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Report to the Governor and the General Assembly of Virginia

Workforce and Small Business Incentives
Economic Development Incentives Evaluation Series

JLARC
JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION

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Contents

Summary: Workforce and Small Business Incentives

Virginia provides nine incentives to promote workforce improvements and small business development. Between FY10 to FY17 Virginia spent $52.4 million on these incentives. Nearly all (89 percent) of total spending on these incentives was through the Virginia Jobs Investment Program (VJIP).

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 second in the series of in-depth reports on the effectiveness of individual incentives and focuses on Virginia's workforce and small business incentives.

WHAT WE FOUND

The grant and loan programs are estimated to have moderate to high economic benefits per $1 million in state spending on the incentives. Several changes could be implemented to better target them and increase their economic benefit. The tax credits, however, are estimated to have a negligible economic benefit and could be eliminated.

VJIP and small business grants have a moderate economic benefit

VJIP grants are estimated to have a moderate economic benefit per $1 million in spending by the state. The same is true for the similar but much smaller program, the Small Business Jobs Grant. Both programs generally succeed in targeting projects that have some characteristics of high economic impact. Neither grant program incentivizes the creation of high-wage jobs, though, and few of the jobs created by grant-funded projects can be directly attributed to the grant funding.

Economic benefit of workforce and small business incentives varies

Program	Spending FY10-FY17	Incentive type	Economic benefit per $1M of spending
Virginia Jobs Investment Program	$46.50M	Grant	Moderate
Small Business Jobs Grant	2.51	Grant	Moderate
Small Business Investment Grant	1.40	Grant	Moderate
Small business loan programs (4 programs)	0.47	Loan	High
Worker Retraining Tax Credit	1.29	Tax credit	Negligible
Telework Expenses Tax Credit	0.23	Tax credit	Negligible

SOURCE: Weldon Cooper Center economic impact analysis of incentives.
NOTE: Small business loan programs include the Loan Guaranty Program, SWaM Business Microloan Fund, State Cash Collateral Program, and the Virginia Economic Development Loan Fund.

The Small Business Investment Grant, a new program, is estimated to have a moderate economic benefit per $1 million spent on the grant, but the benefit will likely decrease over time. The program is not well targeted to projects with characteristics of high economic impact, and recent changes greatly increased the program reimbursement per grantee.

Small business loan programs have high economic benefit

Small business loan programs generate a low amount of economic activity in Virginia, but they have the highest economic benefit per $1 million in state spending of the incentives reviewed for this report. The high economic benefit results because the programs are provided at a minimal cost to the state—relying primarily on recycled funds from repaid loans and credit enhancements.

The loan programs have helped small businesses obtain financing, but loans are not well targeted to businesses with characteristics of high economic impact and projects have had mixed success in meeting job creation goals. The need for some loan programs may also be declining because of changes in the lending marketplace.

Tax credits are not effective in achieving their goals and have a low economic benefit

Virginia's Worker Retraining Tax Credit and Telework Expenses Tax Credit have a low economic benefit to the state per $1 million spent on the credits and are not effective in achieving their program goals. The Worker Retraining Tax Credit does not appear to be effective in encouraging worker retraining, and the Telework Expenses Tax Credit has had little effect on Virginia's telework rate.

WHAT WE RECOMMEND

Legislative action

- Increase the wage requirements for VJIP and the Small Business Jobs Grant.
- Require that a scoring system be used to award Small Business Investment Grant funding.
- Eliminate the Worker Retraining Tax Credit and Telework Expenses Tax Credit.

Executive action

- Virginia Economic Development Partnership should adopt a point-based scoring system for awarding VJIP grants.
- Virginia Small Business Financing Authority should include in its annual report to the legislature a regular update on small business credit conditions and, as warranted, proposed changes to its programs to better meet the financing needs of small businesses.

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

Recommendations and Options: Workforce and Small Business Incentives

RECOMMENDATION 1
The General Assembly may wish to consider amending the Code of Virginia to increase the minimum wage requirements for the Virginia Jobs Investment Program and the Small Business Jobs Grant.

RECOMMENDATION 2
The Virginia Economic Development Partnership should implement a formal point-based scoring system for approving grants from the Virginia Jobs Investment Program and its component sub-programs.

RECOMMENDATION 3
The Virginia Economic Development Partnership should establish additional performance measures, such as receipt of credentials and amount of wage increases for trained employees, for projects that receive a Virginia Jobs Investment Program grant for retraining.

RECOMMENDATION 4
The Virginia Economic Development Partnership should adopt methods to verify self-reported job creation and capital investment levels of projects that receive a grant from the Virginia Jobs Investment Program.

RECOMMENDATION 5
The General Assembly may wish to consider eliminating the Worker Retraining Tax Credit.

RECOMMENDATION 6
The General Assembly may wish to consider amending § 2.2-1616 of the Code of Virginia to direct the Virginia Small Business Financing Authority (VSBFA) to develop and use a scoring system to (i) award the Small Business Investment Grant and (ii) set the reimbursement rate for each award. The scoring system should be based on project characteristics and other criteria as determined by VSBFA.

RECOMMENDATION 7
The Virginia Small Business Financing Authority should (i) require the investors and businesses that benefit from the Small Business Investment Grant to report their performance using program metrics similar to the metrics reported for other economic development and equity investment incentives and (ii) collect the industry code of the business on the grant application form.

RECOMMENDATION 8

The General Assembly may wish to consider amending § 2.2-1616 of the Code of Virginia to require reasonable efforts to recapture Small Business Investment Grant awards from the business if the business (i) relocates outside the state or (ii) closes due to criminal conduct or malfeasance, within a certain time period after the grant is awarded.

RECOMMENDATION 9

The Virginia Small Business Financing Authority (VSBFA) should regularly analyze national data on credit conditions for small businesses and program demand to assess whether adjustments to program design and lending practices should be made to ensure its programs are appropriately designed to address financing gaps of Virginia's small businesses. On a biennial basis, VSBFA should include in its report, pursuant to § 2.2-2312 of the Code of Virginia, (i) a summary of credit conditions for small businesses in Virginia and (ii) adjustments to programs or their design to meet small business credit needs, including resource needs.

RECOMMENDATION 10

The Virginia Small Business Financing Authority (VSBFA) should establish and implement job creation standards for the Loan Guaranty Program, State Cash Collateral Program, and the SWaM Business Microloan. For each program, a minimum number of jobs would be required, based on the total loan amount in aggregate across the program. The standards should be determined by VSBFA and can vary by program.

RECOMMENDATION 11

The Virginia Small Business Financing Authority should establish a process for monitoring employment outcomes of businesses receiving assistance from the Loan Guaranty Program, State Cash Collateral Program, and the SWaM Business Microloan Fund.

RECOMMENDATION 12

The General Assembly may wish to consider eliminating the Telework Expenses Tax Credit.

OPTION 1

The General Assembly could consolidate the Small Business Jobs Grant into the Virginia Jobs Investment Program administered by the Virginia Economic Development Partnership.

OPTION 2

The General Assembly could amend § 2.2-1616 of the Code of Virginia to (i) make professional investors eligible for Small Business Investment Grant funding and (ii) impose a minimum investment threshold.

Workforce and Small Business Incentives

Economic Development Incentives Evaluation Series

Virginia provides economic development incentives to encourage business growth as part of its economic development strategy. In order 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, review and 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 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 focuses on nine incentives to promote workforce improvements and small business development and growth (Table). Six incentives are specifically targeted to small businesses. Three incentives provide financial assistance to support job training or retraining. Most of the incentives are administered by the Department of Small Business and Supplier Diversity (DSBSD) or the Virginia Small Business Financing Authority, which is an entity within DSBSD. The tax credits are ultimately administered by the Virginia Department of Taxation, but eligibility must be approved through other agencies.

Although the specific purposes of the programs vary, each program is designed to correct some shortcoming of the private sector. Workforce training and retraining incentives are designed to address the tendency of businesses to underinvest in worker training for fear that workers will be lured away by similar businesses paying higher wages. Loan programs for small businesses are designed to address imperfect information about the small business lending market that makes it difficult for banks to evaluate the creditworthiness of small businesses and results in the under-provision of loans to small businesses. Other incentives are targeted to small businesses because they have lower levels of access to credit, may be less profitable in earlier years, and more sensitive to tax policies than larger businesses.

For purposes of this report, **spending on incentives** refers to (1) actual expenditures by the state in the form of grant awards, (2) tax expenditures in the form of forgone revenue, through tax credits or sales and use tax exemptions, and (3) estimated costs of state support for loan programs.

State spending on these nine incentives totaled $52.4 million (FY10 to FY17). The Virginia Jobs Investment Program (VJIP), administered by the Virginia Economic Development Partnership is the largest of these incentives, representing 89 percent of total spending for the nine incentives. Spending on workforce improvement and small business development incentives, $6 million in FY16, is relatively small compared to state spending on all economic development incentives, totaling $254 million in FY16. (See *Economic Development Incentives*, JLARC 2017).

TABLE: Nine incentives focusing on workforce improvements and small business development are evaluated in this report

		Purpose			
Program	**Spending FY10-FY17**	**Job recruitment**	**Job training**	**Small business development**	**Other workforce improvements**
Virginia Jobs Investment Program (VJIP)	$46.50M	✓	✓	✓	
Small Business Jobs Grant	2.51	✓	✓	✓	
Small Business Investment Grant	1.40			✓	
Worker Retraining Tax Credit	1.29		✓		
Loan Guaranty Program	0.30			✓	
Telework Expenses Tax Credit	0.23				✓
SWaM Business Microloan Program	0.12			✓	
State Cash Collateral Program	0.03			✓	
Virginia Economic Development Loan Fund	0.02			✓	
All programs	**$52.40M**				

SOURCE: Weldon Cooper Center review of Code of Virginia and agency documents
NOTE: Spending on grants includes amounts for projects that have completed or have reached milestones and received payments, tax credits includes amounts claimed, and loan programs are estimated costs. Small business loans included in this report are only those that have received state funding through general fund appropriations or program fees charged by the Virginia Small Business Financing Authority. For loans, only state spending is shown.

1. VJIP and Small Business Jobs Grant

Virginia offers two workforce recruitment and training grant programs: the Virginia Jobs Investment Program (VJIP) and the Small Business Jobs Grant. The two programs share many of the same features (Table 1-1). Both programs are designed to support job creation by encouraging business location and expansion in the state. Grant funding is provided to eligible businesses to offset the costs for recruiting and training employees. VJIP also provides grant funding to offset retraining costs to expanding businesses that make technological or equipment upgrades. Almost all states offer some form of job creation or training incentive to encourage business location or expansion in their state. (See Appendix C for more information on these incentives by state.)

TABLE 1-1
Virginia offers two workforce recruitment and training grant programs: VJIP and the Small Business Jobs Grant

Purpose	Support job creation by encouraging the expansion of existing Virginia businesses and the start-up of new business operations in Virginia
Eligible projects	Businesses in basic industry sectors, such as manufacturing, corporate headquarters, and research and development Must meet minimum job and capital investment requirements Pay newly created jobs or trainees at least 135 percent of the federal minimum wage ($9.79 per hour)
Program features	Businesses must provide recruitment and training plans and costs as part of application process and then submit reimbursement request forms that include information concerning each person hired (or retrained) in order to receive approved grant funding Employees for which reimbursement is requested must have been working for at least 90 days (new jobs) or after training has been completed (retraining because of upgrades) Reimbursement is determined on a per job basis (either per job created or per job retrained). Grant award is designed to cover only a portion of the cost of recruitment or training that was specified in recruitment and training plans submitted during application process.
Use of grant	Offsets recruiting and training costs incurred by businesses that create new jobs; VJIP also offsets employee retraining costs incurred by businesses that implement technological or equipment upgrades.

SOURCE: Weldon Cooper Center review of the Code of Virginia and agency documents.
NOTE: Authorized by § 2.2-2204.3 (VJIP) and § 2.2-1615 (Small Business Jobs Grant).

VJIP AND SMALL BUSINESS JOBS GRANT

Support private sector job creation by encouraging location and expansion of businesses in Virginia

VALUE TO BENEFICIARIES

FY10-FY17

Grant awards: $49.0M total

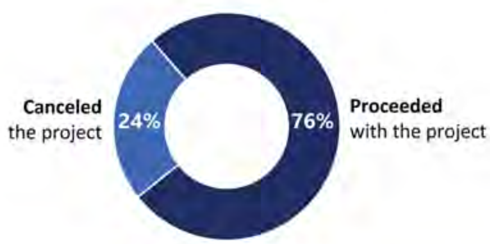
Beneficiaries

764 projects

ACHIEVEMENT OF PURPOSE

Encourage location and expansion

Businesses that received grants reported that, without grant, they would have



Encourage job creation

Businesses that received grants created slightly more jobs than similar businesses that did not

VJIP — **4.2** more jobs

Small Business Jobs Grant — **2.1** more jobs

IMPACT TO STATE ECONOMY

average FY10-FY17

	Moderate economic benefit per $1M of grant			Moderate return in revenue	
	263	**$35.5M**	**$21.8M**	**$1.04**	**VJIP**
	310 jobs	**$46.0M** state GDP	**$23.8M** personal income	**$1.14** per $1 spent	**Small Business Jobs Grant**

NOTE: Grant awards and beneficiaries are only for projects that have received payments as of FY17 and do not include all projects approved for grant awards. (See Appendix F for spending by program by year.)

VJIP, which has been administered by the Virginia Economic Development Partnership since 2014, has three sub-programs that support job creation and worker training:

- Virginia New Jobs Program – offsets human resource costs incurred by new businesses that locate to Virginia, or existing businesses that expand in Virginia; to qualify, the businesses must be considering another state or country for the project.
- Workforce Retraining Program – offsets costs of Virginia businesses to retrain existing employees because new technology or equipment was installed as part of facility upgrades, new product lines, or service delivery processes.
- Small Business New Jobs and Retraining Program – offsets human resource costs of new or expanding small businesses in Virginia or retraining costs for existing small businesses that made equipment or technological changes to their facility. This program focuses on businesses with 250 employees or fewer.

VJIP grants are used by businesses to offset costs related to hiring new employees (such as recruiting and onboarding) or training existing employees. VJIP grants are performance based, meaning that projects must meet minimum job creation or retraining, capital investment, and other requirements to receive grant funding (Table 1-2). Business must also derive a minimum amount of their revenues from out-of-state sources, which increases the amount of activity in the state rather than redirecting current economic activity from other in-state businesses.

TABLE 1-2
Businesses must meet certain minimum requirements to receive VJIP grant

	Program requirements		
Program	**Jobs**	**Capital investment**	**Type of business**
Virginia New Jobs Program	25 new	$1,000,000	Derives more than 50% of revenues from out-of-state sources
Workforce Retraining Program	10 retrained	$500,000	
Small Business New Jobs and Retraining Program	5 new or retrained	$100,000 new $50,000 retrained	Small business with 250 or fewer employees Derives more than 50% of revenues from out-of-state sources

SOURCE: Weldon Cooper Center review of the Code of Virginia and agency documents; interviews with agency staff.
NOTE: Requirements for jobs and capital investment are minimums.

VEDP uses formula-driven computer software to generate a recommended reimbursement amount per job. This software uses information on job creation, wage levels, industry, and distressed region status of the locality of the project to compute an award amount per job that would provide a comparable return to the state in new tax revenue within one year. The reimbursement level may be revised by VEDP staff on the basis of

- staff assessments of the importance of the incentive for business expansion and relocation;
- staff assessments of business recruitment and training costs;
- other state and local incentives being offered for the project; and
- factors, including competitiveness, industry, and region, used in determination of VJIP grant amounts for similar types of projects.

This reimbursement amount per job and the number of jobs the business anticipates hiring or retraining is used to determine the maximum amount of VJIP funding the business can receive. For example, if the reimbursement per job is $800 and the business expects to create 100 jobs, the maximum award would be $80,000. No funds are administered until jobs are created or employees are retrained; therefore, the total award to a business may be less than the approved maximum if the business creates fewer jobs or retrains fewer employees than expected.

The Small Business Jobs Grant has many of the same features of VJIP, including similar processes for award approval and determination of reimbursement. However, the Small Business Jobs Grant is targeted to very small businesses—businesses with 50 or fewer employees and annual gross receipts of $3 million or less, averaged over the previous two years. The Small Business Jobs Grant helps offset the costs of recruiting and hiring employees. Minimum eligibility requirements for the grant, as of July 2017, include

- 5 new jobs;
- $50,000 in capital investment; and
- 35 percent of revenues from out-of-state sources.

VJIP and the Small Business Jobs Grant share many program features and requirements, reflecting the fact that the Small Business Jobs Grant was previously a component of VJIP. DSBSD, formerly the Department of Business Assistance, administered the VJIP program until 2014, when it was transferred to VEDP during a restructuring of the program. As part of this restructuring, the Small Business Jobs Grant portion of the program remained with DSBSD. Until recently, the Small Business Jobs Grant was nearly identical to the VJIP Small Business New Jobs program. Starting in FY18, a statutory change narrowed the focus of the Small Business Jobs Grant to businesses with 50 or fewer employees.

State spent $49 million in VJIP and Small Business Jobs Grant awards between FY10 and FY17

The VJIP and Small Business Jobs Grant programs have approved $98.2 million in grant awards to 1,040 projects between FY10 and FY17 (Table 1-3). Because the programs only provide grant funding on a per job basis after jobs have been created or workers retrained, only $49.0 million of the awards have been paid out as of FY17. Nearly all (96 percent) of the approved amount was through the VJIP program, which approved grant funding for 907 projects. The VJIP program approved larger awards than the Small Business Jobs Grant program between FY10 and FY17. VEDP staff report that VJIP awards typically compensate businesses for between 10 percent and 40 percent of their human resource costs to recruit or train employees.

TABLE 1-3
State spent $49 million in VJIP and Small Business Jobs Grant awards (FY10-FY17)

	VJIP	Small Business Jobs Grant
Total grant awards approved	$90.9M	$7.3M
Number of projects	907	133
Average grant award per project	$100,267	$54,517
Average grant award per job	$695	$844
Total grant awards paid as of FY17	$46.5M	$2.5M

SOURCE: Weldon Cooper Center analysis of information provided by VEDP and DSBSD.
NOTE: Average grant award per job for VJIP includes grants for job creation ($768 per job on average) and grants for retraining ($474 per job on average).

VJIP and Small Business Jobs Grant have mixed success in achieving goals

Statutory goals for the VJIP and Small Business Jobs Grant are to encourage business location and expansion in the state and to support job creation. The programs appear to have mixed success in achieving these goals. The programs also have mixed success in creating the anticipated number of jobs or retraining the anticipated number of employees on which their maximum award is based.

Many businesses report that grants are not an important factor in location or expansion decisions

Neither VJIP nor the Small Business Jobs Grant appears to be a decisive factor for many businesses to locate or expand in Virginia, according to a survey of businesses. Seventy-four percent of businesses that received a VJIP grant and 83 percent of businesses that received a Small Business Jobs Grant reported that they would have proceeded with the project in Virginia even if the grant had not been available. Some of these projects, however, would have proceeded at a smaller scale (45 percent of VJIP projects and 40 percent of Small Business Jobs Grant projects). However, businesses that received a grant from the VJIP or Small Business Jobs Grant programs between FY10 and FY17 reported in a survey that the grant was important in their decision to train workers and it resulted in workforce improvements.

Retraining projects were more successful at achieving performance goals than job creation projects

A higher percentage of VJIP retraining projects achieved their goals than job creation projects that received VJIP or Small Business Jobs Grant funds (Table 1-4). As a result, a much higher percentage of VJIP funds for retraining projects have been paid than for VJIP or Small Business Jobs Grant job creation projects. Businesses are reimbursed on a per job basis only for the workers hired or retrained. If projects do not create all the jobs or retrain all the workers in the performance agreement, then some of the approved funding is not paid.

Only five percent of VJIP funds awarded to retraining projects between FY10 and FY17 were not paid because projects were canceled or did not meet agreed-upon levels. In contrast, 10 percent of VJIP funds and eight percent of Small Business Jobs Grant funds for job creation were not paid because projects canceled. Another 20 percent of VJIP funds and 28 percent of Small Business Jobs Grant funds for job creation were not paid because projects did not create enough jobs to receive full payment.

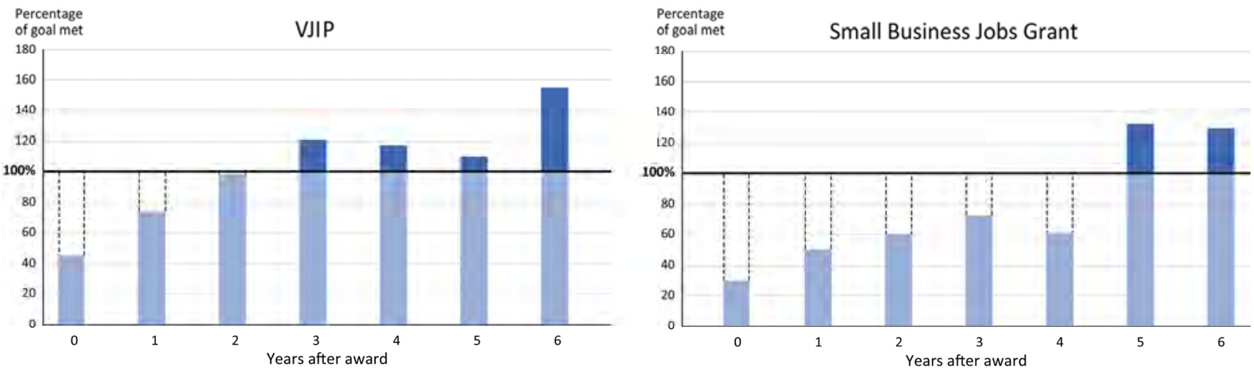
TABLE 1-4
Projects awarded VJIP grants for retraining were more likely to achieve goals than projects awarded grants for job creation (FY10-FY17)

	VJIP		Small Business Jobs Grant
	Job creation	Retraining	
Projects that met goals for job creation or retraining	20%	62%	13%
Projects that met goals for capital investment	73	96	n.d.
Projects that met goals for average wage	40	58	43

SOURCE: Weldon Cooper Center analysis of information provided by VEDP and DSBSD.
NOTE: Includes completed projects only; excludes projects that are still in progress. No capital investment data was available for Small Business Jobs Grant because DSBSD did not have a system in place to monitor level of actual capital investments. Job creation levels are from time of project completion; levels are self-reported and were corroborated, for the majority of projects, by comparing to payroll employment data from the Virginia Employment Commission. (See Appendix B for detail about this analysis.)

Job creation performance of the VJIP and Small Business Jobs Grant programs looks better when assessed collectively across projects over a six-year period. Projects for both programs collectively met expected job creation levels reported on grant applications. The VJIP program, in particular, achieved job creation goals across projects within two years, which is less than the performance period of three to five years allowed for this program (Figure 1-1).

FIGURE 1-1
Projects receiving grants from VJIP and the Small Business Jobs Grant collectively exceed employment goals (FY10-FY17)



SOURCE: Weldon Cooper Center analysis of information provided by VEDP and DSBSD and employee payroll data provided by the Virginia Employment Commission.
NOTE: Includes completed projects only.

Only a small portion of jobs created by VJIP and Small Business Jobs Grant projects can be attributed to grants

The VJIP and Small Business Jobs Grant are estimated to have a small positive impact on employment growth. Businesses receiving these grants had slightly higher employment growth than establishments with similar size and industry characteristics that did not receive these incentives. Businesses that received a VJIP grant between FY10 and FY16 created 4.2 more jobs, on average, and businesses that received a Small Business Jobs Grant created 2.1 more jobs, on average, than similar businesses during that time period (Table 1-5). These numbers represent only a small percentage of jobs that projects reported creating: 4.4 percent for VJIP and 7.3 percent for the Small Business Jobs Grant. For both programs, more than 90 percent of the jobs created would have occurred without the grant. This is commonly known as the program's "deadweight" loss, and it is a higher percentage than what is generally estimated (85 percent to 90 percent) for economic development incentives.

TABLE 1-5
Estimated employment effect of VJIP and Small Business Jobs Grant is only small portion of reported job creation

	VJIP (average/project)	Small Business Jobs Grant (average/project)
Estimated jobs created because of grant	4.2	2.1
Total reported jobs created	95.7	28.7
Jobs attributable to grant program	4.4%	7.3%

SOURCE: Weldon Cooper Center economic analysis.
NOTE: Reported jobs created are self-reported by the business. Includes completed projects only.

These findings are consistent with findings of multiple empirical studies of job creation incentives on employment growth. Studies have mixed results, but most find at least a limited positive effect of tax credits on job creation by businesses. Most studies focus on tax credits, because they are the most common job creation incentive, but these studies also provide insight into when other types of job creation incentives may be more effective. For example, job creation incentives may have greater effects in industries such as construction, trade, and transportation services. Businesses in these industries tend to have high employee turnover and faster capital depreciation on equipment and frequently incur recruitment and training costs (Bishop 1981). Job creation incentives may also have greater effects on small businesses (Pope and Kuhle 1996). (See Appendix M [online only] for more information on the findings of these studies.)

Economic impact analysis of expenditures by grant recipients between FY10 and FY17 was conducted using economic modeling software developed by REMI, Inc.

(See Appendix K [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 Appendix L [online only] for information on the total economic impact and the opportunity cost of increasing taxes.)

VJIP and the Small Business Jobs Grant have moderate economic benefits

Both VJIP and Small Business Jobs Grant programs are estimated to generate additional economic activity for the state. It is estimated that private sector employment increased by 1,106 jobs, Virginia GDP increased by $151.1 million, and statewide personal income increased by $91.4 million because of VJIP (Table 1-6). This economic benefit is moderate compared to the economic benefits of other incentives. VJIP is estimated to generate $35.5 million in Virginia GDP per $1 million in spending. This amount is higher than the Virginia GDP per $1 million in spending generated by the two tax credits reviewed in this report. This amount is similar in magnitude to completed projects that received other economic development incentive grants ($58.6 million per $1 million in incentive awards). (See *Review of State Economic Development Incentive Grants*, JLARC 2012 for the underlying research.) VJIP is also estimated to generate sufficient tax revenue to cover the cost of the grant awards (Table 1-6). The return in revenue for every $1 spent on grant awards is estimated to be $1.04.

Even though the Small Business Jobs Grant is a much smaller program than VJIP, the economic benefits are still moderate when measured on the basis of job creation or Virginia GDP per $1 million in incentive spending (Table 1-6). The Small Business Jobs Grant has a slightly higher economic benefit per $1 million in spending and a slightly higher return in revenue per $1 spent than VJIP. This is because the Small Business Jobs Grant is estimated to have a higher job creation impact than VJIP (7.3 percent versus 4.4 percent of the jobs created are attributable to the grant). Average wages earned by qualifying employees for Small Business Jobs Grant projects are also slightly higher than for VJIP projects ($57,628 versus $54,463).

TABLE 1-6
VJIP and Small Business Jobs Grant have moderate economic impacts and moderate return in revenue

	Annual average (FY10-FY17)	
	VJIP	**Small Business Jobs Grant**
Net impact to Virginia economy		
Private employment	1,106 jobs	65 jobs
Virginia GDP	$151.5 million	$9.8 million
Personal income	$91.4 million	$10.0 million
Impact to Virginia economy per $1 million of grant		
Private employment	263 jobs	310 jobs
Virginia GDP	$35.5 million	$46.0 million
Personal income	$21.8 million	$23.8 million
Impact to state revenue		
Total revenue	$4.6 million	$0.25 million
Grant awards	$4.5 million	$0.22 million
Revenue net of awards	$0.2 million	$0.03 million
Return in revenue	$1.04 for every $1 spent	$1.14 for every $1 spent

SOURCE: Weldon Cooper Center economic impact analysis of completed projects that received a VJIP or Small Business Jobs Grant award between FY10 and FY17.
NOTE: Includes direct, indirect, and induced impacts Assumes that 4.4 percent of the jobs created by VJIP projects and 7.3 percent of the jobs created by Small Business Jobs Grant projects are attributable to the grants. Includes direct, indirect, and induced impacts. The gross impact on Virginia's economy is used to calculate the impact per $1 million for incentive awards and the impact to state revenue. This is consistent with how the economic development research literature typically calculates these impacts. (See Appendix L [online only] for detailed results on total impact of the grants, impact of raising income taxes by the amount of the grant [opportunity cost], and revenue generated by source.)

The two programs have moderate economic benefits because, compared to other incentives, they tend to award grants to projects that have characteristics of high economic impact. Two-thirds of the projects receiving grants from these programs are in industries with high employment multipliers (Table 1-7). Approximately half of the projects receiving grants from these programs are in export-based industries. Approximately half of projects receiving a Small Business Jobs Grant pay the industry average wage or higher, but a smaller portion of projects receiving VJIP grants do.

Some projects that received VJIP grants and, to a lesser extent, the Small Business Jobs Grant, also received other Virginia economic development grants. As a result, some of the economic benefit generated by the projects is attributable to the other incentives. Adjusted for the effects of other incentives, the economic benefits of VJIP and the Small Business Jobs Grant are five to 10 percent smaller. (See Appendix G for more detail on the adjustment for the effects of other incentives.)

Businesses with **characteristics of high economic impact** (1) have high economic multipliers (indicator of density of local supply chain), (2) export high percentages of products or services out-of-state, and (3) pay above-average wages (Bartik 2011).

A project meets the **high employment multiplier criterion** if the business's industry multiplier for Virginia is greater than 2.

A project meets the **export-based criterion** if the percentage of sales exported out-of-state based on the business's industry is 50 percent or greater.

A project meets the **wage criterion** if it pays wages that are at or above the average wage for that industry in Virginia.

(See Appendix B for more information on methodology.)

TABLE 1-7
VJIP and Small Business Jobs Grant awards are generally targeted to businesses with high employment multipliers

Indicator	VJIP	Small Business Jobs Grant	All other incentives
High employment multiplier	67%	66%	58%
Export-based	58	50	45
Pays industry average wage or higher	38	54	20
Meet all three indicators	9%	10%	6%

SOURCE: Weldon Cooper Center analysis of Virginia economic development incentives and information available from IMPLAN and the Bureau of Labor Statistics.
NOTE: Includes all projects receiving economic development incentives between FY10 and FY17. Information on all other incentives is based on analysis performed on projects included in a 2017 report. (See *Economic Development Incentives*, JLARC 2017.) (See Appendix H for more detail on targeting of incentives.)

VJIP and Small Business Jobs Grant programs should be modified to improve economic benefits and administrative processes

Although the VJIP and Small Business Jobs Grant programs have mixed abilities to achieve their performance goals and small effects on business job creation (4.4 percent and 7.3 percent), they provide moderate economic benefits to the state. Several changes to these programs could enhance their effectiveness.

Small Business Jobs Grant could be consolidated with VJIP

To improve operational efficiency, the Small Business Jobs Grant could be subsumed into the VJIP program and administered by VEDP. The programs have similar missions and generally serve the same group of businesses (those with fewer than 250 employees). The workforce development division at VEDP employs eight staff involved in administering the VJIP program. In contrast, the Small Business Jobs Grant program relies on 1.5 full-time equivalent DSBSD staff to handle all aspects of the program. Delivery of services and performance monitoring could be disrupted in the event of staff vacancy at DSBSD. Consolidating the programs could also improve program marketing and awareness of the Small Business Jobs Grant, which has historically been underutilized and does not appear to be well marketed. It could also reduce confusion reported by businesses about the programs and which one would best assist their location or expansion project. The program could be placed under the Small Business New Jobs and Retraining Program or it could be established as a fourth sub-program of VJIP.

OPTION 1
The General Assembly could consolidate the Small Business Jobs Grant into the Virginia Jobs Investment Program administered by the Virginia Economic Development Partnership.

Increasing minimum wage requirements would increase economic benefit

Increasing minimum wage requirements would improve the targeting of grant funding to businesses with characteristics of high economic impact, increasing the economic benefit of the grants. Only 38 percent of VJIP projects pay industry average wages or higher.

One way to improve targeting of grants to businesses that pay higher wages is to increase the minimum wage requirements. The current requirement (a minimum of $9.79 per hour) is significantly lower than the national average of $11.91 per hour and lower than the neighboring states of Maryland ($13.88), North Carolina ($13.73), and Tennessee ($12.36). (See Appendix C for wage requirements for job creation and training incentives by state.)

Increasing minimum wage requirements would not guarantee that wages would increase, but it could further improve targeting of grants because some businesses paying low wages, on average, would no longer qualify. Businesses paying higher wages tend to be in tradable industry sectors with higher employment multipliers. Increasing the wage requirements to 150 percent of the federal minimum wage ($10.88) would exclude a small percentage of businesses from eligibility for grant awards (for example, 6.4 percent of projects that received a VJIP job creation grant would not have qualified). This percentage would increase if the wage requirement was raised to 175 percent of the federal minimum wage ($12.69) but is still relatively small. Less than five percent of Small Business Jobs Grant projects would not have qualified under either scenario. Consistent with current policy, VEDP and DSBSD could maintain the option to waive the wage requirement in areas of high unemployment, if needed.

RECOMMENDATION 1
The General Assembly may wish to consider amending the Code of Virginia to increase the minimum wage requirements for the Virginia Jobs Investment Program and the Small Business Jobs Grant.

Adopt a point-based scoring system to select projects likely to have high economic benefit

Adopting a formal point-based scoring system would add more rigor to the VJIP award process and improve the likelihood of high economic benefit to the state. Currently, VEDP staff use discretion in determining the award amounts for VJIP grants but do not use discretion on whether a business that meets the minimum requirements should be awarded the grant. A formal points-based scoring system could be used to better target projects likely to have high impact, with only projects that score above a threshold score being awarded grants.

A point-based system for approving awards could

- lower project "deadweight" that occurs as a result of automatic award processes that do not adequately account for the actual need for the incentive and
- provide more transparency and accountability, and allow more effective program evaluation.

Greater rigor and due diligence would support the effective allocation of grant funding by reducing the number of project cancelations and reducing the need for resources to follow up on unsuccessful projects. This point-based scoring system should also be used for selecting projects for the Small Business Jobs Grant if utilization of the program increases.

RECOMMENDATION 2
The Virginia Economic Development Partnership should implement a formal point-based scoring system for approving grants from the Virginia Jobs Investment Program and its component sub-programs.

Additional performance measures for retraining would improve evaluations of economic benefit

Between FY10 and FY17, 12 percent of VJIP-funded projects received job retraining grants for employee retention. Business expansion projects also receive funding for retraining expenses. However, performance measures for retraining are minimal; project staff only collect information on the number of trainees. The economic benefits of retraining could be better assessed through the use of additional metrics such as receipt of industry-recognized training credentials and amount of wage increases for trained employees. Twenty-four percent of businesses that received VJIP or Small Business Jobs Grant awards between FY10 and FY17 reported that retrained workers received an increase in wages, above and beyond wage increases for other workers, as a result of the training.

RECOMMENDATION 3
The Virginia Economic Development Partnership should establish additional performance measures, such as receipt of credentials and amount of wage increases for trained employees, for projects that receive a Virginia Jobs Investment Program grant for retraining.

Enhanced performance verification would help ensure performance goals are met

Verification of performance for VJIP and Small Business Jobs Grant projects is important to hold projects accountable to agreed-upon goals for job creation and capital investment and to ensure that incentive funds are paid only when requirements have actually been met. Verification of performance would also increase the accuracy of estimates of economic benefits.

Performance information for projects receiving VJIP or Small Business Jobs Grant awards is mainly collected through self-reporting of job creation and capital investment and onsite visual inspections by grant project managers. Project managers for both programs monitor job creation and capital investment progress of projects through regular communication with the business over the project life cycle, which can be two to three years.

Because performance information is self-reported by businesses, verification of this information is important. However, verification does not occur for projects receiving VJIP grants. VEDP staff should begin using VEC data to help verify job creation levels reported by businesses that receive VJIP grants. VEDP staff already obtain VEC data to help verify job creation levels of businesses receiving other grants administered by the agency. VEDP staff should also adopt a more uniform method to verify capital investments made by projects receiving VJIP grants. For example, DSBSD staff recently began requesting invoices for installed machinery and equipment as a more uniform method to verify capital investment.

RECOMMENDATION 4

The Virginia Economic Development Partnership should adopt methods to verify self-reported job creation and capital investment levels of projects that receive a grant from the Virginia Jobs Investment Program.

2. Worker Retraining Tax Credit

Virginia adopted the Worker Retraining Tax Credit in 1997 (effective 1999) to incentivize businesses to retrain workers and to promote economic growth (Table 2-1). Training promotes economic growth if it brings new income into Virginia; stimulates additional employment; improves existing processes, products, or productivity; or is the basis for further economic growth.

Worker retraining (and training) tax credits are meant to incentivize businesses to invest in training because of the tendency to underinvest in it. Businesses may be reluctant to pay for training for fear that their newly trained employees will be "poached" by other businesses that pay higher wages. Small businesses may be less likely to provide training than larger businesses that have a greater capacity to develop in-house training. Certain socioeconomic and demographic groups such as female, older, disadvantaged, and part-time workers generally receive less training than other workers. It is not clear whether Virginia's tax credit was designed to address any of these reasons specifically.

TABLE 2-1
Virginia offers a Worker Retraining Tax Credit to encourage businesses to retrain workers

Purpose	Encourage businesses to retrain workers for the purposes of promoting economic growth
Eligible projects and use of credit	Businesses retraining workers through - noncredit courses completed at a Virginia community college or private schools that have been certified by the Virginia Economic Development Partnership (VEDP) and - worker retraining programs undertaken through an apprenticeship agreement approved by the Commissioner of the Department of Labor and Industry
Program features	Nonrefundable, nontransferable credit with a three-year carryover period For eligible worker training, credit is valued at 30 percent of all expenditures paid or incurred; for courses conducted at a private school, credit is equal to cost per qualified employee, not to exceed $200 per year per student (or $300 if training is in STEM or STEAM disciplines) Can be claimed against income tax (individual, corporate, or estate and trust), bank franchise tax, and other utility and insurance company taxes Capped at $2.5 million per year Businesses may claim the credit in the year earned; if credit exceeds tax liability, they may carry forward unused credits for up to three taxable years

SOURCE: Weldon Cooper Center review of the Code of Virginia and agency documents.
NOTE: Adopted in 1997 and expires in 2022 (§ 58.1-439.6). STEM or STEAM discipline means a science, technology, engineering, mathematics, or applied mathematics-related discipline. Shown: eligibility requirements and program features during the period studied. Legislative changes effective July 1, 2018 change eligibility requirements and lower the annual cap.

Recent legislative changes to the Workforce Retraining Tax Credit occurred during the 2018 General Assembly session. The legislation, which goes into effect July 1, 2018, will make several modifications to the credit, including expanding the reasons for which it can be claimed and reducing the credit cap.

WORKER RETRAINING TAX CREDIT

Encourages businesses to retrain workers

VALUE TO BENEFICIARIES

FY10-FY17

Taxpayer credits: $1.3M total

Beneficiaries

7 projects per year on average

ACHIEVEMENT OF PURPOSE

Encourage businesses to retrain workers

Small number of businesses have claimed the credit since 1999

Increase rate of apprenticeships

Small increase in active registered apprenticeships (2000-2016) is probably not due to credit

IMPACT TO STATE ECONOMY

average FY10-FY17

Negligible economic benefit per $1M of incentive

25 jobs

$3.0M state GDP

$1.9M personal income

Negligible return in revenue

12¢ per $1 spent

Virginia awarded $1.3 million in Worker Retraining Tax Credits between FY10 and FY17, well below what could have been awarded

Through legislation enacted in 2018, the General Assembly modified the Worker Retraining Tax Credit by allowing manufacturers that conduct qualifying orientation, instruction, and training programs to claim a credit equal to 35 percent of the direct costs of the program, not to exceed $2,000 for any year.

The legislation also reduced the credit cap from $2.5 million to $1 million per year (HB 129, 2018).

Virginia awarded $1.3 million in Worker Retraining Tax Credits between FY10 and FY17, which is less than 10 percent of the total amount that could have been awarded without exceeding the cap ($2.5 million per year). On average, only seven businesses have claimed the credit per year during that time period. Nearly all (99.3 percent) of the $1.3 million spent on the tax credit between FY10 and FY17 was for trainees in apprenticeship programs, according to information reported to the Department of Taxation. The total amount claimed each year has varied somewhat, from a low of $30,000 in FY10 to a high of $230,000 in both FY16 and FY17.

Low utilization of the credit may occur for several reasons, according to staff of the Department of Taxation and the Department of Small Business and Supplier Diversity (DSBSD), industry stakeholders, and economic developers. One reason is that many businesses are not aware of the credit, despite efforts to promote it, according to a 2017 DSBSD report on the credit. Another reason is the credit amount per employee is low relative to the cost of the training. Up to 30 percent of classroom training costs can be reimbursed, which equates to approximately $450 per employee for the typical apprenticeship training class at a community college (cost of $1,500 per employee). The credit amount is capped at $200 per employee (or $300 if the retraining is in a science, technology, engineering, mathematics, or applied mathematics discipline) if the training is provided by private schools.

The credit amount may be too low for businesses to find it worthwhile to claim the credit, given the steps required to claim it. Businesses must complete a Worker Retraining Credit form, provide tax forms, schedules, and supporting documentation (enrollment and payment documents). The appropriate agency—VEDP or the Department of Labor and Industry—must pre-authorize or approve the course, which may require additional work; the business must initiate the approval process if the course has not already been approved. This information must be filed with the Department of Taxation as part of the reservation application to receive approval to later claim the credit when the business files its taxes.

An **apprenticeship** is an organized system of on-the-job training. Workers earn a salary and receive training in return for a contractual commitment to the employer for a designated time period. Training typically is two to four years in length and involves both supervised on-the-job training and classroom instruction. Completers receive an industrially recognized certificate that affirms mastery of a group of occupational skills.

The structure of the credit may also limit the value to businesses. The credit is nonrefundable, nontransferable, and only has a three-year carry-over period. This tax credit allows businesses to reduce their income tax liability dollar for dollar, up to the amount of the credit, and this structure precludes businesses with no tax liability or low tax liability from receiving the full benefit of the credit. The value of the credit also decreases when it cannot be claimed in the year it is granted.

Fifteen other states also offer job retraining tax credits, and many have reported low participation rates for training and retraining tax credit programs, citing similar reasons as indicated for Virginia. (See Appendix C for more information on job retraining tax credits by state.) More states offer training assistance in the form of grants

(35 states), perhaps because grants have a higher value for businesses, including businesses with low tax liability. Grant programs allow states to provide complementary advisory services and to tailor preferences for training delivery, including favoring particular types of businesses or choice of state public higher education institutions.

Worker Retraining Tax Credit does not appear to be effective in encouraging worker retraining

Virginia's tax credit does not appear to achieve its goal to encourage worker retraining. Only a small number of businesses have claimed the credit in total, and the credit appears to have little effect on the rate of apprentices in the state. Virginia has tended to have higher rates of apprenticeships than the nationwide average (3,832 per million in the Virginia labor force between 2011 and 2017, on average, compared to 2,297 per million, on average, nationwide), but this is probably not because of the tax credit. The number of apprenticeships has not changed markedly since the tax credit became effective in 1999. According to data from the Virginia Department of Labor and Industry, active registered apprenticeships increased by three percent (from 14,866 to 15,346) between 2000 and 2016, and the number of apprenticeship completers increased by two percent (1,815 to 1,858) during that time.

This rate of growth in registered apprenticeships (three percent since 2000) is markedly less than the rate of growth in South Carolina, which is often cited as having a successful apprenticeship tax credit program—Apprenticeship Carolina. This program provides a tax credit of $1,000 per apprentice per year for four years in addition to a number of other services. The number of active registered apprentices in South Carolina has increased almost 20-fold, from 777 in 2007 to 14,475 today. However, it is not possible to isolate the impact of just the tax credit on the growth in the apprenticeship rate.

Analysis performed across states indicates that retraining tax credit policies in Virginia and in other states have little effect on the rate of apprenticeships. Statistical analysis examining the change in the rate of apprenticeships (number of apprentices divided by the civilian labor force) by state between 2011 and 2017 found that while higher apprenticeship rates are associated with the presence of a tax credit, the results are not statistically significant. (See Appendix K [online only] for more information on the regression analysis.)

Changes over time in the flow of workers entering apprenticeship training are likely influenced by changes in labor demand, labor supply, and workforce or education policies, rather than by tax credits. Research indicates that changes in numbers of new apprentices being trained, and the ratio of apprentices to employees, display a procyclical pattern, increasing as business activity and job openings increase.

Worker Retraining Tax Credit has negligible economic benefit

Economic impact analysis of expenditures by tax credit recipients between FY10 and FY17 was conducted using economic modeling software developed by REMI, Inc.

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

The Worker Retraining Tax Credit is estimated to have a negligible economic benefit to the state. Between FY10 and FY17, private employment increased by an average of four jobs; Virginia GDP increased by an average of $500,000, and statewide personal income increased by $30,000 (Table 2-2) because of projects funded by the tax credit. The main ways that that this tax credit affects economic activity is (1) by reducing production costs for businesses that train employees and (2) by increasing sales of the educational services industry that provides the training.

This benefit is lower than the benefit generated by other Virginia economic development incentives. The Worker Retraining Tax Credit is estimated to generate $3 million in additional Virginia GDP per $1 million spent on the tax credit (Table 2-2), which is less than the estimated additional Virginia GDP generated by most other incentives reviewed in this report and completed projects that received economic development grants ($58.6 million) per $1 million of incentive spending. (See *Review of State Economic Development Incentive Grants*, JLARC 2012 for the underlying research.)

The return in revenue to the state is also negligible at 12¢ for every $1 spent on the tax credit (Table 2-2). The estimated annual revenue collected by the state as a result of the tax credit is far less than the annual amount of tax credits claimed, on average.

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 Appendix L [online only] for information on the total economic impact and the opportunity cost of increasing taxes.)

TABLE 2-2
Worker Retraining Tax Credit has negligible economic benefit to the state

	Annual average FY10-FY17
Net impact to Virginia economy	
Private employment	4 jobs
Virginia GDP	$0.5 million
Personal income	$0.3 million
Impact to Virginia economy per $1 million of tax credit	
Private employment	25 jobs
Virginia GDP	$3.0 million
Personal income	$1.9 million
Impact to state revenue	
Total revenue	$19,253
Credit awards	$161,395
Revenue net of awards	($142,142)
Return in revenue	12¢ for every $1 spent

SOURCE: Weldon Cooper Center economic impact analysis of amount of credits claimed FY10-FY17.
NOTE: Includes direct, indirect, and induced impacts. Estimates do not take into account increases in wages and productivity that trained employees that qualified for the credit may have generated. Estimates reflect additional economic activity resulting from reducing businesses' production costs by the amount of the credit and increasing the sales of educational services providers. Gross impact on Virginia's economy is used to calculate impact per $1 million in incentive awards and impact to state revenue. This is consistent with how the economic development research literature typically calculates these impacts. (See Appendix L [online only] for detailed results on total impact of tax credit, impact of raising income taxes by the amount of the credit [opportunity cost], and revenue generated by source.)

Worker Retraining Tax Credit should be eliminated

The Worker Retraining Tax Credit should be eliminated, or allowed to expire for taxable years beginning on or after January 1, 2022, because of the low awareness and utilization of the credit, the minimal effect on the rate of apprenticeships in the state, and its negligible economic benefit to the state. According to industry representatives, the tax credit does not adequately address fundamental workforce issues that make it difficult to find and keep qualified employees who are candidates for additional training.

The Worker Retraining Tax Credit is only one of the many programs (for example, VJIP and the New Economy Workforce Credential Grant program) the state offers to support businesses' workforce training and apprenticeship needs. Substantial funding for workforce training is also provided through the federal Workforce Innovation and Opportunity Act. The General Assembly could consider redirecting funding that would have been used for the tax credit to these other programs.

RECOMMENDATION 5
The General Assembly may wish to consider eliminating the Worker Retraining Tax Credit.

3. Small Business Investment Grant Fund

The Small Business Investment Grant Fund was created in 2012 to help small businesses obtain capital financing from investors, in the form of equity or subordinated debt, to grow their businesses (Table 3-1). Unlike the majority of programs, which provide economic incentives directly to businesses, this program provides the incentive—a grant in the amount of 50 percent of the investment—to investors to encourage them to invest in small businesses. The grant helps to mitigate the investors' risk by allowing them to provide financing to businesses at a "discounted" rate (for example, a $50,000 investment at a discounted rate of $25,000 after grant reimbursement).

Both the small business and its investors must meet certain requirements and submit information to qualify for the investor to be approved for grant funding. The total amount of grants that can be provided is subject to the availability of funding from general fund appropriations ($819,753 in FY18).

TABLE 3-1
Small Business Investment Grant helps small businesses obtain capital financing

Purpose	Help small businesses obtain equity investments for growing their business
Eligible investors	Subject to the state's individual income tax or a special purpose entity established to make investments for an individual Must not be a professional investor (angel investor) Not utilizing the Qualified Equity and Subordinated Debt Tax Credit for the same investment Must maintain investment in the business for at least two years or repay the grant
Eligible businesses	Fewer than 50 employees in Virginia Annual gross revenues of no more than $5 million in its most recent fiscal year Aggregate gross cash proceeds from the issuance of equity or debt investment of $5 million or less Principal office or facility is in Virginia and is engaged in business primarily in Virginia
Program features	Qualified investments include cash investments in the form of - equity (ownership interest in the business in the form of shareholder, partner, or member, depending on the legal form of the business) or - subordinated debt (cash loan to the business for which no principal is repaid within three years and the debt ranks, for purposes of repayment, below other debt from banks or savings and loan institutions) Awards grants to each qualified investor in an amount up to 50 percent of qualified investment or $50,000, whichever is less Investors may apply for a grant for each qualified investment made to one or more small businesses; total grant allocation per investor not to exceed $250,000 Grants issued in order that completed eligible applications are received; if eligible requests exceed funds available in a fiscal year, requests shall be paid in the next fiscal year that funds are available

SOURCE: Weldon Cooper Center review of the Code of Virginia.
NOTE: Authorized by § 2.2-1616. The investor cannot be "an individual who engages in the business of making debt or equity investments in private businesses," or any person who is "a partner, shareholder, member, or owner" of such a business. Changes to the program in 2017 (1) allowed special entities (such as trusts or limited liability companies) to qualify as long as other requirements were met and (2) increased the reimbursement rate from 10 percent to 50 percent.

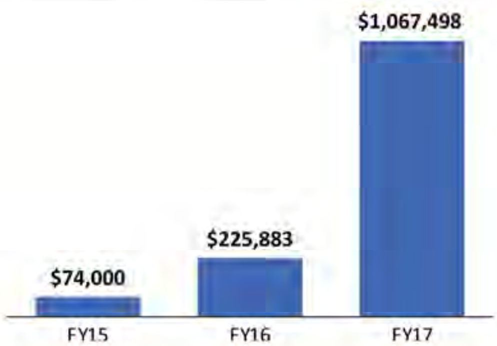
SMALL BUSINESS INVESTMENT GRANT

Helps small businesses obtain private investment to grow

VALUE TO BENEFICIARIES

FY15-FY17

Grant awards: $1.4M total



Beneficiaries

32 businesses

financed by **146** investors

ACHIEVEMENT OF PURPOSE

Encourage private investment in businesses

Current reimbursement rate of 50% appears to encourage investment.

The grant now has waiting list.

Encourage job creation

Businesses that received a Small Business Investment Grant created **4.5** more jobs than similar businesses that did not

IMPACT TO STATE ECONOMY

average FY15-FY17

Moderate economic benefit per $1M of incentive

152 jobs

$59.9M state GDP

$19.8M personal income

Low return in revenue

73¢ per $1 spent

NOTE: There is limited program history on which to estimate benefits.

Virginia and 30 other states and the District of Columbia have offered an equity investment incentive at one time, and 26 states currently offer equity investment tax credits. (See Appendix D for more information on equity investment incentives by state.) These incentives to spur small business growth are often justified because small, fast-growing businesses have been engines of economic growth across the U.S. and in other countries, and because of the lack of financing opportunities for businesses in their early stages. Business partners, family, and friends are often the immediate source of business funds in the early stages of business development, and the program is designed to incentivize these more informal investments. The program prohibits investment by professional "angel" investors and venture capital firms, which are typically sought at later stages in the development process, after financing from informal investors has been depleted but before the business has sufficient credit history and collateral to obtain conventional commercial bank loans.

The program was initially administered by the Department of Business Assistance and its successor the Department of Small Business Supplier Diversity (DSBSD). It was transferred in 2016 to the Virginia Small Business Financing Authority (VSBFA)—a division within DSBSD—to improve marketing and increase usage of the program.

State awarded $1.4 million in Small Business Investment Grants between FY15 and FY17

The 2012 General Assembly appropriated $1.5 million in general funds for the Small Business Investment Grant for FY13, and investors could begin requesting grant funding for investments they made after July 1, 2012. However, it was not until FY15 that investors requested grant funding. Utilization remained low until FY17 (Table 3-2), after program changes were made.

Concerned by low utilization of the program, DSBSD convened meetings with stakeholders in 2016 and found that the low utilization was due to lack of awareness of the program. Also, allowance had not been made in the program guidelines for individual investors to form limited liability companies for liability protection and preferential tax treatment. The stakeholder meetings resulted in legislative changes to transfer the administration of the grant to VSBFA to take advantage of its statewide network of agents and to better market the program. Changes were made in 2017 to extend eligibility to individual investors who create limited liability companies for purposes of the investment, but angel investors and venture capital firms are still ineligible to receive grant funding. The reimbursement rate to investors was increased from 10 percent of qualified investments to 50 percent to spur interest in the program.

TABLE 3-2
Utilization of Small Business Investment Grant was low until FY17

	Grant awards to investors	Number of investors	Number of businesses that benefit from investments	Average award per business
FY15	$74,000	18	2	$37,000
FY16	225,883	36	6	37,647
FY17	1,067,498	92	24	44,479
Total	**$1,367,381**	**146**	**32**	**$42,731**

SOURCE: Weldon Cooper Center analysis of information provided by VSBFA.
NOTE: The number of investors and businesses is unduplicated. Four investors provided investments to more than one business.

Businesses that have benefited from investments incentivized by the Small Business Investment Grant are generally very small and are in a wide range of industries. Seventy-one percent of the businesses have nine or fewer employees. Unlike most other economic development incentive programs in Virginia, the grant has benefited businesses in the wholesale or retail trade (21 percent) and accommodation and food services (18 percent) industries.

Small Business Investment Grant has helped businesses grow

According to VSBFA documents, the goal of the Small Business Investment Grant is to help businesses raise investment equity to grow by encouraging private investment. The Small Business Investment Grant does appear to achieve this goal. Utilization of the program was very low when the reimbursement rate was 10 percent, but since the rate was increased to 50 percent, the program has had a waiting list. This suggests the grant's reimbursement rate may be sufficiently high to encourage investment that would not have otherwise occurred. This is in contrast to research that suggests that some categories of investors, such as family and friends—the investors most likely targeted by the Small Business Investment Grant—would likely have invested in the business without an incentive.

The Small Business Incentive Grant also appears to have influenced business growth. However, this conclusion should be interpreted with caution because of the short history and small number of businesses that have benefited from the grant (seven businesses that received funding from incentivized investors were included in the analysis). Sufficient time has not passed to determine the sustainability of these businesses over time.

Businesses that benefited from the grant between FY15 and FY17 created an estimated 4.5 jobs more, on average, than similar businesses that did not benefit from the grant during the same time period, based on statistical analysis. These businesses reported creating an average of 11.8 jobs in total, so the estimated jobs created because of the grant (4.5 jobs) represents 37.8 percent of the total number of jobs pledged to be created by the incentivized businesses (Table 3-3). This means that an estimated 62.2

percent of jobs would have been created even without the grant. This deadweight loss is much lower than the loss that is generally estimated for economic development incentives (85 percent to 90 percent).

TABLE 3-3
Small Business Investment Grant is estimated to be responsible for 38 percent of jobs created by businesses benefiting from the grant (FY15-FY17)

	Average per project
Estimated jobs created because of grant	4.5
Total reported job creation	11.8
Jobs attributable to grant program	37.8%

SOURCE: Weldon Cooper Center economic analysis.
NOTE: Reported job creation is based on expected levels of job creation reported on business application forms. Because the program is new, only seven businesses were included in the analysis and results should be interpreted with caution.

Small Business Investment Grant has a moderate economic benefit but there is limited program history on which to estimate benefits

Between FY 15 and FY17, it is estimated that private employment increased by an average of 69 jobs, Virginia GDP increased by an average of $27.3 million, and statewide personal income increased by $9 million because of the Small Business Investment Grant (Table 3-4). These economic benefits are moderate relative to other incentives when measured in terms of Virginia GDP per $1 million in spending. For every $1 million spent on the grant, it is estimated that an additional 152 jobs and $59.9 million in Virginia GDP annually between FY15 and FY17 are attributable to the grant, on average. These economic benefits are similar in magnitude to the economic benefits generated by VJIP, the Small Business Jobs Grant, and completed projects that received other economic development incentive grants per $1 million in spending on the incentives. (See *Review of State Economic Development Incentive Grants*, JLARC 2012 for the underlying research.)

Economic impact analysis of expenditures by businesses benefiting from the grant between FY15 and FY17 was conducted using economic modeling software developed by REMI, Inc.

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

The return in state revenue per dollar spent on the Small Business Investment Grant is low. The state recoups only 73¢ per $1 spent on the grant (Table 3-4). While this amount is larger than the amount recouped from the tax credits reviewed in this report, it is smaller than the amounts recouped from the other grant programs reviewed.

The economic benefit of the Small Business Investment Grant, however, should be interpreted with caution. Because the program is new (the first grants were awarded in FY15), there is less certainty about the estimated economic benefits of the program than with other economic incentive programs that have a longer history.

TABLE 3-4
Small Business Investment Grant has a moderate economic impact

	Annual average (FY15-FY17)
Net impact to Virginia economy	
Private employment	69 jobs
Virginia GDP	$27.3 million
Personal income	$9.0 million
Impact to Virginia economy per $1 million of grant	
Private employment	152 jobs
Virginia GDP	$59.9 million
Personal income	$19.8 million
Impact to state revenue	
Total revenue	$0.3 million
Grant awards	$0.5 million
Revenue net of awards	–$0.1 million
Return in revenue	73¢ per $1 spent

SOURCE: Weldon Cooper Center economic impact analysis of businesses that received investments incentivized by the Small Business Investment Grant between FY15 and FY17.
NOTE: Includes direct, indirect, and induced impacts. The gross impact on Virginia's economy is used to calculate the impact per $1 million per incentive awards and the impact to state revenue. This is consistent with how the economic development research literature typically calculates these impacts. (See Appendix L [online only] for detailed results on total impact of the grant, impact of raising income taxes by the amount of the grant [opportunity cost], and revenue generated by source.)

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 Appendix L [online only] for information on the total economic impact and the opportunity cost of increasing taxes.)

As currently structured, the grant's economic benefit to the state will likely decrease over time. Grant awards per investor have increased, which will reduce the economic "leverage" of the grant per $1 million spent. Many of the investors of projects included in the economic impact estimate received the 10 percent reimbursement, but the reimbursement rate increased to 50 percent of the investment in 2017. In addition, the grant does not target businesses with characteristics of high economic impact. Less than half of the businesses that benefited from the grant between FY15 and FY17 had high employment multipliers (45 percent), and 39 percent of the businesses were export-oriented (Table 3-5).

The Small Business Investment Grant also appears to be more expensive than other grant programs on a cost-per-job basis, and it will become even more expensive with the increase in the reimbursement rate. The cost per job was $6,300 (FY15-FY17); in contrast, the cost per job was only $768 for VJIP and $844 for the Small Business Jobs Grant (FY10-FY17). The average cost per job across all economic incentive grants was $4,300 (FY10-FY16). (See *Economic Development Incentives,* JLARC 2017).

Businesses with **characteristics of high economic impact** (1) have high economic multipliers (indicator of density of local supply chain), (2) export high percentages of products or services out-of-state, and (3) pay above-average wages (Bartik 2011).

A project meets the **high employment multiplier criterion** if the business's industry multiplier for Virginia is greater than 2.

A project meets the **export-based criterion** if the percentage of sales exported out-of-state based on the business's industry is 50 percent or greater.

A project meets the **wage criterion** if it pays wages that are at or above the average wage for that industry in Virginia.

(See Appendix B for more information on methodology.)

TABLE 3-5
Most businesses benefiting from the Small Business Investment Grant tend to not have characteristics of high economic impact

Indicator	Small Business Investment Grant	All other incentives
High employment multiplier	45.2%	58.2%
Export-based	38.7	45.4
Pays high wage	n.d.	20.3

SOURCE: Weldon Cooper Center economic analysis.
NOTE: VSBFA does not collect wage information from businesses that receive investments incentivized by the grant. Includes 32 Small Business Investment Grant Projects. Information on all other incentives is based on analysis performed on projects included in a 2017 report. (See *Economic Development Incentives*, JLARC 2017.) (See Appendix H for more detail on targeting of incentives.)
n.d. – No data

Small Business Investment Grant should be substantially changed to improve its economic benefit

While the Small Business Investment Grant may sway a higher percentage of businesses to grow than other incentives, the cost is high (50 percent of the investment amount), the return in revenue is low, and the economic benefit to the state is expected to decline. Although the grant could be considered for elimination, the program is also relatively new and several changes, if implemented, would result in a higher economic benefit. The extent to which the economic benefit would be improved is unknown, but the research on the economic benefits of equity investment incentives—while still relatively new—has found positive impacts for programs targeted to high-tech or high-growth startups. Research also suggests that program design is important; carefully targeted and selective programs that utilize professional screening tend to have better results. The Small Business Investment Grant currently is not selective: it is not targeted to high-tech or high-growth businesses, and a robust screening process is not used to select award recipients. Incorporating these features into the Small Business Investment Grant would improve its economic benefit and return in revenue.

Adopt a scoring system to better target awards to businesses more likely to have high economic impact

Currently, Small Business Investment Grants are awarded on a first-come, first-served basis. Adopting a scoring system to select the most promising businesses and the ones most in need of capital receive investment funding would enhance the economic benefits of the programs. The grant program has the latitude to be highly selective in making grant awards. As of 2015, the estimated number of potential high-growth entrepreneurial ventures in the state in need of equity startup capital was 670. With recent changes (improved marketing, allowing investors to form limited liability companies, and higher reimbursement rate), the grant now has a sizable waiting list. Equity investment incentive programs in other states often have a more rigorous screening process for making awards.

The Small Business Investment Grant program could use a project scoring system that awards points on the basis of project characteristics such as

- quality and novelty of the business idea;
- need for financial assistance;
- alignment with indicators of high economic impact, such as export orientation, high industry multiplier, and alignment with state target industries;
- magnitude of R&D activities;
- licenses and patents held;
- quality of the business's management team;
- evidence that investors will provide other informational and monitoring services for the business; and
- amount of funds leveraged by outside sources.

The points could be used in a discretionary process to both (1) select the most promising high-growth prospects and (2) determine the level of award that is appropriate based on the need for investment and the quality of the proposal. The Center for Innovative Technology uses a similar rigorous selection process for determining awards for Growth Acceleration Program (GAP) and other programs it administers.

The reimbursement rate, which is currently set at 50 percent, could also vary based on project score derived from the point-based scoring system. The reimbursement rate for the Small Business Investment Grant was 10 percent until 2017, when it was increased to 50 percent—a high rate compared to equity incentive programs in other states. The reimbursement rate for equity investment programs in other states is most commonly between 25 percent and 35 percent, which could be established as the range for the reimbursement rate for the Small Business Investment Grant. (See Appendix D for more information on reimbursement rates by state.)

Adopting a scoring system could also help improve the targeting of awards to businesses with characteristics of high economic impact. Some equity investment incentive programs in Virginia and in other states are targeted to businesses in high-tech, innovative, or fast-growth industries, which are likely to have high economic multipliers and be export-oriented. The Small Business Investment Grant is only targeted to small businesses, with no additional requirements, and some awards appear to benefit "lifestyle businesses." The scoring system should be designed to provide a higher score for investors who invest in businesses in high-tech, innovative, fast-growth, and other industries likely to have a high economic impact.

Part of the selection process for Small Business Investment Grant awards should involve a review of business planning and financial documents. Investors could attest that the incentive was necessary for making the investment and starting or scaling up

The **Growth Acceleration Program (GAP)** is a group of seed- and early-stage investment funds making near-equity and equity investments in Virginia-based technology, life science, and clean-tech companies. The GAP program awarded an average of $3.7 million each year in investments between FY12 and FY17. The state's Center for Innovative Technology administers the program and retains ownership interest in the invested businesses.

A **lifestyle business** is established to achieve a certain level of income and work-life balance for its owners, but is not designed for rapid growth.

These businesses often have known business models, products, and markets and are less likely to face difficulty obtaining conventional equity and loan finance than startups producing novel or unproven products.

the business. These kinds of certifications are used in other Virginia economic incentive programs and in other state equity investment programs.

RECOMMENDATION 6

The General Assembly may wish to consider amending § 2.2-1616 of the Code of Virginia to direct the Virginia Small Business Financing Authority (VSBFA) to develop and use a scoring system to (i) award the Small Business Investment Grant and (ii) set the reimbursement rate for each award. The scoring system should be based on project characteristics and other criteria as determined by VSBFA.

If a more targeted and selective process is adopted, the General Assembly may wish to consider transferring the administration of the Small Business Investment Grant from VSBFA to a more appropriate agency. VSBFA's primary function is providing financing to small businesses through its loan or bond financing programs. Most of these programs are targeted to more mature businesses (2-4 years or older), rather than startups. Loan-assisted businesses are also less likely be high-growth, entrepreneurial ventures and more likely to produce conventional products for local markets. VSBFA would need to develop the expertise needed to identify the most promising high-growth projects and provide other technical assistance that startup companies may need.

The **Center for Innovative Technology** is a non-profit corporation of the state of Virginia that was established in 1985 to create technology-based economic development strategies to accelerate innovation and new technology.

Administration of the Small Business Investment Grant could be transferred to the Center for Innovative Technology, which administers the Growth Acceleration Program. Through this program, the center directly invests in high-tech companies or companies with high potential for growth. The center currently uses a peer-review process for project selection and offers other types of assistance such as technical assistance and entrepreneur mentoring.

Allow professional investors to participate to increase likelihood of business success

Allowing professional investors such as angel investors and venture capital firms to participate in the Small Business Investment Grant would increase the likelihood of business success, thereby increasing the economic benefit of the grant. Many other equity investment incentives are open to professional investors. Some programs even require investments to be made by established angel investors or venture capital firms. The Small Business Investment Grant, however, appears to be designed for more informal investors, including family and friends. Family and friends are more likely to provide investments without an economic incentive and are less likely to have the skills to effectively evaluate and monitor investments, according to research. Some research suggests that the quality of the investor may matter more for the success of a startup than the amount of investment, because experienced investors often provide "hands on" assistance, such as business planning, marketing, financing, and management advice.

The eligibility criteria could be changed to target the grant to more experienced investors who can provide assistance with business development and growth to increase the success of the businesses. One option could be to remove the statutory program restrictions that exclude angel investors and venture capital firms from eligibility for the grant. Virginia's equity investment tax credit and subtraction have no similar restrictions. Another option could be to impose a minimum investment threshold, which is often used by programs in other states (frequently a $25,000 minimum) to discourage less experienced investors. Approximately 16 percent of businesses benefiting from the Small Business Investment Grant received investments of less than $25,000.

OPTION 2

The General Assembly could amend § 2.2-1616 of the Code of Virginia to (i) make professional investors eligible for Small Business Investment Grant funding and (ii) impose a minimum investment threshold.

Expand performance reporting to better measure achievement of program goals and economic impact

The Small Business Investment Grant is unique among Virginia economic development grant programs because it has no objective performance metrics for assessing program success. The only information collected by VSBFA are the equity investment total and the number of individual investors. There is no tracking of total investment associated with the project (i.e., leverage factor) or the employment, capital spending, profitability, or other information about the business. Programs that target high-tech and high-growth businesses have often adopted other metrics of program impact such as patents and licenses developed by assisted businesses. Such measures are needed to properly assess program impact. VSBFA could, at a minimum, require standard information such as employment, average wages, and capital investment metrics be reported. Business survival would provide another relevant performance measure because many funded businesses are startups. In addition, grant applications should be revised to report the industry code for each business; this would improve the accuracy of economic impact estimates.

RECOMMENDATION 7

The Virginia Small Business Financing Authority should (i) require the investors and businesses that benefit from the Small Business Investment Grant to report their performance using program metrics similar to the metrics reported for other economic development and equity investment incentives and (ii) collect the industry code of the business on the grant application form.

Strengthen grant recapture provisions to improve grant administration

Strengthening the provisions that determine when grant funding should be recaptured should also be considered. The program currently makes allowance for recapture from individual investors only if the investment is not maintained for two years. A provision could be added to require reasonable efforts to recapture grant funding from the business in the event that the business relocates outside the state or closes due to criminal conduct or malfeasance. Minnesota's angel investment tax credit has such a recapture provision.

RECOMMENDATION 8

The General Assembly may wish to consider amending § 2.2-1616 of the Code of Virginia to require reasonable efforts to recapture Small Business Investment Grant awards from the business if the business (i) relocates outside the state or (ii) closes due to criminal conduct or malfeasance, within a certain time period after the grant is awarded.

4. Small Business Loan Programs

The Virginia Small Business Financing Authority (VSBFA) is charged with encouraging the investment of private capital in small and other eligible businesses to further the long-term economic development of the state through the improvement of its tax base and the promotion of employment. To fulfill this mission, it administers several small business loan or loan assistance programs, including the Economic Development Loan Fund; the Small, Women-owned, and Minority-owned (SWaM) Business Microloan Fund; the Loan Guaranty Program; and the State Cash Collateral Program (Table 4-1). The Loan Guaranty Program and SWaM Business Microloan Fund were created by statute and are funded by VSBFA or state general funds. The other two programs—the Economic Development Loan Fund and State Cash Collateral Program—were established by VSBFA within its general authority to provide loans, guarantees, insurance, and other assistance to small and other eligible businesses. These two programs are largely federally funded and generally follow federal guidelines, even for the assistance VSBFA provides with state resources. These two programs also offer assistance supported solely by VSBFA state funds.

TABLE 4-1
VSBFA provides four loan assistance programs for Virginia small businesses

	Economic Development Loan Fund
Purpose	Provide loans to businesses or to local economic development authorities to use for building construction and improvements to benefit a business prospect
Eligible projects	Meet VSBFA definition of small business Businesses (1) engaged in technology, biotechnology, tourism, manufacturing, renewable energy, government contractors, basic commercial and industrial companies; (2) that provide for a locality's economic and "quality of life" development, or (3) which derived 15 percent or more of their revenues from defense-dependent activities and can demonstrate economic hardship related to defense downsizing Must pay minimum wage of $10 per hour for new and retained jobs Create at least one job per $35,000 loaned on a portfolio basis Meet most of the federal Economic Development Administration requirements for loans supported by federal funding
Program features	Maximum loan: $500,000 ($1,000,000 if economically distressed area) or 40 percent of project costs, whichever is lower Provides loans at market rate (or lower than market rate if to economic development authority in distressed area) Maximum loan term: 10 years Adheres to federal Economic Development Loan Fund guidelines
Use of loan	Acquiring land and buildings; leasehold improvements or expansions; purchase and installation of machinery and equipment; technology infrastructure; permanent working capital (some restrictions)

	SWaM Business Microloan Fund
Purpose	Provide small, short-term loans to help established SWaM businesses create new jobs and retain existing "at risk" jobs in Virginia Provide alternative to credit card financing which was difficult to obtain during and after recession
Eligible projects	Meet VSBFA definition of small business or be a 501(c) 3 non-profit entity A for-profit business that is majority owned by one or more individuals of an ethnic or racial minority or women Must have been in business for two years Must pledge to create or save permanent jobs; no penalty for not complying
Program features	Maximum loan: $10,000 ($25,000 for businesses referred from a Virginia Small Business Development Center) Maximum loan term: 4 years
Use of loan	Financing accounts receivable and inventory, permanent working capital or fixed asset purchases, contracts; leasehold improvements or expansions; purchase and installation of machinery and equipment; technology infrastructure
	Loan Guaranty Program
Purpose	Help Virginia's small businesses qualify for loans to start, enhance, or expand their operations and create new jobs for Virginians
Eligible projects	Meet VSBFA definition of small business
Program features	Set aside amount provided by VSBFA to cover the guarantee in the event that the business defaults on loan Maximum guaranty: $750,000 or 75 percent of the loan amount, whichever is less Maximum term of guaranty: 5 years (lines of credit), 7 years (term loans)
Use of program	Provide guaranty of loans for (i) lines of credit to finance inventory and accounts receivable; (ii) financing permanent working capital or fixed asset purchases such as office equipment; (iii) restructuring debt benefiting the borrower with additional funding, a lower interest rate, and/or longer repayment period
	State Cash Collateral Program
Purpose	Help businesses obtain funds to start, enhance, or expand their operations, thereby creating new jobs
Eligible projects	Meet VSBFA definition of small business Business can have up to 750 employees overall as long as no more than 250 are in Virginia
Program features	Maximum collateral support: $500,000 or 40 percent of the loan amount, whichever is less Maximum term of support: 5 years
Use of program	Help obtain loans for working capital, equipment, and other fixed assets

SOURCE: Weldon Cooper Center review of VSBFA documents.
NOTE: VSBFA considers a business a small business if it employs fewer than 250 employees, has less than $10 million in annual revenues, and less than $2 million in net worth. The federal EDA program established an economic development loan fund in the 1970s. The federal program requires participants to be located in distressed regions and meet certain wage and job creation requirements, including tracking job creation.

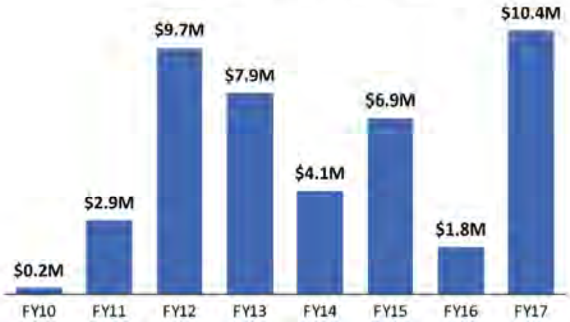
SMALL BUSINESS LOAN PROGRAMS

Provide capital financing to small businesses to encourage economic development and job creation

VALUE TO BENEFICIARIES

FY10-FY17

Loans: $43.9M total



Beneficiaries

211
projects

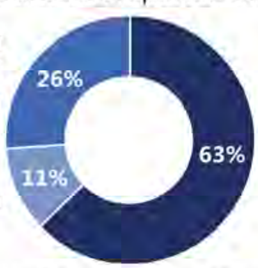
ACHIEVEMENT OF PURPOSE

Assist credit-constrained businesses

Businesses reported they

were uncertain if they could obtain

could obtain



could not obtain

comparable financing elsewhere

Encourage small business job creation

Businesses that received VSBFA assistance

created **1.4** more jobs

than similar businesses that did not

IMPACT TO STATE ECONOMY

average FY10-FY17

High economic benefit per $1M of incentive

3,508
jobs

$442.8M
state GDP

$295.0M
personal income

High return in revenue

$12.31
per $1 spent

NOTE: Projects and loans included in the analysis are only those supported with state funding. (See Appendix F for loan amounts by program.)

This report focuses on **VSBFA loans and credit enhancements that are supported with state resources**.

VSBFA also issues loans and provides credit enhancements that are supported with federal resources.

The **Economic Development Loan Fund** (EDLF) is a revolving fund that was originally funded by grants from the U.S. Economic Development Administration. Between FY10 and FY17, VSBFA provided four loans with state funding (application fees and annual fees from bond recipients). The four state-supported loans were provided to borrowers who did not meet all requirements of the federal program.

Five percent of the EDLF loans were supported with state funds as of the end of FY17, according to VSBFA staff.

The **cash collateral program** was originally funded with U.S. Treasury State Small Business Credit Initiative funds, but some loans have been supported with state funds.

Thirty-two percent of the cash collateral portfolio was supported with state funds as of the end of FY17, according to VSBFA staff.

VSBFA only directly provides loans to businesses through two of the programs: the Economic Development Loan Fund and SWaM Business Microloan Program. The Loan Guaranty and State Cash Collateral programs are credit enhancement programs for which VSBFA serves as the guarantor of the loan or provides collateral support to enable businesses to secure loans from a commercial lender. For the credit enhancement programs, VSBFA typically partners with smaller community banks that provide the loans because larger banks find the programs too small or cumbersome for their participation.

All four programs are designed to provide financing for small businesses that are unable to obtain financing from commercial banks and other conventional private lending sources. The specific features of each program vary to accommodate businesses' needs for short-term loans to support day-to-day operations and long-term debt to pay for infrastructure and equipment. It is important to note that VSBFA loan programs serve a very small portion of the small business loan market in Virginia. VSBFA supported $2.83 million in new loans in FY16. In contrast, Community Reinvestment Act loans of less than $1 million totaled $5.6 billion for Virginia in 2016.

Most states and Washington, D.C., offer small business loan programs to help small businesses, which often face credit constraints, obtain financing. (See Appendix E for more detail on programs by state.) Difficulty in obtaining credit is most pronounced for small businesses seeking loans of $250,000 or less and for particular types of small businesses, according to the research literature. Micro businesses and startups often have difficulty obtaining financing because they have not yet achieved the scale or experience to formalize their accounting records or develop a credit history. Minority or women-owned businesses may face limitations due to discriminatory lending practices. Businesses in some locations may have trouble securing loans because of factors related to local economic distress. Others, particularly in rural areas, may have limited access to banking.

VSBFA loan programs helped small businesses obtain $44 million in loans between FY10 and FY17

VSBFA helped Virginia small businesses obtain $44 million in loans between FY10 and FY17 through state-resourced assistance (Table 4-2). The vast majority ($38 million) of the loan amount was provided by commercial lenders. For these loans, VSBFA provided credit enhancements (the guarantee or collateral support) valued at $20 million to help businesses secure the loans. Only $6 million in loans was provided directly by VSBFA through the SWaM Business Microloan program and the Economic Development Loan Fund. The majority of state-supported assistance from VSBFA was provided through the Loan Guaranty Program, but the SWaM Business Microloan program assisted the largest number of businesses.

TABLE 4-2
Small businesses obtained $44 million in loans through VSBFA (FY10-FY17)

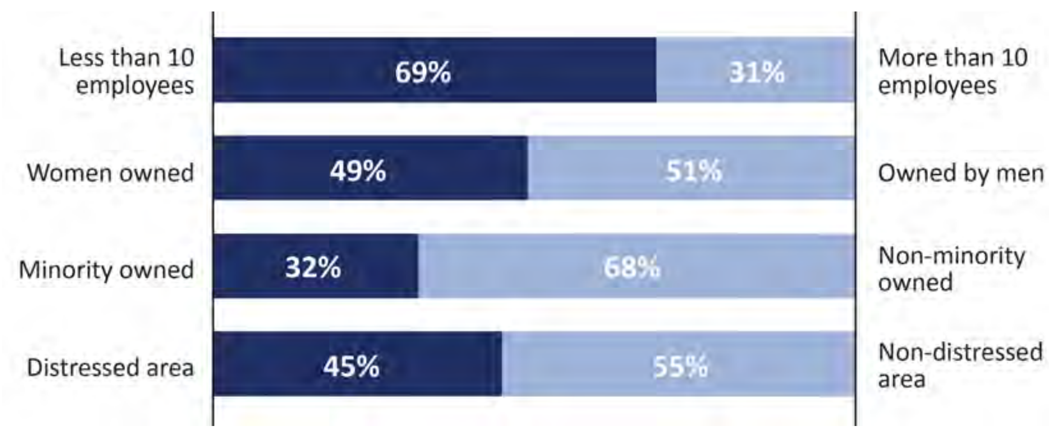
Program	Total loan amount	Average loan	Number of projects
Loan Guaranty Program	$31.2M	$410,791	76
SWaM Business Microloan program	3.2	20,404	159
Economic Development Loan Fund	2.6	654,673	4
State Cash Collateral Program	6.8	854,000	8
All programs	**$43.9M**	**$100,913**	**247**

SOURCE: Weldon Cooper Center analysis of information provided by VSBFA.
NOTE: The Economic Development Loan Fund and Cash Collateral programs also helped businesses obtain other loans, but the assistance was supported through federal funding and the loans are not included in the analysis. Projects included are only those supported through VSBFA state-supported assistance.

Loan support through VSBFA's small business loan programs varied dramatically by fiscal year, mostly because of variations in support through the Loan Guaranty Program. Substantial variation also occurred with the SWaM Business Microloan program.

The majority of businesses that received VSBFA-supported loans were very small businesses or businesses with one or more characteristics for being credit constrained (Figure 4-1). More than two-thirds of all VSBFA loans were issued to businesses with fewer than 10 employees. At least 49 percent of all loans were made to businesses with at least one woman owner, and at least 32 percent were made to minority owners. While only 20 percent of businesses were located in a rural area, 45 percent were located in a distressed area.

FIGURE 4-1
VSBFA loan programs generally serve credit constrained groups (FY10-FY17)



SOURCE: Weldon Cooper Center analysis of information provided by VSBFA.
NOTE: For a business to qualify as women-owned or minority-owned, at least one owner must meet the criterion.

VSBFA loans are provided at minimal cost to the state

The cost to the state of VSBFA small business loan programs is relatively low. Between FY10 and FY17, the programs provided $26 million in state-supported loan assistance ($6 million in direct loans from VSBFA and $20 million in credit enhancements) at a fraction of the cost to the state. None of the programs receive routine state appropriations; instead, they use recycled funds from repaid loans and credit enhancements (such as loan guarantees) that have expired, to provide new loans or new credit enhancements. According to VSBFA staff, the agency has received only four infusions of state general funds in its 33-year history for the loan programs, including $1 million in FY1984, $1.25 million in FY07, $1 million in FY10, and $5 million in FY11. The funds were provided for supporting loans and credit enhancements rather than designated for a particular program. VSBFA receives only a minimal appropriation annually ($163,690 in FY17) to help cover operating expenses.

Only the Loan Guaranty and SWaM Business Microloan programs have been funded solely by state resources. The Loan Guaranty Program received an appropriation of $1 million from the General Assembly when it was created. Both programs receive funding from fees VSBFA collects for other programs it provides. The Economic Development Loan Fund and Cash Collateral Program are largely federally funded; the state also offers loans that are provided or supported with state resources (program fees and periodic general funds).

A **charge-off** is a debt that is deemed unlikely to be collected by the creditor because the loan is in default and the borrower has not made payments after a period of time, typically 180 days.

The cost of VSBFA participation in a transaction is not the direct loan amount or the credit guarantee provided to a bank; the primary cost is the amount of money lost—known as the charge-off—when a loan defaults. The total estimated costs from FY10 to FY17 were $467,864 for all the programs combined (Table 4-3). (For loans that are still in progress, charge-offs were estimated based on the charge-off rate—total charge-off amount as a percentage of total loan assistance provided—of completed loans.)

TABLE 4-3
Total cost of VSBFA loans estimated at less than $500,000 (FY10-FY17)

Program	VSBFA assistance	Charge-off rates: Completed loans	Charge-off rates: Outstanding loans	Estimated cost of program
Economic Development Loan Fund	$2.6M	0.0%	1.6%	$15,932
Loan Guaranty Program	18.0	1.6	1.6	298,683
State Cash Collateral Program	1.9		1.6	29,927
SWaM Business Microloan program	3.2	3.8	3.8	123,322
All programs	**$25.7M**			**$467,864**

SOURCE: Weldon Cooper Center analysis of information provided by VSBFA.
NOTE: There were 114 completed loans total (Economic Development Loan Fund = 3; Loan Guaranty Program = 35, and SWaM Business Loan Fund = 76). The Cash Collateral Program had no completed loans. For outstanding loans an expected charge-off rate based on previous Loan Guaranty Program loan performance of 1.6% was used for the Economic Development Loan Fund and the Cash Collateral Program. VSBFA assistance includes only assistance supported with state funds.

VSBFA loan programs have mixed success in achieving goals

VSBFA documents suggest that the loan programs have at least two goals. Specifically, the programs are designed to (1) help businesses obtain credit or capital that they otherwise would not be able to obtain and (2) support employment growth and retention. The programs appear to have mixed success in achieving these goals.

VSBFA programs help businesses obtain needed financing but need for some programs may be declining

VSBFA loan programs appear to help small businesses obtain loans that they otherwise would not have been able to obtain. Sixty-three percent of businesses that obtained a loan through one of VSBFA's loan programs between FY10 and FY17 indicated in a survey that they could not have obtained financing like the VSBFA supported loan elsewhere under similar terms and conditions.

VSBFA loan programs appeared to be warranted in Virginia, particularly during and immediately following the recession. Lending by commercial banks and, in some cases, federal lending programs to small businesses, has declined nationwide over the past 15 years. Loan financing to Virginia small businesses on a per employee basis decreased substantially during the recession (Figure 4-2). Loan financing increased slightly after the recession but has since plateaued.

FIGURE 4-2
Small business loan amount per employee lags behind pre-recession levels

SOURCE: Weldon Cooper Center analysis of data on the Community Reinvestment Act from the Federal Financial Institutions Examination Council and small business employment data the Census Bureau.
NOTE: Amounts are in 2015 dollars using the CPI. Includes loans of less than $1 million.

Other factors also suggest that the need for publicly financed loan programs may change over time. The ability of small businesses to obtain credit changes as national economic conditions change. Even though a majority of businesses reported in a survey that the VSBFA loan program helped them obtain needed financing, 68 percent of these businesses also reported obtaining financing through business loans from banks and other private lenders.

Newer forms of financing, such as online lending, have become available for small businesses since the recession. These new sources in time may reduce the need for VSBFA loans or necessitate structural changes to the program.

VSBFA requires businesses to **document their job or retention goals** on loan applications. However, there is no penalty for not meeting these goals, and VSBFA does not collect jobs data after a loan is approved.

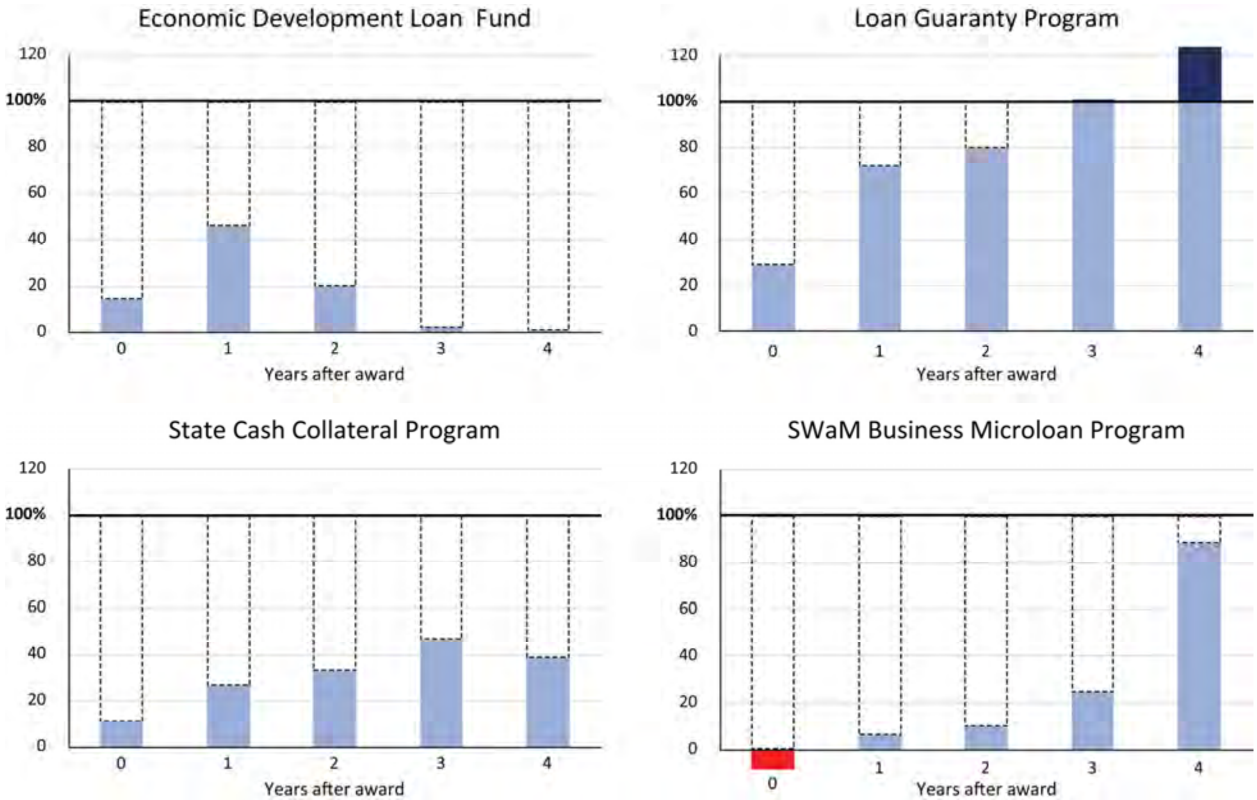
For this report, the job creation goals documented on loan applications were compared to the actual employment levels of businesses receiving loans.

(Actual employment levels were estimated using data from the Virginia Employment Commission.)

Businesses receiving VSBFA loan programs have mixed success in meeting job creation levels reported on loan applications

Of the four programs, only the Loan Guaranty Program met or was on track to meet 100 percent of the job creation levels across all projects reported on program applications in the fourth year after businesses received their loans (Figure 4-3). The Economic Development Loan Fund had met 46 percent of its job creation goal by the end of the first year after businesses received their loans, but by the fourth year, employment levels had dropped to less than two percent of the levels reported on the application. This is because a large business closed (a loss of 200 jobs). The SWaM Business Microloan program met 88 percent of its job creation goal by the fourth year of the loans (which have maturities of four years or less). The State Cash Collateral Program met 39 percent of its goals. Research suggests that small business loan programs add more jobs during the first year of the loan than other programs. Therefore, extending the time frame for this analysis would likely not alter the results that suggest the loan programs are on track to accomplish only about half of their job creation goals four years after the loans were issued.

FIGURE 4-3
Only the Loan Guaranty Program met or was on track to meet its employment goal by fourth year after businesses received loans



SOURCE: Weldon Cooper Center analysis of information reported by VSBFA and VEC employment data.

The attainment of job creation goals on a project basis also varied widely (Table 4-4). The Loan Guaranty Program had the highest rate, as 77 percent of projects met or exceeded their employment creation goals over the term of their loans. More than half (57 percent) of projects with loans that had not yet been paid back had already met or exceeded the job creation goals documented in their application.

TABLE 4-4
Percentage of VSBFA-assisted projects that met job creation goals varied (FY10-FY17)

Program	Completed loans	Outstanding loans
Economic Development Loan Fund	0%	40%
Loan Guaranty Program	77	57
State Cash Collateral Program	n.a.	50
SWaM Business Microloan program	40	48

SOURCE: Weldon Cooper Center analysis of information reported by VSBFA and VEC employment data.
NOTE: Only one Economic Development Loan Fund project was completed, but the business never met its employment goals and is now closed. The Cash Collateral Program did not have any businesses with completed loans during the time period.

A small to moderate portion of jobs created by VSBFA loan programs can be attributed to the loans

Businesses that received VSBFA loans had slightly higher employment growth than businesses with similar size and industry characteristics that did not receive a VSBFA loan. This difference in job creation is the true employment impact of the loan programs. Businesses that received a SWaM Business Microloan between FY10 and FY16 created 1.3 jobs more than similar businesses that did not receive a VSBFA loan during that time period (Table 4-5). Businesses that received one of the other three loans created just over two jobs more than similar businesses that did not receive a loan. Other studies have presented similar findings: small business loan programs have positive impacts on employment and other economic activity. (See Appendix M [online only] for research on small business loan programs.)

TABLE 4-5
Employment impacts of loan programs are generally small to moderate

Average per project	Economic Development Loan Fund	Loan Guaranty Program	State Cash Collateral Program	SWaM Business Microloan	All programs
Estimated jobs created with loan assistance	2.4	2.8	2.7	1.3	1.4
Reported jobs created	71.0	9.6	33.5	2.4	9.2
% of jobs attributable to loan assistance	3.4%	28.7%	8.0%	51.6%	38.7%

SOURCE: Weldon Cooper Center analysis of information reported by VSBFA and VEC employment data.
NOTE: Averages are on a per project basis.

VSBFA loans, however, were generally responsible for only a small portion of the jobs created by the businesses that received loans between FY10 and FY16 (Table 4-5). The percentage of jobs that can be attributed to the loan assistance is estimated to range from a low of three percent for the Economic Development Loan Fund to a high of 52 percent for the SWaM Microloan Fund. This means that between 97 percent and 48 percent of the jobs would have been created anyway. This proportion is known as the "deadweight loss" of the program.

The percentages of jobs attributed to the Loan Guaranty Program and SWaM Business Microloan program (28.7 and 51.6 percent) are higher than those estimated for the typical economic development incentive (10 percent to 15 percent). This is expected; loan programs are more discretionary and incentives awarded on a more discretionary basis have higher impacts on job creation. They target businesses facing credit constraints that are less likely to undertake the economic activity without the loan. The underwriting processes used by VSBFA and participating banks involve careful examination of financial records and ability to repay the loan. Together, these factors should reduce the deadweight loss. The SWaM Business Microloan program may have the lowest deadweight loss because the businesses that receive loans are generally very small and have quite modest job creation goals.

Loan programs have high economic benefit relative to spending

The VSBFA loan program generate relatively low economic activity for the Virginia economy. Between FY10 and FY17, the estimated increase in private employment because of the loans ranged from 8 additional jobs because of the State Cash Collateral Program to 126 additional jobs because of the Loan Guaranty Program (Table 4-6). The estimated increase in Virginia GDP because of the loans ranged from $1.4 million because of the State Cash Collateral Program to $16.3 million because of the Loan Guaranty Program. The economic activity that is generated is low because the programs provided relatively low levels of assistance ($100,000 per loan on average) to a small number of businesses (211). Economic activity generated by the Loan Guaranty Program is the highest, in part, because a relatively large portion (28.7 percent) of the employment is attributed to the program.

When measured per $1 million in spending, the economic benefits of the loan programs are high relative to other incentives. The estimated Virginia GDP generated is between $358 million for every $1 million spent on the SWaM Business Microloan Program and $1.3 billion for every $1 million spent on the Economic Development Loan Fund (Table 4-6). These amounts are far greater than the Virginia GDP generated per $1 million in spending for all other incentives reviewed in this report and for other economic development incentive grants reviewed in a 2012 report. (See *Review of State Economic Development Incentive Grants*, JLARC 2012 for the underlying research.)

Economic impact analysis of expenditures by loan recipients between FY10 and FY17 was conducted using economic modeling software developed by REMI, Inc.

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

Net impact is the increase in economic activity induced by the incentive after adjusting for the opportunity cost of increasing taxes to pay for the loan assistance.

(See Appendix L [online only] for information on the total economic impact and the opportunity cost of increasing taxes.)

TABLE 4-6
Small business loans have large economic benefit

	Annual average (FY10-FY17)				
	Economic Development Loan Fund	**Loan Guaranty Program**	**State Cash Collateral Program**	**SWaM Microloan Program**	**All programs**
Net impact to Virginia economy					
Private employment	20 jobs	126 jobs	8 jobs	51 jobs	205 jobs
Virginia GDP	$2.6 M	$16.3 M	$1.4 M	$5.5 M	$25.8 M
Personal income	$1.7 M	$11.2 M	$0.7 M	$3.7 M	$17.3 M
Impact to Virginia economy per $1 million of spending (charge-off)					
Private employment	9,926 jobs	3,385 jobs	2,063 jobs	3,330 jobs	3,509 jobs
Virginia GDP	$1,308 M	$436 M	$384 M	$358 M	$442 M
Personal income	$842 M	$297 M	$184 M	$243 M	$295 M
Impact to state revenue					
Total revenue	$82,881	$461,090	$25,410	$150,806	$720,187
Cost of assistance	$1,992	$37,335	$3,741	$15,415	$58,483
Net revenue	$80,890	$423,754	$21,669	$135,390	$661,704
Return in revenue for every $1 spent	$41.60	$12.30	$6.80	$9.80	$12.30

SOURCE: Weldon Cooper Center economic impact analysis of business activity induced by VSBFA loan programs between FY10 and FY17.
NOTE: Includes direct, indirect, and induced impacts. Assumes that only a portion of employment creation is attributable to the programs. The gross impact on Virginia's economy is used to calculate the impact per $1 million per incentive awards and the impact to state revenue. This is consistent with how the economic development research literature typically calculates these impacts. (See Appendix L [online only] for detailed results on total impact of the loans, impact of raising income taxes by the amount of the loans [opportunity cost], and revenue generated by source.) Cost of assistance is the charge-off.

The return in revenue is also high relative to other incentives. Returns in revenue for the programs are between $6.80 per every $1 spent on the State Cash Collateral Program and $41.60 per every $1 spent on the Economic Development Loan Fund. The Economic Development Loan Fund also has the largest economic benefit per $1 million spent, primarily because it is the only program that targets certain industries with characteristics of high economic impact (Table 4-7).

These high returns in revenue and large economic benefits per $1 million in spending for all of the loan programs occur because tax revenue attributable to the programs generally far exceeds the costs of the programs. Program costs are low because the programs are mostly self-supporting, with loan proceeds reused in subsequent rounds of lending, and costs incurred only when a loan defaults.

TABLE 4-7
Economic Development Loan Fund is only program with majority of businesses having characteristics of high economic impact (FY10-FY17)

Program	High employment multiplier	Export-based	Pays high wages
Economic Development Loan Fund	75%	75%	n.d.
State Cash Collateral Program	38	50.0	n.d.
Loan Guaranty Program	17	17	n.d.
SWaM Business Microloan Fund	14	11	n.d.
All programs	**17%**	**15%**	**n.d.**

SOURCE: Weldon Cooper Center analysis.
NOTE: VSBFA does not collect wage information from businesses. (See Appendix H for more detailed information.)

Businesses with **characteristics of high economic impact** (1) have high economic multipliers (indicator of density of local supply chain), (2) export high percentages of products or services out-of-state, and (3) pay above-average wages (Bartik 2011).

A project meets the **high employment multiplier criterion** if the business's industry multiplier for Virginia is greater than 2.

A project meets the **export-based criterion** if the percentage of sales exported out-of-state based on the business's industry is 50 percent or greater.

A project meets the **wage criterion** if it pays wages that are at or above the average wage for that industry in Virginia.

(See Appendix B for more information on methodology.)

The loan programs also have relatively small costs per job. The average cost per expected job (adjusted for actual program costs rather than the loan amount) is $290. This figure is much lower than the estimated average of $4,300 per job across all Virginia economic development incentive grant programs. (See *Economic Development Incentives*, JLARC 2017.)

VSBFA loan programs appear beneficial, but improvements could increase economic benefit and ensure programs meet their goals

The VSBFA loan programs appear to serve a beneficial purpose by helping businesses obtain loans that they otherwise would not have been able to obtain. The loan programs may also serve other public policy purposes, such as stimulating entrepreneurship or serving disadvantaged and credit-constrained communities. However, VSBFA should perform periodic reviews to determine whether the current programs are needed or should be redesigned to address financing gaps. Several improvements to program design should be implemented to help ensure the loan programs are meeting their goals and to increase their economic impact.

To ensure that programs are filling credit gaps, link program funding to credit conditions and demand

Because VSBFA's programs are designed to address financing gaps for small businesses, the level of assistance should rise and fall as credit constraints for small businesses increase and decrease. Credit constraints are more likely to occur during recessionary periods and financial crises. VSBFA should analyze national data on credit conditions and make adjustments to program design and lending practices to adjust to changing credit conditions. VSBFA should include this information, along with specific plans to align resources to credit conditions, and an assessment of whether additional resources are needed, in its annual report to the governor and the legislature.

National data on credit conditions is available from sources such as the Federal Reserve's Senior Loan Officer Option Survey, the National Financial Conditions Index, and the Community Reinvestment Act.

Program funding should also be connected to the necessity of the program and program demand. The SWaM Business Microloan Fund was created to improve credit access for small businesses that could not obtain conventional revolving credit during and after the financial crisis. However, the continued need for that program in its current form should be reassessed because revolving credit conditions have improved markedly since the recession.

RECOMMENDATION 9

The Virginia Small Business Financing Authority (VSBFA) should regularly analyze national data on credit conditions for small businesses and program demand to assess whether adjustments to program design and lending practices should be made to ensure its programs are appropriately designed to address financing gaps of Virginia's small businesses. On a biennial basis, VSBFA should include in its report, pursuant to § 2.2-2312 of the Code of Virginia, (i) a summary of credit conditions for small businesses in Virginia and (ii) adjustments to programs or their design to meet small business credit needs, including resource needs.

Stronger loan eligibility criteria would increase economic benefit

VSBFA could impose industry sector and wage requirements on its loan programs. Department of Treasury best practices for State Small Business Credit Initiative funded programs describe two elements of high performance programs: (1) alignment with state economic development strategy and (2) targeting of businesses likely to create the largest economic benefits. However, only the Economic Development Loan Fund targets specific industry sectors or has a wage requirement. VSBFA could implement similar requirements for its other programs regarding wage levels and targeted industry sectors. VSBFA could also consider requiring that businesses must be in one of the state's targeted industry sectors, as identified by the Virginia Economic Development Partnership. Including these requirements would ensure that assistance is provided to the businesses with the greatest potential to benefit the Virginia economy.

VSBFA could make Small Business Development Center (SBDC) referrals and counseling mandatory for all businesses seeking loans from the SWaM Business Microloan Fund to reduce program costs and increase economic impact. Businesses that receive SBDC referrals have much smaller charge-off rates than businesses that do not receive referrals (1.9 percent and 12.2 percent, respectively), despite receiving larger loans. Currently, the maximum microloan is $10,000, but it is increased to a maximum of $25,000 if the applicant receives SBDC counseling and referral. Businesses that received SBDC loan referrals created jobs at a lower cost than those without referrals ($12,678 in loan financing per job versus $13,800). This evidence suggests that SBDC counseling and referral may enhance loan performance and improve economic impacts; it may also be an important factor in economic impact that is not fully accounted for in the program analysis.

Job retention and creation standards should be adopted to improve economic benefit of program

While VSBFA programs take job creation and retention into consideration in their decision to grant loans or assistance, no job creation standard is required. Most federal programs and some states have job creation standards for their loan programs to target loans to businesses expecting to create at least a minimum level of jobs.

- The federal Economic Development Revolving Loan Fund and HUD's Section 108 loan programs require borrowers to create or retain at least one full-time equivalent job per $35,000 of funds used on a portfolio basis.
- The SBA 504 Loan program employment creation standard is one full-time job per $65,000 loan funding, with small manufacturers allowed $100,000 per full-time job.
- The SBA microloan program requires that each loan must create or retain one job per $50,000 loan.
- The North Dakota Development Fund standard is one FTE job per $40,000 in loans, and the North Dakota Revolving Rural Loan Fund is one FTE job per $50,000 of loans.

A standard of one job per $35,000 in loans in the aggregate for each loan program appears achievable based on analysis of the loan programs, and the standard could vary by program. VSBFA programs are currently achieving one job per $26,468 in loans in the aggregate.

RECOMMENDATION 10

The Virginia Small Business Financing Authority (VSBFA) should establish and implement job creation standards for the Loan Guaranty Program, State Cash Collateral Program, and the SWaM Business Microloan. For each program, a minimum number of jobs would be required, based on the total loan amount in aggregate across the program. The standards should be determined by VSBFA and can vary by program.

Track program outcomes to ensure programs meet employment goals

VSBFA has little information about the progress of its borrowers toward their employment goals stated on their VSBFA program applications. Although VSBFA program borrowers identify their job creation or retention goals on loan applications, VSBFA only tracks self-reported employment over the duration of the loan for the Economic Development Loan Fund. Best practices compiled for the Department of Treasury State Small Business Credit Initiative suggest that program performance can be enhanced by regularly monitoring program outcomes, including employment. VSBFA could expand periodic employment tracking to the Loan Guaranty Program, State Cash Collateral Program, and SWaM Business Microloan Fund. Alternatively, administrative costs could be reduced by collecting firm-reported or VEC payroll record employment at the completion of loan repayment only. This process is currently used by DSBSD—of which VSBFA is a division—for the Small Business Jobs Grant.

This information would help VSBFA in making adjustments to the process for approving loans. VSBFA could better target loans to businesses that are most likely to not only repay their loan but also meet or exceed their anticipated job creation.

RECOMMENDATION 11

The Virginia Small Business Financing Authority should establish a process for monitoring employment outcomes of businesses receiving assistance from the Loan Guaranty Program, State Cash Collateral Program, and the SWaM Business Microloan Fund.

5. Telework Expenses Tax Credit

The Virginia Telework Expenses Tax Credit was adopted in 2011 and enables employers to receive a tax credit for establishing and maintaining a telework program for their employees (Table 5-1). The tax credit is intended to promote teleworking—which is thought to have benefits related to worker productivity and the environment—by private workers. The Department of Rail and Public Transportation oversees the Telework Expenses Tax Credit and is responsible for determining what constitutes a telework agreement between an employer and teleworking employee. The credit is capped at $1 million in total in any given fiscal year.

Expenses related to implementing and maintaining a telework program, such as IT costs, are eligible for the tax credit. To claim the tax credit, an employer must first file a reservation form prior to the taxable year for which the tax credit can be claimed. If the reservation is approved by the Department of Taxation, the employer can submit a confirmation form and then claim the credit against their income taxes.

TABLE 5-1
Virginia has offered a Telework Expenses Tax Credit since 2011

Purpose	Encourage teleworking by employees of private businesses in the state to promote worker productivity and other benefits
Eligibility	Employer who has entered into a telework agreement with employee(s) on or after July 1, 2012 Employee must not be self-employed
Eligible expenses	Computers, computer-related hardware and software, modems, data processing equipment, telecommunications equipment, high-speed Internet connectivity equipment, computer security software and devices, and all related delivery, installation, and maintenance fees (replacement costs are not eligible) Telework assessment for employers to develop policies and procedures to implement a formal telework program
Program features	Nonrefundable and nontransferable tax credit with no carryover provisions Claimed against individual or corporate income tax Maximum annual amount that can be claimed is $1,200 per employee Maximum amount for one-time telework assessment of $20,000 per employer Annual cap of $50,000 per employer and $1 million total; tax credits will be pro-rated among the eligible employers who filed timely applications, if necessary

SOURCE: Weldon Cooper Center review of the Code of Virginia.
NOTE: Adopted in 2011 and expires in 2022 (§ 58.1-439.12:07).

No other states currently offer business telework tax incentives. Georgia enacted a telework tax credit in 2007 that was similar to Virginia's tax credit, but it was allowed to expire, probably because of low utilization (only $502,963 claimed over its existence). Oregon offered a tax credit of 35 percent of eligible costs for telework equipment, as part of a broader "business energy" tax credit that was designed to promote energy efficiency and the use of renewable energy. This credit was allowed to expire in 2014.

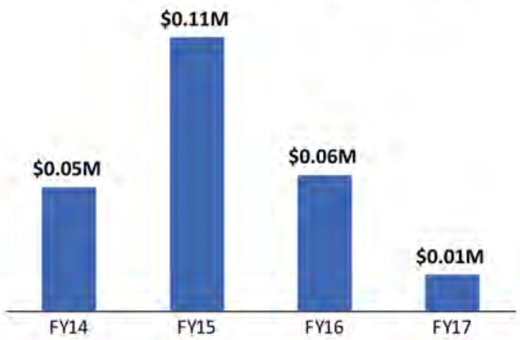
TELEWORK EXPENSES TAX CREDIT

Encourages teleworking by employees of private businesses

VALUE TO BENEFICIARIES

2012-2016

Taxpayer credits $0.2M total

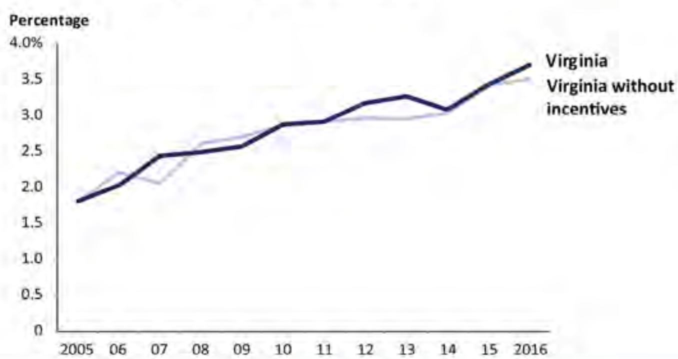


Beneficiaries

57
businesses

ACHIEVEMENT OF PURPOSE

Encourage telework



Provide other benefits

Telework has mixed impacts on worker productivity, miles traveled, and pollution emissions.

IMPACT TO STATE ECONOMY

average FY14-FY17

Negligible benefit per $1M of incentive

8
jobs

$1.6M
state GDP

$0.9M
personal income

Negligible return in revenue

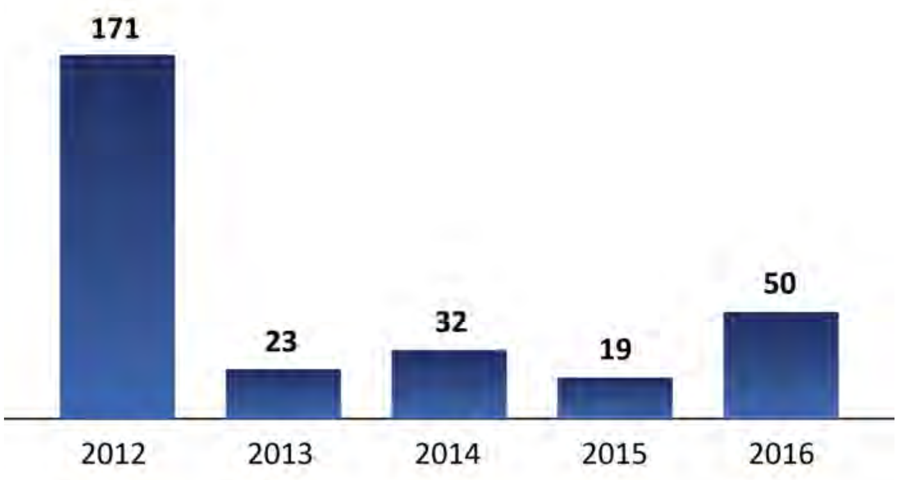
4¢
per $1 spent

NOTE: Fifty-seven businesses were awarded credits; actual number of businesses that benefited is unknown because the credit was mostly claimed on individual income tax returns.

Virginia has awarded $621,000 in Telework Expenses Tax Credits between 2012 and 2016 but only a third has been claimed

The Department of Taxation has approved $621,026 in Telework Expenses Tax Credits since 2012, the first year the credit could be claimed. However, only $234,832 was claimed on tax returns. Actual utilization of the credit has been low despite initial interest in the credit being high. In 2012, the first year of the credit, 171 businesses filed the form to reserve credits for $4.3 million in telecommuting expenses for 165 teleworking employees. However, in subsequent years, substantially fewer businesses filed the reservation form (Figure 5-1).

FIGURE 5-1
Number of businesses filing for Telework Expenses Tax Credit dropped substantially after initial year credit could be claimed



SOURCE: Weldon Cooper Center analysis of information provided by the Department of Taxation.

It is also clear that few businesses follow through to claim the credit. From 2012 to 2016,

- $7.1 million was reserved by 295 businesses that filed the initial reservation form;
- $621,026 was approved for 57 businesses that filed the second form; and
- $234,832 was claimed on income tax returns.

However, it is not clear why this occurs. Some businesses may change their plans for teleworking. For others, tax liability may change such that the credit is no longer worth pursuing. Still other businesses may find the paperwork burdensome.

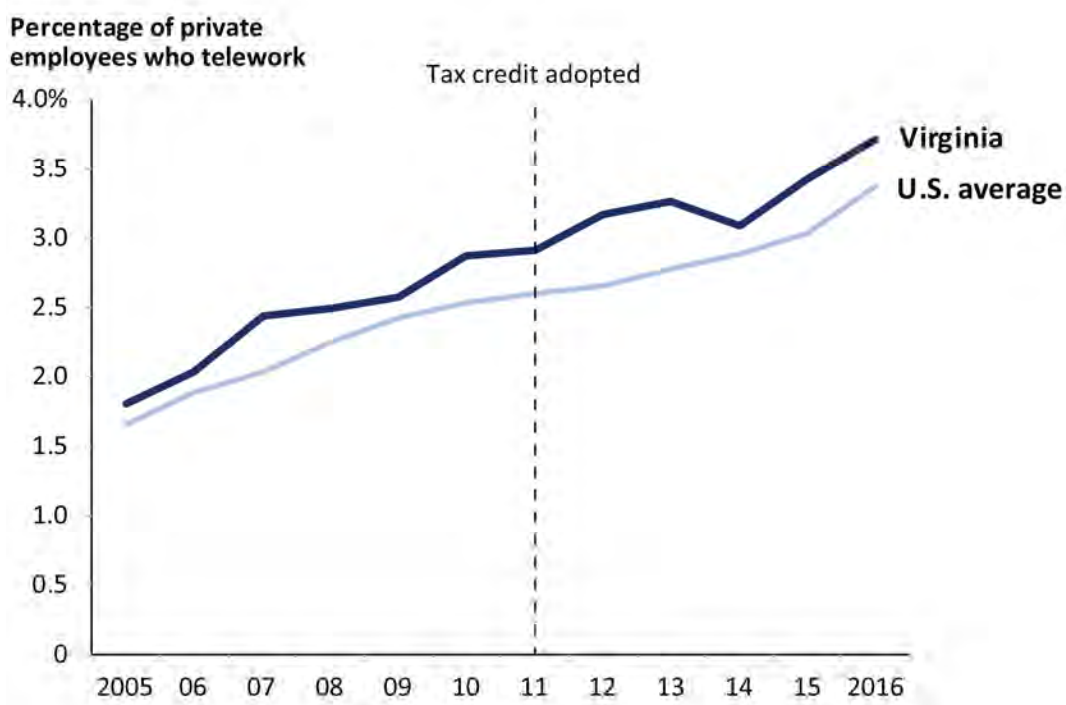
Telework Expenses Tax Credit has little effect on Virginia's telework rate and may not provide other benefits

The purpose of the Telework Expenses Tax Credit is to promote teleworking in the state by private employees. While specific goals are not specified in statute, teleworking is often promoted for several reasons: to reduce traffic congestion, to improve worker productivity, to conserve energy, and to protect the environment. It seems unlikely that Virginia's Telework Expenses Tax Credit achieves any of these goals.

Virginia's telework rate for private employees has increased over time, but probably not because of Telework Expenses Tax Credit

The telework rate—the percentage of private employees who telework—has steadily increased over time (Figure 5-2). However, there is no indication that the increase in Virginia's telework rate has been influenced by the credit. Virginia's telework rate was increasing faster before the credit was adopted (nine percent annual average increase between 2005 and 2011 versus four percent annual average increase between 2011 and 2016). Virginia's telework rate, and its rate of increase, has closely mirrored the U.S. telework rate and rate of increase since 2005.

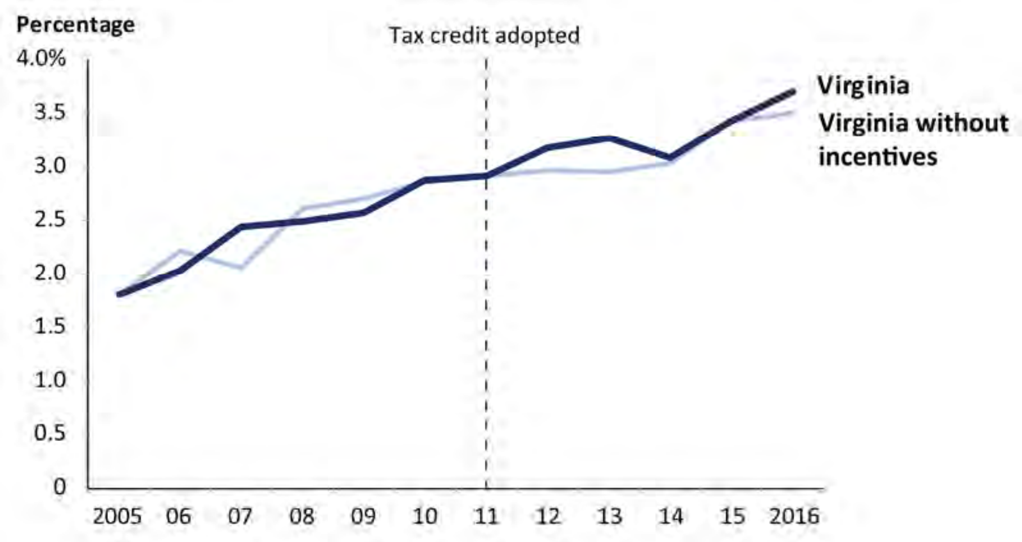
FIGURE 5-2
Virginia's telework rate has consistently increased over time at a similar rate as telework rate across the U.S.



SOURCE: Weldon Cooper Center analysis of U.S. Census Bureau American Community Survey work-at-home data.
NOTE: Includes telework rate for private employees who are not self-employed.

Virginia's telework rate is about the same as it would have been without the Telework Expenses Tax Credit, according to statistical analysis (Figure 5-3). This is consistent with research that suggests telework rates are more likely to be influenced by business, individual, and geographical attributes than the presence of an incentive. Research shows that worker occupation and industry are key factors in teleworking. Jobs in sales and marketing, information technology, and professional services are better suited to remote working than other jobs because they require more independent work, less face-to-face interaction with employees or customers, and less use of business-based equipment and supplies. Certain worker demographic characteristics, such as male gender, age, higher education, and rural residence, are associated with higher telework rates (Allen, Golden, and Shockley 2015).

FIGURE 5-3
Virginia's telework rate is about the same as it would have been without the Telework Expenses Tax Credit



SOURCE: Weldon Cooper Center analysis of U.S. Census Bureau American Community Survey work-at-home data.
NOTE: Includes telework rate for private employees who are not self-employed.

A synthetic control group to represent **Virginia without a Telework Expenses Tax Credit** was constructed from states that did not have a similar telework tax credit during the time period studied. Select characteristics of states that made up the synthetic control group were weighted so that once combined, it closely resembled Virginia on those characteristics. (See Appendix B for research methods used in this study.)

Telework Expenses Tax Credit likely has mixed ability to provide other benefits

Virginia's Telework Expenses Tax Credit likely has mixed ability to provide other benefits, according to the research. Research suggests telework may increase businesses productivity and job performance. Research also shows that teleworking may have some detrimental effects to businesses, through reduced coworker collaboration and reduced information sharing, and also to teleworkers, who tend to work longer hours.

There is some doubt about whether telework reduces traffic and pollution emissions. Some studies have found that telework reduces vehicle miles traveled per person, but other research has found that teleworkers travel more than non-teleworkers. This could be because teleworkers combine work-related and non-work-related travel in their daily routine, or because part-time teleworkers commute longer distances than non-teleworkers. Also, because teleworkers use energy at home rather than in the workplace, telework has uncertain effects on overall carbon emissions.

Telework Expenses Tax Credit has negligible economic benefit

Economic impact analysis of expenditures by tax credit recipients between FY14 and FY17 was conducted using economic modeling software developed by REMI, Inc.

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

The Telework Expenses Tax Credit has a negligible economic benefit in Virginia. It has no impact on job creation and generates an estimated additional $40,000 in Virginia GDP per year, on average (Table 5-2). The primary way that the tax credit impacts the economy is through reducing businesses' costs of acquiring capital and capital equipment expenditures. In theory, telework arrangements could increase worker productivity. Any productivity impacts would not alter these results, however, because the tax credit does not appear to induce a higher telework rate in Virginia.

This benefit is lower than the benefit generated by other Virginia economic development incentives. The Telework Expenses Tax Credit is estimated to generate $1.6 million in additional Virginia GDP per $1 million spent on the tax credit (Table 5-2). This benefit is less than the estimated additional Virginia GDP generated by Virginia's Worker Retraining Tax Credit ($3 million per $1 million spent) and other incentives reviewed in this report.

The benefit of the Telework Expenses Tax Credit to state revenue is negligible. The amount spent on the tax credit per year is greater than the additional revenue the state collects because of the credit. The return in revenue per $1 of state spending on the tax credit is estimated to be only 4¢ per year.

Net impact is the increase in economic activity induced by the incentive after adjusting for the opportunity cost of increasing taxes to pay for the tax credit.

(See Appendix L [online only] for information on the total economic impact and the opportunity cost of increasing taxes.)

TABLE 5-2
Telework Expenses Tax Credit has a negligible economic benefit to the state

	Annual average (FY14-FY17)
Net impact to Virginia economy	
Private employment	0 jobs
Virginia GDP	$0.04 million
Personal income	$0.005 million
Impact to Virginia economy per $1 million of credit	
Private employment	8 jobs
Virginia GDP	$1.6 million
Personal income	$0.9 million
Impact to state revenue	
Total revenue	$0.002 million
Credit amount	$0.06 million
Revenue net of awards	−$0.06 million
Return in revenue	4¢ per $1 spent

SOURCE: Weldon Cooper Center economic analysis of businesses that claimed the Telework Expenses Tax Credit between 2012 and 2016.

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 and the impact to state revenue. This is consistent with how the economic development research literature typically calculates these impacts. (See Appendix L [online only] for detailed results on total impact of the tax credit, impact of raising income taxes by the amount of the credit [opportunity cost], and revenue generated by source.)

Telework Expenses Tax Credit should be eliminated

The Telework Expenses Tax Credit should be eliminated or allowed to expire on its expiration date in 2022. The tax credit has a low rate of utilization and appears to have very little effect on the telework rate in Virginia. The tax is also estimated to provide a negligible economic benefit to the state. Judged strictly as an economic development incentive, the program appears to have little merit. Research on the other benefits of telework, such as increasing worker productivity and reducing vehicle miles traveled and pollution emissions, is also inconclusive.

RECOMMENDATION 12

The General Assembly may wish to consider eliminating the Telework Expenses Tax Credit.

Appendix A: Study mandate

2016-2018 Appropriation Act
Passed as Chapter 836 of the Acts Assembly

§1-11 Item 33 H

H.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 activities and methods

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 staff for this study included

- collection and analysis of national- and state-level financial and economic data and state agency incentive program data;
- analysis of program industry targeting characteristics;
- program employment performance tracking;
- quasi-experimental statistical analysis of Virginia incentive programs and quantitative analysis of the economic and fiscal impacts of Virginia incentives using a dynamic economic model (See Appendix J, available online, for more detail on the analyses);
- business survey;
- interviews with agencies and stakeholders;
- review of other states' small business and workforce improvement incentives
- review of documents, reports, and other research.

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

This report drew on several federal, state, and private industry sources of economic data. Some of these data were used primarily for descriptive purposes, including to identify trends in state economic performance measures for capital finance availability, small business vitality, worker training, and teleworking that the economic incentives attempt to influence (Table B-1).

The data used have limitations. For example, data on bank loans is not comprehensive across all loans and does not measure state loan activity or small business borrowers in similar categories defined by VSBFA. Community Reinvestment Act (CRA) data, which was used, only mandates lenders with more than $1 billion in total assets to report. It also gauges small business activity by the size of loan rather than the actual size of the small business borrower.

Information from state agencies, including the Virginia Economic Development Partnership (VEDP), Department of Small Business Supplier Diversity (DSBSD), Virginia Small Business Financing Authority (VSBFA), and Department of Taxation (TAX) was used for both descriptive and analytical purposes. First, project-level information was aggregated to show characteristics and features of the various incentive programs, including metrics such as average award amounts and completion rates. Second, agency data was used in conjunction with other data such as confidential Virginia Employment Commission (VEC) ES202 payroll employment records and MIG, Inc. IMPLAN data to conduct economic analysis and construct a sample of businesses to survey. These analyses are described further in the sections that follow.

TABLE B-1
Multiple data sources were collected and used for a variety of analyses

Data source	Description of data	Analysis
Financial and economic data		
Federal Financial Institutions Examination Council	Community Reinvestment Act data	Identify small business loan levels and geographical distribution
U.S. Census Bureau	Survey of Business Owners (SBO)	Identify demographic characteristics of small business borrowers
Seed and Start-up Equity Capital Market Report (Jeffrey Sohl, University of New Hampshire)	Number and dollar value of angel investment deals.	Quantify state and national angel equity investment levels over time
Good Jobs First	Subsidy Tracker	Compute average economic incentive training subsidy per job by state
U.S. Department of Labor, Office of Apprenticeship	Number of active and new apprentices	Calculate state and national Registered Apprentice rates
U. S. Census Bureau	American Community Survey work at home/commuter data	Compute state and national telework rates
Virginia incentive programs		
DSBSD, VSBFA, VEDP	Award amount, date, completion and milestone information	Project targeting analysis, Quasi-experimental statistical analysis, Economic impact analysis
TAX	Tax credit utilization	Computation of tax credit usage by fiscal year
TAX	Information from Telework Expenses Tax Credit Applications (TELE-1 and TELE2) and Workforce Training Tax Credit (WRC) application	Tabulate use of tax credits for telework assessment versus work stations and number of personnel affected (telework). Tabulate use of funding for apprenticeships versus community college non-credit coursework (training)
Other		
Annual State Tax Revenue, Census of Government	State tax revenue by tax category and fiscal year	Tax revenue impact analysis
REMI PI+	Demand by industry, GDP, personal income, and transfer receipts by year	Tax revenue impact analysis
IMPLAN	Regional SAM Balances, institution industry demand, regional employment multipliers, study area industry data	Computation of export orientation, multiplier, and average industry earnings
Virginia Employment Commission	Employment Security (ES' 202) payroll employment records	Track employment performance and conduct quasi-experimental statistical analyses

SOURCE: Weldon Cooper Center.

Targeting analysis

Analysis of how well programs were targeted to projects likely to have the greatest economic impact was performed using data on location and industry of awarded projects and county level economic and industry data. For the loan programs, information on the demographics of business owner/principal characteristics and location were used to identify the proportion of businesses that received loans that were women or minority owned, located in rural (non-metropolitan) areas, and located in economically distressed areas. Women, minority, and rural borrowers were considered at greater risk of being denied credit because of credit market imperfections. The Virginia Economic Development Partnership definition of "economically distressed" as defined by the Major Business Facility Job Credit was used for purposes of this report. It defines a locality as "economically distressed" if its unemployment rate is at least 0.5 percent higher than the average statewide unemployment rate the year before.

Project industry codes—based on North American Industry Classification System (NAICS) codes—and wage levels for completed projects were matched with IMPLAN codes using a NAICS/IMPLAN code crosswalk to assess the export orientation, industry multiplier magnitude, and average wages for each project. Since agency records report wage rates and wage levels and IMPLAN reports employee compensation (which includes wages and salaries, all benefits and payroll taxes), the IMPLAN employee compensation number was multiplied by a factor of .683 (the average wages and salaries to compensation ratio based on Bureau of Labor Statistics data) to impute industry wage and salary levels. Projects whose industries exported at least 50% of their output outside the state, had Social Accounting Matrix (SAM) employment multipliers greater than 2, and that paid at or above the average industry compensation level were determined to meet criteria for high economic impact.

Project NAICS industry codes were matched with VEDP industry cluster targets to evaluate the extent to which program projects align with the state's target industry strategy. These industries included corporate services, food and beverage processing, information/communications technologies, life sciences, manufacturing, supply chain management, and unmanned systems (Table B-2). Some industry targets (e.g. Cyber security, logistics/distribution centers, and unmanned systems) are not well defined by NAICS codes.

TABLE B-2
Virginia's targeted industries

Industry sector	Description	NAICS code
Corporate services	Headquarters	551xxx
	BPO	561110, 56142x
Food and beverage processing	Food	311xxx
	Beverage	3121xx
Information/communications technologies	Cyber security	5415xx, not well defined by NAICS code
	Data centers	518210
	Software publishing	5112xx
Life sciences		3254xx, 334510, 339112, 339113, 541711, 621511
Manufacturing	Advanced Materials	3261xx
	Aerospace	3364xx
	Automotive	3361xx, 3362xx, 3363xx
	Wood Products	321xxx, 322xxx, 337xxx
Supply chain management (logistics/distribution centers)		493110, not well defined by NAICS code
Unmanned Systems		Not defined by NAICS code

SOURCE: Virginia Economic Development Partnership.

Employment performance tracking

Employment levels of businesses that received incentives between FY10 and FY17 were compared before (the year prior) and after businesses received incentives using VEC employment payroll records. Analyses were conducted at the program-level and project-level.

Records matching

Program project records between FY10 and FY16 were matched with quarterly VEC ES202 payroll employment data between 2007 and 2016 using FEIN (Federal Employer Identification Number), company name, company location, and NAICS industry information provided by agencies.

Most programs provided the FEIN for each business. The FEIN is a unique nine-digit number that identifies a business for federal tax purposes. Since firms often have multiple branch locations, a firm-level identifier is not adequate to identify a particular plant or establishment that benefitted from an economic development incentive. FEIN information, when available, was used in conjunction with other available project record information such as firm name, street and PO Box address, and industry code to identify the particular facility using an unemployment insurance account (UIACCOUNT) and reporting unit (REPTUNT), which are identifiers in the VEC data. If multiple establishments were co-located, the largest establishment employment record was selected.

The vast majority of projects for which FEIN information was available were matched to VEC data (Table B-3). It cannot be ruled out that some mismatches occurred as a result of this procedure. Mismatches were most likely to occur for large, complex firms, with fragmented tax reporting involving multiple federal tax and unemployment insurance accounts.

TABLE B-3
Match rate between project records and VEC employment records

Program	Number project records	Number project records matched to VEC employment records	Match rate
Economic Development Loan Fund	4	4	100.0%
Loan Guaranty Program	58	54	93.1
State Cash Collateral Program	8	8	100.0
SWaM Business Microloan Program	123	79	64.2
Small Business Investment Grant	8	7	87.5
Small Business Jobs Grant Fund	120	114	95.0
Virginia Jobs Investment Program	803	775	96.5
Total	**1,332**	**1,194**	**92.6%**

SOURCE: Weldon Cooper Center.

The total match rate of 93 percent compares favorably to other recent studies that linked establishment employment data with economic incentive project data. For example, Brown and Earle (2017) matched 86.9 percent of SBA loan recipients with Census Bureau's Longitudinal Business Database employment records; Lester, Lowe and Freyer (2014) matched 69.7 percent of North Carolina economic incentives to the National Establishment Time Series (NETS) database. The lowest match rates were obtained with programs that provide aid likely to benefit business startups (i.e., Small Business

Investment Grant Fund) and microbusinesses run by self-employed individuals (i.e., SWaM Business Microloan Fund). Many of the former business startups would not yet be reflected in payroll reporting between 2007 and 2016. Many of the latter firms would not report payroll data to the VEC because they have no employees.

Employment statistics

Two employment statistics were calculated. The first statistic showed how completed projects performed on an aggregate basis by *program* in terms of job creation attainment relative to what was reported in agency records. Projects were tracked before and after they received notification of award, between 2008 and 2016. Annual project cohorts were "stacked" by the year of award (-1, 0,+1,+2,+3,+4, etc.). Thus, for a FY12 award cohort, 2010 represents year -1, 2011 year 0, 2012 year 1, etc. Aggregate project employment change over the period was calculated by comparing each year to the baseline year (-1) value. These employment change estimates were compared to aggregate job creation completion figures (or in the case of loan/equity investment programs, loan origination job creation goals) and a percentage calculated, with 0 percent representing no aggregate reported job creation relative to the agency reported aggregate completion and 100 percent representing total completion of agency reported aggregate completion.

A second statistic computes the percentage of completed projects that had met the job completion benchmarks or job creation goals for each program. To simplify the analysis, this statistic was calculated by identifying the maximum employment change over the 2010-2016 period and comparing it to the project job creation baseline number.

These measures could either undercount or over count aggregate and project-level employment completion rates. First, failure to correctly match project records and VEC establishment data would introduce one source of error. Second, the annualized unit used to verify employment goal attainment may not correspond to program rules. For example, VJIP and the Small Business Grant program rules require firms to maintain jobs created for three months duration. Thus, monthly or quarterly data would be more appropriate for determining job creation completion than the annual averages used in the analysis. Third, projects are assessed based on low employment and high employment figures during the period rather than exact start to finish dates. This may over count in some instances (firm closure during the period or if a firm reduced its employment before applying for a grant and increased it afterward). Despite these limitations, the analysis proved useful because it found several instances where employment changes varied significantly from totals reported by the programs. Thus, suggesting the verification procedures that agencies use to confirm that job creation goals are achieved deserve additional scrutiny and follow-up.

Survey of businesses

A survey of approximately 1,300 businesses was conducted. The survey was sent to approximately 1,000 firms that received economic incentive grants or tax credits as identified in agency grant award records and Department of Taxation tax credit files between FY10 and FY16 and approximately 300 firms that had not received incentives. The survey was designed to provide generalizable information (both quantitative and qualitative) about the state's economic development programs as a whole for use in an annual economic incentives evaluation report as well as program-specific information for programs that are part of the cyclical review process, including the programs covered in this report. For programs with more than 100 projects funded, a randomized sample weighted by project award size was selected. For programs with fewer than 100 projects, all of the projects were selected for survey.

In order to identify appropriate contacts for each survey, agencies provided grant contact information. Non-incentivized companies with similar characteristics to the awarded firms were also selected for surveying: these firms had added at least 25 jobs over the period 2010-16, making them potentially eligible for both VJIP and Small Business Jobs Grant awards. These firms were selected from VEC ES202 employment payroll records over the period 2010-2016; the sample was weighted by employment size and industry characteristics to make the establishments similar to economic development incentive projects.

The survey instrument was designed to provide generalizable information about the various types of incentives offered (e.g., grants, loans, tax credits, sales and use exemptions, and other types of tax incentives) and more specific information about loan assistance and workforce improvement programs with a training dimension. The questionnaire was partly based on previous industry location surveys including a Council on Virginia's Future Virginia Business Climate Survey (Urban and Guterbock 2005), North Carolina Economic Development Incentive Program survey (Lane et al. 2009), and JLARC survey conducted as part of a 2012 evaluation of economic development incentives (JLARC 2012). The training question component drew on Hollenbeck (2008) while loan questions drew on the Small Business Administration Survey of Assisted Businesses (Hayes 2008). Questions asked are summarized in Table B-4. Firms self-identified themselves as having received certain incentives. Firms were asked about the importance of the state and local incentives they received in their firm's location, expansion, job retention, investment, and other decisions. They were also asked to assess the importance of various industrial location and expansion factors, including traditional economic location determinants such as market accessibility, transportation access, labor availability, etc. on business decisions and to evaluate how well the state performed on those dimensions.

TABLE B-4
Survey questions

Question recipient/topic area	Questions
All businesses	
Firm economic incentive usage	Applied for state economic incentive? Received a state economic incentive? Reasons for not applying or receiving incentive
Economic development incentive marketing and policy	Ways that firm learns about economic incentives Priorities for state economic development incentives Programmatic or procedural improvements (if any) needed in existing programs Other types of economic development incentives needed
Usage of local economic incentives	Received a local incentive? Type of local economic incentive received Value of local economic incentive received Role of local economic incentive in location/expansion decision
Business location factors	Importance of location factor for firm formation/location/expansion Rating of how Virginia compares to other state on location factor Ways that state could assist firm growth
Business characteristics	Length of time operating in Virginia Location of firm headquarters in Virginia Industry category of business Number of Virginia employees Employment growth Future expansion plans Geographical scope of operations Geographical location of customers
Specific businesses	
Businesses receiving incentives	Type of incentive used (e.g., grant, tax credit) Types of projects that incentive was used for (e.g., startup, expansion, relocation) Role of incentive in location/expansion decision Difficulties (if any) in using incentives Alternative expansion/relocation sites under consideration Rating of Virginia incentives compared to other states
Loan program users only	Availability of loan without program assistance Satisfaction with loan program
Training assistance program users only	Importance of incentive in training decision Firm/worker improvements as result of training Wage improvements resulting from training

SOURCE: Weldon Cooper Center.

In late January 2018, survey participants were sent a mail packet containing a cover letter from the Center for Survey Research at the Weldon Cooper Center for Public Service, 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 1,292 initial contact list, 23 businesses were acquired by other firms or closed, and nine were found to be duplicate business records. Thus, the adjusted survey population was 1,260. Two hundred and twenty-six usable surveys were completed, which represents a 17.9 percent participation rate.

Interviews with agencies and stakeholders

Meetings and phone conference calls were held with staff from agencies administering the incentives evaluated for this report and include the

- Department of Small Business Supplier Diversity and Virginia Small Business Financial Authority,
- Department of Taxation,
- Virginia Economic Development Partnership,
- Virginia Department of Labor and Industry, and
- Department of Rail and Public Transportation.

In addition, meetings were held with interested members of the Virginia Manufacturer's Association Workforce Solutions Committee to discuss their awareness, usage, and thoughts about the VJIP, Small Business Jobs Grant, and Worker Retraining Tax Credit programs. A conference call was held with representatives from the Virginia Economic Developers Association to discuss the usefulness of the incentives reviewed in this report. A conference call was also held with staff at the Virginia Banking Association about the small business loan assistance and equity assistance programs.

Review of workforce and small business incentives in other states

Weldon Cooper Center staff reviewed several sources of information to obtain data on state small business and workforce improvement programs. The principal source of information was the Council for Community and Economic Research (C2ER) online State Business Incentives Database, which reflects incentive programs in place as of 2015 (the last time the database was updated). C2ER categorizes programs along several different dimensions, including

- program category (e.g., direct business financing, indirect business financing, tax),
- program type (e.g., equity investment, grant, tax abatement, tax credit, tax exemption),
- business needs (e.g., capital access or formation, facility/site location, infrastructure, workforce prep or development), industry (2-digit NAICS industries), and
- geographical focus (e.g., development/redevelopment zone, rural community, urban area, specific region/district, statewide).

Workforce improvement programs were identified using the business need "workforce prep or development," while loan programs were identified using program types "collateral support," "loan guarantee," and "loan/loan participation." Investment grants were identified using program type "equity investment."

Supplemental information was obtained from several other sources

- National Conference of State Legislatures website,
- Neumark and Grijalva (2016),
- Cafcas and LeRoy (2016) for workforce improvement programs,

- information from the United States Department of Labor Employment and Training Administration for states that offer tax credits to employers for apprentice training (https://www.doleta.gov/oa/taxcredits.cfm) and from the Economic Development Administration website on State EDA-Funded Revolving Loan Programs (https://www.eda.gov/rlf/), and
- Center for Regional Economic Competitiveness and Cromwell Schmisseur (2016) for state loan assistance programs.

In addition, internet research of economic development agency, department of taxation, and legislative websites for each state was used to find newer programs and identify important features of each program.

The purpose of the state comparison analysis was not simply to catalogue program characteristics as can be found elsewhere but also identify the relative use of certain design features that have some bearing on economic impacts and the recommendations made in this report such as industrial focus (for equity investment programs) and minimum wage requirements (for workforce improvement job creation programs). In order to create comparison data, professional judgment and "rules of thumb" were used. In categorizing industry foci for state equity investment programs such as economic base (EB), high tech (HT), state target industries (ST), and other industries (OT), program statutes, guidelines, and applications were used in characterizing the programs. In computing minimum wage requirements by state, the rule of thumb was to use federal minimum wage or state minimum wage (if higher) if no wage eligibility requirement was explicitly stated. When states stipulated that applicants must pay at least the level of the county average wage where the firm is locating or expanding, this was estimated by selecting the lowest county average wage in the state using Bureau of Economic Analysis wage and salary income and employment data from the local area personal income and employment series (CA4 table). When states had multiple programs, an average minimum wage requirement was estimated by weighting program minimum wage requirements equally. This procedure likely resulted in very conservative estimates of minimum wage requirements. Some programs without explicit wage criteria use discretionary award selection processes that penalize and effectively exclude job creation projects paying low wages. Also, by selecting the minimum of regional minimum wage thresholds, the minimum computed may significantly underestimate the effective minimum threshold based on the distribution of actual awards.

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, role and importance of economic incentives, market imperfection rationales for programs, 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 the loan assistance programs, job creation and job retaining tax incentives, equity investment incentives, and the effect of telecommuting on productivity and the environment; and
- studies that attempt to quantify the economic impact of economic development incentives using ex-ante and ex-post modeling methods.

Appendix C: State job creation and training incentives

All U.S. states except Alaska and Hawaii offer businesses some form of job creation and training incentives (Table C-1). Unlike Virginia, most states offer these incentives in the form of tax credits rather than grants. Job creation incentives are among the oldest and most utilized economic development incentive programs that states offer. They make up an estimated 45 percent of the value of state incentives. Spending levels have grown faster than spending for other economic incentives, constituting two-thirds of total spending growth for state economic development incentives between 1990 and 2015, according to recent research. Recently, several states (including Georgia and Louisiana) have begun offering customized job recruitment and training pro-grams to incentivize businesses to locate in the state. These "turnkey" programs offer extensive services such as recruiting, screening, hiring, and training workers at no cost to the business.

State job creation incentives differ widely in purpose. Many are highly discretionary "deal-closing" funds used to entice firms to relocate or expand as part of complex incentive packages and do not stipulate particular uses of funds. Others are more formula-driven workforce improvement programs similar to the Virginia Jobs Investment Program (VJIP) and Small Business Jobs Grant and fund employee onboarding recruitment and training costs, sometimes in combination with capital investment requirements.

Job creation incentives have many common features of Virginia's VJIP and Small Business Jobs Grant programs; the specific requirements, however, often vary. Features that Virginia's programs have in common with other states include

- minimum job creation and wage requirements,
- requirement that jobs be retained for a certain length of time,
- conditions that tie the size of the total award to job creation and training levels,
- incentive bonuses or threshold exemptions for rural or distressed and priority funding areas, and
- restriction of funding to basic sector or state target industries.

Fifteen states in addition to Virginia also offer job retraining tax credits (Table C-1), and six of these states offer two credits. Job retraining tax credit programs differ by state in several respects. Tax credits in Alabama and Georgia target retraining for basic skills. Arizona and Colorado offer job retraining credits for undergraduate and graduate education. Ten states explicitly fund apprenticeships, and some target disadvantaged populations. Formulas to determine the tax credit amount per job vary widely but typically reimburse up to 50 percent of training costs with per employee caps ranging from $400 to $5,000. Like Virginia, other states and countries have reported low participation rates for training and retraining tax credit programs.

States show a greater tendency to offer training assistance in the form of grants (35 states), perhaps because they have a higher value to businesses, including businesses with low tax liability. Grant programs also allow states to provide complementary advisory services and tailor preferences for training delivery, including favoring particular types of businesses or choice of state public higher education institutions. Research indicates that small business incentives often need to incorporate complementary services such as counseling and other advisory services so small businesses can better appraise their training needs and create training plans.

TABLE C-1
State workforce job creation and training incentives

	Job creation incentives			Training incentives		
	Job creation grant	Job creation tax credit	Est. average wage minimum for job creation programs ($)	Training grant	Training direct delivery	Job retraining tax credit
Alabama		X	$7.25		X	X (2)
Alaska			--			
Arizona		X (2)	14.52	X		
Arkansas		X (2)	9.12	X	X	X(2)
California		X (2)	13.13	X		
Colorado	X	X (2)	12.71	X		X
Connecticut		X	10.10			X (2)
Delaware		X	8.25	X		
District of Columbia						
Florida		X	14.71	X	X	
Georgia		X (3)	12.16		X	X (2)
Hawaii			--			
Idaho		X (2)	16.18			
Illinois			8.25			
Indiana		X	7.25	X		
Iowa	X	X	12.29		X	
Kansas		X	--	X		
Kentucky	X		9.06	X		X
Louisiana		X (3)	16.43		X	X
Maine		X	16.31	X (2)		
Maryland		X	13.88	X		X
Massachusetts		X	11.00	X		
Michigan	X		9.25	X		
Minnesota	X	X	13.75	X		
Mississippi		X (2)	9.73			X
Missouri		X	10.98	X	X	X (2)
Montana	X	X	10.12	X		X
Nebraska			--	X (2)		
Nevada			8.25			
New Hampshire			--	X		
New Jersey		X (2)	11.00	X (2)		
New Mexico		X	13.46	X		
New York		X	9.70			

	Job creation incentives			Training incentives		
	Job creation grant	Job creation tax credit	Est. average wage minimum for job creation programs ($)	Training grant	Training direct delivery	Job retraining tax credit
North Carolina	X		13.73	X (2)		
North Dakota		X	7.25	X		
Ohio	X	X	9.51	X (2)		
Oklahoma		X (3)	29.32		X	
Oregon	X		19.79			
Pennsylvania	X	X	10.88	X		
Rhode Island		X (3)	10.94	X (2)		X (2)
South Carolina		X (2)	16.38	X	X	X
South Dakota	X		8.85	X		
Tennessee		X (3)	12.36	X		
Texas	X		10.26	X (2)		
Utah	X		15.70	X		
Vermont	X		14.00	X		
Virginia	X (2)	X (2)	8.39	X		X
Washington			--	X		X
West Virginia		X	8.75	X (3)		X
Wisconsin			--	X		
Wyoming			7.25			
Total/ average (wage)	**15**	**33**	**$11.91**	**35**	**9**	**16**

SOURCE: Weldon Cooper Center analysis based on C2ER Business Incentives Database.
NOTE: Some programs have more than one of the same type of incentive and the number is designated in ( ).

Appendix D: Equity investment incentives by state

In the past three decades, many states have undertaken efforts to support equity financing for fast-growing small businesses. Thirty-one states (including Virginia) and the District of Columbia have offered an equity investment incentive at one time. Six states have either repealed or allowed the tax credit to sunset.

Currently, 26 states offer equity investment tax credits (Table D-1). Virginia has equity investment tax incentives—the Qualified Equity and Subordinated Debt Tax Credit and an income tax subtraction for long-term capital gains. These incentives and most programs in other states, however, tend to operate differently than Virginia's Small Business Investment Grant, which has fewer eligibility restrictions.

Twenty-eight states (including Virginia) have established direct investment funds that allow the state to make equity investments directly in startup companies or state-sponsored angel and investment funds, rather than as a reimbursement to the investor. Virginia's direct investment program is the Growth Acceleration Program (GAP). Virginia's GAP program is a group of seed- and early-stage investment funds making near-equity and equity investments in Virginia-based technology, life science, and clean-tech companies. The GAP program awarded an average of $3.7 million each year in investments between FY12 and FY17. The state's Center for Innovative Technology administers the program and retains ownership interest in the invested businesses.

Typically, direct investment programs have a competitive award process and focus on funding target industries and innovative startups with high growth potential. Moreover, business applicants ordinarily undergo a careful screening and selection process, including due diligence that involves business plan evaluation, appraisal of management experience, company presentation, and assessment of financial projections and capital needs.

TABLE D-1
Equity investment programs by state and type of program

	Tax credit						Investment fund	
	Name	Rate (%)	Annual funding ($M)	Industry restrictions	Liquidity	Rollover period (years)	Program types (number)	Industry restrictions
Alabama								
Alaska								
Arizona	Angel Investment Tax Credit	30%	$2.50M	None		3		
Arkansas	Equity Investment Tax Credit	33	6.25	State target industry	Transferable	9	Direct investment (2), Third party/ fund of funds (2), Coinvestment funds	High tech, State target industry, Other industries
California								
Colorado	Advanced Industry Investment Tax Credit	25	0.75	High-tech, State target industry		5	Third party/ fund of funds (2)	High-tech, Economic based, Other industries
Connecticut	Angel Investor Tax Credit Program	25	12.00	None		5	Direct investment (3)	High-tech
Delaware								
District of Columbia							Coinvestment funds	None
Florida							Third party/ fund of funds (2)	State target industry, Other industries
Georgia	Georgia Angel Investment Tax Credit	35	5.00	High-tech, State target industry		5		
Hawaii							Third party/ fund of funds	High-tech, State target industry
Idaho								
Illinois	Illinois Angel Investment Tax Credit Program	25	20.00	High-tech		5	Direct investment	None
Indiana	Venture Capital Investment Tax Credit	20	12.50	None		5	Third party/ fund of funds/	High-tech, Other industries

		Tax credit					Investment fund	
	Name	Rate (%)	Annual funding ($M)	Industry restrictions	Liquidity	Rollover period (years)	Program types (number)	Industry restrictions
							Coinvestment funds (2)	
Iowa	Innovation Fund Tax Credit	25	8.00	High-tech, Economic based, Other industries	Transferable	5	Direct investment (3)	High-tech, Other industries
Iowa	Angel Investor Tax Credit	25	2.00	High-tech, Economic based, Other industries	Refundable (partially)			
Kansas	Kansas Angel Investor Tax Credit	50	6.00	None	Transferable	Unlimited		
Kentucky	Angel Investment Tax Credit	40	3.00	High-tech, State target industry, Other industries	Transferable	15	Direct investment (3)	High-tech, State target industry
Kentucky	Kentucky Investment Fund Tax Credit	40	3.00	High-tech, State target industry, Other industries	Transferable	Unlimited		
Louisiana	Angel Investor Tax Credit	25	3.60	Economic based, State target industry	Transferable	10	Direct investment	High-tech
Maine	Maine Seed Capital Tax Credit Program	50	5.00	High-tech, Economic based, State target industry	Refundable	15	Direct investment, Coinvestment funds	None
Maryland	(1) Biotechnology Investment Incentive Tax Credit	50	12.00	High-tech	Refundable	0	Direct investment	None
Maryland	Cybersecurity Investment Incentive Tax Credit	33	2.00	High-tech	Refundable	0		
Massachusetts	Angel Investor Tax Credit	20	25.00	State target industry			Direct investment (2)	High-tech, Other industries
Michigan							Third party/ fund of funds (2), Coinvestment funds	High-tech, State target industry, Other industries
Minnesota								

	Tax credit						Investment fund	
	Name	Rate (%)	Annual funding ($M)	Industry restrictions	Liquidity	Rollover period (years)	Program types (number)	Industry restrictions
Mississippi								
Missouri							Direct investment	High-tech, State target industry
Montana								
Nebraska	Nebraska Angel Investment Tax Credit	40	4.00	High-tech	Refundable	0	Direct investment/ Coinvestment funds	Economic based, Other industries
Nevada							Direct investment	State target industry
New Hampshire							Coinvestment funds	High-tech
New Jersey	Angel Investor Tax Credit Program	10	25.00	High-tech, State target industry		15	Coinvestment funds	High-tech
New Mexico	New Mexico Angel Tax Credit	25	2.00	High-tech, State target industry		5		
New York	Qualified Emerging Technology Companies Capital Tax Credit	20	1.50	High-tech		Unlimited	Direct investment	High-tech
North Carolina							Third party/ fund of funds	None
North Dakota	Seed Capital Investment Credit	45	3.50	Economic based, Other		7	Direct investment	Economic based
	Angel Investor Tax Credit	35	10.00	Economic based, Other				
Ohio	InvestOhio Tax Credit	10	50.00	None		15	Third party/ fund of funds	None
Oklahoma							Direct investment, Third party/fund of funds	High-tech, Other
Oregon								
Pennsylvania								
Rhode Island							Third party/ fund of funds	High-tech

		Tax credit					Investment fund	
	Name	Rate (%)	Annual funding ($M)	Industry restrictions	Liquidity	Rollover period (years)	Program types (number)	Industry restrictions
South Carolina	South Carolina Angel Investor Credit	35	5.00	HG, Economic based	Transferable	10		
South Dakota								
Tennessee	Angel Tax Credit	33	4.00	High-tech, Economic based		5	Direct investment	High-tech, State target industry
Texas							Third party/ fund of funds	Economic based
Utah	Life Science and Technology Tax Credits	35	0.30	High-tech	Refundable	0	Third party/ fund of funds	None
Vermont	Seed Capital Fund Tax Credit	20	7.15	High-tech		4	Third party/ fund of funds	Economic based
Virginia	Qualified Equity and Subordinated Debt Investments Credit	50	5.00	High-tech, State target industry		15	Direct investment	High-tech, State target industry
Washington								
West Virginia								
Wisconsin	Venture Capital Angel Investment Credit	25	20.25	High-tech, Economic based, State target industry	Transferable	15		
Wisconsin	Early Stage Seed Investment Tax Credit	25	2.08	High-tech, Economic based, State target industry	Transferable	15		
Wyoming								

SOURCE: Weldon Cooper Center analysis based on C2ER Business Incentives Database, Barker (2017), and Center for Regional Economic Competitiveness and Crowell Schmisseur (2016).
NOTE: State debt programs supporting venture capital funds are not listed. Ohio cap is $100 million per biennium.

Appendix E: Loan programs by state

Most states and Washington, D.C., offer small business loan programs; the exceptions are Hawaii, Oklahoma, and Tennessee. Like Virginia, many states offer a variety of programs (Table E-1). Some states have established programs that are similar to Virginia's loan programs to help mitigate the credit constraints that many small businesses face. Many states also offer indirect lending programs. One type, offered by 37 states, is a loan participation program that mitigates commercial lending risk by purchasing a portion of the completed loan. Another type is a capital access program, offered by 23 states, in which a reserve account is established through fees and contributions from lenders, borrowers, and the agency for use in covering commercial loan losses. Like some states, Virginia no longer offers loans through its capital access program; such programs have fallen out of favor because commercial lenders prefer the risk coverage provided by loan guarantee and collateral support programs.

TABLE E-1
State loan program by type

Participating state	Capital access	Loan guarantee	Collateral support	Loan participation	Microloan	EDA revolving loan
Alabama	X	X		X		
Alaska					X	X
Arizona				X		
Arkansas	X	X		X		
California	X	X	X			
Colorado	X		X			
Connecticut	X					
Delaware	X			X		
District of Columbia			X	X		
Florida	X	X		X	X	
Georgia	X	X		X		
Hawaii						
Idaho			X			
Illinois	X		X	X		
Indiana	X					
Iowa	X			X	X	
Kansas				X		
Kentucky	X		X	X		
Louisiana		X				
Maine				X		
Maryland		X		X	X	X
Massachusetts	X			X		
Michigan	X	X	X	X		

Participating state	Capital access	Loan guarantee	Collateral support	Loan participation	Microloan	EDA revolving loan
Minnesota	X	X		X	X	
Mississippi		X			X	
Missouri				X	X	
Montana				X	X	
Nebraska				X		
Nevada			X	X	X	
New Hampshire	X	X	X	X		
New Jersey		X		X		X
New Mexico				X		
New York	X	X			X	
North Carolina	X			X	X	
North Dakota			X	X		
Ohio	X		X		X	
Oklahoma						
Oregon	X	X		X		X
Pennsylvania				X	X	X
Rhode Island				X	X	
South Carolina	X			X		
South Dakota				X	X	
Tennessee						
Texas				X		
Utah		X		X		
Vermont				X		
Virginia	X		X	X	X	X
Washington	X		X	X		
West Virginia		X	X	X		X
Wisconsin		X				
Wyoming			X		X	
Total	**23**	**17**	**15**	**35**	**17**	**7**

SOURCE: Weldon Cooper Center analysis based on C2ER Business Incentives Database and Center for Regional Economic Competitiveness and Crowell Schmisseur (2016). NOTE: EDA, U.S. Economic Development Administration.

Appendix F: VJIP and Small Business Jobs Grant spending and VSBFA assisted loans by year

The amount spent on Virginia Job Investment Program (VJIP) and Small Business Jobs Grant awards are shown in Table F-1. Spending reflects reimbursements that have been paid to projects that have met the minimum requirements for the grants and have begun receiving reimbursements for the number of jobs they have created. Spending levels reported in this table does not reflect total spending for the programs in each fiscal year. For example, total grant payments for the VJIP program in FY17 was $6.3 million for projects that were approved in FY17 or prior years. Table F-2 shows the amount of loans that businesses obtained from the Virginia Small Business Financing Authority (VSBFA) or from a bank for the programs for which VSBFA provides the credit enhancement. Table F-3 shows the amount of VSBFA assistance provided through the credit enhancement programs.

TABLE F-1
Spending on VJIP and Small Business Jobs Grant awards FY10 to FY17

	VJIP	Small Business Jobs Grant
FY10	$6.7M	
FY11	8.1	$0.0M
FY12	7.4	0.1
FY13	5.6	0.1
FY14	7.3	0.5
FY15	3.4	0.0
FY16	5.5	0.4
FY17	2.4	0.7
All years	**$46.5M**	**$1.8M**

SOURCE: Weldon Cooper Center analysis of information provided by VEDP and DSBSD.NOTE: Small Business Jobs Grant was not adopted until 2010. Projects are grouped in the year that grants were approved.

TABLE F-2
Loan amounts to businesses receiving assistance from VSBFA FY10 to FY17

	Economic Development Loan Fund	Loan Guaranty Program	State Cash Collateral Program	SWaM Business Microloan Fund
FY10	$0.0M	$0.2M	$0.0M	$0.0M
FY11	1.0	1.9	0.0	0.0
FY12	0.1	9.5	0.0	0.1
FY13	1.0	5.3	0.7	0.9
FY14	0.0	2.6	0.8	0.7
FY15	0.5	0.7	5.4	0.3
FY16	0.0	1.4	0.0	0.4
FY17	0.0	9.6	0.0	0.8
All years	**$2.6M**	**$31.2M**	**$6.8M**	**$3.2M**

SOURCE: Weldon Cooper Center analysis of information provided by VSBFA.

TABLE F-3
VSBFA assistance for credit enhancement programs FY10 to FY17

	Loan Guaranty Program	State Cash Collateral Program
FY10	$0.1M	$0.0M
FY11	1.4	0.0
FY12	5.2	0.0
FY13	4.0	0.3
FY14	1.6	0.1
FY15	0.6	1.5
FY16	1.0	0.0
FY17	4.2	0.0
All years	**$18.0M**	**$1.9M**

SOURCE: Weldon Cooper Center analysis of information provided by VSBFA.

Appendix G: Other incentives VJIP and Small Business Jobs Grant projects received

Some projects that received a grant from the Virginia Jobs Investment Program (VJIP) and, to a lesser extent the Small Business Jobs Grant Fund, also received other Virginia economic development grants. As a result, some of the economic benefit generated by the projects is attributable to the other incentives.

Adjusted for the effects of other job creation incentives, the positive economic impact estimates for VJIP and the Small Business Jobs Grant are five to 10 percent smaller. VJIP provided $3 million in grant funding to 33 projects between FY10 and FY16 that also received $3.9 million in incentives from other programs (Table F-1). These other programs credited the projects with creating 1,677 jobs, which represents five percent of the total job creation level (28,904) by VJIP. The Small Business Jobs Grant Fund provided $291,382 to seven projects that also received $480,877 in incentives from other programs. These other programs credited the projects with creating 188 jobs, which represents nine percent of the total job creation level (1,205) reported by the Small Business Jobs Grant Fund. Some programs (Real Property Improvement Grant and the Virginia Leaders in Export Trade program) do not require and report on job creation performance but may still have job creation impacts on projects. Further adjusted for the effects of these additional incentives, the economic impact estimates for VJIP and the Small Business Jobs Grant are even smaller.

TABLE G-1
VJIP and Small Business Jobs Grant projects also received other economic development incentives (FY10-FY16)

	# projects	Award amount	Jobs created
VJIP projects receiving other incentives	**33**	**$3,000,223**	**4,164**
Other incentives			
Commonwealth's Opportunity Fund	4	$550,000	439
Economic Development Access Program	1	401,000	0
Job Creation Grant (Enterprise Zone)	12	1,247,095	974
Real Property Improvement Grant (Enterprise Zone)	6	229,954	0
Tobacco Region Opportunity Fund	6	1,400,000	264
Virginia Leaders in Export Trade (VALET) Program	4	52,248	0
Total, other incentives	33	$3,880,297	1,677
Small Business Jobs Grant projects receiving other incentives	**7**	**$291,382**	**321**
Other incentives			
Commonwealth's Opportunity Fund	1	$150,000	63
Commonwealth Research Commercialization Fund	1	250,000	0
Job Creation Grant (Enterprise Zone)	3	70,770	125
VJIP Training Program	2	10,880	0
Total, other incentives	**7**	**$480,877**	**188**

SOURCE: Weldon Cooper Center analysis of incentive projects.
NOTE: Data is for projects receiving economic development incentives between FY10 and FY16.

In addition to other grants, VJIP and Small Business Jobs Grant projects could have received tax credits. Projects creating more than 100 jobs (33 percent of VJIP projects and four percent of Small Business Jobs Grant projects) could have been eligible for the Major Business Facility Jobs Tax Credit if they met other tax credit criteria. Projects could be eligible for the Worker Retraining Tax Credit to help with additional training or apprenticeships. Information about tax credits received by these projects was not incorporated into the analysis because of data limitations.

Appendix H: Targeting of awards by program

TABLE H-1
Majority of VJIP and Small Business Jobs Grants met at least two indicators of high economic impact

	VJIP	Small Business Jobs Grant Fund	All economic development incentives
Individual indicator			
High employment multiplier	66.7%	66.2%	58.2%
Export-based	57.8	49.6	45.4
Pays high wage	38.2	54.1	20.3
Number of indicators met			
Three	9.48%	9.77%	5.5%
Two	57.9	63.2	39.9
One	95.3	97.0	78.5
None	4.7	3.0	21.5
State targeted industries			
Total value of awards	53.6%	47.5%	33.5%
Percentage of projects	46.4	42.1	32.6
Number of projects, total	**907**	**133**	**2,856**

SOURCE: Weldon Cooper Center analysis.
NOTE: All economic development incentives includes data for FY10-FY16 incentives for which industry data is available.

TABLE H-2
Most Small Business Investment Grant projects did not meet an indicator of high economic impact

	Small Business Investment Grant	All economic development incentives
Individual indicator		
High employment multiplier	45.2%	58.2%
Export-based	38.7	45.4
Pays high wage	n.a.	20.3
Number of indicators met		
Three	n.a.	5.5%
Two	29.0%	39.9
One	54.8	78.5
None	45.2	21.5
State targeted industries		
Total value of awards	41.3%	33.5%
Percentage of projects	28.1	32.6
Number of projects, total	**32**	**2,856**

SOURCE: Weldon Cooper Center analysis.
NOTE: All economic development incentives includes data for FY10-FY16 incentives for which industry data is available.

TABLE H-3
Majority of loans met only one indicator of high economic impact

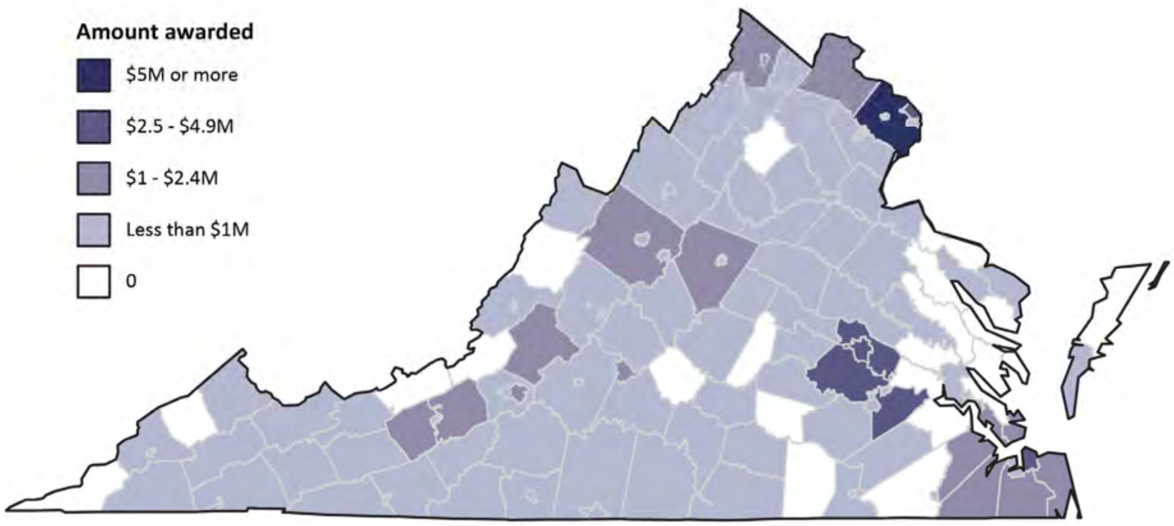
	Economic Development Loan Fund	Loan Guaranty Program	State Cash Collateral Program	SWaM Business Microloan	All economic development incentives
Individual indicator					
High employment multiplier	75.0%	17.3%	37.5%	13.8%	58.2%
Export-based	75.0	17.3	50.0	11.3	45.4
Pays high wage	n.a.	n.a.	n.a.	n.a.	20.3
Number of indicators met					
Three	n.a.	n.a.	n.a.	n.a.	5.5%
Two	50.0%	8.0%	25.0%	4.4%	39.9
One	100.0	26.7	62.5	20.8	78.5
None	0.0	73.3	37.5	79.3	21.5
State targeted industries					
Total value of awards	19.1%	9.1%	19.8%	4.2%	33.5%
Percentage of projects	25.0	10.7	25.0	4.4	32.6
Number of projects, total	**4**	**75**	**8**	**159**	**2,856**

SOURCE: Weldon Cooper Center analysis.
NOTE: All economic development incentives includes data for FY10-FY16 incentives for which industry data is available. Economic Development Loan Fund and State Cash Collateral Program projects are only those that are supported with state-supported assistance.

Appendix I: Regional distribution of grant awards and loans

The geographical pattern of grant awards and loans differs by program. VJIP awards are concentrated in larger, more populated regions such as Northern Virginia, the Richmond area, and Hampton Roads (Figure I-1).

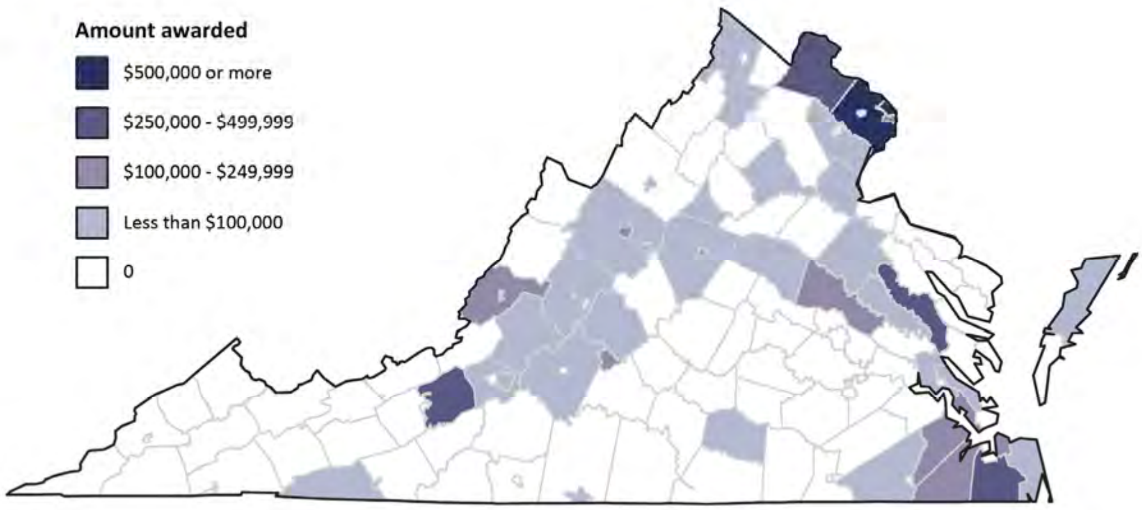
FIGURE I-1
VJIP awards are concentrated in larger, more populated regions (FY10-FY17)



SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Based on 907 awards.

Half of the amount awarded by the Small Business Job Grant was made to four Northern Virginia localities—Arlington County, Fairfax County, Loudon County, and Alexandria City (Figure I-2).

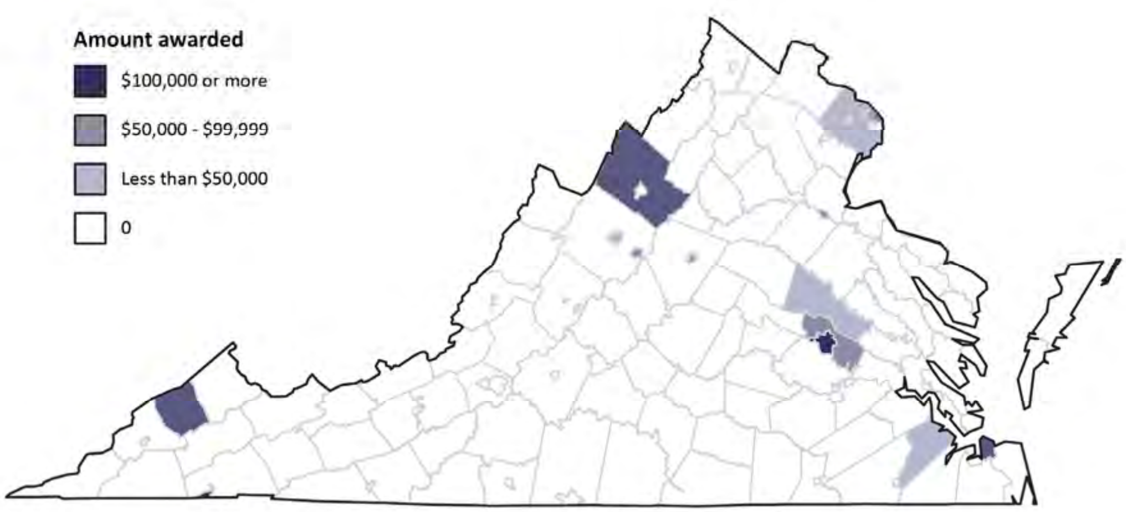
FIGURE I-2
Half of the amount awarded by the Small Business Job Grant was to businesses in four Northern Virginia localities (FY10-FY17)



SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Based on 126 awards.

The Small Business Investment Grant is a relatively new program. Half of the total amount awarded benefitted businesses in the City of Richmond and Henrico County (Figure I-3).

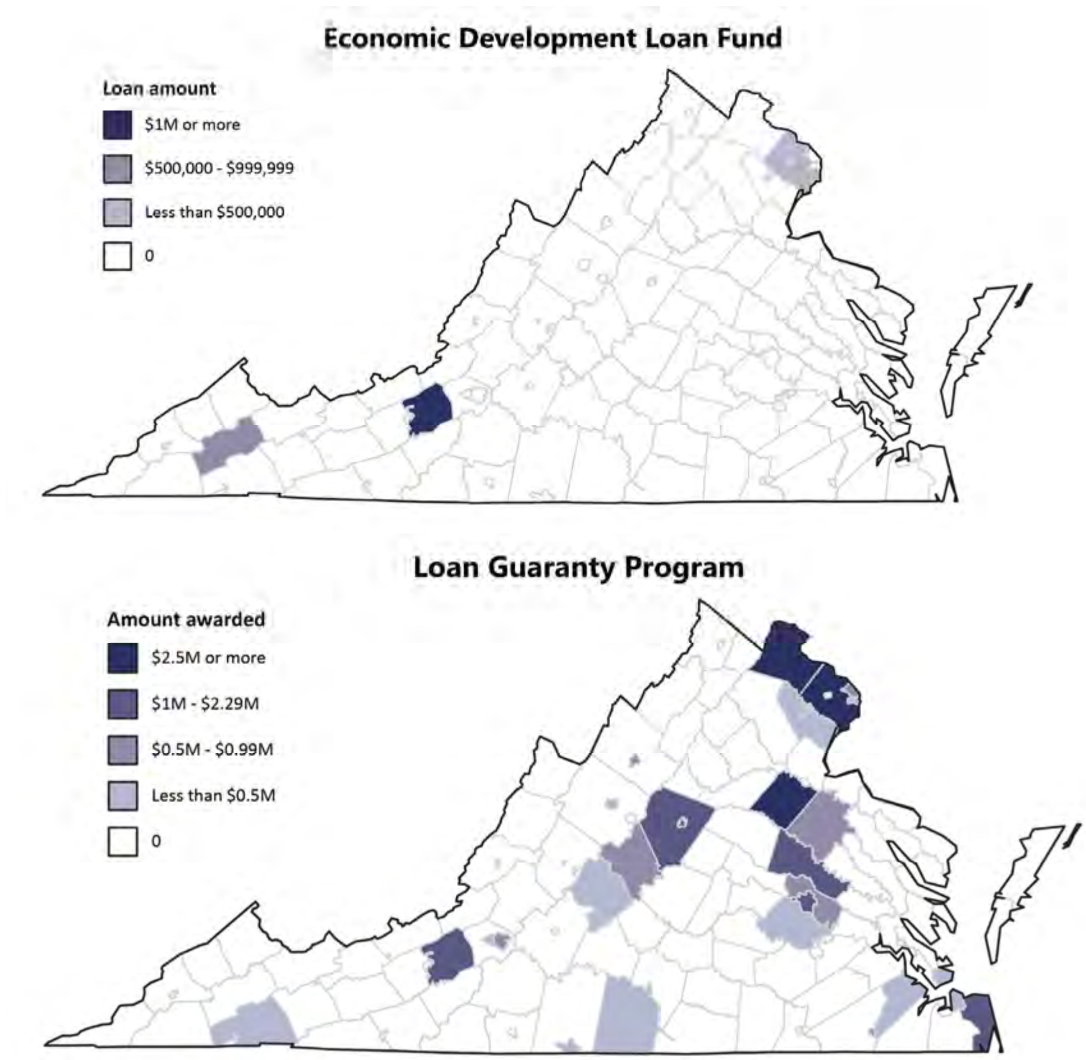
FIGURE I-3
Half of the amount awarded by the Small Business Investment Grant was to businesses in the City of Richmond and Henrico County (FY15-FY17)

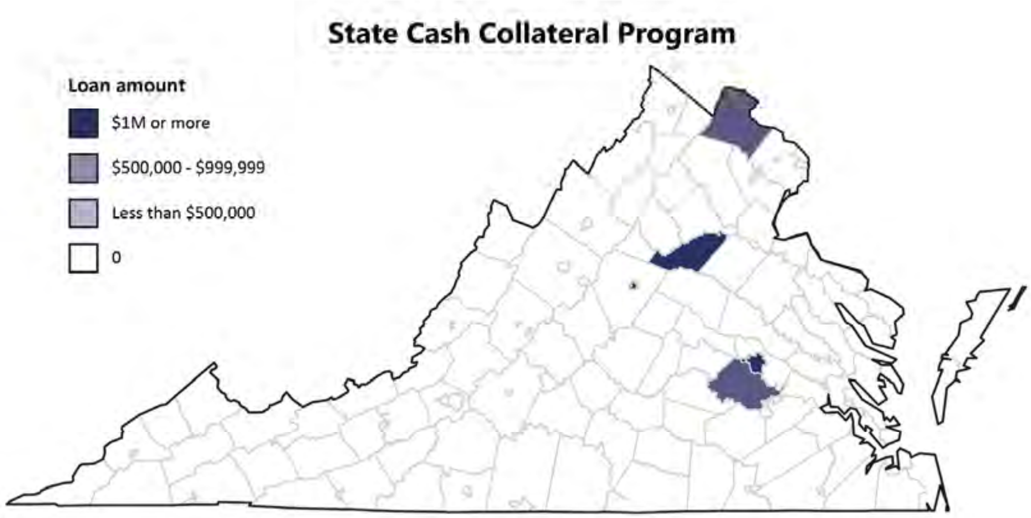


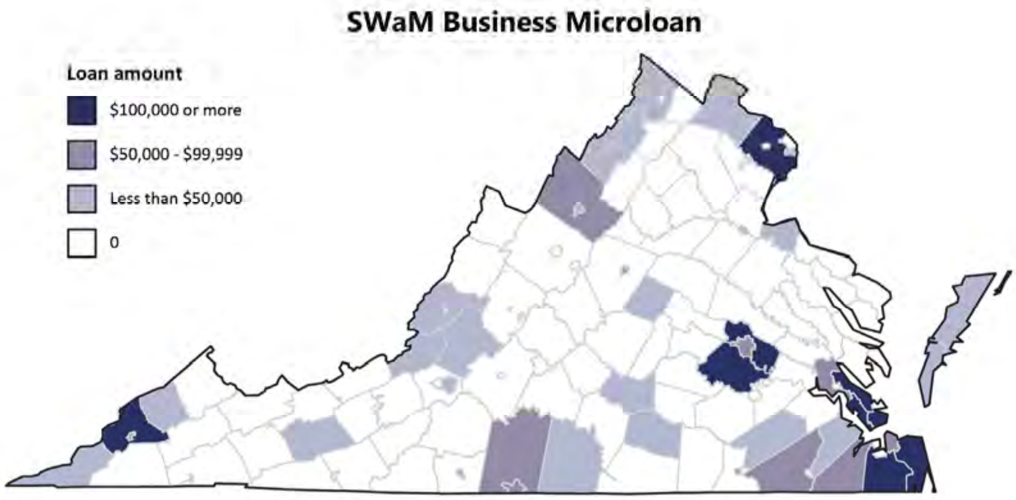
SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Based on 32 awards.

VSBFA loan programs benefited different areas of the state. State-supported loans from the Economic Development Loan Fund primarily benefitted businesses in Southwestern Virginia (Figure I-4). Loans that were supported by the Loan Guaranty Program were more heavily concentrated in Northern Virginia, the Richmond area, and Charlottesville area (Figure I-5). The State Cash Collateral Program provided loans to businesses in five localities (Figure I-6). One-third of SWaM Business Microloans were made in the Hampton Roads area (Figure I-7).

FIGURE I-4
VSBFA loan programs benefited different areas of the state (FY10-FY17)







SOURCE: Weldon Cooper Center analysis of economic development incentives.
NOTE: Economic Development Loan Fund map is based on four state-supported loans. Loan Guaranty Program map is based on 78 loans. State Cash Collateral Program map is based on eight state-supported loans. SWaM Business Microloan map is based on 159 loans.

Appendix J: 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 Secretary of Commerce and Trade, the Secretary of Finance, the Department of Small Business and Supplier Diversity, the Department of Taxation, and the Virginia Economic Development Partnership.

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

- Department of Small Business and Supplier Diversity
- Department of Taxation
- Virginia Economic Development Partnership

Ralph S. Northam
Governor

R. Brian Ball
Secretary of Commerce & Trade

COMMONWEALTH of VIRGINIA

Department of Small Business and Supplier Diversity

Tracey G. Wiley
Director

June 7, 2018

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

RE: Virginia Department of Small Business Supplier Diversity and Virginia Small Business Financing Authority Response to JLARC Report – *Workforce and Small Business Incentives*

Dear Mr. Greer:

We appreciate the opportunity to provide written response to the draft JLARC report regarding *Workforce and Small Business Incentives.* Having reviewed the report we have the following comments on the recommendations affecting programs administered by the Virginia Department of Small Business and Supplier Diversity (SBSD) and Virginia Small Business Financing Authority (VSBFA):

Recommendation #1 –

Response: While we understand the desire to improve the economic impact of all incentive programs, it will likely be more difficult to implement higher wage requirements on the businesses served by the Small Business Jobs Grant Fund. The businesses that are eligible for this grant are very small at 50 or fewer employees and typically have less resources available to pay higher wages. Businesses in rural and distressed areas will especially find this requirement difficult as they have limited capacity to pay higher wages as compared to those in urban areas. The requirements for the Small Business Jobs Grant Fund are currently more restrictive than those of the Virginia Jobs Investment Program and increasing the wage requirement could further restrict our ability to deploy grant funds serving our small business constituency.

Recommendation #6 and #7 –

Response: We feel recommendations 6 and 7 could be combined and put in a format similar to recommendation 8, which has two parts. While there could be validity to utilizing a scoring mechanism for programs that have high interest to ensure the funding is provided to the businesses that demonstrate the greatest economic impact there is also a cost in administrative time. Many of the grants are small dollar grants and the administrative cost should be evaluated to determine if the increased evaluation is value added.

The narrative on these recommendations speak to changes in the maximum reimbursement rate and maximum reimbursement limit, which the agency supports. JLARC notated average reimbursement rates for similar programs in other states. We believe this would allow the grant funding to be utilized by more investors supporting more small businesses.

Recommendation #8–

Response: The agency recognizes the value in collecting additional economic development data on the Small Business Investment grants awarded. The application has been modified to collect expected job creation, expected average wages, expected capital investment, and the industry classification codes (NAICS). If the intent is to solicit feedback on an annual basis then the agency would need additional resources to support that effort. The number of businesses that would need to report economic impact metrics would grow exponentially each year as more awards are made. It may also be difficult to compel the businesses to provide this data after the time of award because they do not receive the grant award; rather the investors receive the award.

Recommendation #9–

Response: The agency understands the desire to recapture funds in the event of relocation or criminal misconduct however once the grant is issued, the grantee has no direct control over the location or operation of the business itself. It would also be difficult for the agency to compel reporting from the business after grant award, as they are not the recipient of the grant. Adoption of this recommendation would potentially penalize the grantee for decisions made by the business owner. Additional consideration should be given to time limitations for recapture as well as the feasibility of this recommendation.

Recommendation #10 -

Response: The agency is supportive of continued solicitation of feedback from its small business clients and participating lenders and implementation of that feedback into program design. If the intent is to solicit feedback on a larger scale then the agency would need additional resources to support that effort. The agency knows anecdotally that the use of VSBFA programs is countercyclical and the demand increases as the economy weakens and the availability of bank credit declines. There are certain programs that are less impacted by changes in the credit climate such as the SWaM Micro Loan Program as there is a high demand regardless of economic conditions due to the size of the loans.

Recommendation #11 -

Response: This recommendation should be removed, as this is already part of the application process for all participation programs.

Recommendation #12 -

Response: This recommendation is not feasible due to the varied size and business type supported by VSBFA programs. A manufacturing business will not have the same amount of job creation as a technology service business. To set a threshold may limit the sectors we can support and limit job creation in rural and distressed areas of the Commonwealth. The federally funded projects referenced in the narrative are managed on a portfolio basis, not on an individual transaction basis, to provide VSBFA with maximum flexibility.

While job creation is a desired outcome of all VSBFA loan and guarantee programs it is not the primary goal, which is access to financing for small businesses that would not have access in the private market. It would also be difficult to set job creation thresholds for start-up and immature companies.

Recommendation #13 -

Response: The VSBFA currently tracks actual job creation on all Economic Development Fund Loans (EDLF) both federally and state funded. This job creation is tracked against expected job creation submitted at time of application. The federally funded program does not require recapture should a loan not achieve the expected job creation target. The administrative burden to collect this data across all loans within the VSBFA portfolio would increase exponentially. The EDLF has up to 25 active loans at any given time whereas the SWaM Micro Loan program has upwards of 125 active loans at any given time. There are approximately 13 programs that would have to be tracked with much larger loan volumes than the EDLF program. If this recommendation was implemented the agency would need additional resources to handle the additional workload.

Option #1 -

Response: The report recommends relocation of the Small Business Jobs Grant to VEDP for administration. There is currently confusion in the market place as VEDP has a small business component to the VJIP program, which overlaps with the SBJGF. Utilization has been strained due to grant requirements such as creation of five net new jobs, which is a 10% increase for a 50 or fewer employee business, capital investment requirement of $50,000 and out of state revenue requirements, all of which are difficult for small businesses.

However, the report highlights best practices for employment and capital verification being utilized by SBSD and demonstrates a valuable return on investment for the program as currently administered.

Option #2 -

Response: The report recommends relocation of the investment grant to the Center for Innovative Technology (CIT). CIT has a primary focus on technology innovation, which may limit the usage and effectiveness of the grant across different sectors of the economy, as well as rural and distressed regions.

This option also allows for professional investors to qualify for the program. This could cause funds to be exhausted faster as professional investors will likely make larger investments seeking higher reimbursement. There is a question as to if the incentive would increase investment from this group as this is their primary business.

Option #3 -

Response: The concern is the same as stated in Recommendation 12 that if we impose standardized thresholds we will limit the population we can support. The comparative programs referenced in the narrative that require job creation thresholds, many of which are the creation of one job, involve loan programs that offer larger loan limits that exceed those of our SWaM Micro Loan program.

The narrative also references a requirement to have all applicants receive SBDC referrals and counseling at the time of application regardless of loan amount. The majority of cost associated with loan administration is not related to the underwriting process but to the servicing process once, the loan closes.

We have also identified the following technical corrections:

Page 11 – last paragraph, 2nd sentence the percentages are backwards in relation to the way the programs were listed before. It should be 4.4 percent and 7.3 percent.
Page 12 – 9th sentence on the page says that the jobs grant has historically not been well-marketed and has been underutilized. The not been well-marketed should be stricken from that sentence.
Page 17 – The Worker Retraining Tax Credit was transferred to VEDP during the 2017 GA session. See attached legislation HB1814.
Page 21 – second paragraph last sentence says and balances from prior years. This should be removed, as there are no balances from prior years.
Page 23 – second paragraph, 3rd sentence references the VSBFA, which should say that it is a division within DSBSD.

Page 23 – last paragraph, 2nd sentence should say lack of awareness of the program in the marketplace instead of lack of program marketing.

Page 28 – third paragraph, last sentence appendix H does not include reimbursement rates by state.

Page 41 – second paragraph, second sentence the table reference should be Table 4-5 instead of Table 4-6.

Page 45 – first paragraph, last two sentences should be stricken. The statement that the SWaM Micro Loan program should be reassessed should be removed, as there will always be a need for this program because it supports small dollar loans that commercial banks cannot offer profitably. The last sentence is incorrect as there is no backlog of applications.

Sincerely,

Tracey Wiley
DSBSD Director

JUN 06 2018

COMMONWEALTH of VIRGINIA

Department of Taxation

June 4, 2018

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

Dear ~~Mr.~~ Hal Greer:

Thank you for the opportunity to review and comment on the exposure draft report: *Workforce and Small Business 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 comments and 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 Aubrey L. Layne, Jr., Secretary of Finance

VIRGINIA ECONOMIC DEVELOPMENT PARTNERSHIP
P.O. Box 798 . 901 East Cary Street
Richmond, Virginia 23218-0798
804.545.5600 . www.YesVirginia.org

June 4, 2018

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

RE: VEDP response to VJIP-related content in the draft JLARC report, *Workforce and Small Business Incentives*

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, *Workforce and Small Business Incentives*. We appreciated the professionalism of JLARC staff during the project as well as compliment them on their thorough review and thoughtful recommendations.

As noted in the draft report, VJIP supports the growth and retention of companies in Virginia by offsetting a portion of the costs that they incur for recruitment and training of employees. For those instances in which VJIP is utilized to help secure a project involving competition with other states or countries (which is the intent of one segment of VJIP, the Virginia New Jobs Program), it is intended to increase the likelihood that a particular project will locate in Virginia. However, because the size of VJIP grants typically is quite small relative to other project factors that can vary by location (e.g., recurring payroll, capital investment, utilities, state and local taxes), VJIP is unlikely to represent the primary driver in a firm's decision to locate or expand in Virginia. Nevertheless, as the report noted, many other states also offer workforce development programs for traded-sector firms that will create new jobs, so such programs have become a common expectation of expanding companies. In the absence of VJIP, Virginia likely would experience less employment growth, as the draft report effectively confirms.

VEDP also values JLARC's finding that VJIP generates a positive ROI for taxpayers and that VJIP recipients achieved job creation goals across projects, when corroborated with data provided by the VEC.

The VJIP grant continues to be utilized in most Virginia localities in support of new and existing businesses, and we appreciate recognition of this geographic diversity as noted in the report. We would further note that VJIP in its current form supports a diverse range of business sectors as well as large and small businesses across Virginia.

The draft report suggested four recommendations and one option pertaining to VJIP. We have provided specific responses to the recommendations and option in the attachment for your consideration.

Sincerely,

Stephen Moret
President and CEO

Responses to VJIP-related recommendations and a VJIP-related option included in the draft JLARC report, *Workforce and Small Business Incentives*

JLARC Recommendation No. 1
"The General Assembly may wish to consider amending the Code of Virginia to increase the minimum wage requirements for the Virginia Jobs Investment Program and the Small Business Jobs Grant Fund."

VEDP Perspective and Response
VEDP management would have no objection to this change. We have initiated a process to evaluate increasing minimum wage requirements and revising eligibility guidelines for VJIP. We would welcome any related statutory changes in this regard that the General Assembly may wish to make. Our only concern here is avoiding a disproportionate impact on rural communities, depending upon how the minimum wage requirement is designed.

JLARC Recommendation No. 2
"The Virginia Economic Development Partnership should implement a formal point-based scoring system for approving grants from the Virginia Jobs Investment Program and its component sub-programs."

VEDP Perspective and Response
VEDP management substantially agrees with this recommendation. VEDP recognizes implementing a point-based scoring system (e.g., considering extent of competition for an expansion as well as the economic multiplier and/or potential international trade outcomes of each project) could help to optimize the impact of the program. To be responsive to businesses, VJIP needs to be managed with a rolling application cycle – we would not want companies to have to wait months to get a response on whether they will be offered a grant. Accordingly, a point-based system will be implemented with potential grants weighed against others under consideration in a similar timeframe (e.g., every two weeks to a month). Regarding "deadweight" losses, the Code of Virginia currently requires a competitive site-selection situation for the Virginia New Jobs Program portion of VJIP but not for the Workforce Retraining Program or the Small Business New Jobs and Retraining Programs. Actively avoiding "deadweight" losses would require VEDP to begin to offer VJIP awards for these other VJIP program segments only in competitive situations (as is current practice for the Virginia New Jobs Program), or at least to offer the program less frequently in those instances where a small business project is not competitive. That change likely would have the effect of reducing small business utilization of the program since so few small businesses actively consider expanding in other states. We would value any guidance that the General Assembly may wish to offer in this regard.

JLARC Recommendation No. 3
"The Virginia Economic Development Partnership should establish additional performance measures, such as receipt of credentials and amount of wage increases for trained employees, for projects that receive a Virginia Jobs Investment Program grant for retraining."

VEDP Perspective and Response
VEDP management partially agrees with this recommendation. We are supportive of credentials and wage increases; however, we do not believe we should mandate those as requirements for VJIP support. VJIP Retraining is for companies making an investment requiring integration of new technologies, or changes in product or processes, which require employee retraining. As a result, VJIP support allows a company to invest in employee training to sustain or enhance competitiveness for both the employee and the company. Retraining typically is not designed to support general, ongoing skills training for employees. Virginia currently funds a program to support credential attainment (FastForward) within the

Virginia Community College System. VEDP will consider incorporating the proposed measures into the point-based scoring system referenced in recommendation no. 2. However, the likely impact of such a change would be a substantial reduction in utilization of the retraining segment of VJIP. Accordingly, VEDP would welcome any clarification of intent that JLARC and/or the General Assembly may wish to make in this regard.

JLARC Recommendation No. 4

"The Virginia Economic Development Partnership should adopt methods to verify self-reported job creation and capital investment levels of projects that receive a grant from the Virginia Jobs Investment Program."

VEDP Perspective and Response

VEDP management fully agrees with this recommendation. VEDP's board will consider new job-creation and capital investment verification procedures for VJIP at its meeting on June 7, 2018. These procedures will make job creation and capital investment verification procedures for VJIP similar to the procedures already in use for other VEDP-administered programs (e.g., the Commonwealth's Development Opportunity Fund).

JLARC Option No. 1

"The General Assembly could consolidate the Small Business Jobs Grant Fund into the Virginia Jobs Investment Program administered by the Virginia Economic Development Partnership."

VEDP Perspective and Response

VJIP currently serves job creation and retraining efforts of small businesses through its Small Business programs. VEDP management would be open to the proposed change.

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