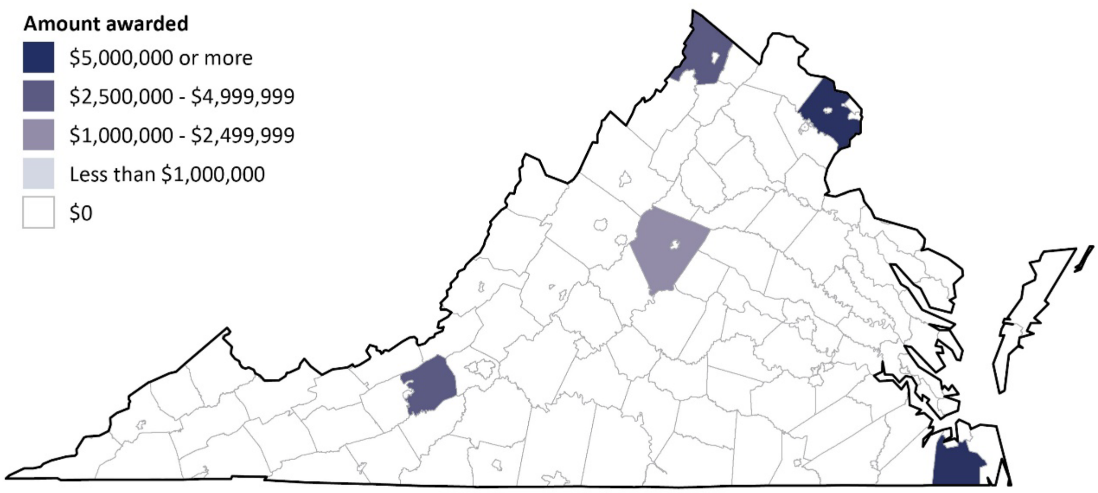
COF grant



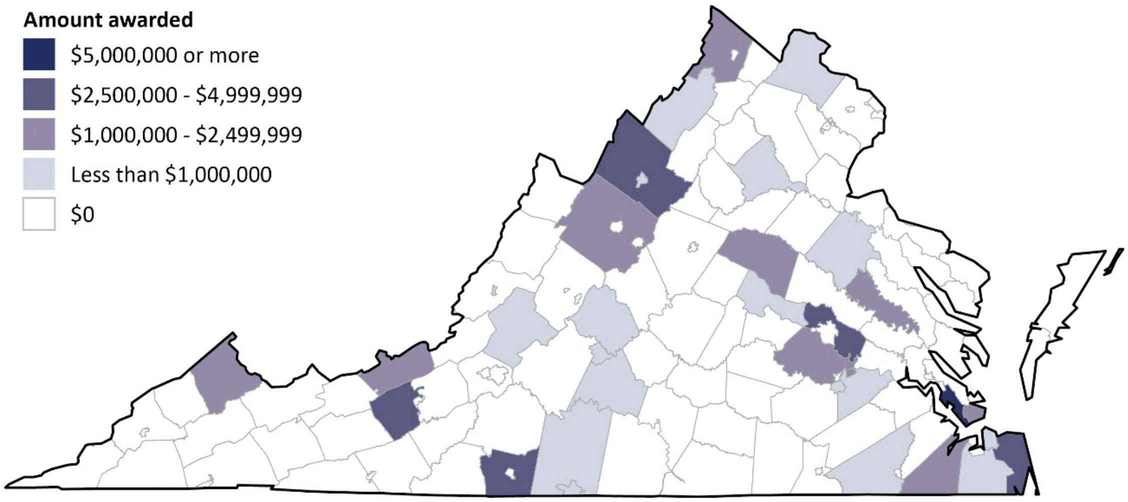
MEE grant



VEDIG grant



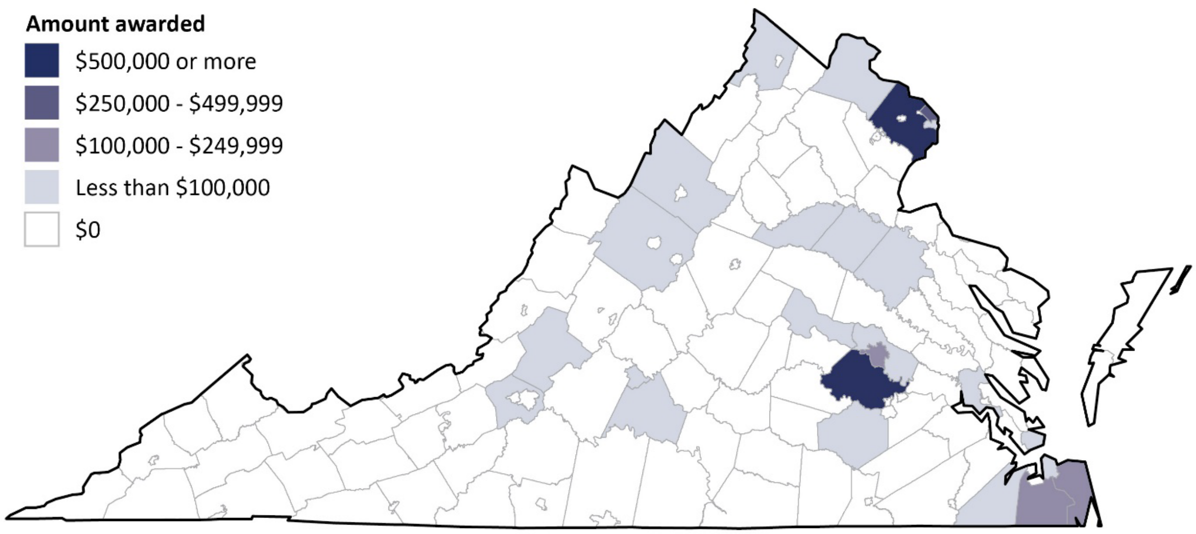
VIP grant


Amount awarded
$5,000,000 or more
$2,500,000 - $4,999,999
$1,000,000 - $2,499,999
Less than $1,000,000
$0

Appendix F: Regional distribution of major business facility job tax credit awards

Major business facility job tax credit awards are geographically concentrated in two regions, Northern Virginia (49 percent of the credits issued) and the Richmond metropolitan area (33 percent of the credits issued) (Figure F-1).

FIGURE F-1
Major business facility job tax credits were geographically concentrated in Northern Virginia and Richmond metro area

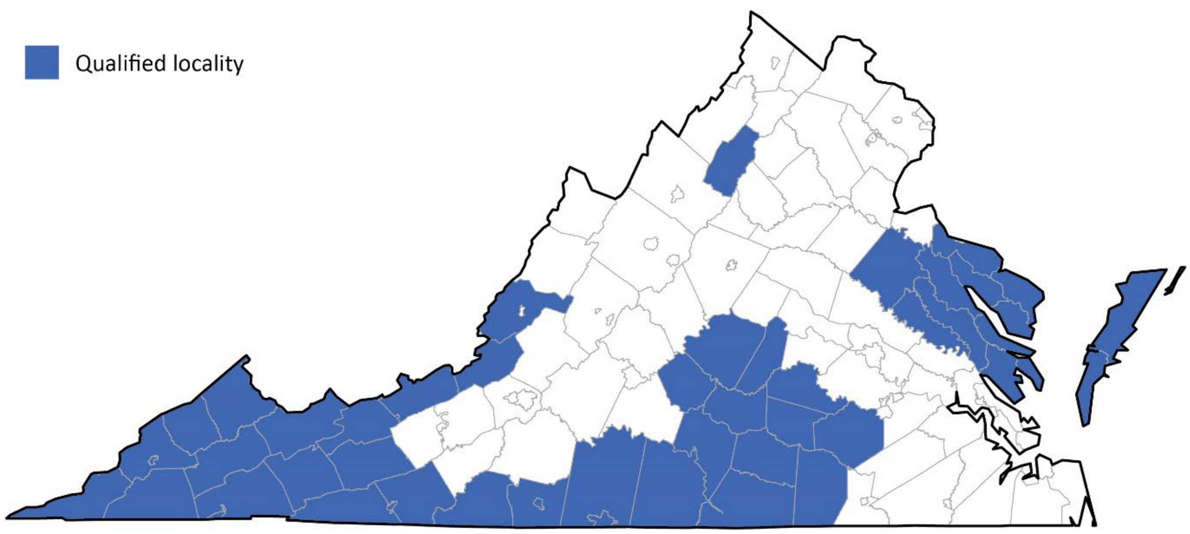


SOURCE: Weldon Cooper Center analysis of tax credit awards.

Appendix G: Qualifying localities for New Company Incentive Program and localities with regional industrial facility authorities (RIFA)

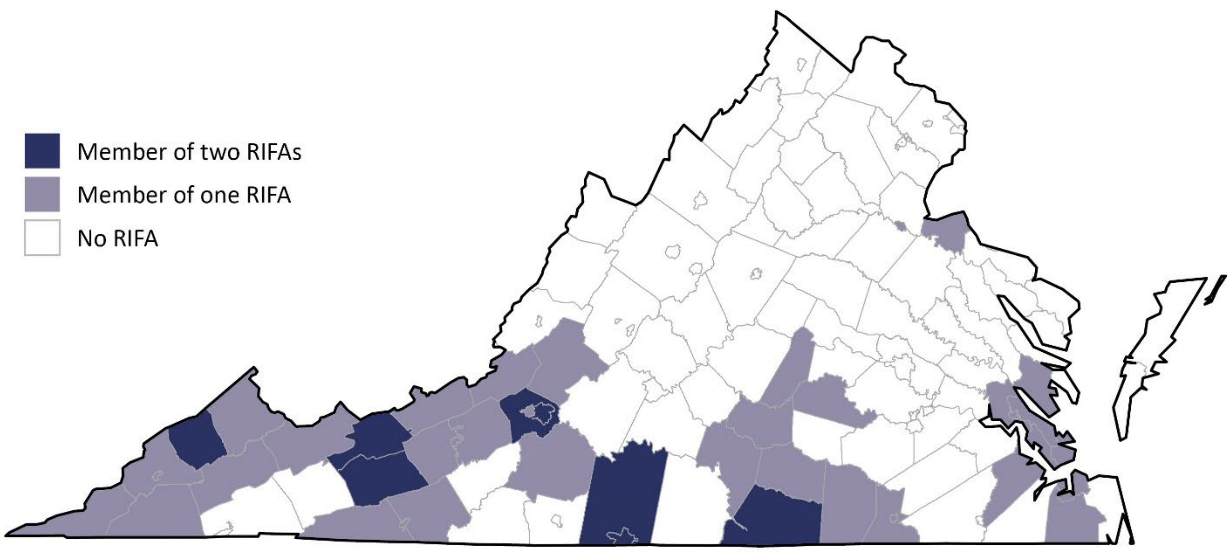
Only companies establishing new operations in certain locations are eligible for the New Company Incentive Program. Statute specifies that 51 counties, or selected qualified sites in adjacent counties, are eligible. Most of these localities are in Southwest Virginia, Southern Virginia, the Middle Peninsula, and the Northern Neck.

FIGURE G-1
New Company Incentive Program projects must be located in 51 qualified counties, or in qualified sites in adjacent counties



In Virginia, two or more localities may choose to enter into a regional industrial facility authority (RIFA) agreement to collaborate in the development of facilities such as industrial parks to assist economic growth. The agreements stipulate the rights and responsibilities of each of the localities, including the provision of funds for the authority and revenue-sharing terms for distributing income or other revenues generated by the facility. For example, revenue distribution agreements may specify formulas that are proportional to the level of initial investment made by a participating locality, agreed upon by the localities. Though not required, localities that are part of a RIFA would likely be eligible to receive a collaborative economic development performance grant for attracting a major location or expansion project. Most localities that are part of a RIFA are in the Tobacco Region (Figure G-2).

FIGURE G-2
Most localities participating in RIFAs are in the Tobacco Region



SOURCE: Information from GO Virginia staff.

Appendix H: Survey results

Weldon Cooper Center staff surveyed firm recipients of eight state economic development incentive programs and 14 custom grants to assess the importance of incentives in their location decisions, the effect of the incentives on their business performance, and challenges that firms experience in receiving the grants. Selected results from that survey are included below.

The percentage of projects that would not have occurred "but for" the location or expansion incentive ranged from 16 percent (AFID grant) to 52 percent (COF grant). The average percentage across all incentives included in the survey was 32 percent (Table H-1). This percentage is lower than that reported in the previous survey conducted in 2018 (Rephann 2018), which estimated that approximately 39 percent of the activity would not have occurred without the incentive. However, this likely reflects the different incentive mix in the current survey, with a greater representation of tax credit recipients, which tend to exhibit lower "but for" percentages, than the previous survey. Rephann (2020a) shows that when survey data is reweighted to adjust for the overresponse from discretionary program users, the "but for" effect drops to 30 percent. Rephann (2020a) indicates that whether a program is discretionary, whether the firm actively considered other out-of-state locations, and whether an incentive was offered up front are primary statistically significant determinants of the "but for" percentage.

TABLE H-1
Percentage of projects that would not have occurred "but for" the incentive varied by location and expansion program

	AFID grant	COF grant	Farm winery and vineyards tax credit	VIP grant	All surveyed incentives
But for %	**15.9%**	**51.9%**	**19.2%**	**18.7%**	**32.0%**
Proceeded with the project as planned	57.5%	31.3%	65.6%	62.6%	49.3%
Proceeded at a later date, but the scale of the project would have been the same	10.0	9.4	9.4	12.5	9.6
Proceeded on a smaller scale	30.0	12.5	12.5	12.5	17.6
Average scale of project if no incentive	55.5	60.0	46.7	50.0	53.1
Canceled the project	0.0	9.4	12.5	0.0	8.8
Proceeded at an out-of-state location	2.5	37.5	0.0	12.5	14.7
Considered out of state location	21.1%	75.0%	2.9%	67.0%	39.4%
Offered incentives by another state	17.5%	37.1%	0.0%	30.0%	20.5%
Responses (N)	40	32	32	8	136

SOURCE: Weldon Cooper Center firm incentive survey.
NOTE: The "but for" percentage is calculated as 1 minus (the percentage of projects that would have proceeded as planned plus the percentage that would have proceeded at a later date plus the percentage that would have proceeded at a smaller scale) multiplied by the average scale of the project without the incentive.

Respondents also indicated varying levels of search behavior by program. Both COF (75 percent) and VIP (67 percent) grant recipients exhibit high rates of having considered out-of-state sites for location and expansion, while few AFID and farm winery and vineyards tax credit recipients did. These results are not unexpected since the former fund only competitive projects, while the latter two programs have no competitiveness requirements. However, it should be noted that the self-reported percentages for COF and VIP fall short of 100 percent, suggesting either that respondents did not correctly recall their site search process or did not meet this program eligibility criterion.

Survey respondents were also asked to assess the importance of the incentive in improving firm performance along several dimensions. Results varied by program, but across all incentives, the highest average ratings (3 or above) were obtained for investing in machinery and equipment or creating new jobs (Table H-2). For the COF program, they were the top two performance improvements, which reflects the weight the program places on those two metrics in the grant award process. For the AFID program, increasing purchases of Virginia products and services was rated second in importance, likely reflecting one of the program's principal purposes of stimulating additional demand for Virginia produced agricultural products. The highest rated performance dimension (but still below "3") of improvement for the farm winery and vineyard tax credit was "Invest in machinery and equipment," again reflecting the types of allowances supported by the program. The top-rated performance dimension for VIP grant recipients is creation of new jobs, though this is not a program requirement. "Invest in machinery and equipment," "retain current jobs," and "expand your current facilities" are rated next in weighted importance, which better reflects the program's stated purposes.

TABLE H-2
Importance of incentive for firm

	Not important at all (1)	Not very important (2)	Somewhat important (3)	Very important (4)	Number of responses	Average rating
All surveyed programs						
Create new jobs	12.5%	9.0%	29.2%	49.3%	144	3.15
Retain existing jobs	24.1	13.5	23.4	39.0	141	2.77
Increase purchases of VA products and services as production inputs	20.7	13.6	30.0	35.7	140	2.81
Invest in machinery and equipment	12.3	7.2	20.3	60.1	138	3.28
Conduct research and development	48.2	21.2	19.0	11.7	137	1.94
Expand your current facilities	23.7	7.9	22.3	46.0	139	2.91
Create new facilities in VA	29.9	10.4	17.2	42.5	134	2.72
Export additional products or services	48.5	16.4	17.2	17.9	134	2.04
Leverage additional debt and/or equity capital	38.3	18.8	17.3	25.6	133	2.30
Increase profitability	20.0	10.4	31.9	37.8	135	2.87

	Not important at all (1)	Not very important (2)	Somewhat important (3)	Very important (4)	Number of responses	Average rating
Remain in business in VA	28.9	12.6	18.5	40.0	135	2.70
Increase economic value of the firm	17.3	11.5	26.6	44.6	139	2.99
AFID grant						
Create new jobs	7.5	12.5	47.5	32.5	40	3.05
Retain existing jobs	26.3	13.2	23.7	36.8	38	2.71
Increase purchases of VA products and services as production inputs	7.9	5.3	36.8	50.0	38	3.29
Invest in machinery and equipment	2.6	5.3	26.3	65.8	38	3.55
Conduct research and development	37.5	25.0	17.5	10.0	40	1.80
Expand your current facilities	29.7	10.8	24.3	35.1	37	2.65
Create new facilities in VA	34.2	10.5	18.4	36.8	37	2.58
Export additional products or services	46.0	10.8	29.7	13.5	37	2.11
Leverage additional debt and/or equity capital	31.6	29.0	13.2	26.3	38	2.34
Increase profitability	15.8	15.8	29.0	39.5	38	2.92
Remain in business in VA	38.5	10.3	20.5	30.8	39	2.44
Increase economic value of the firm	13.2	10.5	34.2	42.1	38	3.05
COF grant						
Create new jobs	0.0	8.6	31.4	60.0	35	3.51
Retain existing jobs	11.8	20.6	17.7	50.0	34	3.06
Increase purchases of VA products and services as production inputs	21.2	21.2	36.4	21.2	33	2.58
Invest in machinery and equipment	12.1	6.1	21.2	60.6	33	3.30
Conduct research and development	41.9	25.8	25.8	6.5	31	1.97
Expand your current facilities	17.7	2.9	20.6	58.8	34	3.21
Create new facilities in VA	18.2	9.1	21.2	51.5	33	3.06
Export additional products or services	43.8	18.8	21.9	15.6	32	2.09
Leverage additional debt and/or equity capital	45.2	12.9	22.6	19.4	31	2.16
Increase profitability	21.9	3.1	40.6	34.4	32	2.88
Remain in business in VA	25.0	9.4	15.6	50.0	32	2.91
Increase economic value of the firm	17.7	14.7	34.5	44.1	34	3.27
Farm winery and vineyards tax credit						
Create new jobs	42.4	12.1	18.2	27.3	33	2.30
Retain existing jobs	41.2	8.8	23.5	26.5	34	2.35

	Not important at all (1)	Not very important (2)	Somewhat important (3)	Very important (4)	Number of responses	Average rating
Increase purchases of VA products and services as production inputs	35.3	11.8	17.7	35.3	34	2.53
Invest in machinery and equipment	26.5	8.8	11.8	52.9	34	2.91
Conduct research and development	62.5	21.9	6.3	9.4	32	1.63
Expand your current facilities	31.3	9.4	25.0	34.4	32	2.63
Create new facilities in VA	58.1	12.9	6.5	22.6	31	1.94
Export additional products or services	71.9	18.8	0.0	9.4	32	1.47
Leverage additional debt and/or equity capital	51.6	12.9	19.4	16.1	31	2.00
Increase profitability	34.4	9.4	28.1	28.1	32	2.50
Remain in business in VA	32.3	16.1	12.9	38.7	31	2.58
Increase economic value of the firm	27.3	12.1	27.3	33.3	33	2.67
VIP grant						
Create new jobs	0.0	10.0	20.0	70.0	10	3.60
Retain existing jobs	0.0	20.0	30.0	50.0	10	3.30
Increase purchases of VA products and services as production inputs	10.0	10.0	50.0	30.0	10	3.00
Invest in machinery and equipment	0.0	10.0	30.0	60.0	10	3.50
Conduct research and development	22.2	33.3	44.4	0.0	9	2.22
Expand your current facilities	0.0	10.0	30.0	60.0	10	3.50
Create new facilities in VA	0.0	25.0	37.5	37.5	8	3.13
Export additional products or services	20.0	10.0	40.0	30.0	10	2.80
Leverage additional debt and/or equity capital	30.0	30.0	20.0	20.0	10	2.30
Increase profitability	0.0	11.1	55.6	33.3	9	3.22
Remain in business in VA	11.1	22.2	33.3	33.3	9	2.89
Increase economic value of the firm	10.0	10.0	20.0	60.0	10	3.30

SOURCE: Weldon Cooper Center firm incentive survey.

Most incentive recipients were satisfied with the economic development incentive application and award process. Sixty-one percent indicated that they experienced no difficulties in obtaining their incentives (Table H-3), which is close to the percentage (64 percent) reported in the previous firm survey (Rephann 2018). Proportionately few found the COF and VIP process burdensome. However, this percentage was markedly lower for the farm winery and vineyards tax credit. Only one-third of recipients reported encountering no challenges. Thirty-seven percent indicated that the timeframe for receiving the credit was too slow and delayed or interfered with other federal tax filing obligations.

Relatively high percentages also reported that the tax filing required too much paperwork or was too complex. In open-ended comments, tax credit users stated that the program award was too small in comparison to administrative costs, heavy proration minimized the value of the award, and that the tax credit issuance in July delays requires income tax extension and submission of amended forms and substantially delays reimbursement.

TABLE H-3
Challenges encountered in obtaining the incentive

	AFID grant	COF grant	Farm winery and vineyards tax credit	VIP grant	All surveyed incentives
Did not encounter any challenges	60.0	82.4	34.3	90.0	61.4%
Timeframe to obtain too slow	17.5	2.9	37.1	10.0	17.9
Other	20.0	5.9	22.9	0.0	15.2
Too much paperwork	12.5	5.9	20.0	0.0	10.3
Process too complex	10.0%	2.9%	17.1%	0.0%	9.7
Responses (N)	40	34	35	10	145

SOURCE: Weldon Cooper Center firm incentive survey.
NOTE: Percentages may add up to more than 100 percent because multiple responses permitted.

Appendix I: Tax credits and their program/taxpayer caps

Program or taxpayer benefit caps on tax credits is recommended by several incentive analysts to provide state fiscal protections and help inform legislative debates on the value of the program (Bartik 2005; Goodman and Benz 2021). The major business facility job tax credit is the only economic development tax credit with neither a program nor a taxpayer cap (Table I-1). The lack of a program cap means that tax expenditures are potentially unlimited, and lack of a taxpayer cap means that a small number of large users may accrue most of the tax benefits. The average annual program cap for the 10 tax credit programs that have them is $5.14 million, and the average taxpayer cap for four programs that have them is $70,625.

TABLE I-1
The Major Business Facility Job Tax Credit is the only economic development incentive tax credit without a program or taxpayer cap

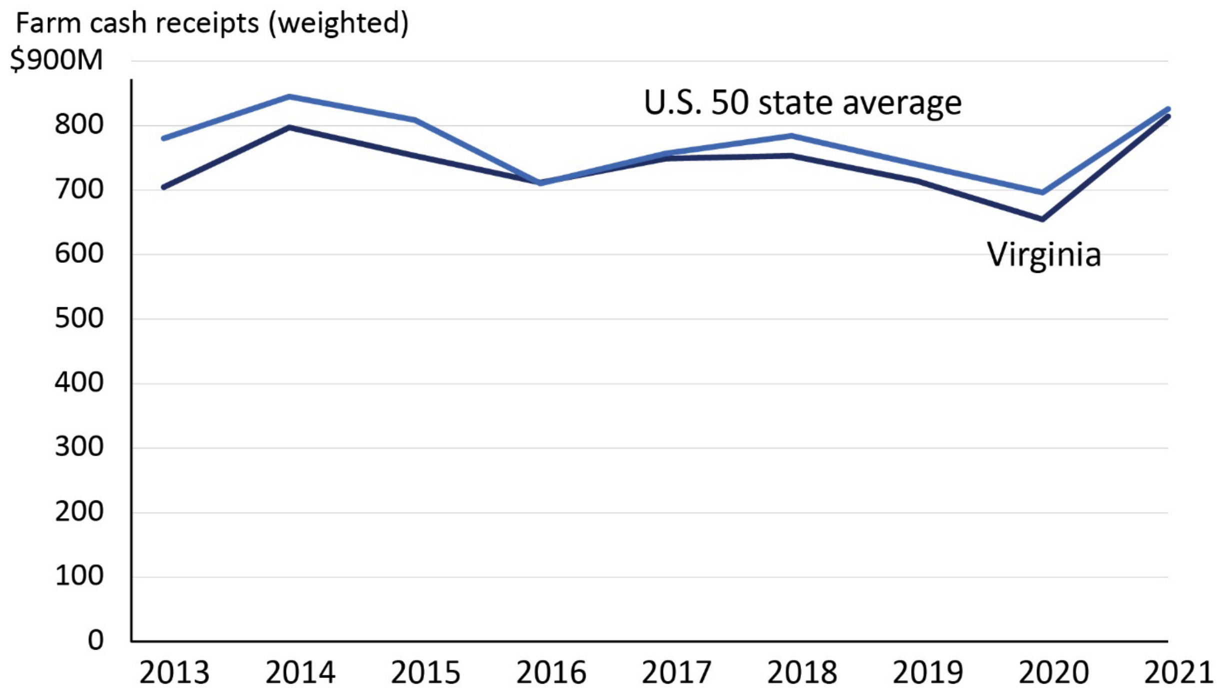
Tax credit	Program cap	Taxpayer cap
Barge and Rail Usage Tax Credit	$500,000	
Biodiesel and Green Diesel Fuels Producers Tax Credit		$5,000
Farm Wineries and Vineyards Tax Credit	$250,000	
Green Job Creation Tax Credit		$175,000
International Trade Facility Tax Credit	$1,250,000	
Major Business Facility Job Tax Credit		
Major Research and Development Tax Credit	$24,000,000	
Motion Picture Production Tax Credit	$6,500,000	
Qualified Equity and Subordinated Debt Investment Tax Credit	$5,000,000	$50,000
Recyclable Materials Processing Equipment Tax Credit	$2,000,000	
Research and Development Expenses Tax Credit	$7,700,000	$45,000-$60,000
Virginia Port Volume Increase Tax Credit	$3,200,000	
Worker Training Tax Credit	$1,000,000	

SOURCE: Code of Virginia.

Appendix J: Virginia agriculture cash receipts and employment have grown at same rate as nation

There is little difference between the growth in Virginia farm cash receipts and U.S. farm cash receipts over time, when state and national agricultural commodity cash receipts are weighted to have the same commodity purchase mix as AFID funded projects (comparable national data is not available for timber) (Figure J-1). This finding is suggestive (though not conclusive) evidence that the agricultural commodity purchase component of the program may not have the intended effect of boosting agricultural production in the state.

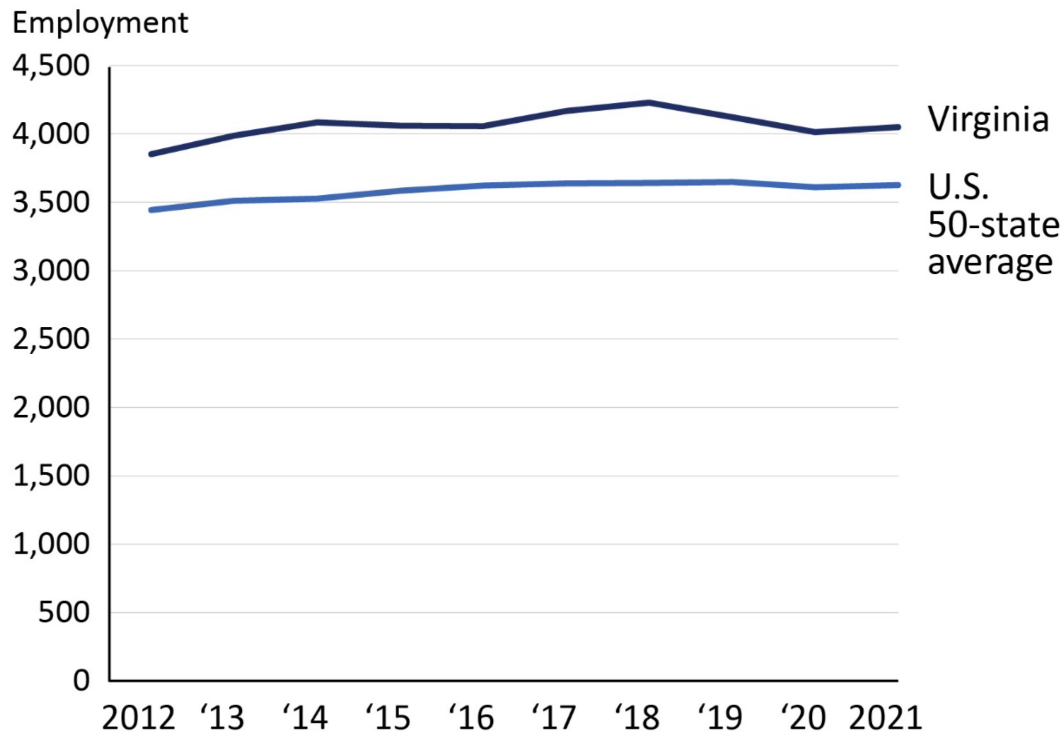
FIGURE J-1
Virginia farm cash receipts for incentivized commodities have grown at the same rate as the nation



SOURCE: Based on weighted commodity index (weight based on AFID incentive mix for commodity purchases for completed and milestone projects) using commodity cash receipt data from USDA, Economic Research Service Farm Income dataset.
NOTE: AFID was adopted in 2012.

Virginia agricultural and forestry processing, manufacturing, and value-added employment grew at about the same rate as the nation since creation of the AFID grant (5.1 percent versus 5.3 percent) using an employment index weighted by NAICS-level job creation from AFID completed and reported milestone projects (Figure J-2). This finding is also suggestive (though not conclusive evidence) that the program may not be having the intended impact of stimulating agricultural and forestry processing, manufacturing, and value-added activity in the state.

FIGURE J-2
Virginia employment for incentivized agribusiness industries has grown at same rate as the nation



SOURCE: Based on an employment index weighted by NAICS-level job creation from AFID completed and reported milestone projects, using employment data from Lightcast[TM].
NOTE: AFID was adopted in 2012. AFID records on job creation from projects that completed and reported milestone job creation data, 1,476 jobs have been created since 2013, with 34 percent in food manufacturing (NAICS 311), 26 percent in wood products manufacturing (NAICS 321), 19 percent in wholesale trade and warehousing (NAICS 42 and 493), 13 percent in beverage manufacturing (NAICS 312), and 7 percent in agriculture and agricultural support activities (NAICS 111, 115).

Appendix K: Virginia policies and programs to promote wine industry

Virginia began adopting policies and programs to promote the wine industry as early as 1980 with the introduction of the Virginia Farm Winery Act (Table K-1). This act created more favorable tax and product distribution treatment to encourage the growth of the industry, including reducing the winery licensing fee from $1,000 to $100, excluding state wines from wine liter taxes, classifying wineries as 'agricultural' as opposed to 'commercial' operations, and making land, real, and personal property eligible for taxation at lower local rates. In addition, some revenues raised through wine taxes and fees were to be repurposed to support the state wine industry through marketing, research, and educational programs.

TABLE K-1
Several wine industries policies and programs have supported wine industry growth

Year	Key development
1979	Virginia Vineyards Association founded
1980	Virginia Farm Winery Act passed
1982	Virginia Governor's Cup established
1983	Virginia Wineries Association founded
1984	Virginia Winegrowers Board established
2004	Virginia Wine Council replaces Virginia Winegrowers Board
2006	Virginia Farm Winery Zoning Act passed
2008	Virginia Winery Distribution Company launched
2011	Virginiawine.org website started, winery guides began issuance, and wine trails established
2011	Farm Wineries and Vineyards Tax Credit created
2012	Agriculture and Forestry Industries Development Fund established

SOURCE: Painter 2018.

Another cluster of supportive polices came in 1984. The General Assembly adopted legislation that

- reclassified winery equipment as farm equipment, which made it exempt from local personal property taxes,
- permitted the sale of Virginia produced wine in state ABC stores,
- appropriated funds for three full-time employees (an oenologist, viticulturist, and wine marketing specialist) to assist the wine industry, and
- established the Winegrowers Advisory Board (which transitioned to the Virginia Wine Council in 2004) and appropriated revenues derived from wine excise taxes to fund a Winegrowers Productivity Fund.

Although several efforts were made to ease distribution of state wines over subsequent decades, court challenges and legislative reverses negated some of the policies. The Virginia Farm Winery Act allowed Virginia wineries to bypass the three-tier distribution system and self-distribute within the Commonwealth but disallowed out-of-state direct shipments. However, this was overturned by a Federal District Court case *Bolick, et al. v. Roberts*, et al. (2002) on the grounds that the restriction was a violation of the U.S. Constitution's Commerce Clause. In 2006, the General Assembly revoked Virginia winery distribution rights to retailers and restaurants and limited their sales to their wineries and festivals (Painter 2018). In response to the wine industry backlash, a mechanism for allowing small wineries to distribute their products outside of the wholesale trade industry was established by VDACS that became the Virginia Winery Distribution Company (VWDC). The non-profit corporation created by VDACS allowed small state farm wineries to bypass wholesale trade distributors and distribute up to 3,000 cases per year to restaurants and retailers by acting as agents of the VWDC and deliver wine.

The next significant state legislation addressed local winery land use and permit regulations that inhibited winery events and hours. The General Assembly passed the Virginia Farm Winery Zoning Act (VFWA) in 2006, which limited the ability of local governments to impose restrictions on wineries through zoning requirements and event permitting.

The state has also periodically upgraded its marketing efforts. In 2004, the Virginia Wine Board replaced the Winegrowers Advisory Board. In 2011, the Virginia Marketing Office introduced several new marketing initiatives, including the creation of a website Virginiawine.org, the issuance of annual winery guides, and established wine trails. The Virginia Wine Board received nearly $2.5 million in state appropriations in FY22 for wine marketing, education, and research, with funding coming from the Virginia Wine Promotion Fund that is supported by proceeds from the state's wine liter tax on Virginia wine.

Appendix L: 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 Department of Taxation, Virginia Department of Agriculture and Consumer Services, Department of Housing and Community Development, secretary of finance, secretary of commerce and trade, and secretary of agriculture and forestry.

Appropriate corrections resulting from technical and substantive comments are incorporated in this version of the report. This appendix includes response letters from the

- Department of Housing and Community Development,
- Virginia Department of Agriculture and Consumer Services,
- Virginia Department of Taxation, and
- Virginia Economic Development Partnership.

Glenn Youngkin
Governor

Caren Merrick
Secretary of
Commerce and Trade

COMMONWEALTH of VIRGINIA

DEPARTMENT OF
HOUSING AND COMMUNITY DEVELOPMENT

Bryan W. Horn
Director

September 1, 2023

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

RE: Draft JLARC Report *Location and Expansion Incentives* Excerpt

Dear Mr. Greer:

Thank you for providing the Department of Housing and Community Development (DHCD) the opportunity to review and comment on the excerpt of the draft JLARC Report entitled *Location and Expansion Incentives* as it discusses the Collaborative Economic Development Performance Grant. DHCD appreciates JLARC's review of the grant program and recommendations for improvement. While a few technical amendments have been submitted for consideration, DHCD does not have any objection to this portion of the report as drafted.

Thank you again for providing the excerpt of the draft report for our review. Please feel free to contact me should you have any questions.

Sincerely,

Bryan W. Horn
Director

C: The Honorable Caren Merrick, Secretary of Commerce and Trade

Joseph W. Guthrie
Commissioner

COMMONWEALTH of VIRGINIA
Department of Agriculture and Consumer Services
PO Box 1163, Richmond, Virginia 23218
www.vdacs.virginia.gov

September 1, 2023

Hal E. Greer
Commissioner
Joint Legislative Audit and Review Commission
919 East Main Street, Suite 2101
Richmond, VA 23219

Mr. Greer,

Thank you for your letter dated August 22, 2023, and for the opportunity to review the relevant sections of the draft JLARC report, *Location and Expansion Incentives*. I have received and reviewed the document.

Best Regards,

Joseph W. Guthrie

Joseph W. Guthrie
Commissioner
Virginia Department of Agriculture and Consumer Services

COMMONWEALTH of VIRGINIA

Department of Taxation

September 1, 2023

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

Dear ~~Mr. Greer~~ HAL:

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

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

Sincerely,

Craig M. Burns
Tax Commissioner

c: The Honorable Stephen E. Cummings. Secretary of Finance

VEDP Virginia Economic Development Partnership

September 1, 2023

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, *Location & Expansion Incentives, 2023*

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, *Location & Expansion Incentives, 2023*.

The report provides a helpful overview of location and expansion incentive effectiveness in the Commonwealth. Among other things, we appreciate your analysis showing that most of the grants administered by the Virginia Economic Development Partnership (VEDP) are well designed. The Commonwealth's Development Opportunity Fund (COF) and Virginia Investment Performance (VIP) were rated favorably by grant awardees and local economic development staff in meeting job creation goals and the application processes were not deemed burdensome.

Your report highlights the effectiveness of some of VEDP's most important economic development incentive programs. Notably, the return in state revenue on all four VEDP-administered grants is high when compared to other incentives with the COF presenting the highest return. In addition, the COF and VIP programs met their reported job creation goals collectively across projects after five to six years and demonstrate widespread geographic distribution of awards across Virginia.

We were particularly pleased with the report's acknowledgement of the improvements VEDP has made in its incentive-related administration. We are supportive of the report's recommendation to charge VEDP with the review and approval of applications to the Major Business Facility Job Tax Credit program, but additional staff and resources would be needed to maintain VEDP's rigorous standards for incentives-related administration, reporting, and compliance.

VEDP understands that the goal of the report is to review and evaluate the effectiveness of economic development incentives, and we appreciate the level of analysis that goes into this report each year. In particular, pages 11-12 of the report feature a discussion of the effectiveness of COF and VIP grants in influencing businesses' location and expansion decisions. This discussion relies in part on the use of academic modelling. In recent years, the use of refined approaches and better data sets has improved academic researchers' ability to evaluate the effectiveness of economic development incentives. JLARC has also been able to introduce refinements to its own return-on-incentive analysis. However, this academic research remains hindered by the inability of simplistic economic models to capture the complexity and nuance of the competitive deal-making process.

VEDP does not disagree with the use of state-of-the-art research and modelling in the evaluation of the effectiveness of incentives, but it is important to keep in mind the limitations of these methodologies and how they may be predisposed to underestimate the competitive and economic impact of VEDP's incentive programs. We also strongly encourage the use of alternative research tools – namely surveys – to provide another point of reference for this discussion even if these are also imperfect. As underlined in the report, the survey of grant recipients conducted by Weldon Cooper found strong evidence for significantly higher "but for" effects than would be predicted by academic models. If JLARC applied these alternative assumptions to the impact analysis, that approach would have resulted in significantly larger economic and fiscal impacts more in line with what we believe them to be.

As always, we appreciate the professionalism and partnership of JLARC staff during the evaluation and compliment your team on its insightful analysis and reporting.

Sincerely,

Jason El Koubi
President & CEO

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