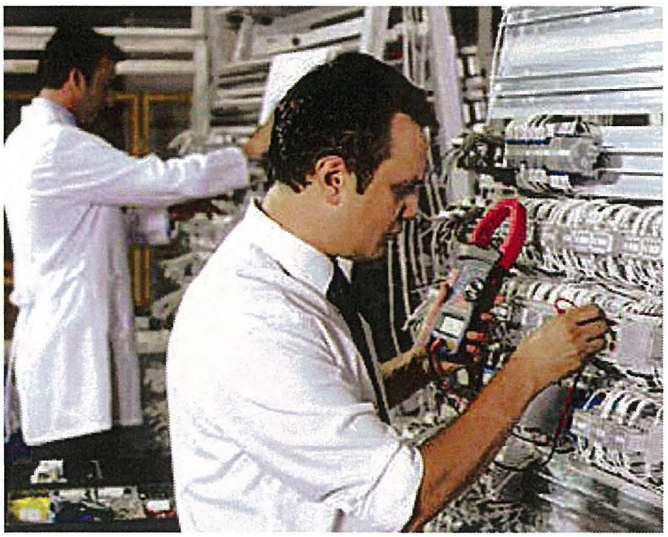
JLARC
JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION

REPORT TO THE
GOVERNOR AND THE GENERAL ASSEMBLY OF VIRGINIA



Review of State Economic Development Incentive Grants

SENATE DOCUMENT NO. 8 (2013)
COMMONWEALTH OF VIRGINIA
RICHMOND

NOVEMBER 2012

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JLARC Staff for This Report
Nathalie Molliet-Ribet, Division Chief
Ellen Miller, Project Leader
Drew Dickinson
Paula Lambert
Joe McMahon

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COMMONWEALTH of VIRGINIA

Glen S. Tittermary
Director

Joint Legislative Audit and Review Commission
Suite 1100, General Assembly Building, Capitol Square
Richmond, Virginia 23219

(804) 786-1258

April 3, 2013

The Honorable John M. O'Bannon III
Chair
Joint Legislative Audit and Review Commission
General Assembly Building
Richmond, Virginia 23219

Dear Delegate O'Bannon:

Senate Joint Resolution 329 of the 2011 Session directed the Joint Legislative Audit and Review Commission (JLARC) to review the effectiveness of economic development incentive grants available in Virginia. Specifically, staff were directed to (1) identify which economic development incentive grants are available and to what extent they are used, (2) examine the public policies for which the grant programs were established and whether the desired public policies have been achieved, and (3) propose a mechanism or process for the ongoing evaluation of the effectiveness of grant programs.

The final report was briefed to the Commission and authorized for printing on November 13, 2012. On behalf of the Commission staff, I would like to thank the staff at the Secretary of Commerce and Trade, Virginia Economic Development Partnership, Department of Business Assistance, Department of Housing and Community Development, Tobacco Indemnification Revitalization Commission, Department of Rail and Public Transportation, Virginia Department of Transportation, Virginia Film Office, Virginia Coalfield Economic Development Authority, and University of Virginia for their assistance during this review.

Sincerely,

Glen S. Tittermary
Director

GST/mle

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ABBREVIATIONS USED IN THIS REPORT

CROF	Coalfield Regional Opportunity Fund
DBA	Department of Business Assistance
DHCD	Department of Housing and Community Development
DRPT	Department of Rail and Public Transportation
EDAP	Economic Development Access Program
EZ	Enterprise Zone
GMPOF	Governor's Motion Picture Opportunity Fund
GOF	Governor's Development Opportunity Fund
JCG	Job Creation Grant
MEE	Major Eligible Employer grant
RIAP	Rail Industrial Access Program
RPIG	Real Property Investment Grant
TICR	Tobacco Indemnification and Community Revitalization Commission
TPOF	Transportation Partnership Opportunity Fund
TROF	Tobacco Region Opportunity Fund
VCEDA	Virginia Coalfield Economic Development Authority
VDOT	Virginia Department of Transportation
VEDIG	Virginia Economic Development Incentive Grant
VEDP	Virginia Economic Development Partnership
VFO	Virginia Film Office
VIP	Virginia Investment Partnership Grant
VJIP	Virginia Jobs Investment Program

JLARC Report Summary:

Review of State Economic Development Incentive Grants

Key Findings

- Virginia approved nearly 3,400 economic development incentive grants totaling $718 million during the last ten years. Most awards were relatively small, but seven businesses each received awards in excess of $20 million. (Chapter 2)

- Incentive grants appear to have a positive but small impact on the site selection decisions of businesses relative to other considerations such as transportation and labor costs. However, several factors suggest that certain Virginia grant programs may sway the decisions of businesses to locate or expand in the State more frequently than is indicated in the research literature. (Chapter 3)

- Grant projects collectively created more than 68,000 jobs during the past decade. Most of the projects that were awarded a grant met the performance goals to which they committed, but their potential impact on the Virginia economy appears to vary by grant program. (Chapter 4)

- Economic development incentive grant programs are expected to have a positive impact on Virginia's economy and revenues, even when conservative assumptions are made about the extent to which they sway business location decisions. (Chapter 5)

- Several Virginia grant programs use effective practices that contribute to their success, but the use of effective practices varies greatly across agencies that administer the grants. Nearly all grant programs could adopt additional practices to help them achieve their goals. (Chapter 6)

- No comprehensive information encompassing all grant programs is currently available to policymakers. Grant programs could build upon their existing processes for collecting and reporting information to develop a more comprehensive evaluation and reporting process. (Chapter 7)

Senate Joint Resolution 329 of the 2011 General Assembly directed the Joint Legislative Audit and Review Commission (JLARC) to review the effectiveness of economic development incentive grants available in Virginia. The mandate requires JLARC to (1) identify which incentive grants are available and to what extent they are used, (2) examine the public policies for which the grant programs were established and whether the desired public policies have been achieved, and (3) propose a mechanism or process for the ongoing evaluation of the effectiveness of grant programs.

Research methods used during this review include analyses of data on the grant programs collected from eight State agencies; analyses of the economic impact of grant projects across all grant programs; a phone survey of local and regional economic development staff; interviews with 12 businesses that received an incentive grant, and with site selection consultants, economic development experts, and staff from State agencies that administer grant programs; and a review of the research literature and other states' incentive grant programs.

EIGHT STATE AGENCIES ADMINISTER 18 INCENTIVE GRANT PROGRAMS DESIGNED TO PROMOTE ECONOMIC DEVELOPMENT IN VIRGINIA

Economic development incentive grants are one of several types of financial incentives that state and local governments commonly offer to encourage businesses to locate and expand within their borders. Grants are attractive to businesses because they are often negotiable, commonly awarded in the form of cash, and need not be repaid as long as businesses meet program requirements. In addition, they can be tailored to meet the diverse needs of prospective businesses. Likewise, policymakers and the public may find grants more appealing than other forms of financial incentives because they provide more fiscal certainty than tax preferences such as credits, and can be more transparent than tax incentives, which are difficult to obtain information on because they are often protected by State and federal disclosure laws.

Currently, eight Virginia State agencies administer 18 grant programs, whose purposes vary from offsetting the costs of workforce training to developing sites (see list of agencies and programs, next page). While these purposes vary, programs typically share three primary goals, which establish this study's framework for evaluating the effectiveness of Virginia's incentive grants in achieving their desired public policies. These goals, which build upon each other, are to

- sway business decisions to locate or expand in Virginia,
- encourage job creation and/or capital investment, and
- contribute to the broader goal of economic development in Virginia.

Eighteen Incentive Grant Programs Are Administered by Eight State Agencies

Department of Business Assistance
- Virginia Jobs Investment Program

Department of Housing and Community Development
- Enterprise Zone–Job Creation Grant
- Enterprise Zone–Real Property Investment Grant

Department of Rail and Public Transportation
- Rail Industrial Access Program

Department of Transportation
- Economic Development Access Program
- Transportation Partnership Opportunity Fund

Tobacco Indemnification and Community Revitalization Commission
- Tobacco Region Opportunity Fund

Virginia Coalfield Economic Development Authority
- Coalfield Regional Opportunity Fund

Virginia Economic Development Partnership
- Clean Energy Manufacturing Incentive Grant
- Governor's Development Opportunity Fund
- Major Eligible Employer Grant
- Virginia Economic Development Incentive Grant
- Virginia Investment Partnership Grant
- **Custom Grant Programs**
- Advanced Shipbuilding Training Facility Grant
- Aerospace Engine Manufacturing Grant
- Semiconductor Memory or Logic Wafer Manufacturing Grant
- SRI-Shenandoah Valley Grant

Virginia Film Office
- Governor's Motion Picture Opportunity Fund

Source: JLARC staff analysis of the *Code of Virginia* and program documentation from State agencies.

VIRGINIA AWARDED MANY INCENTIVE GRANTS DURING THE PAST TEN YEARS, BUT MOST WERE SMALL

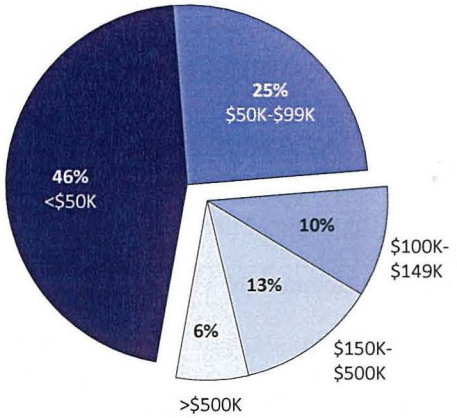
Over the last decade, Virginia's economic development incentive grant programs approved a substantial number of grants (3,372) totaling approximately $718 million. Programs administered by the Virginia Economic Development Partnership (VEDP) accounted for nearly 40 percent of the total amount approved, while the four custom grant programs (also administered by VEDP) comprised an additional 27 percent of the total. The Enterprise Zone Real Property Investment Grant (RPIG) program, administered by the Department of Housing and Community Development, and the Department of Business Assistance's Virginia Jobs Investment Program (VJIP) approved the largest number of awards during the ten-year period.

The average grant awarded during the past ten years was slightly greater than $200,000, with most projects receiving less than $100,000, on average (see figure, next page). However, several projects received a disproportionately large share of grant funding. In particular, seven businesses were collectively awarded 40 percent of the total amount approved. In several cases, these businesses received awards from multiple grant programs.

The vast majority of grant funding approved between fiscal years 2002 and 2011 was awarded to businesses that were already located in Virginia, had more than 250 employees, or belonged to one of four major industries. Most of the grants approved over the ten-

year period were awarded to businesses in ten Virginia localities, which represent 26 percent of the State's population.

Most Grant Awards Were Less Than $100,000 (FYs 2002-2011)



Source: JLARC staff analysis of data provided by State agencies.

INCENTIVE GRANTS TEND TO HAVE A POSITIVE BUT SMALL IMPACT ON BUSINESS DECISIONS

While businesses consider many factors when selecting where to locate or expand, incentive grants appear to have a positive but small impact on their decisions, according to the research literature. Factors that exert the most influence on site selection decisions are those that impact the business' long-term sustainability and profitability, such as transportation and labor costs. Because location and expansion decisions are most often driven by financial considerations, these factors are likely to have a more significant bearing on the project's ultimate location than grants, which typically represent a small percentage of project costs. However, incentive grants appear to play a more important role toward the end of the site selection process, once fundamental cost requirements (such as transportation and labor) have been met. Incentive grants are also reportedly most effective at influencing business decisions when only a few equally compelling sites remain in consideration.

Financial incentives have a positive, often modest impact on business activity, according to several meta-reviews of 80 or more econometric studies published in peer-reviewed journals since 1979. Despite this extensive body of research, the nature of the impact of incentives remains subject to debate due to concerns over the reliability of the econometric studies that have been conducted.

Economists have used results from these econometric studies to estimate how frequently incentives play a decisive role in business decisions. The implication of the economists' work is that typical

incentive grants may sway, on average, ten percent of the site selection decisions of businesses that receive an award, but may not be decisive in the other 90 percent of cases. When incentive grants do not sway location decisions, the jobs and economic gains stemming from these businesses' presence cannot be attributed to the grants, but the cost of the grants is still incurred. While these results are the best available, they have been debated because of the same reliability concerns.

In addition, certain Virginia programs could play a decisive role more frequently than is indicated in the research literature because they are discretionary grant programs rather than less flexible tax incentives and because they typically pay awards up front and, in some cases, defray a larger share of project costs. Still, the empirical evidence reviewed does not suggest that most or even the majority of business location decisions are swayed by incentive grants.

Nevertheless, incentive grants can benefit the State and its economy. Proponents of incentive grants indicate that businesses whose site selection decisions were swayed by the grants would likely choose to locate elsewhere if the grants were not offered. In addition, business representatives, site selection consultants, and State and local economic development staff indicated to JLARC staff that incentive grants are "expected," and a common means for states to build and maintain a "business friendly" reputation, which businesses value.

MOST GRANT-FUNDED PROJECTS MET PERFORMANCE GOALS BUT POTENTIAL FOR HIGH ECONOMIC IMPACT APPEARS MIXED

Collectively, completed projects that received an incentive grant from Virginia's programs created more than 68,000 jobs in Virginia over the last ten years. However, Virginia may not be consistently targeting grant funding to projects likely to have a high economic impact.

The extent to which projects achieved performance goals such as job creation or capital investment and were likely to have a high economic impact varied greatly among grant programs over the past ten years. Projects that received grants from VEDP programs achieved their performance goals most often. In particular, projects that received a Virginia Investment Program (VIP) or Major Eligible Employer (MEE) grant collectively added more jobs than expected and invested more capital than they had committed to when the projects received the grant. In contrast, projects that received a grant from the Tobacco Region Opportunity Fund fell short of their aggregate job creation goal by more than 3,700 jobs.

Only three percent of projects approved during the study period met all three of the indicators of high positive economic impact that are discussed in the research literature.

Many of Virginia's discretionary grant awards (which comprise the vast majority, or 16 of the 18 grant programs) do not appear to be well targeted to projects that are likely to have a high economic impact on the State. Only three percent of projects approved during the study period met all three of the indicators of high positive economic impact that are discussed in the research literature (see table below). These indicators are

- high employment multiplier—indicates that the project should generate new jobs in the community in addition to the jobs created by the project;
- export-based—indicates that the project should sell the majority of its goods and services to customers outside of Virginia, therefore bringing new money into the State's economy;
- pays high wage (relative to the industry average)—indicates that through higher wages the project could encourage greater workforce participation and worker productivity.

Most Grant Projects Did Not Meet All Indicators of Likely High Economic Impact, but About Half Met Employment Multiplier Indicator, More Than Half Met Export Indicator (FYs 2002-2011)

Number of Indicators Met	Percent of Projects Meeting	Average Award Per Job
●●●	3%	$10,634
●●	31	3,242
●	52	1,665
None	13	480
Individual Indicator		
High employment multiplier[a]	52%	
Export-based	56	
Pays high wage	20	

Note: n = 1,423 approved projects with available data that received awards from discretionary programs.

[a] SAM (Social Accounting Matrix) employment multiplier equal to or greater than 2.0, the median for Virginia across all industries. Indicates that one additional job in the community is created for every job added by the project.

Source: JLARC staff analysis of data provided by State agencies and the University of Virginia.

Although most projects do not meet more than one indicator, the majority of projects that were approved for incentive grants from Virginia's programs between FYs 2002 and 2011 have a high employment multiplier, and more than half are export-based. Only one-fifth pay a wage in excess of the industry average. Several Virginia grant programs appear to award the majority of their grants to projects that meet at least two indicators. However, the

VJIP program, which approved the largest number of grants, awarded a majority of its grants to projects that met no or only one indicator.

INCENTIVE GRANTS APPEAR TO GENERATE ECONOMIC BENEFITS FOR VIRGINIA AND ITS RESIDENTS

State economic development incentive grant programs are projected to have a positive impact on Virginia's economy and revenues even when conservative assumptions are made about the extent to which they sway business location decisions, based on the results of a dynamic economic simulation model. Using the conservative assumption from the research literature that ten percent of projects were swayed by grants to locate or expand in Virginia, this subset of projects is estimated to have a positive impact on Virginia's employment, gross domestic product, income, and State revenue, even after factoring in the costs of grants awarded to businesses where decisions to locate to or expand in Virginia were not swayed by the grant they received (see the table below).

Results also appear to confirm that projects with certain characteristics, such as creating additional jobs in the community and selling the majority of their output to customers in other states, are likely to have greater effects on the State's economy than projects without these characteristics. Both small- and large-scale projects can exhibit these favorable characteristics and will benefit the State, but more small projects will have to receive an award in order to achieve the same impact as one large project.

State Incentive Grants Are Estimated to Have a Favorable Impact on Virginia's Economy Even If They Sway Only a Subset (Ten Percent) of Projects

Change in Economy	Year 1	Year 5	Cumulative After 5 Years	Cumulative After 10 Years
Private employment	4,773	138	6,745	6,227
Virginia GDP ($ million)	$440	$998	$3,678	$9,058
Real disposable personal income ($ million)	182	359	1,356	3,285
State revenue ($ million)	34	49	211	434
Net State revenue[a] ($ million)	5	47	148	343

Note: Best available estimates in the research literature suggest incentive grants will sway approximately ten percent of business location decisions. Projects began in different years of the study period, and the table demonstrates the magnitude of the collective impact of ten percent of all completed projects after their first, fifth, and tenth years, regardless of when the project began. All dollars are in 2010 amounts. Net present value of State revenue and net State revenue in 2010 amounts are shown for each time period.

[a] Captures only the grant payments to projects included in the analysis (approximately 30 percent of total grant funding during the study period).

Source: JLARC staff analysis of results of economic impact analysis of incentive grants projects by the University of Virginia.

SOME VIRGINIA GRANT PROGRAMS USE EFFECTIVE PRACTICES BUT MANY COULD IMPROVE FURTHER

Some Virginia grant programs use effective practices that contribute to their success, but the use of effective practices currently varies greatly across agencies. Programs administered by VEDP incorporate effective practices to the greatest extent. In contrast, some programs, such as VJIP, use effective practices less consistently and could be improved by the adoption of practices such as more frequently verifying the job creation information reported by businesses. Nearly all incentive programs could adopt additional practices to help them achieve their goals of more consistently and effectively swaying business location decisions, ensuring that projects meet performance goals, and maximizing the impact of grants on the State's economy. For example, programs could award larger grants that offset a greater share of a project's operating costs to projects that are likely to have a substantial, positive impact on the State economy.

GENERAL ASSEMBLY COULD REQUIRE ENHANCED REPORTING OF GRANT PERFORMANCE AND ECONOMIC IMPACT

While Virginia's grant programs have awarded funding to projects that created a substantial number of jobs and invested large amounts of capital in the State, some programs may sway only a small proportion of location and expansion decisions and/or inconsistently target projects that have a positive impact on Virginia's economy. In addition, no comprehensive information concerning the use or effectiveness of all programs is currently available to policymakers, in part because the data collected for some grant programs is inadequate. As a result, a more comprehensive evaluation and reporting process is needed. This process would build upon the grant programs' existing processes for collecting and reporting information, and should include

- an evaluation of the performance of projects that receive incentive grant awards;
- periodic evaluations of the economic impact of grant programs; and
- an improved report that contains key statistics about each incentive grant program; steps agencies take to ensure that discretionary programs maximize the number of location and expansion decisions swayed by grants; best practices that are used by programs to enhance the performance and economic impact of projects; a comparison of the State's grant programs with those available in other states; and results of the evaluations.

This report includes two recommendations to strengthen the evaluation and reporting process. First, to ensure that grant programs have the highest impact on business decisions, jobs and capital investment, and the economy, the General Assembly may wish to require an annual report containing more comprehensive and consistent information across grant programs as well as periodic evaluations of the economic impact of grant projects. Second, to facilitate an enhanced evaluation and reporting process, the Secretary of Commerce and Trade could convene a work group of staff from agencies that administer grant programs, legislative staff, and university staff with economic development expertise.

Chapter 1

Overview of Virginia's Economic Development Incentive Grants

In Summary

Incentive grants are one of several economic development tools used by state and local governments to encourage businesses to locate and expand within their borders. Currently, eight State agencies administer 18 incentive grant programs that offer financial assistance in different ways, such as defraying the cost of workforce training or funding the development of access roads. While most grants are awarded on a case-by-case basis depending upon the merits of the project, two programs award grants to any business that meets minimum requirements. Four State incentive grant programs were designed for specific businesses, and four others are designed to encourage businesses to locate or expand in economically distressed areas. Despite these differences, nearly all Virginia grant programs share three primary goals: (1) sway business decisions to locate or expand in Virginia, (2) encourage job creation and/or capital investment, and (3) contribute to the broader goal of economic development in Virginia.

As part of its economic development strategy, Virginia uses incentive grants to attempt to influence the behavior of businesses by offering them financial assistance in return for their decision to locate or expand in the State. The provision of financial assistance to businesses is often rationalized because of the increase in tax revenue that the businesses are expected to generate. The expectation is that State incentive grants can attract businesses, which, in turn, create new jobs and invest capital in Virginia. New jobs and capital assets increase the State and local tax base as well as the demand for other goods and services, thereby improving the State's employment level, revenue, and gross state product.

However, there is limited information about the extent to which incentive grants that have been awarded influenced businesses' location or expansion decisions. As a result, the direct effect of incentive grants on the State economy cannot be precisely measured. There is also a lack of centralized, usable information to assess how grant-funded projects perform relative to the goals they agreed to meet, which has prevented a comprehensive understanding of the effectiveness of these programs.

As a result, the 2011 General Assembly adopted Senate Joint Resolution (SJR) 329, which directs the Joint Legislative Audit and Review Commission (JLARC) to study the use and effectiveness of incentive grants in Virginia (Appendix A). Specifically, the mandate directs JLARC staff to

- identify which economic development incentive grants are available in Virginia and to what extent they are used,
- examine the public policies for which the grant programs were established and whether these public policies have been achieved, and
- recommend a mechanism or process for the ongoing evaluation of the effectiveness of grant programs in achieving their policy goals.

To conduct this study, JLARC staff interviewed directors and staff of State and local economic development agencies, representatives of Virginia businesses that received grant funding, consultants who assist businesses with their decisions on where to locate or expand, and other stakeholders. In addition, staff reviewed the economic development research literature and other states' incentive grant programs, and analyzed data on grant projects collected by State agencies. Appendix B describes the research methods used for this report in greater detail.

STATE INCENTIVE GRANTS ARE ONE OF MANY STRATEGIES TO PROMOTE ECONOMIC DEVELOPMENT

Although the focus of this review is on State incentive grant programs, these programs are one of many economic development strategies used by state and local governments to stimulate their economy. In addition to incentive grants, Virginia engages in a variety of other economic development strategies and programs, such as marketing and business start-up assistance, and tourism promotion. Local governments also award incentive grants and use other economic development tools, such as donating land to businesses and fast-tracking permits. In fact, local economic development incentives can be a large part of the overall incentive package for some projects, and can influence business location and expansion decisions as much or more than incentive grants provided by the State.

Incentive Grants Are a Form of Financial Assistance

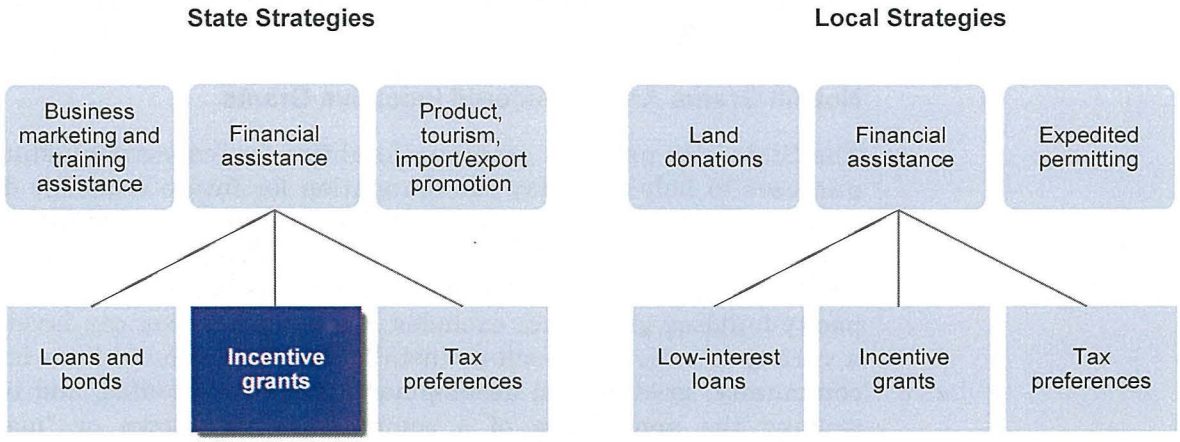
"Near-Cash" Assistance

Near-cash assistance lowers the location or expansion costs of businesses without directly giving them money, for example, by providing training for employees and site-related infrastructure.

States commonly provide incentive grants in the form of cash or "near cash" assistance to businesses that agree to locate or expand within their borders. This financial assistance need not be repaid as long as the grant program's criteria are met. Other types of financial incentives used in Virginia and other states include tax preferences in the form of credits, deductions, and sales tax exemptions; low-interest loans; and bond financing (Figure 1).

Proponents of incentive grants assert that providing financial assistance to businesses leads to an increase in economic activity by way of added jobs, an expanded tax base, and higher tax revenue

Figure 1: State Incentive Grants Are One of Many Types of Economic Development Strategies Used in Virginia and Other States



Note: Does not include all economic development strategies in Virginia.

Source: JLARC staff analysis of the research literature.

that fully or partially offsets the cost of funding grants. Proponents also maintain that grants are necessary to convince businesses to locate or expand in the State.

Incentive Grants Can Be More Attractive Than Other Financial Incentives

Businesses generally prefer incentive grants over other forms of financial incentives because the grants are often negotiable, commonly awarded in the form of cash, and need not be repaid as long as businesses meet the program criteria.

Incentive grants are often a prominent part of a state's economic development strategy because they have features that can make them more attractive to businesses, policymakers, and the public than other financial incentives, such as tax credits and loans. Businesses generally prefer incentive grants over other forms of financial incentives because the grants are often negotiable, commonly awarded in the form of cash, and need not be repaid as long as businesses meet the program criteria. Unlike tax credits, grants are often designed and awarded under the discretion of program staff and/or elected officials, which allows them to meet the diverse needs of prospective businesses. In addition, grants in the form of immediate cash payments are typically more valuable and predictable than tax credits, which businesses can only claim when they earn a profit and owe taxes.

Incentive grants can also be an attractive form of financial incentive to policymakers and the public. Their predictability allows for greater fiscal certainty than tax preferences, which can adversely affect the timing of state revenue because of the uncertainty around whether and when businesses can claim them. Additionally, agency staff can often tailor incentive grants so that they are

attractive to businesses but still ensure that program objectives are met. Finally, more information about incentive grants tends to be available to the public than information about other financial incentives, such as tax credits, which are often protected by state and federal disclosure laws.

Not All Grants Are Considered Incentive Grants

The State also provides grants to localities for "capacity-building" purposes to help them lay the foundation for future economic development. With few exceptions, these grants are awarded with no particular prospective businesses in mind. Because this report focuses on grants that provide incentives to specific businesses, capacity-building grants are excluded. Capacity building can involve a variety of activities, such as installation of broadband lines in a community, grading and development of industrial sites, and improving the appearance of a community's downtown or "main street" area. Capacity-building programs in Virginia include the Special Projects program administered by the Virginia Tobacco Indemnification and Community Revitalization Commission, and the Main Street program administered by the Department of Housing and Community Development (DHCD).

VIRGINIA HAS 18 INCENTIVE GRANT PROGRAMS TO PROMOTE ECONOMIC DEVELOPMENT

Virginia has 18 incentive grant programs that are administered by eight different State agencies. While all programs are designed to enhance the State's economy, their individual purposes vary from offsetting the costs of workforce training and recruitment to offsetting the costs of site development. In most programs, agency administrators have discretion over which businesses receive awards, pending final approval by the Governor. The Commonwealth Transportation Board approves awards for the road and rail access programs, and enterprise zone grant awards are granted automatically after businesses have met minimum eligibility requirements. All programs have eligibility requirements, although several are targeted more narrowly at specific businesses or certain areas of the State.

Virginia's Incentive Grant Programs Are Administered by Eight Agencies, Receive Different Funding Streams, and Serve Various Purposes

Eight State agencies administer 18 incentive grant programs in Virginia (Table 1). The Virginia Economic Development Partnership (VEDP) administers nine of the State's incentive grant programs, five of which it is directly responsible for and four custom grant programs which the agency administers as a designee of the Secretary of Commerce and Trade. Two other agencies, the

Table 1: Eighteen Incentive Grant Programs Are Administered by Eight State Agencies

State Agency and Program	Purpose
Department of Business Assistance	
Virginia Jobs Investment Program (VJIP)	Offset training, recruiting, and similar costs for businesses of all sizes that create new jobs or retrain existing employees
Department of Housing and Community Development	
Enterprise Zone–Job Creation Grant (JCG)	Encourage job creation within 57 specific zones designated as economically distressed
Enterprise Zone–Real Property Investment Grant (RPIG)	Encourage investment in real property improvements within 57 specific zones designated as economically distressed
Department of Rail and Public Transportation	
Rail Industrial Access Program (RIAP)	Offset costs of constructing railroad access to project sites
Department of Transportation	
Economic Development Access Program (EDAP)	Offset costs of constructing road access to project sites
Transportation Partnership Opportunity Fund (TPOF)	Offset costs of transportation access needs of projects
Tobacco Indemnification and Community Revitalization Commission	
Tobacco Region Opportunity Fund (TROF)	Provide access to "deal-closing" funds to offset costs of locations and expansions in southern and southwestern Virginia
Virginia Coalfield Economic Development Authority	
Coalfield Regional Opportunity Fund (CROF)	Provide access to "deal-closing" funds to offset costs of locations and expansions in southwestern Virginia
Virginia Economic Development Partnership	
Clean Energy Manufacturing Incentive Grant[a] (CEMIG)	Attract manufacturers in clean energy industry
Governor's Development Opportunity Fund (GOF)	Provide access to "deal-closing" funds to encourage locations and expansions by reducing site preparation, infrastructure, and other costs
Major Eligible Employer Grant (MEE)	Attract very large employers (minimum of 1,000 new jobs or fewer if high-paying) to expand or locate in Virginia
Virginia Economic Development Incentive Grant (VEDIG)	Attract large headquarters, administrative, or service operations with high-paying jobs
Virginia Investment Partnership Grant (VIP)	Encourage expansion of existing manufacturers
Custom Grant Programs	
Advanced Shipbuilding Training Facility Grant (Advanced Shipbuilding)	Encourage Newport News Shipbuilding to create new apprenticeship school, jobs, and capital investment in Newport News
Aerospace Engine Manufacturing Grant (Aerospace)	Encourage Rolls-Royce to locate aircraft engine manufacturing facility in Prince George
Semiconductor Memory or Logic Wafer Manufacturing Grants[b] (Semiconductor)	Encourage the location and expansion of computer component manufacturers Qimonda (Henrico) and Micron (Manassas)
SRI-Shenandoah Valley Grant (SRI)	Encourage SRI International, a non-profit research and development firm, to create its Center for Advanced Drug Research in Rockingham
Virginia Film Office	
Governor's Motion Picture Opportunity Fund[c] (GMPOF)	Encourage production and video industries to film in Virginia

[a] Created in 2011 when the Biofuels Production and Solar Photovoltaic Manufacturing Incentive Grant programs were eliminated.
[b] Payments have been made to two different businesses, Qimonda and Micron. Grants to Qimonda are no longer active, as the business ceased operating in Virginia in 2009.
[c] Targets businesses that will have a presence in Virginia for a short time (typically less than one year).

Source: JLARC staff analysis of program documentation from State agencies.

Tobacco Indemnification and Community Revitalization Commission and the Virginia Coalfield Economic Development Authority, operate with substantial independence within the State, but award public (State) money for private projects, and are therefore included in this review.

Four of the most commonly utilized programs are the Governor's Development Opportunity Fund (GOF), the Virginia Jobs Investment Program (VJIP), and the two State enterprise zone incentive grant programs, which award the Job Creation Grant (JCG) and Real Property Investment Grant (RPIG). GOF is designed to provide "deal-closing" grants for businesses to secure their decision to locate in Virginia. VJIP is designed to offset workforce training and recruitment costs and is available to businesses of all sizes. The two enterprise zone programs are designed to encourage businesses to create new jobs or invest in property improvements in targeted areas of the State. Although the State's custom grant programs represent a very small percentage of the overall number of grants awarded, they account for over two-thirds of incentive grant dollars awarded between fiscal years (FYs) 2002-2011. The custom grants are designed to attract or encourage the expansion of a few individual businesses.

"Deal-Closing" Grant Programs

Programs designed to sway the businesses' location decision in the state's favor between equally competitive sites in other states.

The State's incentive grant programs are funded through a variety of sources, but most rely on some level of general fund appropriations.

The State's incentive grant programs are funded through a variety of sources, but most rely on some level of general fund appropriations (Table 2). For example, the two enterprise zone programs and the GOF program are entirely dependent on appropriations from the State's general fund. In contrast, the Tobacco Region Opportunity Fund (TROF) receives no general fund appropriations and is financed through an endowment formed through half of the proceeds that the State received from the 1998 Master Settlement Agreement with large tobacco manufacturers. Additionally, the Rail Industrial Access Program (RIAP) and Economic Development Access Program (EDAP) are financed through the Transportation Trust Fund, which is largely funded through the sales and use tax, motor vehicle sales tax, and gas tax.

While the State's incentive grant programs share the general goal of enhancing the State's economy by attracting businesses to Virginia and/or incentivizing the expansion of existing businesses, the specific purpose of each program varies. For example, EDAP provides assistance to localities to offset the costs of developing road access to sites, while GOF and TROF provide cash grants that allow businesses more flexibility in determining how the funds are spent, within certain parameters.

Table 2: Most State Incentive Grant Programs Receive General Fund Appropriations

Program	General Fund	Other Funding Source
Virginia Jobs Investment Program (VJIP)	✓	
Enterprise Zone–Job Creation Grant (JCG)	✓	
Enterprise Zone–Real Property Investment Grant (RPIG)	✓	
Rail Industrial Access Program[a] (RIAP)		✓
Economic Development Access Program[a] (EDAP)		✓
Transportation Partnership Opportunity Fund[b] (TPOF)		✓
Tobacco Region Opportunity Fund[c] (TROF)		✓
Coalfield Regional Opportunity Fund[d] (CROF)	✓	✓
Clean Energy Manufacturing Incentive Grant (CEMIG)	✓	
Governor's Development Opportunity Fund (GOF)	✓	
Major Eligible Employer Grant (MEE)	✓	
Virginia Economic Development Incentive Grant (VEDIG)	✓	
Virginia Investment Partnership Grant (VIP)	✓	
Custom Grant Programs[e]	✓	
Governor's Motion Picture Opportunity Fund[f] (GMPOF)	✓	✓

[a] Funded through the Transportation Trust Fund, a component of the Commonwealth Transportation Fund.
[b] Fund is a component of the Commonwealth Transportation Fund. Has received funding from the Transportation Trust Fund.
[c] Monies originate from half of the proceeds from the 1998 Master Settlement Agreement with large tobacco manufacturers.
[d] Financed through a statutorily defined percentage of annual coal severance tax credits redeemed by coal mining companies.
[e] See Table 1 for a list of the four custom grant programs.
[f] Receives proceeds from the Digital Media Fee, which is charged to guests of lodging facilities for in-room purchases or rental of digital media.

Source: JLARC staff review of the *Code of Virginia* and program documents, and discussions with State agency staff.

Most Virginia Incentive Grants Are Awarded on a Discretionary Basis, but Two Are Automatically Awarded If Eligibility Criteria Are Met

In Virginia, most incentive grants are awarded on a case-by-case, "discretionary" basis and two are awarded automatically if minimum eligibility criteria are met. For Virginia's 16 discretionary grant programs, the Governor, the Governor's Cabinet, legislators, or program administrators have the authority to decide which businesses receive grants and the amount they receive. In general, these program guidelines allow agency staff to better target the incentive grants to businesses that are considering locating or expanding in Virginia and those that are more likely to benefit the Virginia economy than programs that award grants on an automatic basis. Although custom grants afford no discretion over which projects or businesses are eligible for an award, these programs are similar to discretionary programs because they are designed on a case-by-case basis and are targeted narrowly to specific types of businesses or, in some cases, specific businesses.

In contrast to discretionary programs, the two State enterprise zone programs award incentive grants on an automatic basis to all businesses that meet the program's eligibility criteria. Staff at DHCD have no authority to target these grants to certain businesses or set awards to an amount that differs from what is established in statute. Businesses are eligible to receive a JCG if they create more than four jobs at an existing business or new facility located in one of the 57 enterprise zones in the State. As long as the jobs added meet wage and benefits requirements that are established in statute, DHCD staff will disburse the grant to qualifying businesses. An RPIG is also awarded on an automatic basis to all qualifying businesses meeting the program requirements.

All Virginia Incentive Grant Programs Require Businesses to Achieve Certain Goals, Which Vary by Program

All of Virginia's incentive grant programs contain certain minimum requirements that businesses must exceed to be considered for a grant award, such as creating a minimum number of jobs and/or making a minimum capital investment. These requirements vary by program and, in most cases, the job creation or investment goals are negotiated on a case-by-case basis and are higher than the programs' minimum requirements. However, as mentioned previously, eligible businesses need only exceed minimum job creation or real property investment requirements to receive an incentive grant through the State's two enterprise zone programs.

Four programs are tailored to specific businesses or targeted narrowly to specific types of businesses and include customized requirements that businesses must meet as a condition of receiving an award. For example, the Advanced Shipbuilding Training Facility Grant program contains capital investment and jobs requirements, but also requires the business to maintain an apprenticeship program with an average enrollment of at least 750 students and to maintain a certain level of expenditures to support training activities.

Some Grant Programs Are Targeted to Specific Businesses or Areas of the State

While some incentive grants are available to any business statewide, others are targeted and designed to meet the needs of individual businesses or specific regions of the State. The custom grant programs were created to attract specific businesses to locate or expand in Virginia. For example, the Aerospace Engine Manufacturing Performance Grant Program was designed to attract Rolls-Royce to Prince George County, and the SRI-Shenandoah Valley Grant Program was designed to attract SRI International to Harrisonburg.

Economically Distressed Areas

Economically distressed areas in Virginia are those experiencing economic challenges such as relatively high unemployment and poverty rates. Measures of economic distress vary across incentive grant programs.

Four of Virginia's incentive grant programs are limited to specific areas of the State and are designed to encourage businesses to locate or expand in economically distressed areas of Virginia. The State's location-specific programs include the two enterprise zone programs (JCG and RPIG), TROF, and the Coalfield Regional Opportunity Fund. JCG and RPIG awards are available in Virginia's 57 designated enterprise zones, which are determined by the Governor and located in economically distressed areas. Similarly, awards made through the TROF program are limited to businesses locating or expanding in one of 41 localities in southern and southwestern Virginia—areas that have experienced economic distress due to the decline of the tobacco, furniture production, coal, and textile industries. The Coalfield Regional Opportunity Fund is more narrowly targeted to eight southwestern localities and is designed to encourage job creation and economic diversification in areas impacted by the decline of the coal industry.

VIRGINIA'S GRANT PROGRAMS WERE EVALUATED BASED ON THREE PRIMARY GOALS

Nearly all of Virginia's incentive grant programs appear to have three primary goals, based on reviews of the *Code of Virginia*, program documents, and interviews with staff of agencies that administer the programs. These goals, which build upon each other, are to

- sway business decisions to locate or expand in Virginia,
- encourage job creation and/or capital investment, and
- contribute to the broader goal of economic development in Virginia.

To evaluate the effectiveness of Virginia's economic development incentive grants, the performance of each grant program was measured against each of these three goals, where possible. The first goal was primarily measured qualitatively based on interviews with economic developers, site selection consultants, businesses, and other stakeholders, as well as a review of the research literature on economic development and financial incentives. The second and third goals were assessed both qualitatively and quantitatively using methods such as structured interviews, analyses of State agency data, and economic impact modeling.

Chapter 2 Many Incentive Grants Were Awarded During the Past Ten Years, but Most Were Small

In Summary

Virginia awarded approximately 3,400 incentive grants during the past decade, but often for relatively low amounts. A total of $718 million was approved between fiscal years 2002 and 2011, which appears to be a modest level of financial support relative to the State's budget and businesses' costs. While Virginia's total grant funding is moderately higher than in several competitor states reviewed, the average amount awarded to projects is far lower than in other states. Most awards approved in Virginia amounted to less than $100,000 per project. However, a few projects received substantially larger awards, including seven businesses that were collectively awarded 40 percent of all grant funding over the past ten years. The majority of businesses that received grant awards were expanding their operations in Virginia, employing more than 250 people upon completion of the project, or in one of four major industries. In addition, most grant awards have also been geographically concentrated in ten localities that are the State's major population centers.

While some information pertaining to the use of Virginia's incentive grants is reported annually to the General Assembly, its usefulness is limited for purposes of examining trends over time and comparing grant programs, as well as the projects that they fund. In addition, some grant programs are discussed in separate annual reports, which makes it difficult to compare grant programs within a given year. Senate Joint Resolution 329 (Appendix A) specifically directs JLARC to examine the extent to which grant programs are used. Accordingly, this chapter provides information on the extent to which programs have been used over the last decade, how much has been approved by each program, and to whom grants have been awarded.

MANY INCENTIVE GRANTS WERE AWARDED DURING THE PAST TEN YEARS

Over the last decade, a substantial number of grants were awarded through Virginia's economic development incentive grant programs—nearly 3,400 incentive grants totaling approximately $718 million. The total grant amount approved annually between fiscal years (FYs) 2002 and 2011 was within a fairly consistent range, with the exception of a few years when some large projects received substantially higher awards. In comparison, the average grant amount awarded each year fluctuated significantly over the ten-year period.

A Large Number of Awards Were Approved During Last Ten Years, but Most Had a Relatively Modest Value

Virginia's 18 economic development incentive grant programs approved nearly 3,400 awards totaling more than $700 million between FYs 2002 and 2011 (Table 3). The Governor's Development Opportunity Fund (GOF) and the Major Eligible Employer (MEE) grant program awarded the largest amounts during the ten-year period.

Table 3: Eighteen Grant Programs Approved Approximately 3,400 Awards Totaling $718 Million, or $39 Million Per Year, on Average (FYs 2002-2011)

	10-Year Total		Annual Average[a]	
	Amount Approved ($ Millions)	# of Grant Awards	Amount Approved ($ Millions)	# of Grant Awards
VEDP Grant Programs				
Governor's Development Opportunity Fund (GOF)	$98.9	236	$9.9	24
Major Eligible Employer Grant (MEE)	77.0	5	19.3	1
Virginia Investment Partnership Grant (VIP)	44.8	52	4.5	5
Virginia Economic Development Incentive Grant (VEDIG)	44.5	10	11.1	3
Clean Energy Manufacturing Incentive Grant[b] (CEMIG)	--	--	--	--
VEDP Custom Grant Programs				
Semiconductor (Qimonda)	55.0	1	--	--
Aerospace (Rolls-Royce)	48.8	4	--	--
Advanced Shipbuilding (Newport News)	32.8	1	--	--
Semiconductor (Micron)	32.0	1	--	--
SRI	22.0	1	--	--
Enterprise Zone Grant Programs				
Real Property Investment Grant (RPIG)	76.7	1,145	12.8	191
Job Creation Grant (JCG)	8.6	94	1.4	16
Department of Business Assistance Grant Program				
Virginia Jobs Investment Program[c] (VJIP)	61.2	1,506	6.8	151
Transportation Grant Programs				
Transportation Partnership Opportunity Fund[d] (TPOF)	26.4	5	5.3	1
Rail Industrial Access Program (RIAP)	16.2	46	1.8	5
Economic Development Access Program[e] (EDAP)	8.2	25	0.9	3
Other Grant Programs				
Tobacco Region Opportunity Fund (TROF)	58.5	212	5.9	21
Governor's Motion Picture Opportunity Fund (GMPOF)	3.9	20	0.4	2
Coalfield Regional Opportunity Fund (CROF)	2.2	8	0.4	1
TOTAL/AVERAGE	**$717.7**	**3,372**	**$38.6**	**275**

[a] Accounts for some grant programs created after FY 2002 or that did not approve grants every year during the ten-year period. For example, the enterprise zone grant programs were not created until FY 2005 so these annual averages are based on six years of grant awards. Overall annual averages are weighted based on number of years grants were awarded by each program during the ten-year period.
[b] Created in 2011 when the Biofuels Production and Solar Photovoltaic Manufacturing Incentive Grant programs (BPIG and SMIG) were eliminated. CEMIG did not approve any grant awards in 2011. BPIG and SMIG did not approve any grant awards between FYs 2002 and 2011; therefore, these two programs are excluded from this table.
[c] An additional $40 million was budgeted that will not be paid out to businesses because they never filed for reimbursement for the jobs they expected to add or train. An additional $13 million was budgeted for active projects that are yet to file for reimbursement.
[d] Only includes grants awarded for economic development projects. TPOF grant awards may also be used by the Governor through the design-build provision of the *Code of Virginia* and pursuant to the Public-Private Transportation Act of 1995.
[e] Only includes named business projects. EDAP also awarded funds to bonded projects (54 between FYs 2002 and 2011), which were excluded because they are capacity-building projects with no prospective business at time of the award.

Source: JLARC staff analysis of data provided by State agencies.

VEDP programs as a whole accounted for nearly 40 percent of the total amount awarded, while the custom grant programs administered by VEDP comprised an additional 27 percent of the total. The Enterprise Zone Real Property Investment Grant (RPIG) program and the Virginia Jobs Investment Program (VJIP) approved the highest number of awards during the ten-year period.

Two-Thirds of Approved Amount Has Been Paid Out

Not all of the $718 million in grant awards approved during the past ten years has been or will be paid out to businesses. As of June 2011, Virginia had paid out two-thirds of the total amount awarded between FYs 2002 and 2011 (Table 4). The timing of award payments specific to each program generally dictates how long it will take for the State to fully discharge its liability.

Table 4: Two-Thirds of Grant Awards Approved Between FYs 2002 and 2011 Have Been Paid as of the End of FY 2011

		As of June 2011 ($ Millions)		
	Amount Approved ($ Millions)	Paid To Date	Outstanding Liability	Will Not Be Paid Out
VEDP Grant Programs				
Governor's Development Opportunity Fund (GOF)	$98.9	$96.0[b]	--	--
Major Eligible Employer Grant (MEE)	77.0	5.0	$49.0	$23.0
Virginia Investment Partnership Grant (VIP)	44.8	4.6	28.6	11.6
Virginia Economic Development Incentive Grant (VEDIG)	44.5	--	30.5	14.0
VEDP Custom Grant Programs				
Semiconductor (Qimonda)	55.0	47.5	--	7.5
Aerospace (Rolls-Royce)	48.8	20.5	28.3	--
Advanced Shipbuilding (Newport News)	32.8	--	32.8	--
Semiconductor (Micron)	32.0	24.0	8.0	--
SRI	22.0	20.0	2.0	--
Enterprise Zone Grant Programs				
Real Property Investment Grant (RPIG)	76.7	76.7	--	--
Job Creation Grant (JCG)	8.6	8.6[b]	--	--
Department of Business Assistance Grant Program				
Virginia Jobs Investment Program (VJIP)	61.2	61.2	--[a]	--
Transportation Grant Programs				
Transportation Partnership Opportunity Fund (TPOF)	26.4	26.4	--	--
Rail Industrial Access Program (RIAP)	16.2	15.5[b]	0.7	--
Economic Development Access Program (EDAP)	8.2	8.2	--	--
Other Grant Programs				
Tobacco Region Opportunity Fund (TROF)	58.5	54.9[b]	--	--
Governor's Motion Picture Opportunity Fund (GMPOF)	3.9	3.9	--	--
Coalfield Regional Opportunity Fund (CROF)	2.2	2.2	--	--
Total	**$717.7**	**$475.2**	**$179.2**	**$56.1**
Percent of Total[c]		**66%**	**25%**	**8%**

[a] An additional $40 million was budgeted that will not be paid out to businesses because they never filed for reimbursement for the jobs they expected to add or train. An additional $13 million was budgeted for active projects that have yet to file for reimbursement.
[b] Net of clawback amounts for GOF ($3.0 million), TROF ($3.6 million), RIAP ($1.0 million), and JCG ($0.02 million).
[c] Does not sum to 100 percent because clawbacks are excluded.

Source: JLARC staff analysis of data provided by State agencies.

Programs such as GOF and the Tobacco Region Opportunity Fund (TROF) have paid out all or almost all of the amount approved because they pay awards up front. Similarly, the enterprise zone programs have paid out the entire approved amounts because businesses had to meet program requirements when they were awarded a grant.

The State still has to pay approximately a quarter of the total grant amount awarded during the past ten years. This outstanding liability is owed primarily to businesses that received a grant from programs that issue payments after the project has been completed, sometimes several years after completion in the case of the Virginia Investment Partnership (VIP) and Major Eligible Employer (MEE) programs. Additional reasons why the State would not yet have paid out the entire grant amount awarded include

- projects are still ongoing and have not finished creating jobs or investing capital, or
- businesses have not applied for reimbursement for the new jobs created or employees trained (VJIP and Rail Industrial Access Program (RIAP) grants).

Lastly, $56.1 million (eight percent) of the total grant amount awarded between FYs 2002 and 2011 will never be paid out because the businesses' projects failed to meet their performance goals.

Grant Amount Awarded Fluctuated Over Ten-Year Period Due to a Few Large Projects

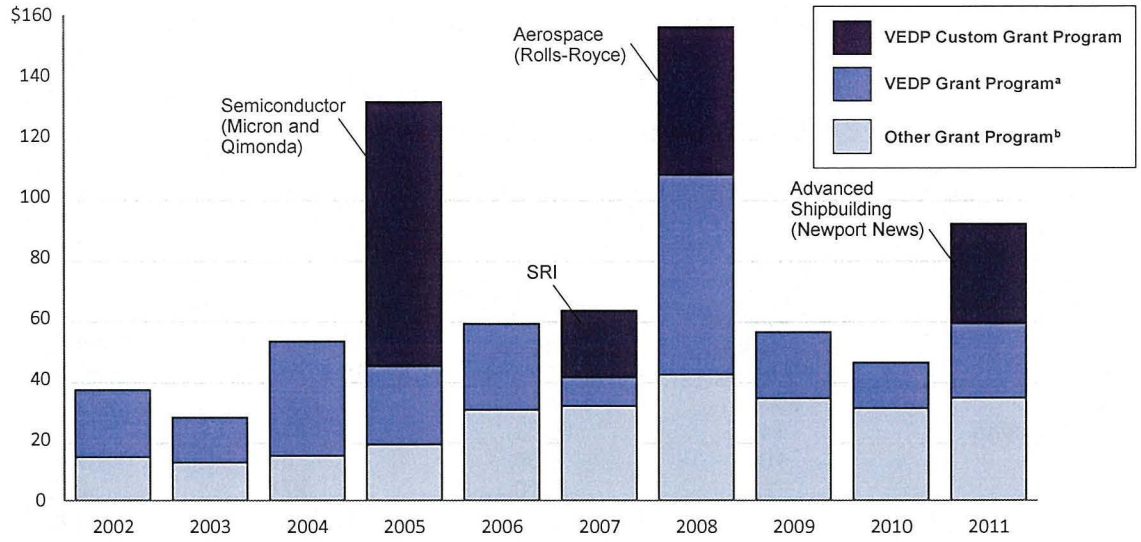
Over the past ten years, the amount of incentive grant awards approved each year has ranged from $30 million to nearly $160 million, and in most years, was less than $60 million.

Over the past ten years, the amount of grant awards approved each year has ranged from $30 million to nearly $160 million, and in most years was less than $60 million. However, the amounts awarded in FYs 2005, 2008, and 2011 were substantially higher due primarily to four large projects that received a business-specific custom grant (Figure 2). In addition, a sizable MEE grant to Canon Virginia was approved in FY 2008 that accounted for 30 percent of the total amount approved for VEDP grants that year.

VIRGINIA INCENTIVE GRANT AWARDS APPEAR MODEST RELATIVE TO STATE BUDGET AND BUSINESSES' COSTS

The amount of funding for incentive grants over the past ten years appears to be modest relative to the State budget and business costs, but tends to be moderately higher than amounts awarded in several other states. The average size of grant awards in Virginia, however, is consistently small compared to all measures.

Figure 2: Annual Grant Amount Approved Was Highest in FYs 2005, 2008, and 2011 Because of Custom Grants and a Few Large Projects ($ Millions)



[a] Includes GOF, MEE, VEDIG, and VIP.
[b] Includes VJIP, JCG, RPIG, RIAP, EDAP, TPOF, TROF, CROF, and GMPOF.

Source: JLARC staff analysis of data provided by State agencies.

Incentive Grant Awards Were Small Relative to the State's Budget

Total grant awards in Virginia accounted for less than one percent of the State's total budget in each of the past ten years. On a per capita basis, grant funding ranged from $4 to $20 between FYs 2002 and 2011, while the State budget ranged from $3,223 to $4,872 per capita over the same ten-year period.

Top Ten of Virginia's Competitors

According to a staff analysis of data from the National Establishment Time Series data, Virginia competes for jobs with the District of Columbia and nine states: California, Georgia, Illinois, Maryland, New Jersey, New York, North Carolina, Pennsylvania, and Texas.

Alabama, Michigan, South Carolina, and Tennessee are also considered to be competitor states of Virginia, according to VEDP.

Average Grant Awards Reduced Labor and Capital Costs of Projects by Less Than One Percent

The average Virginia grant award also appears to be small compared to the labor and capital costs borne by businesses for their location or expansion projects in Virginia. Over the past ten years, the average long-term labor and capital investment costs of projects that received a grant was $26 million, based on an analysis of program data. In contrast, the average grant award was approximately $201,000 per project, or less than one percent of the average project cost.

Virginia Has Approved Smaller Awards Than Several Other States, on Average

Based on a comparison with several other states, Virginia appears to spend somewhat more on grant programs overall, but approves

smaller awards, on average. Total spending was higher than in several states, even after accounting for population differences (Table 5). The average annual award approved by Virginia programs between FYs 2002 and 2011 was just over $200,000 compared to $820,000 in Georgia and $1 million in North Carolina. Virginia's approved grant amount per capita was well below Ohio's but higher than several of the states listed.

Table 5: Virginia Has Approved Smaller Grant Awards, on Average, Compared to Several Other States

		Average Annual[b]		
State[a]	Total Amount Approved ($ Millions)	Amount Approved Per Capita	Number of Grant Awards	Grant Award ($ Millions)
Ohio	$581	$50.37	2,152	$0.27
North Carolina	147	15.63	147	1.00
Florida	100	5.39	89	1.12
Virginia	**72**	**9.10**	**275**	**0.20**
Texas	55	2.21	11	4.93
California	41	1.12	2,655	0.02
Georgia	36	3.66	44	0.82
Maryland	15	2.64	34	0.45

[a] Alabama, the District of Columbia, Illinois, Michigan, New Jersey, New York, Pennsylvania, South Carolina, and Tennessee are also considered competitors with Virginia, according to VEDP, but are not included in the table due to a lack of available data on grant awards.
[b] Average annual amounts were calculated using a different time period for each state based on the number of years for which information was available and the total amount approved during that period.

Source: JLARC staff analysis of other states' incentive grant programs.

MOST PROJECTS RECEIVED SMALL GRANT AWARDS, BUT A FEW CAPTURED A LARGE SHARE OF GRANT FUNDING

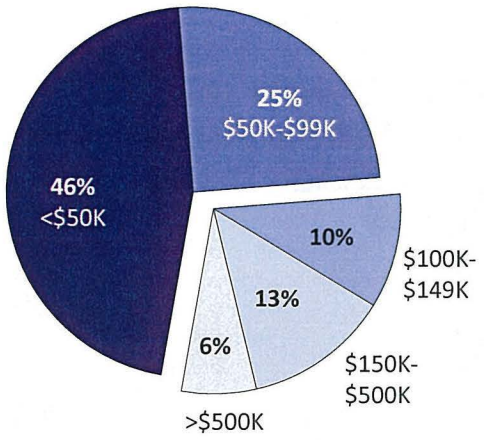
Most grant-funded projects received relatively small amounts. However, the average size of grant awards varied substantially between programs. Despite a low average award, several projects received a disproportionately large share of grant funding. In particular, seven businesses received 40 percent of the total grant amount awarded over the past ten years. In several cases, these businesses received awards from multiple grant programs.

Seven businesses received 40 percent of the total grant amount awarded over the past ten years.

Nearly Half of Awards Were Less Than $50,000 and Most Were Less Than $100,000

Forty-six percent of grants awarded between FYs 2002 and 2011 were less than $50,000 and almost three-fourths were less than $100,000 (Figure 3). Many of these grants were awarded by the RPIG and VJIP programs, which are narrowly targeted to specific business activities and typically award smaller amounts to cover a portion of these activities' costs.

Figure 3: Most Grant Awards Were Less Than $100,000 (FYs 2002-2011)



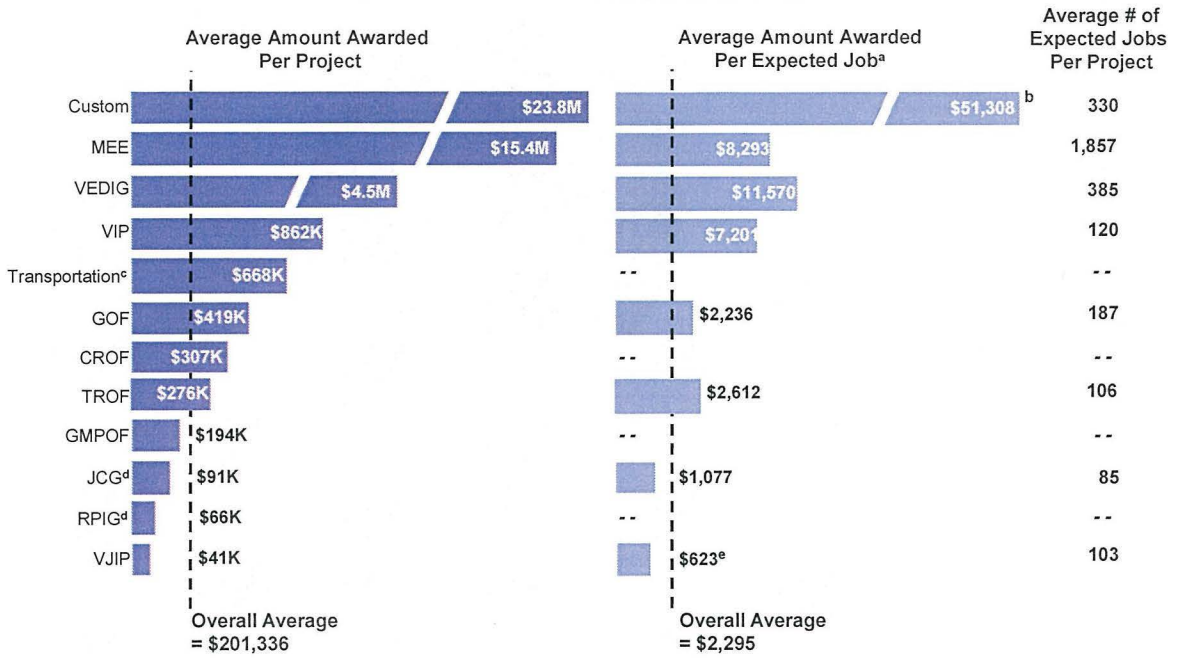
Source: JLARC staff analysis of data provided by State agencies.

Average Amount Awarded Varies Substantially by Grant Program

The average grant amount awarded varied significantly by grant program between FYs 2002 and 2011, ranging from a high of $23.8 million for a custom grant to a low of $41,000 for the VJIP program (Figure 4). A disparity between programs is to be expected because some programs such as custom grants or MEE target large projects specifically, and the size of the project affects the amount awarded by most programs. Because they were expected to create the most jobs, projects that received grants from these programs also received the largest awards, on average. In contrast, VJIP projects awarded grants to projects that were expected to create fewer jobs and also paid a smaller award, on average.

The grant amounts awarded per expected job also varies greatly among programs (Figure 4). In particular, custom grant projects were awarded an average of $51,000 per expected job, which far exceeded the average amount awarded by all other grant programs. The MEE, Virginia Economic Development Incentive Grant (VEDIG), and VIP programs also awarded larger amounts per expected job than other grant programs. According to VEDP, these programs are more generous because the project jobs are specialized within each industry and are very important to Virginia's economy.

Figure 4: Average Grant Amount Awarded Varied Greatly Among Programs and Amount Per Job for Custom Grants Far Exceeded That of All Other Programs (FYs 2002-2011)



[a] This calculation is not applicable for all grant programs because of a lack of data (e.g., Transportation) or because grant awards are based solely on real property investment (RPIG).
[b] Ranges from $32,778 (Newport News Shipbuilding) to $157,143 (SRI). SRI's 140 expected jobs (the lowest among the custom grants) skewed the overall average upward. If SRI is excluded from the calculation, the average amount awarded per job is $45,386.
[c] Includes EDAP, TPOF, and RIAP.
[d] Average amounts based on prorated disbursement amounts.
[e] Includes both new and retraining jobs.

Source: JLARC staff analysis of data provided by State agencies.

Seven Businesses Received 40 Percent of Total Grant Funding Over Past Ten Years

Of the $718 million approved between FYs 2002 and 2011, 40 percent was awarded to just seven businesses—Rolls-Royce, Qimonda, Philip Morris, Micron, Newport News Shipbuilding, Canon Virginia, and SRI International. Five of the seven businesses received a custom grant, which as previously described were substantial awards. However, businesses often received a combination of grants from multiple programs (Table 6). Rolls-Royce received the highest amount ($66 million) in grant awards through a combination of custom grant and traditional grant programs including GOF, Transportation Partnership Opportunity Fund (TPOF), and VJIP, all of which assisted with site improvements, training, and project management at the new manufacturing plant built in Prince George County in 2009. Canon Virginia received seven grant awards in FY 2008 totaling $27.4 million. All other 2,600 businesses that received a grant were awarded $167,000, on average.

Table 6: Seven Businesses Received 40 Percent of Total Grant Amount Awarded (FYs 2002-2011)

Business	Expected Number of Jobs	Total Amount Awarded ($ Millions)	Amount Per Expected Job	Total Number of Awards	Types of Grants
Rolls-Royce[a]	642	$66.4	$103,427	4	Custom, GOF, TPOF, VJIP
Qimonda	1,200	55.0	45,833	1	Custom
Philip Morris	450	43.8	97,333	4	GOF, MEE, VJIP(2)
Micron	860	36.1	41,977	5	Custom, GOF(2), VIP, VJIP
Newport News Shipbuilding	1,000	32.8	32,778	1	Custom
Canon Virginia	1,035	27.4	26,473	7	GOF, MEE, VJIP(2), JCG, RPIG, TPOF
SRI	140	22.0	157,143	1	Custom
Subtotal (7 businesses)	**5,327**	**$283.5 (40%)**	**$53,219**	**23**	
All Other Businesses	**307,400**	**$433.9**	**$1,412**	**3,334**	
TOTAL (FYs 2002-2011)	**312,727**	**$717.7**	**$2,295**	**3,372**	

[a] Total amount awarded does not include a $40 million higher education grant.

Source: JLARC staff analysis of data provided by VEDP, DBA, DHCD, TICR, VDOT, and DRPT.

The amount awarded per expected job was also substantially higher for these seven businesses compared to all other businesses that received a grant award. Specifically, the grant amount awarded per job ranged from approximately $26,000 (Canon Virginia) up to $157,000 (SRI). In comparison, the overall average for all projects was approximately $2,300 per expected job.

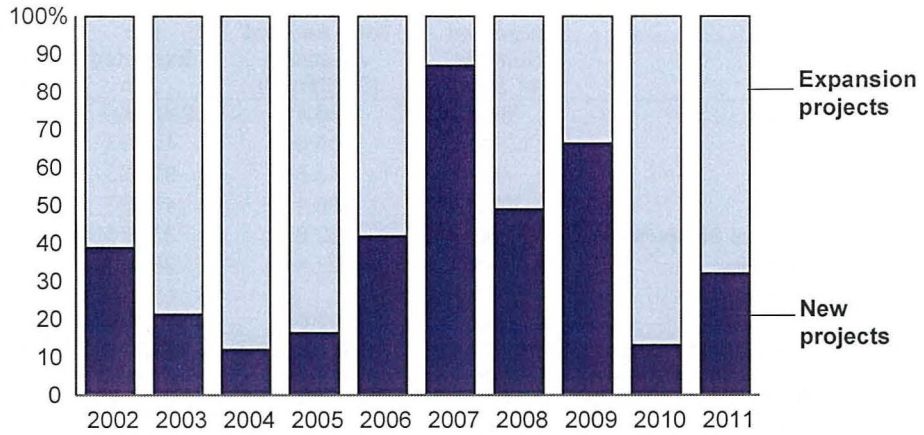
VAST MAJORITY OF GRANT FUNDING WAS AWARDED TO EXPANSION PROJECTS, LARGER BUSINESSES, FOUR MAJOR INDUSTRIES, MOSTLY IN TEN LOCALITIES

The vast majority of grant funding approved between FYs 2002 and 2011 was awarded to projects that shared certain characteristics. Specifically, they were most often already located in Virginia, had more than 250 employees, or belonged to one of four major industries. In addition, most of the grants approved over the ten-year period were awarded to businesses in ten Virginia localities.

Most Grant Funding Was Awarded to Expanding Businesses

More than 80 percent of all projects that received a grant between FYs 2002 and 2011 involved businesses that were expanding in Virginia by adding employees or capital assets. These projects collectively received nearly two-thirds of the total grant amount awarded during the ten-year period. The percent of grant funding awarded for expanding versus new businesses each year varied substantially between FYs 2002 and 2011, as shown in Figure 5. This variation was driven by the nature of the projects receiving

Figure 5: Majority of Grant Funding Awarded to Expansion Projects in Most of the Past Ten Years



Source: JLARC staff analysis of data provided by VEDP, DBA, DHCD.

awards in each year. For example, nearly 90 percent of the total grant amount approved in FY 2004 was awarded to expansion projects, in large part because Philip Morris was awarded $28 million in grants when it significantly expanded its Virginia operations by relocating its headquarters from New York. In contrast, expansion projects accounted for about half of grant funding awarded in FY 2008, when Rolls-Royce was awarded $66 million in grants for a project involving a new location in Prince George County.

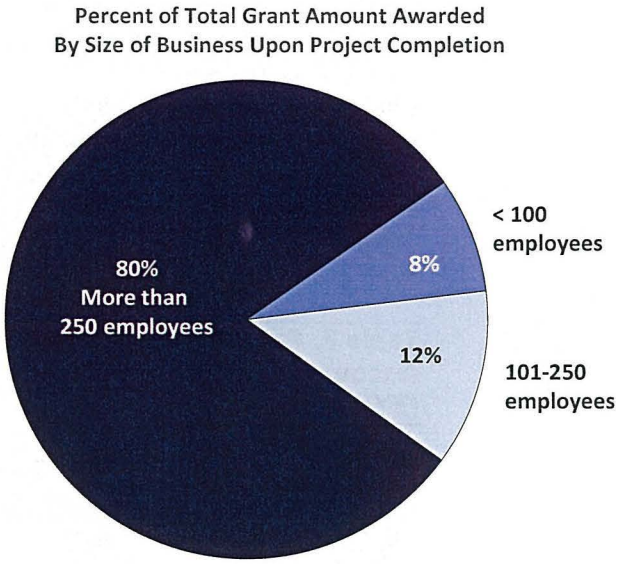
Most Grant Funding Was Awarded to Businesses With More Than 250 Employees

Eighty percent of the total grant amount approved between FYs 2002 and 2011 was awarded to businesses with more than 250 employees upon completion of the project (Figure 6). All but one of the seven businesses that received the largest amount of grant funding were part of this group of larger employers.

Most Grant Funding Was Awarded to Businesses in Four Major Industry Categories

Most of the grant funding approved between FYs 2002 and 2011 was awarded to businesses in four major industries: manufacturing, management of companies and enterprises (headquarters), professional and scientific services, and real estate (Table 7). More than half of the total was awarded to businesses in manufacturing sectors, in part due to the projects that received a semiconductor, Advanced Shipbuilding, and Aerospace custom grant. The SRI custom grant was a large contributor to the total amount approved for the professional, scientific, and technical services industry.

Figure 6: Majority of Total Grant Amount Was Awarded to Businesses With More Than 250 Employees



Note: Employment data was only available for projects that received a VEDP, VJIP, or JCG grant (43 percent of projects).

Source: JLARC staff analysis of data provided by VEDP, DBA, and DHCD.

Table 7: Four Major Industry Categories Account for Three-Quarters of Total Grant Amount Awarded (FYs 2002-2011)

Major Industry Category	Total Amount Awarded ($ Million)	Percent of Total	Number of Awards
Manufacturing	$375.7	52%	1,248
Management of companies and enterprises	72.3	10	46
Professional, scientific, and technical services	66.7	9	283
Real estate[a]	31.7	4	408
Subtotal	**$546.5**	**76%**	**1,981 (59%)**
TOTAL (all grant projects)	**$717.7**	**100%**	**3,372**

Note: Excludes CROF and GMPOF grant awards.
[a] Projects in this industry sector received grants from the Real Property Improvement Grant program. Although characterized as "real estate" for purposes of the grant, these projects are typically in a wide variety of retail, commercial, and industrial sectors.

Source: JLARC staff analysis of data provided by State agencies.

Majority of Grant Funding Was Awarded to Businesses in Ten Virginia Localities

Most of the grant funding approved between FYs 2002 and 2011 was awarded to businesses locating or expanding in central Virginia, Northern Virginia, Hampton Roads, and Southside Virginia. The majority of the total amount awarded during the same time period went to businesses located in ten localities in Virginia (Ta-

ble 8). The geographical concentration of grant awards indicates that while grants may be benefitting the State as a whole, certain localities are not directly receiving many of the economic development benefits of incentive grants. For example, less than $1 million was awarded to projects in nearly half of localities during the past ten years, while no grant awards were approved in 19 Virginia localities (Figure 7, next page). Although some localities may not have received grant awards during the study period, grant funding appears to be concentrated in areas that represent a high percentage of the State's population. For example, over one-quarter of the State's population resides in the ten localities receiving the majority of grant funding listed in Table 8.

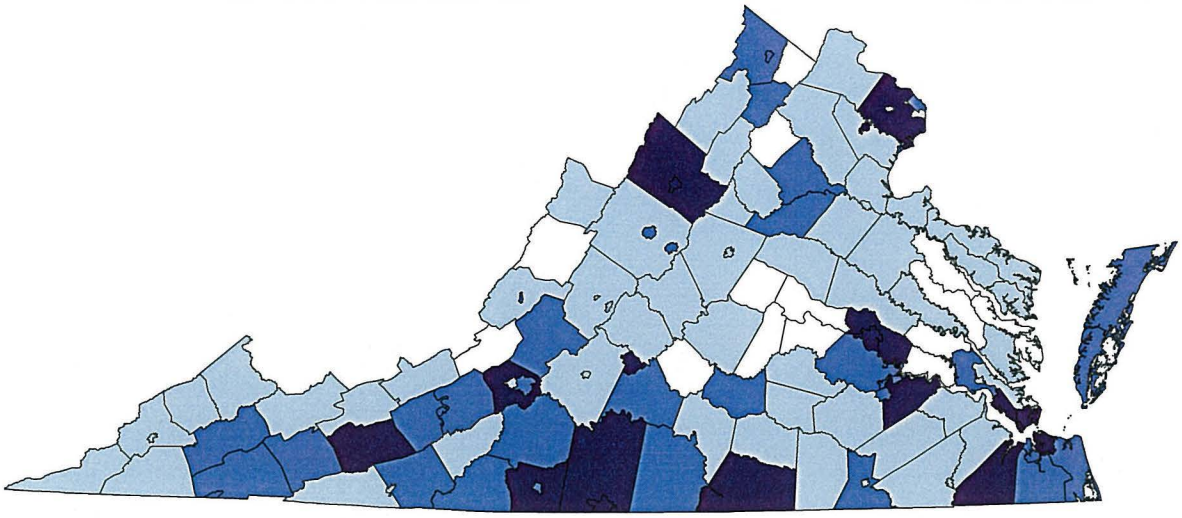
Table 8: Grants Awarded to Businesses in Ten Localities Account for Majority of Total Grant Amount Approved (FYs 2002-2011)

Locality	Total Amount Awarded ($ Million)	% of Total	Number of Awards
Henrico	$93.2	13.0%	172
Newport News	75.1	10.5	99
Prince George	57.8	8.1	30
Fairfax County	48.8	6.7	463
Manassas City	36.3	5.1	23
Richmond City	34.4	4.8	262
Harrisonburg	22.7	3.2	33
Danville	11.0	1.6	117
Lynchburg	9.2	1.3	132
Roanoke County	8.8	1.2	118
Subtotal (Top 10)	**$396.5**	**55.3%**	**1,449 (30%)**
TOTAL (all grant projects)	**$717.7**	**100.0%**	**3,372**

Note: Excludes CROF and GMPOF grant awards.

Source: JLARC staff analysis of data provided by State agencies.

Figure 7: Most Grant Funding Has Been Concentrated in a Small Number of Localities, Most of Which Are Densely Populated (FYs 2002-2011)



Total Amount Awarded	# of Localities	% of Total	% of Awards
>$5 million	19	79%	46%
$1 million - $5 million	36	15%	34%
< $1 million	61	4%	15%
$0	19	--	--

Note: Excludes CROF and GMPOF grant awards. Totals may not add to 100 percent because not all projects had locality information to include in this analysis.

Source: JLARC staff analysis of data provided by State agencies.

Chapter 2: Many Incentive Grants Were Awarded During the Past Ten Years, but Most Were Small 24

Chapter 3

Incentive Grants Tend to Have a Positive but Small Impact on Business Decisions

In Summary

While businesses consider many factors when selecting a site, incentive grants appear to have a positive, but often small impact on their decisions, based on a review of the economic development research literature. Factors that exert the most influence on site selection decisions are those that impact the business' long-term sustainability and profitability. Although every project has unique requirements, transportation and labor factors are most commonly viewed as very important when selecting a site. The best available empirical data suggests that approximately ten percent of location and expansion decisions are swayed by typical incentives. However, some concerns exist about the reliability of this estimate, and several factors suggest that certain Virginia programs could play a decisive role more frequently. Incentive grants can benefit the State and its economy in several ways, such as by attracting businesses that would not have located their project in Virginia without an incentive grant, contributing to the State's "business-friendly" reputation, and encouraging businesses to locate projects in economically distressed areas.

Understanding the extent to which incentive grants shape business decisions to locate or expand in Virginia is critical to evaluating whether they are effective at achieving their policy goals. If incentive grants do not sway a business' decision to locate or expand in Virginia, then the jobs created and economic gains stemming from that business' increased presence in Virginia cannot be attributed to the incentive grant, and instead the grant payments are only a cost to the State. Decades of research have not yet conclusively established the nature and extent of the relationship between financial incentives and business site selection decisions.

INCENTIVE GRANTS ARE AMONG MANY FACTORS CONSIDERED IN SITE SELECTION, AND APPEAR MOST INFLUENTIAL DURING FINAL STAGES

Businesses' decisions to locate or expand in a particular area are based on a variety of factors that affect their operations and employees. Although the importance of individual factors varies based on the requirements of each business and project, transportation and labor costs typically have large and long-term implications on a business' profitability and sustainability. Because these decisions are most often driven by financial considerations, factors such as transportation and labor costs are likely to have a more significant impact on the project's ultimate location than incentive grants. However, incentive grants appear to play a more important role toward the end of the process for selecting a site at which to locate or expand, once fundamental cost requirements (such as transpor-

tation and labor) have been met. Incentive grants are also reportedly most effective at influencing business decisions when only a few equally compelling sites remain in consideration.

Factors Impacting Profitability and Sustainability Tend to Be Most Influential in Site Selection Decisions, but Vary by Project

While businesses select locations after considering many financial and non-financial factors, those that most significantly affect a project's profitability and sustainability are typically among the foremost considerations. Representatives of businesses that had received State incentive grants indicated that these factors are usually the primary determinants of their business' site selection decision. One representative indicated that her business selects the locations of its operations based strictly on a model that compares expected long-term costs at each potential location. Still, the relative importance of each factor that affects site location decisions will vary based on the specific requirements of each business and project. For example, a location's access to highways and other distribution networks is more likely to influence a business seeking to build a manufacturing plant than one relocating its headquarters.

Businesses' decisions to locate or expand in a particular area are based on a variety of factors that will affect their operations and employees (Table 9). Although the importance of factors will vary based on the requirements of the business and project, transportation and labor costs typically have greater and longer term implications on a business' profitability and sustainability than incentive grants. Consequently, they are likely to have a more substantial impact on the project's ultimate location than incentive grants. However, if they do affect decisions, incentive grants appear to become more important toward the end of the site selection process, after the fundamental business requirements have been met.

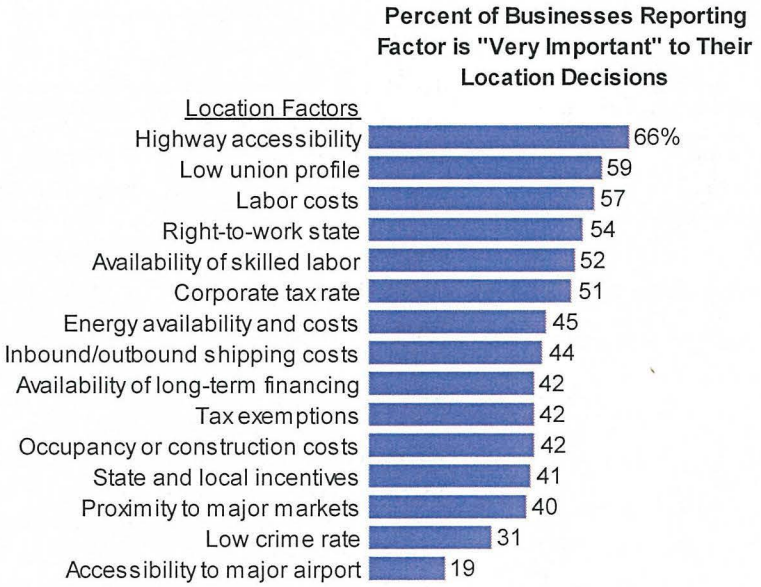
Table 9: Site Selection Decisions Involve a Variety of Considerations Impacting the Business and Its Employees

	Cost Factors	Environmental Factors
Business	Operating costs	Ease of doing business
Employees	Cost of living	Quality of life

Source: KPMG, "Competitive Alternatives: KPMG's Guide to International Business Location Costs" (2012); *Forbes*, "Best States for Business and Careers" (2011); CNBC, "Top States for Business 2012."

A national survey of businesses conducted by a trade publication appears to be consistent with the opinion of stakeholders interviewed for this study. The top three factors that businesses most commonly considered "very important" to site selection decisions were all cost factors, including the location's highway accessibility, union profile, and labor costs (Figure 8). Factors relating to the environment in which the business would operate, such as state and local regulations and an area's "business-friendly" reputation can also be important to location or expansion decisions, according to business representatives. Factors affecting residents' quality of life may also influence these decisions if they are expected to affect a business' ability to recruit and retain qualified employees or transfer critical personnel. According to the national survey, an area's crime rate, health care facilities, housing costs, and quality of public schools appear to rank among the factors affecting employees that businesses most commonly consider to be "very important" when locating to a new area.

Figure 8: Highway Accessibility, Union Profile, and Labor Costs Are Among Factors Commonly Reported as Being "Very Important" to Business Site Selection Decisions



Note: Includes only the 15 factors that businesses *most commonly* reported as being "very important" to their site selection decisions. Survey includes additional factors as response options.

Source: JLARC staff analysis of Area Development's 26th Annual Corporate Survey (2012).

Incentive Grants Are Most Likely to Be Considered Toward End of Site Selection Process and to Influence Decisions in Certain Circumstances

Incentive grants are most often considered toward the end of the site selection process, when only a few sites that meet all necessary requirements remain in consideration, according to business representatives interviewed by JLARC staff. Businesses eliminate most of the locations initially considered because they do not meet certain financial and non-financial requirements that are critical to their success, such as low labor costs, access to a new market, or personal preference. After the list of potential sites has been narrowed, businesses are in a better position to estimate operating costs for each site and compare them. Incentive grants may then become highly relevant because the extent to which they will reduce a project's cost can be factored into the business' calculations. At this stage, incentive grants may sway a business' decision if they increase the profitability of a project to the point where it surpasses projections in other locations, or if they compensate for factors in which other locations had a competitive advantage.

Still, there appears to be a consensus that incentive grants cannot make up for a location's inadequacy in key areas, such as transportation or the inability to meet a business' strategic requirements, according to interviews and a review of the research conducted by JLARC staff. As one local economic developer noted, "Incentive grants cannot make a bad site good, but can make a good site better." However, there also appear to be certain cases when incentive grants are more likely to play a decisive role in site selection.

"Incentive grants cannot make a bad site good, but can make a good site better."

Incentive grants are particularly effective when all remaining sites meet business requirements and preferences *and* the decision-makers are truly indifferent to the project's ultimate location. If all locations are equally able to meet a business' needs, the incentive grant provided by a state could "tip the scale" in its favor.

In addition, grants may be more effective if they are sufficiently large in value relative to the cost of the project or size of a business. A $1 million grant, for example, is more likely to influence the location of a project with a total cost of $10 million than it would for a project costing a business $100 million, because it would offset ten percent of the first project's total costs, but only one percent of the cost of the second. As discussed in Chapter 2, most Virginia incentive grants currently represent a very small percentage of the total cost of any given project.

Incentive grants can also be effective if they are sufficient to compensate for a location's shortcoming, especially if that shortcoming has a quantifiable cost. For example, one site selection consultant

described an instance in which a business had narrowed down its options to a Virginia site, but discovered that the soil conducted electricity and would adversely affect its operations. In this instance, the State provided an incentive grant to cover the cost of amending the soil and secured the business' site selection decision.

FINANCIAL INCENTIVES APPEAR TO HAVE POSITIVE IMPACT ON BUSINESS SITE SELECTION DECISIONS, BUT EXTENT IS UNCLEAR

Although most studies suggest that economic development incentive grants have a positive impact on business location decisions, some concerns exist about the reliability of these studies. In addition, attempts to determine the extent to which specific grant programs impact location decisions have been hampered by the same reliability concerns as well as differences with the programs evaluated in the research literature. While the best available information in the literature suggests that approximately ten percent of location decisions are swayed by financial incentives, several factors suggest that certain Virginia programs could play a decisive role more frequently. More information about the literature reviewed can be found in Appendix C.

Research Suggests That Financial Incentives Positively Impact Site Selection Decisions, but Reliability of Studies Is a Concern

Meta-review

A systematic review of research literature in a particular field of research in order to gather relevant information, draw conclusions based on previous studies, and create a historic overview of the field.

Financial incentives have a positive, often modest impact on business activity, according to several meta-reviews of 80 or more econometric studies published in peer-reviewed journals since 1979. Much of the research has focused on the impact of tax rates or incentives, but economists have generally applied findings to grants because both forms of incentives achieve the same goal of defraying business costs. In the long-run, the value of one dollar in permanent tax reduction carries equal weight as a one dollar reduction in operating costs in the form of an incentive grant.

Despite this extensive body of research, the nature of the impact of incentives remains subject to debate due to concerns over the reliability of the econometric studies that have been conducted. In particular, while the impact estimated by many studies tends to be modest, it varies and is sometimes ambiguous or not statistically significant. Economists have pointed to possible design issues and measurement difficulties as potential causes for the variation in results. Further, study results have been difficult to replicate using different data or time periods, which has led some economists to question their statistical significance and, by extension, whether financial incentives impact business activity at all.

Precise Magnitude of the Impact of Incentives on Business Decisions Is Difficult to Estimate

While methodological concerns have made it difficult to determine whether grants positively impact business decisions, it is all the more difficult to quantify with much precision the *extent* to which grants sway business decisions. Many factors are involved in the site selection process, and decisions are ultimately made by individuals whose motivations are hard to anticipate and impossible to verify after the fact. While several economists have estimated how frequently incentives play a decisive role in site selection decisions by drawing from the entire body of existing research literature, their results have been debated. In addition to concerns over the reliability of econometric studies used, these estimates may not adequately capture the performance of specific types of grant programs such as those administered in Virginia.

Meta-analysis

A statistical method of analysis that combines results from a group of different studies to perform additional analysis with the goal of identifying patterns among study results, sources of disagreement among those results, or other statistical relationships brought to light in the context of multiple studies.

Typical Incentive Package Estimated to Play Decisive Role in Approximately Ten Percent of Cases. Several economists who are leading experts in the field of economic development attempted to quantify the extent to which incentives affect business activity by performing meta-reviews or meta-analyses of the more than 80 econometric studies conducted since 1979. Their work, which was conducted between 1991 and 2002, suggests that for every ten percent reduction in the total state and local tax burden of a business, its activity could increase by approximately two to three percent (a bibliography of the research, including the meta-reviews consulted for this study appears in Appendix C). The greater the reduction in tax burden, the more business activity is assumed to increase.

Typical Financial Incentive Package

Peters and Fisher (2002) conducted a study of all tax incentives in 75 enterprise zones located in metropolitan areas across 13 states between 1990 and 1998. The average tax incentive package awarded to businesses in those zones was $11,294 per job, which was roughly equivalent to a 30 percent reduction in State and local tax liability over a 20-year period for businesses receiving the incentives.

Using these assumptions as well as the average value of a typical financial incentive package (the equivalent to a 30 percent tax reduction), incentives could induce an average increase of up to ten percent in business activity. The implication is that typical incentive grants may sway, on average, ten percent of the site selection decisions of businesses that receive an award, but may not be decisive for the remaining 90 percent.

While the economists who performed these meta-reviews and analyses are highly respected and used sophisticated and robust approaches, their findings are not universally embraced in the economic development research community. In large part, the lack of consensus is due to some economists' concerns over the reliability of the empirical studies upon which the meta-reviews are based. Still, these estimates appear to be the best concrete information available.

In the limited number of more recent studies that have been conducted, the estimated percentage of business decisions swayed by

incentives has ranged between approximately four and 25 percent. At the low end, an evaluation of the North Carolina Lee Act found that 3.6 percent of new jobs were induced by the tax credit program. Another study found that businesses that claimed a Georgia tax credit created approximately 24 percent more jobs than eligible businesses that did not claim the credit.

Estimated Impact of Typical Incentive Package May Be Conservative for Certain Virginia Grant Programs. While the best available information suggests that typical incentive grant packages sway ten percent of business decisions on average, there are several factors that suggest that certain Virginia grant programs play a decisive role more frequently. In particular, the characteristics of Virginia grant programs are often different than those of the incentives that have been studied in the research literature. However, no objective information is available to determine just how small or large that deviation may be.

Incentive grants are generally viewed as more valuable to businesses than tax incentives, which have been the focus of most of the research literature, and therefore may play a more decisive role in their decisions. In the case of tax credits, businesses cannot always claim the tax incentive in its entirety, often have to wait until the end of the following tax year to reap the benefits, and sometimes have to claim the incentive over multiple tax years.

The estimate of ten percent appears more representative of programs that exercise little or no discretion in awarding grants, such as Virginia's enterprise zone programs, because most of the research has been focused on the effect of tax incentives, which are typically non-discretionary. In contrast, most Virginia programs are discretionary and give program staff the flexibility to exercise their professional judgment. This flexibility, combined with other effective practices such as requesting information about other states being considered, can help identify companies that do not need a grant to locate their project in Virginia. The percentage of businesses swayed by Virginia incentive grant programs is likely higher than ten percent because VEDP uses these effective practices and administered two-thirds of the grant funding awarded over the past ten years.

In addition, grants that are paid up front are also especially attractive to businesses because they can be used to defray startup costs and boost short-term profits. They may consequently play a more decisive role in site selection decisions than tax incentives, which are often paid after at least one year. Several Virginia programs (the Governor's Development Opportunity Fund, the Tobacco Region Opportunity Fund, and the Coalfield Regional Opportunity Fund) are structured to provide cash awards up front and

represented 22 percent of the grant funding awarded during the past ten years.

The size of the grant award offered by some Virginia programs is also higher than the typical incentive package used in the literature. On average, grant programs in Virginia awarded $2,295 per job, which is far less than the typical incentive package of $11,294 per job used in the literature. However, programs such as the Virginia Economic Development Incentive Grant and custom grants awarded a much higher grant amount per job, which could sway a greater percentage of site selection decisions than described in the literature. These programs accounted for approximately one-third of the amount awarded during the past ten years.

Still, there is no known empirical evidence suggesting that most or even the majority of business site selection decisions are swayed by incentive grants. Very few studies have examined discretionary programs or incentive grants specifically. An evaluation of the Oklahoma Quality Jobs program showed very positive results, and found that 50 percent of the jobs created were induced by the program. However, the results of the study were not statistically significant, and no other study with similar results was found as part of the research for this report.

Diverse Opinions About Impact of Incentives on Business Decisions Among Economic Developers, Businesses Do Not Help Refine Estimate. A wide range of opinions appears to exist about the extent to which incentive grants impact the site selection decisions of businesses, based on interviews with State economic developers and representatives from 12 businesses that received a grant award, and a staff survey of 25 local economic developers. For example, staff from VEDP reported taking numerous steps to ensure that a grant is necessary before making an award, and strongly believe that all the grants they award sway businesses' site selection decisions. One-third of local economic developers generally supported this view and indicated that State incentive grants played a decisive role in more than 75 percent of the projects in which they were involved. However, just as many local economic developers reported that grants were decisive in fewer than 25 percent of projects.

Similarly, the business representatives interviewed had differing views about the extent to which incentive grants played a role in their business' site selection decision. One representative indicated that the grant his business was awarded tipped the scale in Virginia's favor. However, three others reported that the grants they had received was not the decisive factor in their business' decision to locate their project in Virginia, and listed several other factors that played a more important role. One representative did not di-

rectly address the question, and the others explained that incentive grants were important to their location or expansion decisions because they made Virginia more cost effective than competing locations and/or they demonstrated the State's appreciation of their businesses' investments.

INCENTIVE GRANTS CAN BENEFIT THE STATE AND ITS ECONOMY IN MULTIPLE WAYS

Although it is not clear to what extent incentive grants sway the location and expansion decisions of businesses in Virginia, their use can benefit the State and its economy. Proponents of incentive grants indicated that not using them would result in missed business opportunities and, as a result, foregone jobs and tax revenue. In particular, businesses whose site selection decisions were swayed by incentive grants will likely choose to locate elsewhere. Because it is not possible to precisely distinguish in which cases a grant is truly necessary for a project to locate in Virginia, grants may have to be awarded to many businesses in order to attract the few that would not locate in the State without an incentive grant. While this approach may be costly and inefficient, it recognizes the reality of economic development nationally, whereby states are compelled to compete against each other for businesses that can provide needed employment and other economic benefits.

In addition, stakeholders, including business representatives, indicated that the State would face challenges in competing for economic development projects if it did not offer incentive grants. For example, several representatives said that their business places significant value on locating in a "business-friendly" environment, and that incentive grants are a common means for states to build and maintain this reputation. According to another business representative, "It needs to be clear to the business that the state and locality want you there," and incentive grants are viewed as a sign of the state's appreciation for the business' investment. Several business representatives and local economic developers characterized incentive grants as the result of interstate competition, and as being "necessary, but not sufficient" to be considered as a viable site. Others also described grants as a "ticket to the dance" and "expected."

Finally, proponents also note that incentive grant programs encourage businesses to locate in economically distressed areas of Virginia. As noted in Chapter 1, the State currently uses four incentive grant programs to target economically distressed areas of the State. Proponents argue that localities that benefit from programs such as the Tobacco Region Opportunity Fund will experience greater difficulty in competing with localities with similar characteristics but that are experiencing less economic hardship.

Chapter 4 Most Grant-Funded Projects Met Performance Goals but Potential for High Economic Impact Is Mixed

In Summary

Most of the projects that were awarded an economic development incentive grant met the performance goals to which they committed, but their potential impact on the Virginia economy appears to vary by grant program. More than 68,000 jobs were created and $8 billion was invested by completed projects that were awarded grants between fiscal years 2002 and 2011. In aggregate, most programs met or exceeded the goals set for each of their performance measures. Most grant projects met their performance goals, but to varying degrees depending on the grant program. For the Virginia Investment Partnership program, shortfalls from projects that did not meet their goals are more than offset by the successes of other projects that exceeded their goals. However, the extent to which programs award grants to projects that have the potential for high positive impacts on Virginia's economy is mixed. The Virginia Economic Development and Transportation Partnership Opportunity Fund programs most frequently met indicators of high economic impact.

There is currently a lack of comprehensive and comparable information reported in Virginia on the extent to which grant-funded projects are meeting their performance goals. Understanding whether projects that have received incentive grants are performing as expected and are favorably impacting the economy would be valuable to policymakers. The results presented in this chapter capture the extent to which grant-funded projects are adding jobs and investing capital, and whether grants are likely to have a positive impact on the State's economy, which are the other two primary goals of Virginia's grant programs.

The evaluations were performed using data on completed grant projects that were approved for a Virginia incentive grant between fiscal years (FYs) 2002 and 2011. Appendix B includes a detailed description of the data collected and analyses performed by JLARC staff.

EFFECTIVENESS OF VIRGINIA'S INCENTIVE GRANTS WAS EVALUATED USING TWO MEASURES

The effectiveness of Virginia's economic development incentive grant programs was evaluated against two measures:

- the extent to which completed projects within each program achieved the performance goals to which the business committed when the grant was approved, and
- the extent to which each program awards grants to projects likely to have a high economic impact on the State.

Most programs have performance goals against which grant projects were evaluated. The most common goals are adding jobs, investing capital, or paying certain wage levels to workers that fill the added jobs. The specific goals to be attained typically vary between projects. Some programs do not collect data that was necessary to evaluate performance, such as the transportation infrastructure programs.

Most grant programs were also evaluated based on the extent to which they are approving awards for projects likely to have a high economic impact. According to the research literature, projects are more likely to yield higher economic benefits if they (1) have a high employment multiplier, (2) are export-based, and (3) pay high wages relative to the industry average (Table 10). The evaluation component of this analysis applies primarily to discretionary grant programs, which, unlike automatic programs such as the enterprise zone grant programs, can target funding to specific projects rather than provide awards to all eligible businesses. The economic impact analysis of enterprise zone grant programs was conducted for information purposes only.

Table 10: Three Indicators Were Used to Evaluate the Extent to Which Programs Award Grants to Projects Likely to Have High Economic Impact in Virginia

Indicator	Measure for Analysis	Benchmark	Reason Indicates High Economic Impact
High employment multiplier	Employment multiplier[a] for project's industry sector	Equal to or greater than median employment multiplier (2.0)[b]	Industries with higher multipliers create more additional local jobs because they have a greater need for supplies to sustain the productivity and consumption of the workers added by the project. Increased employment results in additional income tax revenue.
Export-based	Export percentage for project's industry sector	Greater than 50 percent	Industries with a higher export percentage sell more goods and services to customers outside of the State, and bring more new money into Virginia's economy.
Pays high wages	Expected wage of added job	Greater than average wage paid to workers in the industry sector	The higher the wage compared to the skill required, the more desirable jobs are for local residents. Higher paying jobs can lead to increased labor force participation rates, worker productivity, and income tax revenue.

[a] Social Accounting Matrix (SAM) employment multiplier.
[b] Median for Virginia across all industries. A SAM employment multiplier of 2.0 indicates that one additional job in the community is created for every job added by the project.

Source: JLARC staff analysis of the research literature and discussions with economists from the University of Virginia.

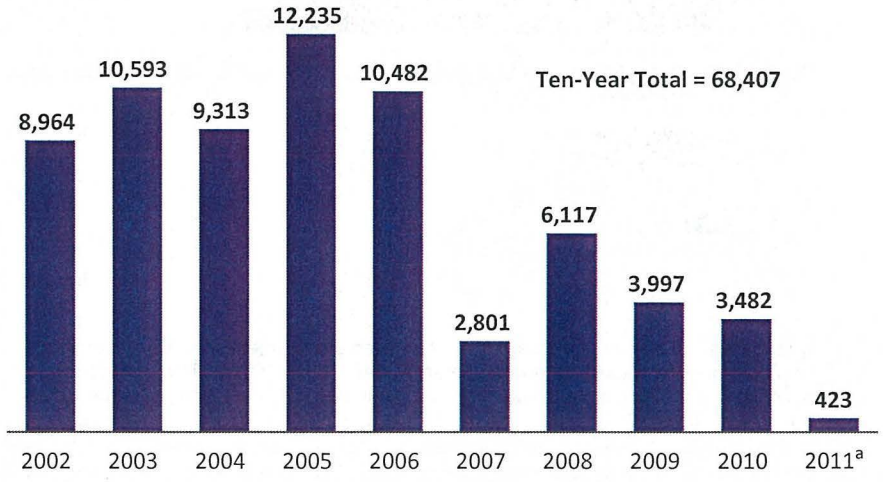
GRANT-FUNDED PROJECTS CREATED A SUBSTANTIAL NUMBER OF JOBS IN VIRGINIA BUT APPEAR MODERATELY LIKELY TO HAVE HIGH ECONOMIC IMPACT

Collectively, closed projects that received an incentive grant from Virginia's programs created a substantial number of jobs in Virginia over the last ten years. Projects that received Virginia Economic Development Program (VEDP) and Real Property Investment Grant (RPIG) awards also invested large amounts of capital in Virginia ($8 billion). However, capital investment data was not available for other programs, which funded almost half of all completed projects. In the aggregate, grant awards appear to be only moderately well-targeted to projects that are expected to produce high economic impacts in Virginia. However, results of the analysis by program indicate that some programs are more successful than others in targeting awards to projects likely to yield high economic benefits to Virginia. These programs tend to have minimum requirements that limit awards to projects that meet at least some of the indicators of high economic impact (Chapter 6).

Businesses That Received Grant Awards During Past Ten Years Created More Than 68,000 New Jobs

More than 68,000 jobs were created by completed grant projects that received one or more incentive grants between FYs 2002 and 2011. The most jobs were added by projects that were approved for a grant in FY 2005, as shown in Figure 9. The number of jobs

Figure 9: Total Number of Jobs Added by All Grant-Funded Projects Fluctuated Over the Past Ten Years (FYs 2002-2011)



Note: Numbers are based on grant projects that have completed their performance period.
[a] Most projects approved in FY 2011 are still in their performance period.

Source: JLARC staff analysis of data provided by VEDP, DBA, DHCD, and TICR.

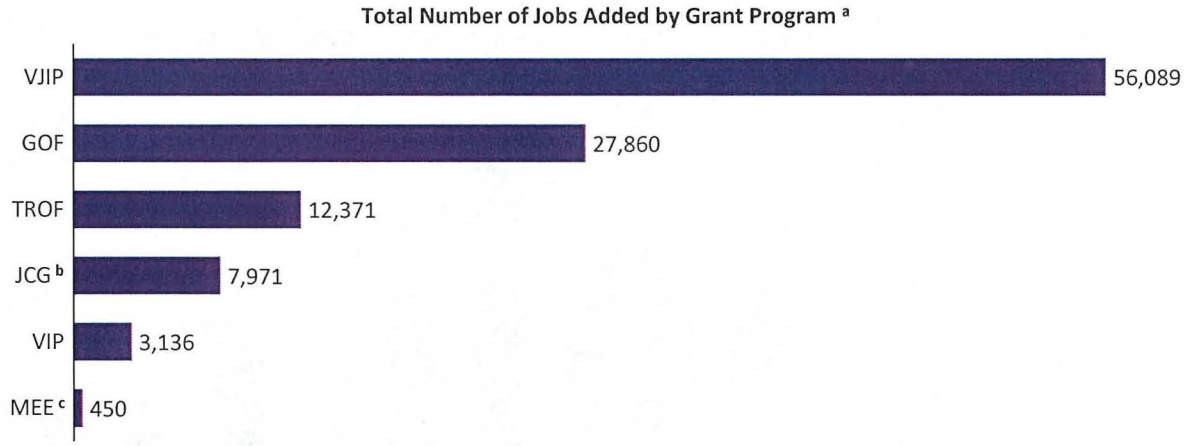
added annually declined after FY 2005, primarily because fewer jobs were added by projects that received awards from the Governor's Development Opportunity Fund (GOF) and Virginia Jobs Investment Program (VJIP). The average number of jobs created by each project also steadily declined since FY 2002 from a high of 128 new jobs per project to a low of 41 per project in FY 2009.

The number of jobs added also varied by program (Figure 10). Completed projects that received a VJIP grant created the most new jobs, primarily because a large number of projects received VJIP grants. In contrast, the Major Eligible Employer (MEE) program created the lowest number of jobs because it has awarded only a few grants, and only one project approved during the study period has been completed.

Majority of Projects Met Only One or None of the Indicators for Likely Having a High Economic Impact

Overall, Virginia may not be targeting grant awards to projects likely to have a high economic impact. While all programs do not require that projects must meet these indicators, having a positive impact on Virginia's economy is the ultimate goal of incentive

Figure 10: VJIP Projects Added the Most Jobs Compared to Other Grant Programs (FYs 2002-2011)



Note: Numbers are based on jobs created by completed grant projects. VEDIG is excluded because it has no completed projects. GMPOF is excluded because jobs are temporary. EDAP, RIAP, TPOF, CROF are also excluded because data on jobs created was not available (EDAP also has no job creation requirement). RPIG is excluded because this program is based solely on real property investment, not jobs created.

[a] Number of jobs cannot be added across grant programs because it would result in a duplicated total.
[b] Created in FY 2005. First awards were approved in 2006.
[c] MEE had only one completed project between FY 2002 and FY 2011.

Source: JLARC staff analysis of data provided by VEDP, DBA, DHCD, and TICR.

Only three percent of projects approved by discretionary grant programs during the study period met all three indicators of likely having a high economic impact on the State.

grant programs. Only three percent of projects approved by discretionary grant programs during the study period met all three indicators of likely having a high economic impact on the State, as shown in Table 11. Approximately one-third of grant-funded projects met at least two indicators. Further analysis indicates that several programs appear to more effectively target the majority of their grant funding to projects that meet at least two indicators. However, the VJIP program, which has awarded the largest number of grants, awarded a majority of their grant awards to projects that met none or only one indicator.

Although the majority of projects do not meet multiple indicators, approximately half of projects that were approved for incentive grants from Virginia's programs between FYs 2002 and 2011 are likely to have a high employment multiplier. In addition, slightly more than half are businesses involved in export-based industries. However, only 20 percent pay a wage in excess of the industry average.

Table 11: Most Grant Projects Did Not Meet All Indicators of Likely High Economic Impact, but About Half Met Employment Multiplier, More Than Half Met Export Indicator (FYs 2002-2011)

Number of Indicators Met	Percent of Projects Meeting	Average Award Per Job
●●●	3%	$10,634
●●	31	3,242
●	52	1,665
None	13	480
Individual Indicator		
High employment multiplier	52%	
Export-based	56	
Pays high wage	20	

Note: n = 1,423 approved projects with available data. Includes only those projects that received award from discretionary programs.

Source: JLARC staff analysis of data provided by State agencies and the University of Virginia.

GRANT PROGRAMS VARY IN ACHIEVING PERFORMANCE GOALS AND AWARDING GRANTS TO PROJECTS LIKELY TO HAVE HIGH ECONOMIC IMPACT

Projects that were awarded grants by Virginia's programs met their performance targets to different degrees and vary in the likelihood of having a high economic impact in the State. Programs administered by VEDP appear to be the most effective, as evidenced by the high percentage of projects that met one or more of their performance goals. Additionally, the majority of projects that received a VEDP grant met at least two indicators that they are

likely to have a high economic impact. Other programs had mixed results. For example, a majority of projects receiving a VJIP grant effectively met their wage targets, but most VJIP projects did not pay high wages and wage targets were often low relative to industry and locality averages. In addition, enterprise zone RPIG grants have largely been awarded to projects that are unlikely to meet at least two indicators of high economic impact (high multiplier and export-based) because of the industries receiving many of the awards.

VEDP Projects Achieved Performance Goals and Many Appear Likely to Have a High Economic Impact on Virginia

Most projects that received a VEDP grant (GOF, Virginia Investment Partnership (VIP), or MEE) during the past ten years either met or exceeded their job creation, capital investment, or average wage goals. In particular, the vast majority of VIP and MEE projects met or exceeded their job creation goal and nearly all projects invested as much or more capital than they committed to when they received the grant. In addition, many VEDP grant projects are likely to have a high economic impact on the Commonwealth.

Most GOF Projects Met Performance Goals, and Half Appear Likely to Have a High Economic Impact. The GOF program exceeded two of its major performance goals in the aggregate, based on completed projects that received a grant between FYs 2002 and 2011 (Figure 11). Although GOF projects collectively added fewer jobs than expected, they invested substantially more capital than they had committed and paid new workers higher average wages than they had agreed to offer when they received the grant. Performance goals are established for each project that receives a GOF grant based on the expected levels for job creation, capital investment, and wages paid to workers hired because these are the factors upon which the award amount is based.

Clawbacks

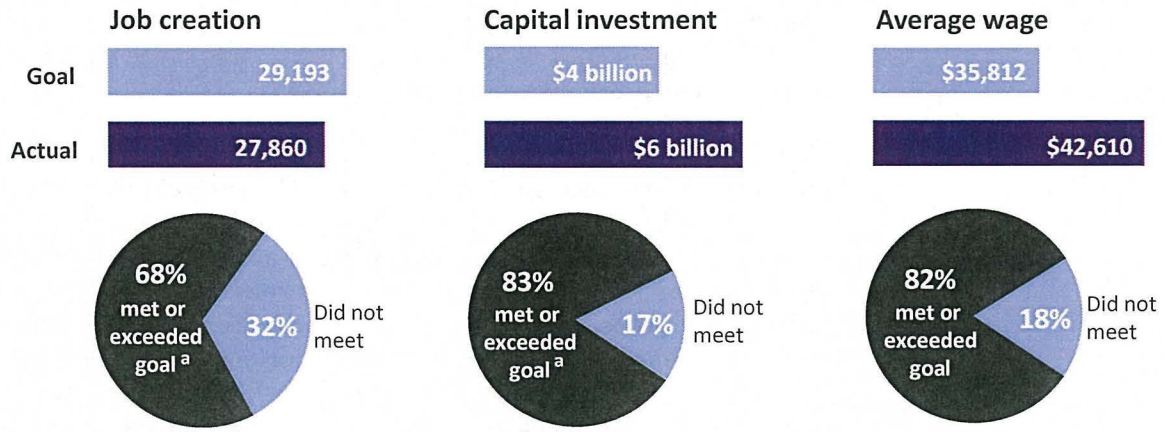
Based on program requirements, GOF projects that do not meet at least 90 percent of their job or capital investment goal are required to return their grant award (or at least a portion thereof) to the State, a provision known as a "clawback."

Despite the GOF program's overall success in achieving performance goals, a portion of the projects that received a grant did not meet their job creation, capital investment, or average wage goals (Figure 11). Projects that failed to meet their job creation and capital investment goals also paid back approximately $3 million to the Commonwealth. Of the 30 projects that did not meet these goals and for which no repayment was possible, ten had created a hard asset, such as a building that the State could either reuse or sell.

The GOF program also appears to be effective in targeting projects that are likely to have a positive impact on the State's economy. Half of the GOF-funded projects met at least two of the three indicators of high economic impact, and almost half met at least one indicator (Table 12). The program appears to account for the dif-

ferences in expected economic benefits because projects that meet all three indicators of (and are therefore most likely to generate) high economic impact receive the highest average award amount, whereas projects that meet none of the indicators receive the lowest average award amount. Almost two-thirds of GOF grants are effectively targeted at projects that have high employment multipliers, and just over three-fourths are targeted to businesses in export-based industries.

Figure 11: Most GOF Projects Met or Exceeded Performance Goals (FYs 2002-2011)



Note: n = 142 completed projects. Thirty GOF projects that failed to meet their performance goals had $3 million clawed back.

[a] Includes projects that met only 90 percent of their job creation or capital investment goal.

Source: JLARC staff analysis of data provided by VEDP.

Table 12: Half of GOF Projects Met At Least Two Indicators of Likely High Economic Impact (FYs 2002-2011)

Number of Indicators Met	Percent of Projects Meeting	Average Award Per Job
●●●	8%	$5,373
●●	42	3,157
●	47	2,617
None	3	1,139
Individual Indicator		
High employment multiplier	61%	
Export-based	76	
Pays high wage	19	

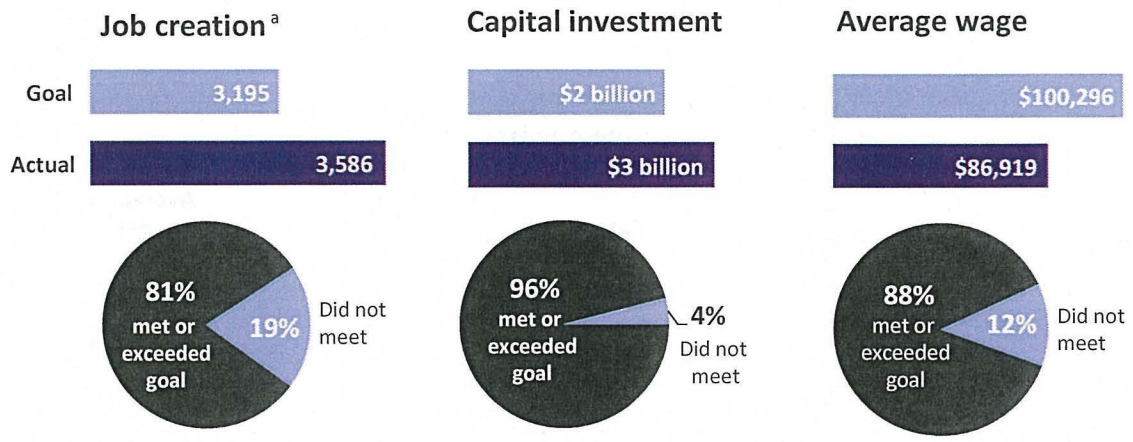
Note: n = 236 approved projects.

Source: JLARC staff analysis of data provided by State agencies and the University of Virginia.

Most VIP and MEE Projects Met Performance Goals and Are Likely to Have a High Economic Impact. The VIP and MEE programs exceeded two of their major performance goals in the aggregate (jobs and capital investment), based on completed projects that received a grant between FYs 2002 and 2011 (Figure 12). Based on an analysis of program data, most VIP and MEE projects added as many or more jobs than their expected goal, nearly all invested at least their expected amount of capital in Virginia, and most paid new workers more than the average wage they committed to offer when they received the grant. Similar to the GOF program, performance goals are established for each project that receives a VIP or MEE grant based on the expected levels for job creation, capital investment, and wages paid to workers hired because these are the factors upon which the award amount is based.

Although most completed VIP and MEE projects have successfully achieved performance goals, a portion of the projects that received a grant did not meet their job creation or capital investment goals (Figure 12). Several VIP projects did not meet their job creation goals whereas the one completed MEE project exceeded all three performance goals. The shortfalls resulting from the VIP projects were more than offset by projects that performed better than expected. The total number of jobs added exceeded expectations because a few VIP projects performed very well and created nearly 400 more jobs than expected, which offset the underperformance of projects that did not meet their job creation goal.

Figure 12: Most VIP and MEE Projects Met or Exceeded Performance Goals (FYs 2002-11)



Note: n = 25 VIP and 1 MEE completed projects. The one completed MEE project exceeded all performance goals.

[a] VIP does not have a minimum job requirement but employment levels must be maintained.

Source: JLARC staff analysis of data provided by VEDP.

Furthermore, as shown in Table 13, VIP and MEE projects were mostly effective at targeting projects expected to have a high positive economic impact in Virginia, which is primarily because they were almost all manufacturers, an industry sector that tends to have high employment multipliers and export percentages. Although most VIP- and MEE-funded projects met at least two of the three indicators of high economic impact, nearly 30 percent of projects met only one indicator (Table 13). However, these two programs appear to account for the differences in expected economic benefits because projects that meet at least two indicators of high economic impact received the highest average award amount, whereas projects that meet only one of the indicators received the lowest amount.

Table 13: Most VIP and MEE Projects Met At Least Two Indicators of Likely High Economic Impact (FYs 2002-2011)

Number of Indicators Met	Percent of Projects Meeting	Average Award Per Job[a]
●●●	20%	$14,980
●●	51	18,561
●	29	5,738
None	0	n.a.
Individual Indicator		
High employment multiplier	83%	
Export-based	83	
Pays high wage	22	

Note: n = 48 approved projects.

[a] The VIP program, which has awarded grants to a larger number of projects than the MEE program, places more emphasis on capital investment than job creation.

Source: JLARC staff analysis of data provided by State agencies and the University of Virginia.

Majority of VEDIG Projects Meet All Criteria for Having a High Economic Impact. Projects that received a grant through the Virginia Economic Development Incentive Grant (VEDIG) program tend to meet all indicators for having a high economic impact for the State, as shown in Table 14. In fact, the VEDIG program appears to be the most effective of all grant programs at targeting these projects, as almost two-thirds of approved projects met all three indicators. Specifically, all VEDIG projects have a high employment multiplier, and most are export-based. Of note, the VEDIG program is the only one that has awarded nearly all grants to projects that pay high wages relative to the industry average.

The VEDIG program appears to be the most effective of all grant programs at targeting projects likely to yield a high economic benefit for Virginia.

Although only ten projects have been approved for the VEDIG grant between FYs 2002 and 2011, the program guidelines appear designed so that awards are generally targeted to projects that

meet the three indicators. VEDIG projects can be but were not evaluated against performance goals such as job creation, capital investment, and wage levels because all projects are still ongoing.

Table 14: Majority of VEDIG Projects Met All Indicators of Likely High Economic Impact (FYs 2002-2011)

Number of Indicators Met	Percent of Projects Meeting	Average Award Per Job
●●●	67%	$14,520
●●	33	6,500
●	0	n.a.
None	0	n.a.
Individual Indicator		
High employment multiplier	100%	
Export-based	71	
Pays high wage	83	

Note: n = 10 approved projects with available data.

Source: JLARC staff analysis of data provided by State agencies and the University of Virginia.

Virginia's Custom Grant Programs Have Had Mixed Success, but Most Met at Least Two Indicators for Having a High Economic Impact. As of October 2012, the five custom grant projects that were approved by Virginia between FYs 2002 and 2011 have had mixed results in meeting their performance goals (Table 15). Of the completed projects, Micron, which received a grant from the Semiconductor program, exceeded its job creation and capital investment goals. In contrast, Qimonda, which also received a Semiconductor grant, shut down before completion. Even though the company created fewer than half of its job creation target, Qimonda was not required to repay any of the grant funding based on the terms of the performance agreement. Grant payments were not made until performance milestones were met, and presumably the revenue generated to the State from jobs created and capital invested up to the point when payments were made was larger than the grant payments.

Of the three ongoing projects, SRI and Newport News Shipbuilding (Advanced Shipbuilding grant) appear to be on track for meeting their performance milestones. Rolls-Royce (Aerospace grant) is lagging behind due to several setbacks to the original plans for the operations of the facilities located in Prince George. However, the company plans to open its second facility next year, which could result in the hiring of sufficient jobs and investing enough capital to meet its milestone for receiving the performance grant portion of its custom grant. To date, Rolls-Royce has added sufficient jobs to receive approximately $2 million of its custom training grant.

Table 15: Custom Grant Projects Have Had Mixed Performance as of October 2012

		Job Creation			Capital Investment			Average Wages Paid		
Project	Year	Goal	Actual	Difference	Goal	Actual	Difference	Goal	Actual	Difference
Completed										
Micron	2006	860	1,322	462	$1.2B	$1.7B	$0.5B	no goal		
Qimonda	2006	1,200	500	(700)	1.1B	1.1B	-	no goal		
Ongoing										
SRI[a]	2013	35	38	3	no goal			$85K	$86K	($1K)
Newport News[b]	2015	81	381	300	$0.3B	$0.4B	$0.1B	44K	56K	12K
Rolls-Royce[c]	2023	306	169	(137)	0.2B	0.1B	0.1B	74K	64K	10K

[a] Job creation goal based on SRI's performance benchmark for 2012 (35-60 new staff). Actual performance based on information reported for 2012.
[b] Job creation goal based on Newport News Shipbuilding's performance benchmark for 2011. Updated information for 2012 not reported to VEDP until spring of 2013.
[c] Job creation and capital investment goals based on Rolls-Royce's performance benchmarks for 2012. Jobs created represents information provided by VJIP for 2012. Capital investment represents amounts reported for GOF for 2011. Updated information is not expected to be reported to VEDP until spring of 2013.

Source: JLARC staff analysis of data provided by VEDP and DBA.

Although performance has been mixed, it appears the custom grant programs were offered mostly to projects likely to yield high economic impact to the State, as shown in Figure 13. However, the economic benefits from Qimonda are limited and possibly negative because the company only created half of its expected jobs and shut down in 2009. Additionally, SRI met only one indicator, which suggests a potentially limited impact on the State's economy.

Majority of VJIP Projects Paid Expected Wage Levels, and More Than One-Third Likely to Have a High Economic Impact

VJIP projects exceeded the average wage levels that were expected to be paid in the aggregate, based on completed projects that received a VJIP grant between FYs 2002 and 2011 for either creating new jobs or retraining existing ones (Figure 14). VJIP projects collectively paid nearly $2,700 annually more than expected for newly created jobs and $2,100 more than expected for retraining existing employees to use new technologies. Unlike VEDP programs, VJIP does not establish specific job creation and capital investment goals for projects. While wage goals are also not established, expected wages are one of the factors used to calculate the grant award per job created or retrained. Although not an established performance goal, understanding the extent to which VJIP projects pay expected wages is important to ensure that projects are not receiving a substantially higher reimbursement than they would if the award amount had been calculated using actual wages. An evaluation of performance based on jobs created by VJIP projects was not performed because a VJIP project can be reimbursed for jobs created as long as a minimum number is met, even if it is less

Figure 13: All But One Custom Grant Project Met at Least Two Indicators of Likely High Economic Impact

Custom Grant Project	Employment Multiplier[a]	Export Percentage	Average Expected Wage *(Avg. Industry Wage)*	Number of Indicators Met
Micron	4.26	93%	$69K *($69K)*	3
Rolls-Royce	3.63	95%	$74K *($44)*	3
Qimonda	4.26	93%	$65K *($69K)*[b]	2
Newport News Shipbuilding	2.50	91%	$50K *($61K)*	2
SRI	2.26	21%	$85K *($89K)*[b]	1

Did not meet criteria

[a] For example, a SAM multiplier of 4.26 means that more than three jobs in the community are estimated to be created for every one job added by the project, and a 2.26 multiplier means more than one job in the community will likely be added for every job created by the project.
[b] Within 94-95 percent of meeting the industry average.

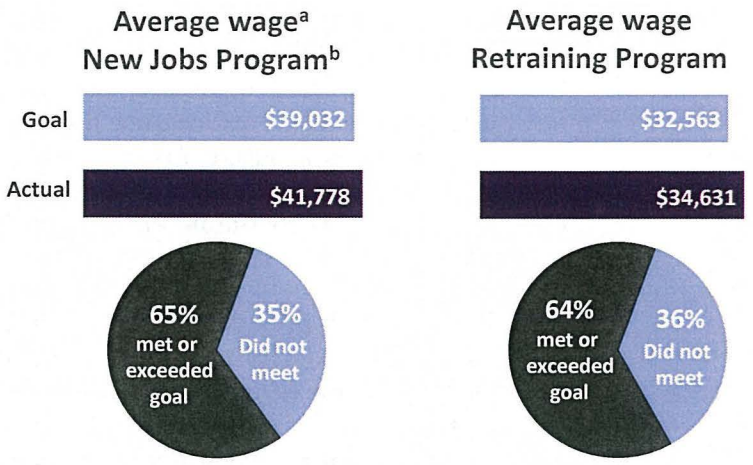
Source: JLARC staff analysis of data provided by State agencies and the University of Virginia.

than the expected jobs. In addition, data on the amount of capital invested by VJIP projects was not available for analysis.

Despite VJIP's success in exceeding wage expectations in the aggregate, a portion of projects paid lower wages than expected (Figure 14). In fact, the wages paid for just over one-third of projects that created new jobs and retrained existing ones were lower than anticipated. Of these projects, 60 percent paid no more than $5,000 less than what was expected. According to DBA staff and program guidelines, while wages are used to determine the VJIP award per job, the award amount is not recalculated if projects do not meet wage targets. However, no reimbursement is paid for new or retrained jobs in which the employee is paid below the minimum wage threshold (which was approximately $8 to $10 per hour during the study period) for the program, according to VJIP staff.

VJIP appears to be moderately effective at targeting awards to projects that are likely to highly impact the State's economy (Table 16). One-third of projects met at least two indicators of having a high impact, which suggests that the other two-thirds are unlikely to have a substantial positive impact on Virginia's economy. While the program appears to account for the differences in expected economic benefits by awarding smaller amounts per job to projects that meet fewer indicators, the differences in amount are small in some cases. For example, projects meeting one indicator are paid only $11 more per job than projects meeting none, on average. However, half of VJIP grants are awarded to projects that have high employment multipliers, and half are awarded to projects that are export-based.

Figure 14: VJIP Projects Created and Retrained a Large Number of Workers and Paid Higher Than Expected Wages (FYs 2002-11)



Note: n = 901 completed projects that received reimbursement.

[a] The VJIP program uses expected hourly wages to determine award amount. JLARC staff calculated annual wages based on hourly wages provided by DBA.
[b] Includes New Jobs, Small Business New Jobs, and Small Business Jobs Grant Fund programs.

Source: JLARC staff analysis of data provided by DBA.

Table 16: Majority of VJIP Projects Met Only One Indicator of Likely High Economic Impact (FYs 2002-2011)

Number of Indicators Met	Percent of Projects Meeting	Average Award Per Job
●●●	3%	$1,158
●●	31	707
●	53	652
None	14	641
Individual Indicator		
High employment multiplier	49%	
Export-based	53	
Pays high wage	20	

Note: n = 1,506 approved projects with available data.

Source: JLARC staff analysis of data provided by State agencies and the University of Virginia.

Overall TROF Projects Fell Short of Job Creation Goal and Are Moderately Likely to Have a High Economic Impact

The TROF program appears only somewhat effective at achieving its job creation goal, based on completed TROF projects that received awards between FYs 2002 and 2011. In fact, TROF projects fell short of their aggregate job creation goal by more than 3,700 jobs (Figure 15). Performance goals are established for each project that receives a TROF grant based on the expected levels for job creation, capital investment, and wages paid to workers, but information was available electronically only for the number of jobs created.

While TROF projects collectively did not meet their job creation goals, the majority of projects met or exceeded their expected job creation levels (Figure 15). Similar to the GOF program, funding is clawed back for projects that do not meet their job creation or other goals (capital investment and wage). The extent to which TROF funding has been clawed back specifically because projects did not meet their job creation goals is not compiled for analysis purposes. As of July 2012, $3.87 million had been clawed back from projects that did not meet one or more of these goals, which represents seven percent of the total amount awarded during the study period.

Figure 15: Majority of TROF Projects Met Job Creation Goal, but Program Fell Short of Total Job Creation Target (FYs 2002-2011)

Note: n = 105 completed projects.

Source: JLARC staff analysis of data provided by TICR.

The TROF program appears to be moderately effective at targeting projects expected to have a high economic impact in Virginia; however, the analysis is limited to two indicators because of insufficient wage data. Of the remaining indicators, the majority of projects met only one or neither of them (Table 17). Unlike the VEDP and VJIP programs, TROF does not appear to account for the differences in expected economic benefits because projects that met

only one indicator tended to receive a larger award per job than those that met two. However, according to Tobacco Indemnification and Community Revitalization staff, the award amount is calculated based on multiple factors including local unemployment rate, wage rate, and fiscal stress level, which allows projects that locate or expand in a severely distressed area to receive a larger award. Finally, the majority of TROF awards appear to be effectively targeted to projects that are export-based, and almost half appear to be effectively targeted to projects that have high employment multipliers.

Table 17: Majority of TROF Projects Met One or No Indicator of Likely High Economic Impact (FYs 2002-2011)

Number of Indicators Met	Percent of Projects Meeting	Average Award Per Job
●●●	n.a.	n.a.
●●	32%	$3,018
●	55	3,162
None	12	2,832
Individual Indicator		
High employment multiplier	45%	
Export-based	75	
Pays high wage	n.a.	

Note: n = 186 approved projects with available data.

Source: JLARC staff analysis of data provided by State agencies and the University of Virginia.

Transportation Infrastructure Grant Programs Have Mixed Effectiveness at Awarding Grants to Projects Expected to Have High Economic Impact

Virginia's incentive grant programs that award grants to projects needing assistance with the development of transportation infrastructure appear to have mixed effectiveness at targeting projects that are expected to have a high economic impact. The Transportation Partnership Opportunity Fund (TPOF) program appears to have targeted awards most effectively, as almost all projects meet at least two indicators. In fact, all but one of the TPOF awards was granted to projects that had a high employment multiplier and were export-based. However, just over one-third (35 percent) of Rail and Industrial Access Program (RIAP) projects met two indicators of having a high economic impact. Projects receiving Economic Development Access Program (EDAP) grants appeared less likely to have a high economic impact than the other transportation programs as just over one-quarter (26 percent) met at least two criteria.

Even though a moderate percentage of RIAP and EDAP projects met two indicators, approximately two-thirds of the projects receiving grants from these programs had high employment multipliers. Another two-thirds of projects that received a RIAP grant were export-based compared to only 42 percent of EDAP projects. This disparity may be attributed to the types of industries represented by EDAP-funded projects. Wage information was not available for most of the transportation projects due to insufficient data, and, therefore, the analysis was limited to an evaluation of the remaining two indicators.

PROJECTS THAT RECEIVED ENTERPRISE ZONE GRANTS CREATED JOBS OR MADE SUBSTANTIAL INVESTMENT

Projects that received a Job Creation Grant (JCG) between calendar years 2006 and 2010 created a total of 7,971 jobs, while projects receiving a Real Property Investment Grant (RPIG) during this same time period invested at least $1.87 billion in real property improvements. Projects that receive awards must be located in one of the State's 57 enterprise zones, which are economically distressed areas. Unlike for other programs, the enterprise zone grant projects do not have to meet specific performance goals; they are only required to meet minimum thresholds for new jobs created and real property investment. As a result, an analysis of the program's performance towards meeting specific job creation, investment, and wage expectations is not appropriate.

Enterprise zone grant programs are not discretionary and awards cannot be targeted to certain projects, such as those likely to have a high economic impact on the State. Many of the businesses that received a grant through one of the enterprise zone programs are not expected to have a high economic impact. Because all projects that apply and meet the minimum requirements are required to be awarded enterprise zone grants under current law, the *Code of Virginia* would need to be revised to increase the extent to which enterprise zone grants are awarded to projects likely to have a high economic impact. However, unlike other grant programs, the RPIG program does not focus on economic development exclusively. According to Department of Housing and Community Development staff, the program is also designed to encourage community revitalization in economically distressed areas.

Vast Majority of Jobs Created by JCG Projects Paid More Than Highest Wage Threshold, but Inability to Target Projects Appears to Reduce Economic Impact

Based on an analysis of JCG projects that received grant awards during the study period, the JCG program appears to effectively achieve its goal of encouraging higher wage jobs. In fact, 91 percent of the jobs reimbursed by the JCG program paid wages over

JCG Wage Thresholds

The higher wage threshold is 200 percent of the federal minimum wage (FMW). The minimum threshold for qualifying for the grant is 175 percent of the FMW, or 150 percent of the FMW after 2010 if the project is located in an enterprise zone designated as a high unemployment area.

the highest threshold, which ranged from $10.30 to $14.50 per hour during the study period. In contrast, the minimum wage threshold to qualify for the program ranged from $9.01 to $12.69 during this period. Data on actual wages paid was unavailable.

While the wages paid exceeded program thresholds, many projects are unlikely to have a high economic impact on Virginia. Although the analysis was limited to two indicators because of data limitations, three-quarters of projects met only one or neither of the indicators (Table 18). Just over half of projects that received a JCG grant were export-based, and another half had a high employment multiplier. While many of these projects may not have substantially high economic benefits for Virginia, the jobs created may be beneficial to the communities where the projects are located.

Table 18: Majority of JCG Projects Only Met One Indicator of Likely High Economic Impact (Calendar Years 2006-2011)

Number of Indicators Met	Percent of Projects Meeting	Average Award Per Job
●●●	n.a.	n.a.
●●	24%	$795
●	60	775
None	16	734
Individual Indicator		
High employment multiplier	54%	
Export-based	54	
Pays high wage	n.a.	

Note: n = 94 approved projects with available data. The JCG program was created in 2005 and first awards were made in 2006.

Source: JLARC staff analysis of data provided by State agencies and the University of Virginia.

Investment in Real Property Improvements by Projects Receiving Grants Are Unlikely to Have High Economic Impact

Very few projects receiving RPIG grants are likely to have a high economic impact on Virginia. Even though data was unavailable for one of the indicators, more than 76 percent of projects met neither of the other two indicators for which information was obtained. In fact, only 14 percent of projects that received an RPIG award between calendar years 2006 and 2010 had a high employment multiplier; another 16 percent are export-based. According to Department of Housing and Community Development staff, many of the businesses that have received RPIG awards are in real estate development, an industry that is unlikely to have a high economic impact. However, the business that occupies the improved facility may be of a higher impact industry, thus understating the economic impact of businesses locating in RPIG-funded facilities.

The finding that so few RPIG projects have a high employment multiplier or are export-based compared to projects that are awarded grants from other programs may also be due to the wide range of industries that can qualify for an award. This program is not discretionary and the minimum eligibility requirements allow retail businesses and restaurants, for example, to qualify for the grant. These industries tend to have low employment multipliers and sell the vast majority of their goods and services to Virginia customers. While these businesses may not have high economic impacts for Virginia, they may be a beneficial aspect of revitalizing the economically distressed community in which they are located.

Chapter 5

Incentive Grant Programs Appear to Generate Economic Benefits for Virginia

In Summary

State economic development incentive grant programs are projected to have a positive impact on Virginia's economy and revenues even when conservative assumptions are made about the extent to which they may sway business location decisions, based on the results of a dynamic economic simulation model. Even if ten percent of decisions to locate or expand projects in Virginia were swayed by grants, this subset of projects is estimated to have a positive impact on Virginia's employment, gross domestic product, income, and State revenue. Results also appear to confirm that projects with certain characteristics, such as creating additional jobs in the community and selling the majority of their output to customers in other states, are likely to have more positive effects on the State's economy than projects without these characteristics. Both small- and large-scale projects can exhibit these favorable characteristics, but more grants will have to be awarded to small projects with these characteristics to achieve the same overall impact as could be realized by awarding grants to fewer large projects with similar characteristics.

In addition to meeting the goals to which they commit prior to receiving a grant (discussed in Chapter 4), grant-funded projects are expected to have a favorable impact on Virginia's economy, which is the ultimate goal of most economic development programs, and incentive grants in particular. An evaluation of grant projects was conducted to determine their economic impact on private employment, State gross domestic product (GDP), real disposable personal income, and State revenue. JLARC staff worked with economic modeling experts from the University of Virginia (UVA) to conduct the economic impact analyses presented in this chapter.

Results of the evaluation are discussed in two ways. The first presents the collective economic impact of all completed projects that received a State incentive grant between 2002 and 2008, regardless of the role that the grants may have played in the business' decision to locate or expand in Virginia. Secondly, an estimate of the economic benefits attributable to the incentive grants is provided, based on the conservative assumption that only ten percent of site selection decisions were swayed by the grants. This assumption reflects the best available estimate in the research literature, but it may be conservative for Virginia because some discretionary programs more effectively target grant awards to projects in which location or expansion decisions may be swayed by grants (discussed in Chapter 3).

ECONOMIC IMPACT ANALYSIS INCLUDES ONLY GRANT PROJECTS THAT HAVE BEEN COMPLETED

The economic impact analysis presented in this chapter excludes data that could, in some cases, affect results. First, the analysis excludes grant-funded projects that were not completed during the study period as well as the jobs and capital investment they added, because data on job creation and capital investment is generally unavailable prior to a project's completion. The evaluation also excludes projects for which an industry sector could not be determined, because this information is a critical input for economic modeling. The projects included in the analysis therefore represent only 30 percent of total grant funding approved during the study period, which could significantly understate the total economic benefits of grant programs.

Results could also be affected by other data limitations. For example, information was not available on wages paid and capital investment for half of the projects included in the evaluation, and therefore that data was imputed. Moreover, results reflect the impact of State incentive grant programs on the State economy and revenues only (as directed by the study mandate), but do not account for potentially positive effects at the local level. While the model used by UVA can estimate the effect on local economies, the information needed for this analysis was not available. Lastly, the estimates reported may over- or understate the total economic benefits to the State because they do not include the cost of certain financial incentives such as State tax credits, other grants, land donations, or tax abatements from local governments.

ECONOMIC IMPACT OF GRANT-FUNDED PROJECTS APPEARS SUBSTANTIAL

Completed projects approved between 2002 and 2008 are estimated to generate increases in the State's private employment, GDP, personal income, and revenues. Not only do projects contribute directly to these economic measures, they often spur additional increases indirectly, as explained in Table 19.

Private employment is estimated to have increased by almost 48,000 workers in the first year after projects began and by more than 67,000 workers cumulatively after five years (Table 20). Job gains in the private sector tended to decrease after the fifth year in part because construction employment for developing the projects' infrastructure was no longer needed. Based on discussions with business representatives and agency staff, infrastructure development typically occurs within the first few years of the project.

Table 19: Grant-Funded Projects Can Positively Impact Economy Directly and Indirectly

Measure	Direct Impact From Project	Additional Impact Spurred by Project Activity
Private (non-farm) employment	Increased employment from jobs directly added by the project when filled by • unemployed workers or by workers who switch jobs and are replaced by unemployed or underemployed workers • entrants into the workforce such as recent graduates, workers from other states, or immigrants	Increase in employment from jobs added to other businesses in the community to absorb the need for additional supplies for the project and increased spending by workers filling new jobs
Virginia GDP	Increase in total market value of final goods and services generated by the project	Increase in total market value of final goods and services generated by businesses that provide supplies to the project and/or absorb additional consumption
Real disposable personal income[a]	Increase in income for workers who fill the new jobs if they were new entrants, unemployed, underemployed, or are paid higher wages	Increases in income for workers that fill jobs in other businesses that absorb the increased need for supplies and consumption
Revenues[b]	Increase in income and sales tax revenue from the business and its employees	Increase in income and sales tax revenue from the businesses that are providing supplies to the project and any new or higher paid employees

Note: Table may not capture all ways in which projects can positively impact these economic measures.

[a] Total personal income minus taxes.
[b] Revenue from all taxes (corporate and individual income taxes, sales and use taxes, fees, and intergovernmental transfers).

Source: JLARC staff analysis of the research literature.

Table 20: Completed Grant Projects Are Estimated to Have Favorable Impact on Virginia Economy

Change in Economy	Year 1	Year 5	Cumulative After 5 Years	Cumulative After 10 Years
Private employment	47,732	1,384	67,451	62,272
Virginia GDP ($ billion)	$ 4.4	$ 10.0	$ 36.8	$ 90.6
Real disposable personal income ($ billion)	1.8	3.6	13.6	32.9
State revenue ($ billion)	0.3	0.5	2.1	4.3

Note: Projects began in different years of the study period, and this table is used to demonstrate the magnitude of the collective impact of all projects after their first, fifth, and tenth years, regardless of when the project began. All dollars are in 2010 amounts. The net present value of State revenue in 2010 amounts is shown for each time period.

Source: JLARC staff analysis of the results of economic impact analysis of State incentive grants projects performed by UVA.

Completed projects are also estimated to increase State GDP, real disposable personal income, and State revenues. Projects are estimated to have added over $4 billion to the State's GDP in theirfirst year reaching a cumulative total of approximately $91 billion after ten years. When measured in terms of real disposable personal income, the impact of grant projects is also estimated to be substantial: $1.8 billion after the first year and almost $33 billion cumulatively after ten years. Lastly, completed projects are estimated to result in an increase of $340 million in State revenue in the projects' first year and $4.3 billion cumulatively after ten years. While these figures are very large, they represent a small increase in each of these economic measures, reaching, at most, a 0.3 percent gain cumulatively after ten years.

VIRGINIA INCENTIVE GRANT PROGRAMS APPEAR TO GENERATE ECONOMIC BENEFITS AND REVENUES EVEN UNDER CONSERVATIVE ASSUMPTIONS

Virginia's economic development incentive grant programs are projected to have a positive impact on the State economy and revenues, even if conservative assumptions are made about the extent to which they sway business location decisions, based on the results of a dynamic economic simulation model. As described in Chapter 3, the best available estimate is that typical incentive grants sway approximately ten percent of business decisions, but this figure may be overly conservative for certain Virginia programs. Even if the subset of projects that located or expanded in Virginia because of incentive grants is ten percent, these projects are estimated to have a positive impact on each economic measure examined for this study. This finding suggests that a relatively small number of projects swayed by incentive grants can generate sufficient revenue to more than cover the cost of other grants that do not play a decisive role in location or expansion decisions.

This subset of projects is estimated to create almost 4,800 private sector jobs in the first year and more than 6,200 jobs after ten years (Table 21). After factoring in the cost of providing grants to all grant-funded projects, each of the new jobs created by this subset of projects would cost the State approximately $26,000. In addition, this subset of projects is estimated to increase the State's GDP, real disposable personal income, and State revenues.

The subset of projects is still expected to generate State revenue even after factoring in the entire cost of incentive grants, including those that are assumed to not have swayed site selection decisions. The entire amount of grant funding has to be spent and therefore must be included in the analysis because it is not always known

Table 21: State Incentive Grants Are Estimated to Have a Favorable Impact on Virginia's Economy Even If They Sway Only a Subset (Ten Percent) of Projects

Change in Economy	Year 1	Year 5	Cumulative After 5 Years	Cumulative After 10 Years
Private employment	4,773	138	6,745	6,227
Virginia GDP ($ million)	$440	$998	$3,678	$9,058
Real disposable personal income ($ million)	182	359	1,356	3,285
State revenue ($ million)	34	49	211	434
Net State revenue[a] ($ million)	5	47	148	343

Note: The best available estimates in the research literature suggest that incentive grants will sway approximately ten percent of business location decisions. Projects began in different years of the study period, and the table demonstrates the magnitude of the collective impact of ten percent of all completed projects after their first, fifth, and tenth years, regardless of when the project began. All dollars are in 2010 amounts. Net present value of State revenue and net State revenue in 2010 amounts are shown for each time period.

[a] Captures only the grant payments associated with the projects included in the analysis, which represents approximately 30 percent of total grant funding during the study period.

Source: JLARC staff analysis of the results of economic impact analysis of State incentive grants projects performed by UVA.

which projects will need a grant to decide to locate or expand in Virginia. State revenue net of grant awards is estimated to be $5 million after the first year and more than $340 million cumulatively after ten years.

ECONOMIC IMPACT OF GRANTS VARIES, LIKELY BECAUSE OF DIFFERENCES AMONG PROJECTS RECEIVING AWARDS

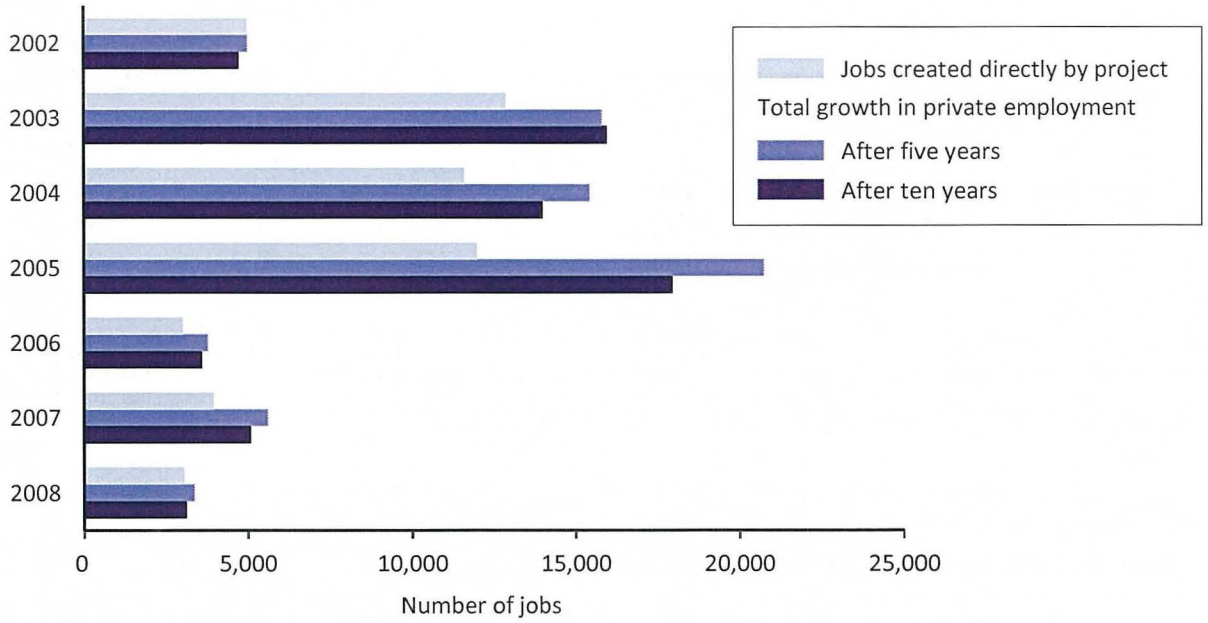
Projects that meet several economic indicators tend to have larger impacts than those that meet none. Based on an analysis of completed projects and case study projects, in particular, large-scale projects that created 500 or more jobs and met several economic indicators are estimated to have the most significant positive impact on Virginia's economy, even after controlling for the number of jobs created. These findings suggest that incentive grant programs yield a higher return on investment when they fund well-targeted projects, and can increase the magnitude of their return if these projects are also of large scale.

Incentive grant programs yield a higher return on investment when they fund well-targeted projects, and can increase the magnitude of their return if these projects are also of large scale.

Creation of Private Sector Jobs Was Greatest Among Projects Beginning Between 2003 and 2005

Completed projects that began in calendar years 2003 through 2005 were responsible for creating the greatest number of jobs directly associated with the projects, and also spurred the most additional private employment in the community. As shown in Figure 16, projects that began in 2003, 2004, and 2005 each created over 10,000 jobs directly. Total private employment after five years for projects beginning in these years was estimated to be more than

Figure 16: Large Number of Estimated New Private Sector Jobs Are Attributed to Projects Beginning in 2003, 2004, and 2005



Source: JLARC staff analysis of the results of economic impact analysis of State incentive grants projects performed by UVA.

15,000 jobs, including project jobs as well as the additional jobs that were created in the community to meet the increased need for supplies and higher consumer spending. Total employment had declined by the tenth year, likely because infrastructure development had ended.

Further analysis suggests that substantially more jobs are attributed to projects beginning in 2003 through 2005 for several reasons. First, more large-scale projects began in these years than in other years. More importantly, these large-scale projects also had particularly high employment multipliers, meaning that they were likely to spur the creation of several additional jobs in the community for each project job added. Two of the large-scale projects that had particularly high multipliers and began between 2003 and 2005 include Ford Motor Company (which added 572 jobs and an employment multiplier of 3.3, indicating that for every project job created an additional 2.3 jobs would be added in the community) and Micron (which added 1,807 jobs and an employment multiplier of 4.26, suggesting that each new project job would spur approximately 3.3 additional jobs in the community).

Indicators of Likely High Economic Impact

High employment multipliers and export percentages are two indicators that a project should yield favorable economic benefits for the State, as discussed in Chapter 4.

In contrast, projects starting in 2002 created few additional jobs beyond project jobs, and private employment is estimated to have decreased by the tenth year. Several factors may have contributed to this trend. First, half of the projects that began in 2002 had an

employment multiplier below 2.0, meaning that they spurred less than one additional job for each project job they created. Moreover, those projects that did have higher employment multipliers were expected to create a small number of jobs. Further, several of the larger projects that began in 2002 were in the wholesale or retail trade industries. Jobs created in these industries are more likely to be filled by workers already employed by nearby businesses, which reduces net employment gains.

Impact on Virginia GDP, Disposable Personal Income, and Net State Revenue Estimated to Be Greater for Projects Beginning in 2003 and 2005

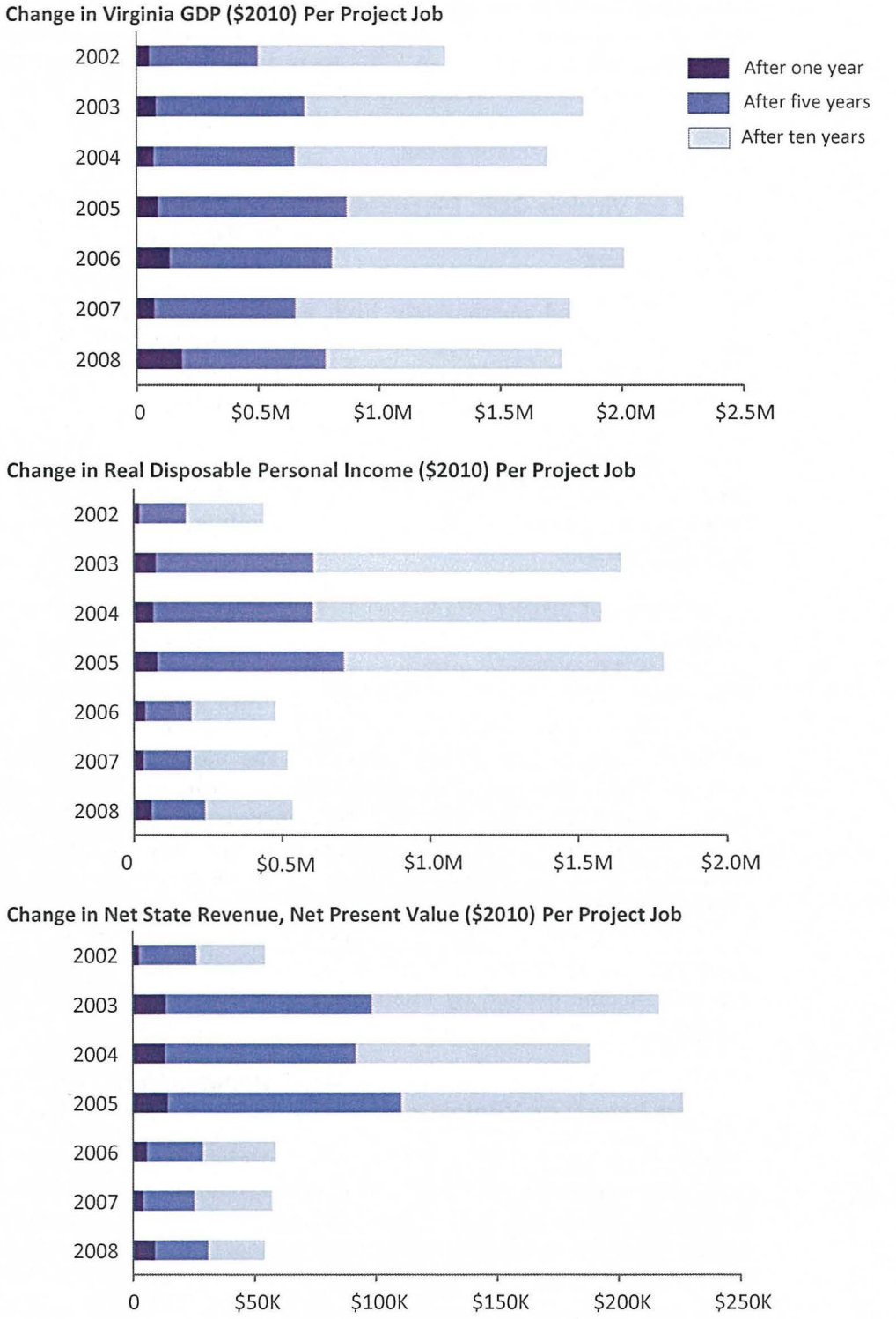
Projects that had particularly high employment multipliers and export percentages also appear to have the most favorable impacts on State GDP, disposable personal income, and revenue, based on an analysis of the characteristics of projects that began during the study period. Specifically, projects that began in years 2003 and 2005 almost consistently generated larger gains in Virginia GDP, disposable personal income, and net State revenue than projects that began in other years, even after controlling for the size of projects (Figure 17).

An analysis of project characteristics revealed that a greater percentage of projects beginning in these years had employment multipliers of 3.0 or larger and export percentages of at least 90 percent compared to projects beginning in other years. Projects that have higher employment multipliers should have larger impacts on GDP, income, and revenue because the more employment increases, the more business output (a component of GDP), worker income, and tax revenues are likely to increase. Projects with high export percentages should also have larger impacts on these measures because the more businesses export their goods, the more new money they bring into the Virginia economy by way of business profit (another component of GDP). As business profits increase, they may compensate their employees more, and the increased income earned by businesses and their employees should result in higher tax revenues.

All Case Study Projects Reviewed Are Estimated to Have a Positive Impact on Virginia's Economy, but to Varying Degrees

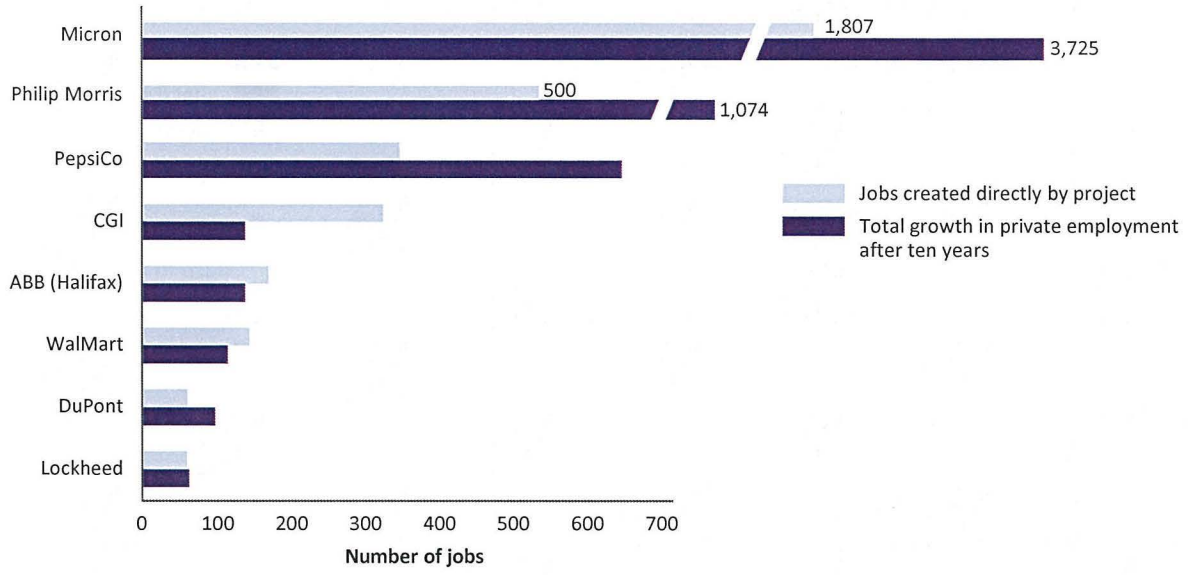
While all of the projects selected as case studies for this review had a positive economic impact on Virginia's economy, several projects had a far greater impact than others (Figure 18). In particular, Philip Morris and Micron, which were expected to add the greatest number of new project jobs among all case study projects, had a substantial impact on employment as well as State GDP, real disposable personal income, and net State revenue, even after controlling for the number of jobs created by each project.

Figure 17: Estimated Changes in Virginia GDP Per Project Job Created Fluctuated By Year but Changes in Disposable Income and Net State Revenue Are Highest in 2003-2005



Source: JLARC staff analysis of the results of economic impact analysis of State incentive grants projects performed by UVA.

Figure 18: Estimated Impact on Private Employment in Virginia Varies Significantly Among Case Study Projects



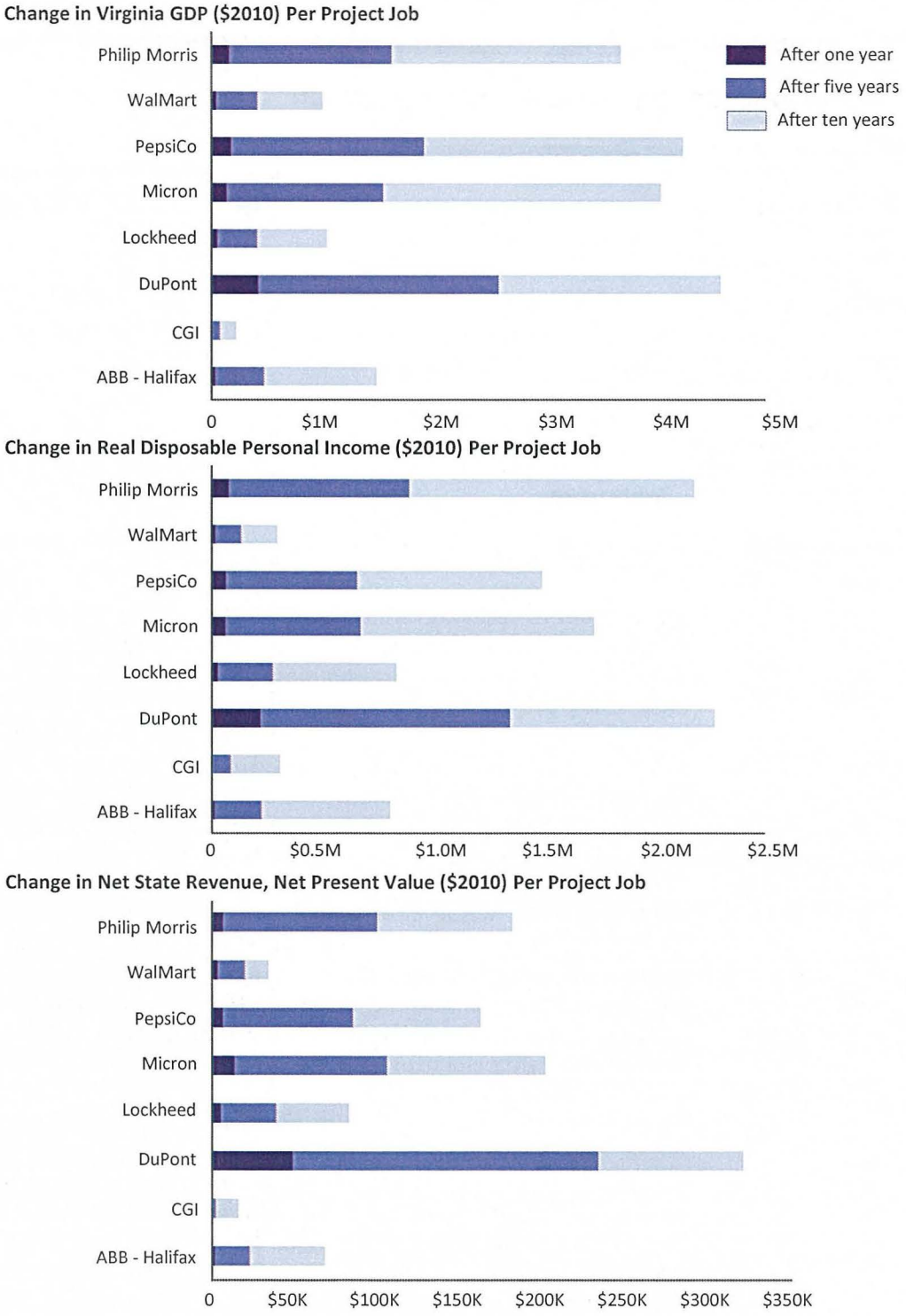
Source: JLARC staff analysis of the results of economic impact analysis of State incentive grants projects performed by UVA.

In addition to creating the largest number of jobs for their projects, Philip Morris and Micron were also responsible for spurring the most additional private employment in Virginia compared to other case study projects. Micron's impact on total private employment is expected to be more than 3,700 jobs after ten years, while Philip Morris' grant-funded project created or spurred more than 1,000 jobs after ten years. Although DuPont's project added only 51 jobs, it spurred the creation of almost as many private sector jobs in the State, which is estimated to be sustained after ten years.

In comparison, while CGI added more than 270 positions for its project, total employment is estimated to decrease by a total of 122 jobs (including project jobs) after ten years. The estimated loss in private sector jobs may be due to CGI being involved in business support services, an industry sector which often is impacted by layoffs or facility closures and has a low employment multiplier.

Although estimated changes in GDP, real disposable personal income, and net State revenue range widely across projects (Figure 19), Philip Morris, Micron, PepsiCo, and DuPont are consistently estimated to have the larger impact after controlling for the number of jobs created by each project. In fact, Philip Morris, Micron, and DuPont all meet (or almost meet) the three indicators for having a high economic impact, which suggests that targeting awards to projects meeting these indicators has a substantial, favorable impact on Virginia's economy.

Figure 19: Estimated Changes in Virginia's GDP, Real Disposable Income, and Net State Revenue Over Time Also Range Widely by Project



Source: JLARC staff analysis of the results of economic impact analysis of State incentive grants projects performed by UVA.

Employment Displacement

Some industries are impacted by employment displacement because of substantial competition in the local and nearby markets, which leads to "crowding out" effects. Job losses and gains for one business are often offset by losses or gains by rival businesses.

However, it may not always be essential to target awards only to projects that meet all three indicators. For example, PepsiCo only met one of the indicators but is still estimated to have a substantial economic impact. This estimated impact may be partially due to the high employment multiplier (2.9) of companies involved in the beverage manufacturing industry, which indicates that for every project job created, another 1.9 additional jobs are created in the community. This industry is also infrequently impacted by employment displacement. In contrast, projects that meet few indicators and do not have a high employment multiplier in particular may have minimal impacts. In addition to having the lowest impact on additional private employment, CGI triggered the lowest estimated change in State GDP, real disposable personal income, and net State revenue per project job. Although CGI pays higher wages than the industry average, it has a low export percentage (seven percent) and employment multiplier (1.5) and is involved in an industry subject to employment displacement, all of which may lead to its limited impact on the economic measures.

Chapter 6 Virginia Grant Programs Use Effective Practices but Could Improve Further

In Summary

Several Virginia grant programs have adopted effective practices that can help ensure that all programs and the projects they fund achieve their goals. Effective practices could be utilized more consistently across programs and supplemented by best practices identified in the research literature. The Virginia Economic Development Partnership incorporates many effective practices into the grant programs it administers. In contrast, some programs such as the Virginia Jobs Investment Program could be improved by adopting effective practices such as consistently verifying the job creation information reported by businesses. Nearly all incentive programs could adopt new effective practices that could help them to more consistently and effectively sway business location decisions, ensure that projects meet performance goals, and maximize the impact of grants on the State economy. In particular, awarding grants that can offset a greater share of operating costs to projects likely to have a high impact on the State economy could enhance the effectiveness of grant programs.

Given the substantial cost of economic development grant programs, they should be designed in a way that maximizes their effectiveness. The State can ensure that policies governing the programs facilitate the achievement of the three goals of most economic development incentive grant programs: swaying business location and expansion decisions, encouraging job creation and capital investment, and contributing to the broader goal of economic development in Virginia.

SOME VIRGINIA GRANT PROGRAMS USE PRACTICES THAT MAY HELP SWAY BUSINESS DECISIONS TO LOCATE OR EXPAND IN THE STATE

The first goal of Virginia's incentive grant programs is to persuade businesses to locate or expand in Virginia. Certain practices identified in Virginia programs and in the research literature may increase the likelihood of achieving that goal and reduce the risk of awarding grants to businesses that would have made the decision to locate or expand in the State regardless of the grant. These practices include offering grant awards that cover a larger share of business costs for those projects with a high potential economic impact; assessing how likely each project is to be swayed by incentives, including requesting information about competition with other states; and identifying ways in which grant funding can be used to address specific shortcomings with a potential project or site.

Grant Awards Could Offset a Larger Share of Costs for Projects With Potential for High Economic Impact

Virginia's incentive grants could help sway the location or expansion decisions of a greater portion of businesses receiving awards if awards amounted to a larger share of the costs of projects, as long as those projects appear likely to have a high economic impact. The extent to which incentive grants sway business decisions depends upon the proportion of the project cost that is offset by the award amount, as discussed in Chapter 3. Currently, Virginia awards grants to a large number of projects (between 200 and 400 projects each year), but the average size of these awards is slightly more than $200,000 per project, or approximately $2,295 per job as illustrated in Chapter 2. In contrast, the average incentive award according to the research literature on financial incentives is approximately $11,000 per job, an amount which is far greater than the average awards approved by all but a few Virginia grant programs, such as the Virginia Economic Development Incentive Grant (VEDIG) and the four custom grants.

Awarding more generous grants in order to increase the percentage of businesses that are swayed by incentives could increase the risk that economic benefits of projects will not offset the cost of the awards. This risk can be mitigated by targeting projects that have the highest potential for a favorable economic impact. As noted in Chapter 5, it appears that the most significant economic impact on Virginia results from projects that meet certain indicators, particularly having a high employment multiplier and being export-based. These types of projects could be better identified by utilizing the effective practices discussed later in this chapter. However, several programs would not be able to provide more generous grants because program guidelines establish a cap on the award amount that can be provided to any single project. For example, the maximum amount that can be awarded by the Governor's Development Opportunity Fund program is $1.5 million, though the amount may be waived by the Governor in very unique circumstances. Changes to program guidelines, which are often established in the *Code of Virginia*, would be necessary to more broadly address this issue.

VEDP Takes Steps to Identify Which Projects Are Likely to Be Swayed by Award, but Other Agencies Are Less Thorough

Because most grant programs are designed to sway business decisions to locate in the State, VEDP staff makes a concerted effort to determine whether a potential project will be swayed by a grant, and base the award decision on this determination. VEDP staff explained that they gather information on the amount of competition from locations outside of Virginia in several ways. Most notably, VEDP staff question the business about potential sites considered

in other locations and the incentives other location have offered. Staff also try to determine whether a business is considering a location outside of Virginia by looking for press releases detailing incentive packages offered to the business by other states or during negotiations with site selection consultants. VEDP staff explained that their incentive programs are discretionary and they will reduce award amounts to projects that appear to only have modest competition from other locations or will choose not to offer an incentive when it appears that there is no realistic threat for the business to locate anywhere other than Virginia.

Other discretionary grant programs expend varying levels of effort to determine whether a potential project is likely to be swayed by a grant award, but no other program appears to use practices as comprehensive as VEDP's. Some programs such as the Virginia Jobs Investment Program (VJIP) require businesses to submit which other sites are being considered during the application process, but minimal follow up is conducted. Most programs explained that they rely on VEDP staff to help determine whether an award is likely to sway the decision of potential businesses, but this option is only available when VEDP is also working with the business. While VEDP has been involved in all or the majority of the transportation infrastructure projects and Tobacco Region Opportunity Fund (TROF) projects during the study period, only 12 percent of VJIP grant recipients also received a VEDP grant. The Rail Industrial Access (RIAP), TROF, and VJIP programs could benefit from more intensive efforts to verify the presence of competition from other states in order to ensure that grants are being targeted to only those projects that may have their location or expansion decision swayed by the incentive.

Addressing Shortcomings With Site or Project May Allow Grant Programs to Better Sway Location and Expansion Decisions

Awarding grants to address specific shortcomings of a site or issues facing the project may make the award more likely to sway the location or expansion decisions of businesses. As described in Chapter 3, incentive grants can be effective if they are sufficient to compensate for a location's shortcoming, especially if that shortcoming has a quantifiable cost. Several Virginia grant programs have exhibited the ability to do so. For instance, VEDP and business representatives informed JLARC staff that Governor's Opportunity Fund (GOF) awards are often used to prepare site infrastructure that is lacking, such as establishing an adequate power supply. Similarly, grant awards to the Rolls-Royce and Canon Virginia projects were able to fulfill shortcomings in the skillset of the workforce by providing resources for worker training. Interviews with agency staff, business representatives, and site selection consultants revealed that Virginia grant programs and administering

agencies often are successful at addressing site and project shortcomings in order to complete a deal.

MOST VIRGINIA GRANT PROGRAMS USE PRACTICES THAT HELP TO ENSURE PROJECTS CREATE JOBS AND INVEST CAPITAL

Overall, most Virginia grant programs use practices to ensure that projects create jobs and invest capital. Virginia's grant programs that establish performance goals appear to consistently use performance agreements to ensure that projects meet their job creation and capital investment goals. Other programs, such as the enterprise zone and VJIP programs, require projects to document the jobs created or capital invested to receive grant funding. However, more robust verification practices and stricter enforcement provisions for some programs may make grant programs more effective at ensuring that the projects that are awarded grants are meeting their goals and reporting their job creation and capital investment levels accurately. These practices include verifying project performance, enforcing clawback measures, and/or adjusting payments to projects that fail to meet goals. These practices also help to reduce the risk that grant projects, and grant programs as a whole, will not generate the economic activity their grant awards were contingent upon.

All Virginia Grant Programs That Establish Goals Use Performance Agreements

All Virginia grant programs that establish goals for each project require businesses that receive a grant award to enter into a performance agreement which serves as a formal contract between grant recipients and the State. Most performance agreements used by Virginia agencies align closely with recommended practices, which are to include

- measurable goals, such as the number of jobs to be created, the amount of capital to be invested, and wages to be paid;
- a designated time period for achieving the goals and when progress on achieving the goals should be reported to the State;
- provisions for withholding or clawing back payments in the event that performance goals are not achieved; and
- provisions that prevent employers from shifting existing jobs from other facilities and mandating that the jobs be kept in place for a minimum period of time.

Although the enterprise zone and VJIP programs do not establish performance goals, they formally document the actual performance

(enterprise zone) and expected performance (VJIP) of projects through program applications and award letters. The enterprise zone grant application requires businesses to document levels of investment made or jobs created in the previous year. The VJIP application requires businesses to provide anticipated new jobs, capital investment, and wages while the award letter documents reimbursement amounts per job and the maximum number of jobs expected to be created or retrained, which serves to cap the maximum award that will be provided.

VJIP Is Among the Few Grant Programs That Do Not Verify Project Performance Information

While most Virginia grant programs collect information from businesses to determine whether grant-funded projects have met their job creation, wages, and capital investment goals, or reported job creation and capital investment accurately, not all programs verify this information. Some grant programs, such as VJIP, could better ensure that documentation of jobs created is accurate and that minimum capital investment levels have been met by improving their verification practices. Simply collecting data is not sufficient to ensure that projects are creating the jobs and investing the amounts of capital that are reported and, ultimately, generating the desired economic impact. A best practice is for program staff to verify the information provided by businesses through independent means such as employment records or property assessments. When it is not feasible to verify all reports, program staff should have mechanisms to spot check a random sample of projects to deter businesses from reporting inaccurate, false, or misleading information about performance.

Many Virginia agencies take steps to verify the performance data reported by grant recipients, including all VEDP programs, enterprise zone programs, some transportation programs, and the Governor's Motion Picture Opportunity Fund (GMPOF). For instance, VEDP requires businesses participating in its grant programs to submit a performance letter that describes the progress the business has made toward achieving job creation, capital investment, and wage goals. VEDP verifies the job creation and wage levels submitted by businesses using Virginia Employment Commission data for all projects. VEDP relies on local commissioner of revenue reports to verify capital investment data, often with assistance from the locality. However, capital investment may not be verified in all cases.

In contrast, for VJIP, staff at the Department of Business Assistance (DBA) rely on businesses to submit job creation and retention as well as wage data for each project receiving a grant, but take minimal steps to verify project performance. According to

DBA staff, verification of job and wage data is rare and capital investment is never verified. DBA staff reserve the right to review employment records and other documentation from the business, but explained that these verification practices are not utilized largely due to the additional amount of staff resources that would be required to do so. Staff also described the practice of counting cars in the parking lot of a business as a verification method for ensuring that jobs have been created. Information, even when reported in good faith, can contain errors which are likely impacting, whether positively or negatively, the actual job creation, capital investment, and wages reported for VJIP in the past ten years.

In addition to VJIP, a few other grant programs do not verify all performance criteria. RIAP requires businesses to create and maintain expected jobs but does not verify the job creation data provided by businesses. Similarly, the TROF program incorporates expected wages into award amounts, but does not verify that businesses pay the wage on which the award was based. Finally, the Transportation Partnership Opportunity Fund (TPOF) program does not verify any jobs, capital investment, or wage data for the economic development project itself, but rather only verifies that the transportation aspect of the project has been completed in accordance with the agreement. The TPOF program relies on VEDP to provide information that jobs and capital investment were met, and to date, all TPOF projects have also received a grant from VEDP. However, it is unclear whether there is a process for verifying this information if the project does not receive a grant from VEDP.

Most Grant Programs Have Provisions to Hold Grant Recipients Accountable, but Some Do Not Use Enforcement Mechanisms

All Virginia grant programs have policies in place to withhold, reduce, or recapture grant awards when grant recipients are noncompliant with their performance agreement and/or program requirements. However, these policies are sometimes weak or not consistently enforced. A few grant programs, such as TPOF, could more effectively ensure that job creation and capital investment goals are being met if existing enforcement provisions were more strictly applied.

Enforcement mechanisms for awarding future payments and recovering funds already disbursed are needed in order to maintain the integrity of grant programs and ensure that projects are creating the agreed-upon jobs and capital investment before receiving or keeping a grant award. These include clawback provisions to recapture funds for underperforming projects that were paid upfront, reducing awards to projects that failed to meet full expectations, or terminating agreements for projects that do not meet ex-

pectations in a designated time period or fail to maintain agreed-upon levels of economic activity. Making exceptions to these provisions can undermine the programs' ability to deter non-compliance with performance contracts or other legal agreements between the program and the business.

Two grant programs appear to have weakened or are not implementing their stated enforcement provisions. For example, the TPOF program has weakened its statutory enforcement mechanism by adopting the policy to not enforce its clawback provision for any project that completes its transportation requirements, even if it does not meet the economic development goals for job creation and capital investment. Virginia Department of Transportation (VDOT) staff that administer the program explained that this practice has been adopted because transportation infrastructure represents a public good and brings benefits to the State in its own right; therefore, the main concern of the program is that the transportation project is completed. In addition, while VJIP funds can be clawed back by the Office of the Attorney General if the project fails within one year of reimbursement, this practice is rarely used. DBA staff explained that because projects often receive small awards, the cost of administering and enforcing a clawback may exceed the amount that would be recovered. Moreover, VJIP has no provisions to reduce the grant award per job if projects pay substantially less than their anticipated wage that was used to calculate their grant award.

USE OF PRACTICES MEANT TO INCREASE THE ECONOMIC IMPACT OF GRANTS VARIES ACROSS VIRGINIA PROGRAMS

The ultimate goal of Virginia's incentive grant programs is to stimulate the economy for the benefit of citizens and the State. Grant-funded projects should therefore have a positive impact on certain key measures such as employment and State gross domestic product, among others. Several practices can increase the likelihood of generating a high economic impact. Most Virginia grant programs make awards on a discretionary basis and successfully select projects that are likely to generate a high economic impact, but implementing caps on program funding could help enhance discretion and further target awards to projects likely to yield a high economic impact. In addition, other programs could join VEDP in conducting comprehensive and robust up-front analysis as well as imposing additional minimum requirements to help ensure that only projects with high economic impact qualify for an award. Finally, some program goals and requirements could be changed to more specifically target certain projects that would likely have a high economic impact.

Most Grant Programs Are Discretionary, Which Enables Staff to Target Awards to Projects With Greater Economic Impact

All but two Virginia grant programs award grants on a discretionary basis, accounting for nearly 90 percent of the total amount approved between FYs 2002 and 2011. Discretionary programs allow program staff to target certain projects and reduce the risk of granting awards to projects with minimal economic impact or greater risk of failure. Businesses often view discretionary grant programs as attractive because staff has the ability to negotiate the terms of the award, allowing each party to reach a mutually beneficial agreement. The two enterprise zone grant programs are not discretionary and award grants automatically to all projects that meet minimum requirements. The awards cannot be altered or denied based on expected economic impact or risk of failure. As described in Chapter 4, projects that received an enterprise zone grant appear likely to have a reduced economic impact overall.

According to the research literature, discretionary programs can, and often do, function similarly to automatic award programs if grant awards are not limited to only those businesses whose location or expansion decision is likely to be swayed by incentives and to projects likely to have a high economic impact. A practice that can be used to ensure that discretionary grant programs are used in a discretionary fashion is to place a cap on the total amount that can be awarded in a given period of time, and several Virginia programs do have a cap (Table 22). A cap can force program staff to prioritize projects and be more conservative when determining award amounts for projects less likely to be swayed by the incentive or to generate a high economic impact. For example, no more than $6 million in VIP grants may be approved in any one year, and the total aggregate amount of outstanding grants at any time cannot exceed $30 million. However, the size of caps must be balanced against the need to offset a sufficient portion of project costs for grants to effectively sway location decisions.

All Grant Programs Use Minimum Requirements to Increase Likelihood of Spurring Economic Activity

While all Virginia grant programs have some minimum requirements that projects must meet in order to qualify for a grant award, requirements vary among programs and are not comprehensive in all cases. Minimum program requirements should be at levels high enough to ensure that projects meeting them are likely to generate a positive economic impact. To achieve this goal, requirements should apply to job creation, capital investment, average wages to be paid, and the types of businesses that are eligible for the program. VEDP-administered programs, VJIP, and TPOF have the most extensive minimum requirements that limit grant awards to projects that are in certain industry sectors, that

Table 22: Some Virginia Grant Programs Place a Cap on Awards

Agency	Program	Cap on Program Funds
VEDP	GOF	
	MEE	
	VEDIG	✓
	VIP	✓
	Custom grants	
DHCD	JCG[a]	
	RPIG[a]	
VDOT	EDAP	✓
	TPOF	✓
DBA	VJIP	✓
TICR	TROF	
DRPT	RIAP	✓
VACEDA	CROF	
VFO	GMPOF	✓

[a] Enterprise zone programs are non-discretionary and an unlimited number of projects can be approved for participation in the program at any given time. However, funding limitations often cause payments for a given fiscal year to be prorated.

Source: JLARC staff analysis of program guidelines and statutes.

promise to create more than a certain number of jobs and invest more than a certain amount of capital, and that pay more than a certain wage, on average (Table 23). A lack of minimum requirements in any of these categories increases the likelihood that projects with a low economic impact may qualify for a program.

VEDP Conducts Return on Investment Analysis on Projects, Other Agencies Perform Less Comprehensive Up-Front Analysis

Most Virginia grant programs rely on an up-front analysis that is meant to determine whether the expected benefits of a proposed project justify the costs of the grant award to the State and/or determine how much to award. The up-front analysis appears more robust for VEDP programs than for those administered by other agencies. Nearly 20 percent of State funds have been awarded to projects for which either the award amount was not tied to the project's economic impact or there was no up-front analysis conducted.

Table 23: VEDP-Administered Programs Have Comprehensive Minimum Requirements, Other Grant Programs Vary in Their Use

		Program Has Minimum Requirements			
Agency	Program	Jobs	Capital Investment	Wages	Industry Type
VEDP	GOF	✓	✓	✓	✓
	MEE	✓	✓	✓	✓
	VEDIG	✓	✓	✓	✓
	VIP	✓	✓	✓	✓
	Custom grants[a]	n.a.	n.a.	n.a.	n.a.
DHCD	JCG	✓	n.a.	✓	✓
	RPIG	n.a.	✓[b]	n.a.	✗
VDOT	EDAP	✗	✓	n.a.	✓
	TPOF	✓	✓	✓	✓
DBA	VJIP	✓	✓	✓	✓
TICR	TROF	✓	✓	✓	✓
DRPT	RIAP	✗[c]	✓	n.a.	✗
VACEDA	CROF	✓	✓	✓	✓
VFO	GMPOF	✗	✗[d]	n.a.	✓

✓ = Has requirement; ✗ = Does not have requirement; n.a. = Not applicable.

[a] Statutes governing custom grants set minimum requirements which, in practice, are more like project-specific goals used for programs (e.g., the GOF program).
[b] Requirement is for real property investment rather than capital investment.
[c] Although RIAP does not have a minimum requirement for job creation, program staff evaluate expected job creation when scoring applications for potential projects. The program's primary purpose is promoting a balanced transportation network and reducing highway congestion.
[d] Requires all spending, not necessarily capital investment, be done within Virginia.

Source: JLARC staff analysis of grant program guidelines.

VEDP Return on Investment (ROI) Model

VEDP designed an ROI model in consultation with economists at UVA. The model accounts for the impact on State revenue of new jobs, capital investment, wages and other factors directly resulting from the project as well as the impact of additional jobs indirectly created throughout the State by the project. The model includes the cost of State funds paid to the project in the form of grant awards and other known credits such as tax incentives, but in many cases excludes other public sector costs associated with projects such as building new infrastructure and increased demands on services such as education and public safety. In cases where immigration is expected, such as a corporate headquarters project, the cost of accommodating these new residents is factored into the model.

VEDP Appears to Perform the Most Comprehensive Up-Front Analysis. Before approving a grant, VEDP staff calculate the return on investment (ROI) of each project to determine at what point its financial benefits are projected to offset the cost of proposed State incentives, given a certain award amount. The VEDP ROI model accounts for the impact to State revenue resulting directly from the project as well as the additional revenue spurred indirectly by the project throughout the State, with the exception of corporate income tax revenue. While the model attempts to incorporate the cost of all State financial incentives made available, it often does not include the cost of increased demands upon public services such as infrastructure or education.

VEDP staff explained that the typical size of grant awards is set to break even within two years, meaning that the benefits of the project are expected to offset the cost of State financial incentives

within two years of the grant approval date. The grants administered by VEDP, and thus that have been subjected to a thorough up-front analysis, account for approximately 60 percent of total funds allocated to grant awards during the ten-year study period.

Other Agencies Use a Variety of Up-Front Analyses, but None Appears as Comprehensive as VEDP's. Several other agencies that administer grant programs also perform up-front analyses, but none use methods as comprehensive and robust as those used by VEDP staff. DBA staff conduct an ROI analysis that includes only the increase in State income tax and sales tax revenue expected to result from the new jobs created directly by the project and excludes any indirect impact the project could have. The grant amount is intended to be offset by increased State revenue in one year or less for typical projects. In addition to the ROI, DBA staff also use a formula to set the grant award. While the formula used appears to generally award larger grants to projects that are likely to have a larger impact (as discussed in Chapter 4), the differences in award amounts are minimal in some cases, which suggests the formula could be improved.

Weighted Scale System

The weighted scale technique is used to assign points to certain cost and benefit factors of a project. The sum of the points is used to guide award decisions.

Some programs use a weighted scale system, which is less sophisticated than ROI analysis, to perform up-front analyses on potential projects. This practice helps compare and prioritize projects, but does not provide information about the timeframe to achieve the breakeven point or the magnitude of economic benefits that might be expected. For example, DRPT staff use a weighted scale that includes factors such as the number of rail carloads to the site and the number of jobs created as part of the process for determining whether to award a RIAP grant. Projects must score over a certain threshold to receive a favorable recommendation for approval, but their score is not used to establish the award amount. The award amount is determined by the grantee in their application in accordance with the match requirement and capital investment threshold of the program.

Approximately $93 million in grant funding that was awarded to projects during the study period did not receive any up-front analysis.

Some Agencies Perform No Up-front Analyses. Although three grant programs awarded approximately $93 million to projects without conducting any up-front financial analysis during the ten-year study period, these programs may have justification. Agency staff that administer the enterprise zone program do not analyze the potential economic impact of projects applying for grants up front because projects must have been successfully completed before the business can apply for an award. Furthermore, enterprise zone awards are calculated using a formula established in the *Code of Virginia* and cannot be altered even if program staff determine that the benefits of the project do not warrant the cost. However, the formula established in the *Code* was not based on an ROI or economic impact analysis which would substantiate the

size of enterprise zone and awards. Similarly, VDOT staff that administer the Economic Development Access Program (EDAP) program do not perform up-front analyses because the award amount is based on a formula set forth in the *Code*, which also does not appear to be linked to an economic impact or ROI analysis. In both cases, an analysis of the appropriateness of the formula could be performed to ensure that it is an adequate incentive compared to project costs and benefits to the State.

Several Programs Could Better Target Grants to Projects Expected to Have High Economic Impact

Targeting incentive grants to certain types of projects can help programs better encourage job creation and capital investment as well as achieve a greater economic impact. Some of Virginia's grant program guidelines and minimum requirements are designed to target projects with characteristics indicative of a high economic impact (Table 24). Results of an analysis to determine how frequently projects met certain indicators (Chapter 4) reveal many grant programs appear to have successfully targeted grant awards to projects that have high employment multipliers or are export-based. In fact, programs that had the best outcomes include those that have minimum requirements that require projects to be involved in export-based industries or limited to certain industry sectors that tend to have a high employment multiplier, which may suggest that programs should consider requiring that all projects have either a high employment multiplier or be export-based.

Targeting Businesses in Industries With High Employment Multiplier Can Increase Economic Impact. Small or large projects with a high employment multiplier should have substantial impact on Virginia's economy if they provide employment opportunities for unemployed or underemployed workers in Virginia. The State also benefits if the project provides better job opportunities for currently employed residents. Rather than implementing potentially unpopular policies that would limit grant awards to businesses that agree to hire local and/or unemployed workers, experts recommend targeting projects that have a high employment multiplier instead. However, no Virginia grant program specifically requires projects to have high employment multipliers to be eligible for an award, but some indirectly do so by requiring that projects be in a particular industry sector. Based on findings discussed in Chapter 4, the majority of all projects that received grants from a Virginia program had a high employment multiplier, and within certain programs, most projects that received grants had high employment multipliers.

Table 24: Although Most Programs Target Projects That Have One or More Indicators of Having High Economic Impact, Many Only Partially Target Such Projects

Agency	Program	Target Projects That Have These Indicators: High Employment Multipliers	Export-Based	Pay High Wages
VEDP	GOF	Partially	Yes	Partially
	MEE	Partially	Yes	Partially
	VEDIG	Partially	Yes	Yes
	VIP	Yes	Yes	Partially
	Custom grants[a]	Yes	Yes	Partially
DHCD	JCG	No	No	Partially
	RPIG	No	No	n.a.
VDOT	EDAP	Partially	Partially	No
	TPOF	Partially	Yes	Partially
DBA	VJIP	Partially	Yes	Partially
TICR	TROF	Partially	Partially	Partially
DRPT	RIAP	Partially	Partially	No
VACEDA	CROF	Partially	Yes	Partially
VFO	GMPOF	No	No	No

Yes Partially No

[a] All custom grant programs are export-based with the exception of SRI.

Source: JLARC staff analysis of program guidelines and statutes.

Most Virginia Grant Programs Target Businesses That Sell Majority of Goods Outside the State, Helping Ensure Greater Economic Impact. All but two of Virginia's grant programs target or partially target export-based businesses, based on a review of program guidelines. Export-based businesses generate new economic activity in the State by increasing revenue flowing into Virginia from other areas. Conversely, businesses that receive most of their revenue from within Virginia (non-export based business) often result in revenue displacement within the State because the increased sales that they enjoy are likely to be mitigated by decreased sales among existing Virginia businesses. The RIAP program lacks a provision requiring projects to be export-based but appears to partially target these projects. The majority of RIAP awards have been made to projects that export more than half of their products and services, as discussed in Chapter 4. Department of Rail and Public Transportation (DRPT) staff explained that the nature of the rail industry is to transport goods over long distances (typically over 500 miles), and thus the program is most applicable to pro-

jects that export a substantial portion of their goods. The Real Property Investment Grant (RPIG) program does not target export-based projects, and only 14 percent of businesses receiving an RPIG grant are export-based. According to Department of Housing and Community Development (DHCD) staff, many of the businesses that have received RPIG awards are in real estate development, which is not an export-based industry. However, the business that occupies the improved facility may sell the majority of its goods or services outside of the State, thus understating the percentage of export-based businesses locating in facilities renovated with RPIG funds.

Nearly All Virginia Programs Have Wage Requirements, but Only One Program's Requirements Appears to Exceed Average Industry Wages. While there is no uniform standard across programs, nearly all Virginia incentive grant programs require businesses to meet certain wage levels in order to receive a grant award. Projects that pay higher wages produce a greater economic impact because workers earning higher wages pay more in income and sales taxes, inject more money into the State economy when they spend their wages locally, and are less likely to require the assistance of social programs meant for the low income population.

Only the VEDIG program appears to effectively target awards to projects that exceed the average wage in Virginia for the industry sector (Table 24). Paying wages that are higher than the industry average is important because jobs that pay higher wages compared to the skill required for that position are more desirable for local residents and can lead to increased labor force participation and income tax revenue. VEDIG requires businesses to create jobs that pay at least 50 percent more than the prevailing wage, and is recognized as having among the highest wage requirements of any grant program nationally. In contrast, as shown in Chapter 4, other programs, many of which require wages to exceed only the local prevailing average (GOF, for example), appear to pay wages that are lower than the respective industry average. However, requiring projects to pay at least industry average wages does not account for variances in wages paid to workers in the same industry sector but in different areas of the State. Consideration could be given to requiring projects to pay at least the industry average wage for the region.

The extent to which programs administered by other agencies target projects with high wages varies, as shown in Table 24. Even though many programs do not award a majority of their grants to projects exceeding the industry average, most award grants to projects that pay at least local average wages, and some programs relax the requirement if the project occurs in a high unemployment area. For example, 58 percent of GOF grants and 70 percent of

MEE and VIP grants are awarded to projects that pay at least the average local wage. In contrast, the VJIP program currently targets businesses that pay more than 135 percent of the federal hourly minimum wage (currently $9.79), which is far below most locality and industry averages. In fact, only 20 percent of VJIP grants are awarded to projects that pay at least industry average wages, and just over one-third (36 percent) pay more than the local average wage. A few grant programs (EDAP, RIAP, and GMPOF) also have no provisions to require jobs to pay certain wages, potentially lessening the economic impact associated with the jobs created by these programs.

Chapter 7

Proposal for Ongoing Review of Virginia Economic Development Incentive Grants

In Summary

While Virginia's incentive grant programs have approved awards for projects that have created a substantial number of jobs and invested large amounts of capital in the State, some programs do not appear to consistently target awards to projects that have a high impact on Virginia's economy, and the research literature suggests that certain programs may be swaying a small proportion of location and expansion decisions. In addition, no comprehensive information on grant programs is available to policymakers, in part because the data collected for some programs is inadequate. For this reason, a more comprehensive evaluation and reporting process appears warranted. Based on reviews of current practices in Virginia, grant programs could build upon their current processes for collecting and reporting information. To ensure that grant programs have the highest impact on business decisions, job creation and capital investment, and the economy, the General Assembly could require an annual report containing more comprehensive and consistent information across grant programs as well as periodic evaluations of the economic impact of grant projects. To facilitate the implementation of a more comprehensive report and ongoing evaluations of the effectiveness of Virginia incentive grant programs, the Secretary of Commerce and Trade could convene a work group of staff from agencies that administer the grant programs, legislative staff, and university staff with economic development expertise to help guide the process for enhancing data collection, evaluation, and reporting information.

In addition to directing JLARC to evaluate the effectiveness of Virginia's economic incentive grant programs, Senate Joint Resolution 329 calls for a proposed process for their ongoing evaluation. Currently, limited information is reported about many grant programs, the information that is reported is often inconsistent across programs, and most projects receive no evaluation of their economic impact in Virginia, with the exception of those receiving a grant award from the Virginia Economic Development Partnership. Together, these factors result in a limited amount of objective information that policymakers can use to determine the extent to which incentive grants are effective, could be improved, or should be eliminated.

To propose an evaluation process, research was conducted to understand the current processes used to collect, evaluate, and report information about Virginia's grant-funded projects. No information exists to assess how frequently incentive grants sway business location and expansions. Most agencies were able to provide the data needed to evaluate the effectiveness of grant projects in meeting performance goals and impacting the economy, but some agencies were found to lack important information. It appears that all agen-

cies that administer grant programs could improve upon their current practices to some extent. Specifically, more comprehensive and consistent data collection and reporting could significantly improve the information provided to policymakers. Economic impact analyses could be conducted periodically to determine whether projects that received Virginia incentive grants are having a positive impact on Virginia's economy, which is their ultimate goal.

STATE AGENCIES COULD IMPROVE THEIR CURRENT DATA COLLECTION AND REPORTING PRACTICES

State agencies that administer Virginia's economic incentive grant programs already collect and report information on the use, and to some extent the performance, of these programs, but several improvements to current efforts could considerably enhance the information that is reported to the General Assembly and other policymakers. Collecting and reporting information on Virginia's incentive grant programs and the projects that receive grant awards can increase their effectiveness by allowing program staff or other researchers to evaluate them. Proper evaluation gives policymakers and program administrators the information needed to better enable them to identify ineffective programs and assess whether they should be revised or eliminated. Furthermore, data collection and reporting greatly increase transparency and accountability for State grant programs.

Information Collected on Grant Programs Could Be More Comprehensive and Consistent

All agencies that administer Virginia incentive grant programs collect at least some data on projects that receive incentive grants. However, the information that is collected by each agency varies, and not all information is maintained electronically. As a result, it is difficult for program staff or other researchers to evaluate how grant projects performed in terms of job creation and capital investment, and determine their impact on Virginia's economy. The evaluation and reporting process could be made easier and more efficient by improving the breadth and consistency of information that is collected and maintained in standard electronic format across agencies that administer grant programs.

Most Agencies Collect Information on Grant Projects but Breadth and Consistency Varies Across Programs. Collecting more comprehensive data on grant projects could help ensure that evaluations and information reported are consistent across programs. Currently, staff at the Virginia Economic Development Partnership (VEDP) collect the most comprehensive information, which makes it possible to evaluate how frequently grant projects are meeting their job, capital investment, and wage goals, and whether they have a positive economic impact on Virginia. Specifically, VEDP

staff collect information on the characteristics of the grant project; the grant award; and project performance with respect to job creation, capital investment, and wages paid (Figure 20). In contrast, staff that administer the Economic Development Access Program and Transportation Partnership Opportunity Fund only collect information on the number of jobs or capital investment expected to be generated by the project. Some agencies, such as the Tobacco Indemnification and Community Revitalization Commission and Department of Rail and Public Transportation, are beginning to collect and maintain more comprehensive information about the performance of projects receiving a grant from programs that they administer.

The lack of consistency among the data collected by each agency and grant program makes it difficult to evaluate the economic impact of grant-funded projects. Two inconsistencies are particularly challenging, based on the experience of JLARC staff in performing the research for this review. First, it is difficult to determine which businesses receive grants from multiple programs because agencies do not use a standard means of labeling businesses (such as a unique business identifier). Knowing which businesses (and, therefore, projects) receive multiple grant awards is important to avoid double counting job creation and capital investment levels that were reported to each program by a business.

Second, grant programs categorize the industry sector of the project according to different sources. Knowing the industry sector of the project is critical for conducting economic impact analyses because different industries affect the economy to different degrees. While VEDP collects the North American Industry Classification System (NAICS) code for all projects it funds, DHCD collects

Figure 20: VEDP Collects Comprehensive Information About Grant-Funded Projects, Enabling Comprehensive Evaluation and Reporting

Business Identifiers and Project Characteristics	Information on Grants Project Received	Information on Project Performance
Business name **Unique identifier** such as unemployment insurance identification number Locality of project **Industry of project** (NAICS code) New location or expansion project	Name of grant Date grant approved Amount of grant approved Amount of grant paid Timing of grant payment(s)	Expected/actual job creation Expected/actual capital investment Expected/actual wages paid, on average Timing of job creation/capital investment Date of project completion

Source: JLARC staff analysis of data collection practices of VEDP and interviews with VEDP staff.

NAICS codes for businesses receiving the Job Creation Grant only. DBA uses a different industry categorization that often spans one or more of the major industry sectors used by NAICS.

Data Collected Could Be Captured Electronically to Facilitate Analysis and Reporting of Information. Data that is collected by agencies is not always maintained electronically or in a format that makes it readily available to conduct evaluations of the performance or economic impact of projects. For example, DBA staff indicated that they collect information on whether businesses that receive a grant from the Virginia Jobs Investment Program (VJIP) make the capital investment, but do not record this information in their database because the program does not make grant awards contingent on the level of capital investment. However, knowing the amount of capital invested by projects is a critical component for determining their economic impact.

Information Reported to Policymakers on Virginia's Grant Programs Could Be More Comprehensive, Consistent, and Useful

The information reported about Virginia's grant programs could be more comprehensive and consistent across programs to ensure that policymakers have information readily available to determine their use and effectiveness. Currently, policymakers are lacking a central source for comprehensive information on Virginia incentive grant programs. The Secretary of Commerce and Trade prepares an annual report on Virginia business incentives to the legislature, but it includes only basic award and minimal performance information for most incentive grant programs. A few agencies, such as VEDP and DHCD, produce reports that contain additional detailed information about their respective programs.

Reporting more comprehensive and consistent information on Virginia's grant programs could increase transparency regarding how grant funding is utilized. Providing detailed information to policymakers and the public promotes effective programs because grant program administrators may be less likely to award funding to risky or questionable projects if detailed information is available for public scrutiny. Similarly, increased transparency can also help ensure that awards are granted to projects more likely to be swayed by incentives and to result in high job creation, capital investment, and economic impact. Furthermore, transparency helps policymakers to properly weigh the importance of grants against other incentives such as tax preferences or other economic development programs based on their relative effectiveness.

Annual Report on Virginia Business Incentives Provides Limited Information About Some Grant Programs. While the House committees on Appropriations and Finance and the Senate Finance Com-

mittee currently receive an annual report on business incentives from the Secretary of Commerce and Trade, the report could provide more complete information. For example, basic information such as the number of jobs created or capital invested by projects should be reported for all grant programs with minimum requirements or that establish goals for these performance measures. Moreover, no information in the report enables policymakers to determine the extent to which projects receive multiple grants.

According to language included in the 2012 Appropriation Act, the annual report is to provide information on the "use and efficacy of State incentives in creating investments and jobs in Virginia." Under current practices, information reported on most programs is limited to the number of grants and amounts awarded each year, which does not capture their "efficacy," or effectiveness. The report does not include any information pertaining to practices used by program staff to identify and target grant awards to projects that are swayed by grants. While job creation and capital investment is reported for some programs, the extent to which projects meet their performance goals is reported only for programs administered by VEDP. Further, while VEDP performs an analysis to determine the economic impact of projects that have received funding from the grant programs that it administers, this information is not included in the annual report.

Summary and Historical Information Could Significantly Enhance Annual Report on Business Incentives. Virginia's report on business incentives could be more useful to policymakers if information could be compared and contrasted across all programs. For example, the report could include a summary table(s) that contains key descriptive information about each program such as the number of grants awarded, the amount awarded, and the average amount awarded per job created, as well as major outcome measures such as the number of jobs created and the amount of capital invested. Summary tables containing this information would allow policymakers to easily determine which Virginia grant programs were the largest in terms of amounts awarded, the most widely used, and the most generous based on award amount per job, as well as which programs provide grants to projects that are responsible for creating the most jobs and investing the most capital.

Additional summary information about each program could also be provided in tables included in the program-specific sections of the report. The summary information reported for each program could include outcome measures, such as those presented in Chapter 4 of this report, including the percentage of projects that met or exceeded their project-specific or program goals. The information reported could also include the name of the businesses that received a grant and other project-specific information such as the number

of jobs created. Although this information is already listed for some programs, such as the Governor's Development Opportunity Fund, it may be cumbersome to include in the body of the report for programs that award a large number of grants each year, such as VJIP and the enterprise zone programs.

Moreover, information in the summary and program-specific tables could be provided for the most recent year in which data is available, as well as historically. Currently, information is only provided for the most recent fiscal year, which does not provide policymakers with any context as to how the use and effectiveness of grant programs may have changed over time.

VIRGINIA COULD REQUIRE EXPERTS TO PERFORM PERIODIC ECONOMIC IMPACT ANALYSES

Virginia could require experts to perform economic impact analyses of Virginia incentive grant programs periodically to assess the extent to which projects that received grant awards impacted economic activity in the State. Such an analysis would help Virginia policymakers better understand the total impact of grant projects on the changes in economic activity such as employment, income, spending, production, and State revenue. Results from the analyses could also help inform policymakers on the types of projects that tend to generate higher economic activity in Virginia, which could guide the decision-making process for awarding grants.

Although information on the use of Virginia's grant programs and the job creation and capital invested by grant-funded projects could continue to be reported annually, it may be sufficient to evaluate their economic impact every two or three years. Conducting a robust economic impact evaluation requires significant effort for data collection, organization, and analysis. In addition, VEDP already conducts an annual evaluation of the return on the State's investment pertaining to the grant programs it administers, which represented approximately 63 percent of total funding awarded between fiscal years 2002 and 2011, as mentioned in Chapter 2.

Selection of Entity to Perform Economic Impact Analyses Should Be Based on Level of Sophistication Desired

Economic impact analyses should be conducted by researchers knowledgeable in economics and modeling techniques. However, policymakers should decide upon the level of sophistication desired for the analyses before determining which entity should be responsible for performing the evaluations.

Two economic impact models are commonly used by researchers, but their complexity and the level of sophistication of the results they produce are very different. The REMI model is a sophisticated

forecasting and simulation model that accounts for dynamic changes in the economy over time, including fluctuations in prices, wage levels, migration, labor supply, and productivity. However, this model is expensive due to its licensing costs and the need for a trained, full-time economist to use it appropriately. The IMPLAN model is another model commonly used by researchers. While it is less costly and easier to use, it is not as suitable for estimating long-term impacts because it is a static model and does not consider how changes in the economy will interact with one another and occur over time. Some advantages and disadvantages of both models are shown in Figure 21. Potential entities that could perform the analysis are also included.

Figure 21: Two Economic Impact Models Are Commonly Used By Researchers but Vary in Levels of Sophistication

	REMI	IMPLAN
Description	Highly regarded forecasting and simulation model for conducting advanced policy analysis Combines functions from input-output, econometric and other models	Input-output model that utilizes national data for more than 500 industrial sectors Uses multipliers to estimate economic impacts
Advantages	Able to account for dynamic changes in economy over time Most appropriate for long-term analysis Contains >6,000 variables that can be used in simulation	Is relatively inexpensive Is relatively easy to use Includes detailed industry sectors, with 500 or more categories
Disadvantages	Is expensive Is resource intensive Requires trained economist to operate	Unable to capture changes in economy over time (static model) Assumes wage levels, prices, costs, labor supply, etc. remain constant Less appropriate for estimating long-term impacts
Potential Evaluators	Economists affiliated with University of Virginia	VEDP economists Economists affiliated with Virginia colleges/universities Consultants

Source: JLARC staff analysis of the research literature and discussions with grant program staff and economists at UVA.

Of all agencies that administer incentive grant programs, VEDP appears to be the only one with the capabilities to perform economic impact analyses. VEDP has a research division with economists and other analysts with the necessary expertise. Moreover, VEDP economists have experience conducting economic impact analyses with the IMPLAN model, which is what they use to perform their return on investment analysis (discussed in Chapter 6). However, VEDP may need additional staff to perform the analyses across all programs, depending on the scope and frequency of the analyses. As previously indicated, producing high-quality economic analyses of incentive grants involves intensive data collection, organization, and analysis, which necessitates dedicated attention.

Virginia could also consider contracting with a university or a consulting firm to perform the economic impact analysis. A University of Virginia economist worked with JLARC staff to perform the economic impact analysis for this review using the REMI model. Other universities such as Virginia Commonwealth University and George Mason University have evaluated economic development or other incentive programs using the IMPLAN model and could be considered. Additional research would be required to determine if these or other universities have the resources necessary to perform the analyses desired. In addition, consulting firms that perform economic impact analyses could be used, but the extent to which they use either model is unknown.

Findings Could Be Reported to House Appropriations and Finance and Senate Finance Committees

Reporting findings from the economic impact analysis of Virginia's incentive grant programs to the House committees on Appropriations and Finance and the Senate Finance Committee could be useful. These committees are ultimately responsible for approving legislation regarding economic development incentives prior to consideration by the full General Assembly. Moreover, the House Appropriation and Senate Finance committees are responsible for approving appropriations for grant programs before they are considered by the full General Assembly, have full-time staff, and subcommittees that focus specifically on economic development.

WORK GROUP OF STAFF FROM AGENCIES ADMINISTERING GRANTS COULD BE CONVENED TO IMPROVE REPORTING AND EVALUATION OF INCENTIVE GRANTS

The General Assembly could revise the budget language requiring the Secretary of Commerce and Trade to publish an annual report. The revised language could require that the report contain key descriptive information about each program such as

- the number of grants awarded;

- the amount awarded;
- the average amount awarded per job created, where applicable; and
- major outcome measures such as the number of jobs created, the amount of capital invested, and achievement of performance goals.

This information should be provided for the most recent fiscal year as well as prior fiscal years. In addition to these key statistics, the revised language could require agencies that administer discretionary grant programs to report on

- the strategies they use to ensure that grants are being awarded to businesses that are likely to be swayed by awards,
- an assessment of whether Virginia should be providing incentive grants through each program,
- best practices that programs use to enhance the performance and economic impact of projects and that could be considered for adoption by other programs, and
- a comparison of the State's grant programs with those available in other states that compete with Virginia to attract businesses.

To determine how to fulfill this request, the Secretary of Commerce and Trade should convene staff from each of the agencies that administer grant programs into a temporary work group to enhance the breadth and consistency of the data that is collected and reported for each program. A more permanent group to oversee the evaluation of incentive grants does not appear to be necessary because these programs are routinely considered by policymakers as part of the biennial budget process. One or more representatives should be designated from each of the following agencies:

- Department of Business Assistance
- Department of Housing and Community Development
- Department of Rail and Public Transportation
- Department of Transportation
- Tobacco Indemnification and Community Revitalization Commission
- Virginia Coalfield Economic Development Authority
- Virginia Economic Development Partnership

- Virginia Film Office

In addition to agency staff, the work group should include legislative staff and university staff with expertise in economic development. Legislative staff members could include staff from the House Appropriations and Senate Finance Committees, which would help ensure that the information collected and included in the annual report is most useful to the legislature. Including university staff with expertise in economic development would help to ensure that a robust strategy for performing the economic impact analyses is developed.

The Secretary of Commerce and Trade, or his designee, could be required to coordinate the efforts of the work group. The work group could be responsible for several tasks, including

- identifying what information would be most useful to policymakers to determine whether Virginia incentive grant programs are effective;
- ensuring that all incentive grant programs have measurable goals that correspond to the information policymakers need to assess program effectiveness, and revising them if necessary;
- developing and implementing strategies for collecting and maintaining data on grant projects that is comprehensive, consistent, and can be used for evaluation purposes;
- developing a strategy for evaluating the economic impact of grant projects periodically; and
- designing a reporting format that is standard across programs.

The work group could formulate a proposal and validate it by holding a joint meeting with staff the Governor's Office and the office of the Secretary of Commerce and Trade. The broader group's consensus could then be implemented at the direction of the Secretary of Commerce and Trade.

PROPOSAL FOR INCENTIVE GRANT EVALUATION PROCESS

As directed by Senate Joint Resolution 329 (2011), a proposed process for the ongoing evaluation of Virginia's economic development incentive grant programs is included in this report for the General Assembly's consideration. The proposed process relies on the agencies responsible for incentive grant programs to more consistently collect information and evaluate the performance of their programs, with improved reporting of performance to the General Assembly. This proposal consists of four elements that together

would result in thorough evaluations and reporting of information upon which the legislature could rely to preserve, revise, or eliminate Virginia incentive grant programs. These elements are

- establishing a work group of staff from agencies that administer grant programs, legislative staff, university staff with expertise in economic development, and the Secretary of Commerce and Trade to enhance the data collection, evaluation, and reporting process;
- requiring discretionary grant programs to report on steps taken to increase the number of location and expansion decisions swayed by the grants they awarded,
- requiring that periodic evaluations of the economic impact of Virginia's incentive grant programs be performed, and
- requiring that the annual report on Virginia business incentives contain more comprehensive and consistent information across grant programs, including evaluations of grant performance and economic impact.

Recommendation (1). The General Assembly may wish to require (i) the agencies that administer the State's incentive grant programs to evaluate the performance of grant programs, (ii) the Secretary of Commerce and Trade to develop a strategy for the periodic evaluation of the economic impact of incentive grant programs, and (iii) the Secretary of Commerce and Trade to develop an enhanced annual report to the House Appropriations and Finance and Senate Finance Committees. The report should include comprehensive information on all incentive grant programs, including key descriptive information; steps agencies take to ensure that discretionary programs maximize the number of location and expansion decisions swayed by grants; the performance of projects that receive awards for the most recent year and summary information for prior years; whether Virginia should be providing incentive grants through each program; best practices used by programs to enhance the performance and economic impact of projects receiving grants; whether Virginia's competitor states have similar programs; and results of the periodic evaluations of the economic impact of grant programs.

Recommendation (2). The Secretary of Commerce and Trade should establish a work group of staff from agencies that administer economic development incentive grants, legislative staff, and university staff that are experts in economic development. The work group should develop a strategy for the continual evaluation of the performance of economic incentive grants, the periodic eval-

uation of the economic impact of grant programs, and the information needed from agencies to perform the evaluations. This work group should also develop a strategy for the improved annual report to the House Appropriations and Finance and Senate Finance Committees.

JLARC Recommendations:

Review of State Economic Development Incentive Grants

1. The General Assembly may wish to require (i) the agencies that administer the State's incentive grant programs to evaluate the performance of grant programs, (ii) the Secretary of Commerce and Trade to develop a strategy for the periodic evaluation of the economic impact of incentive grant programs, and (iii) the Secretary of Commerce and Trade to develop an enhanced annual report to the House Appropriations and Finance and Senate Finance Committees. The report should include comprehensive information on all incentive grant programs, including key descriptive information; steps agencies take to ensure that discretionary programs maximize the number of location and expansion decisions swayed by grants; the performance of projects that receive awards for the most recent year and summary information for prior years; whether Virginia should be providing incentive grants through each program; best practices used by programs to enhance the performance and economic impact of projects receiving grants; whether Virginia's competitor states have similar programs; and results of the periodic evaluations of the economic impact of grant programs. (p. 91)
2. The Secretary of Commerce and Trade should establish a work group of staff from agencies that administer economic development incentive grants, legislative staff, and university staff that are experts in economic development. The work group should develop a strategy for the continual evaluation of the performance of economic incentive grants, the periodic evaluation of the economic impact of grant programs, and the information needed from agencies to perform the evaluations. This work group should also develop a strategy for the improved annual report to the House Appropriations and Finance and Senate Finance Committees. (p. 91)

Appendix A Study Mandate

SENATE JOINT RESOLUTION NO. 329

Directing the Joint Legislative Audit and Review Commission to study the effectiveness of economic development incentive grants in Virginia. Report.

Agreed to by the Senate, February 2, 2011
Agreed to by the House of Delegates, February 22, 2011

WHEREAS, the Commonwealth of Virginia offers numerous economic development incentive grants, including, but not limited to, the Governor's Development Opportunities Fund, Virginia Investment Partnership Grants, Major Eligible Employer Grants, Performance-Based Grants, Virginia Economic Development Incentive Grants, Virginia Jobs Investment Program, and Virginia Enterprise Zone Program; and

WHEREAS, the number of programs and amount of funding for economic development incentive grants in Virginia has expanded significantly in the past decade; and

WHEREAS, Virginia faces substantial competition from other states in attracting businesses to the Commonwealth; and

WHEREAS, there are a variety of factors companies consider when deciding where to locate and invest, including business costs, labor supply, regulatory environment, current economic climate, growth prospects, and quality of life; and

WHEREAS, there is limited research available specific to Virginia's economic development incentive grants to evaluate the effectiveness of these programs; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Joint Legislative Audit and Review Commission be directed to study the effectiveness of economic development incentive grants in Virginia.

In conducting its study, the Joint Legislative Audit and Review Commission (JLARC) shall (i) identify which economic development incentive grants are available and to what extent they are used, (ii) examine the public policies for which the grant programs were established and whether the desired public policies have been achieved, and (iii) recommend a mechanism or process for the ongoing evaluation of the effectiveness of such economic development incentive grants in achieving the desired public policies for which the incentives were established.

All agencies of the Commonwealth shall provide assistance to JLARC for this study, upon request.

The Joint Legislative Audit and Review Commission shall complete its meetings for the first year by December 31, 2011, and for the second year by November 30, 2012, and the Chairman shall submit to the Division of Legislative Automated Systems an executive summary of its findings and recommendations no later than the first day of the next Regular Session of the General Assembly for

each year. Each executive summary shall state whether JLARC intends to submit to the General Assembly and the Governor a report of its findings and recommendations for publication as a House or Senate document. The executive summaries and reports shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports and shall be posted on the General Assembly's website.

Appendix B Research Activities and Methods

Key research activities for this study included

- quantitative analyses of project-level data provided by the eight State agencies that administer grant programs, locality-specific data, and industry-specific data for Virginia;
- structured interviews with State agency staff, site selection consultants, economic development experts, and business representatives;
- phone survey of local and regional economic development agency staff;
- reviews of other states' incentive grant awards and program design; and
- reviews of State documents and research literature.

QUANTITATIVE ANALYSIS

JLARC staff collected and analyzed project-level data from eight State agencies that administer Virginia's economic development incentive grant programs. Locality- and industry-specific information for Virginia was also collected for the evaluations performed for this review. Extensive analyses were performed to quantify the use and revenue impact of incentive grants (Chapter 2), estimate the portion of grant-funded projects for which grants were the decisive factor in their decision to locate or expand in Virginia (Chapter 3), determine the extent to which projects met performance goals for programs that established them (Chapter 4), determine the extent to which programs have awarded grants to projects that meet criteria for having a high economic impact (Chapter 4), and estimate the economic impact that grant-funded projects have had on Virginia's economy (Chapter 5).

Evaluation of the Use and Revenue Impact of Economic Development Incentive Grants in Virginia

To determine the use and revenue impact of Virginia's incentive grant programs as well as the characteristics of businesses that have received grants, data on the projects approved for grants between fiscal years (FYs) 2002 and 2011 was collected from the agencies that administer Virginia's grant programs (Table B-1).

Table B-1: Key Information on All Grant Projects Was Collected From Eight State Agencies That Administer Grant Programs

Agency	Key Information Requested
Department of Business Assistance	Business identifiers (name, federal tax identification number, etc.)
Department of Housing and Community Development	Indicator of whether project was expansion or new location
Department of Rail and Public Transportation	Industry type of business
Department of Transportation	Locality of the project
Tobacco Indemnification and Community Revitalization Commission	Amount of grant approved and paid
Virginia Coalfield Economic Development Authority	Number of jobs created (or to be created) and timing
Virginia Economic Development Partnership	Capital investment made (or to be made) and timing
Virginia Film Office	Other characteristics as available

Note: Some information was not available from all agencies.

Source: JLARC staff analysis.

Fiscal year 2002 was selected as the beginning year for data collection primarily because it allowed JLARC staff to analyze trends for most grants over a ten-year period. However, a few programs such as the State's enterprise zone incentive grant programs and the Virginia Economic Development Incentive Grant (VEDIG) were not created until 2005.

For this and other evaluations included in the review, projects were attributed to a specific year based on when grants were approved, rather than when they were paid out. The approval date is when a formal commitment is made between the administering agency and a business through a signed performance agreement or an approval letter. Under this commitment, the State agrees to pay the business the amount approved as long as the business meets certain requirements. This commitment is also subject to available State appropriations. Projects were attributed to the year in which they were approved because, depending on the grant program, a business may not receive payments until several years after specific performance requirements have been met. In addition, a business may receive payments from a grant program over multiple years after the grant is approved.

Grant Programs Were Evaluated Based on Extent to Which Closed Projects Achieved Project-Specific and Program Goals

Many grant programs establish project- and/or program-specific goals against which grant programs can be evaluated. As part of the evaluation of the effectiveness of Virginia's incentive grant programs, an analysis was performed of the extent to which projects within each program met or exceeded their performance goals, such as job creation and capital investment. Only completed grant projects were included in this analysis. For each project, the

jobs created, capital invested, and/or average wages paid as reported by the business were compared to the expected performance in each area that was documented in the performance agreement between the business and the agency administering the grant. Results were aggregated for each grant program but not across all programs for several reasons. First, results could not be aggregated across all programs because programs establish different goals and some establish no goals. In addition, some projects receive grants from more than one program, which would result in data for these projects being counted multiple times.

Grant Programs Were Evaluated Based on Proportion of Awards Approved for Projects Likely to Have High Economic Impact

The effectiveness of grant programs was also evaluated based on whether grant programs are awarding grants to projects that should have a high economic impact. According to the research literature, experts indicate that grant programs will yield higher economic benefits if they target projects expected to (1) add additional jobs in the community, (2) export at least half of their goods and services outside of Virginia, and (3) pay wages higher than the industry average. This analysis was performed on all projects approved during the study period rather than only closed projects.

In addition to project-level and locality-specific data, industry-specific data was collected and used for this analysis and the economic impact analysis (Chapter 5). The variables listed in Table B-2 were used to calculate the percent of approved projects that meet the criteria described above for having a high economic impact in Virginia.

Table B-2: Industry-Specific Data Collected and Included in Analysis

Type of Data Collected (By Industry)	Years	Source
Industry employment	2001-2011	Virginia Employment Commission
Social Accounting Matrix (SAM)		
Employment Multipliers table	2009	University of Virginia
Regional Purchase Coefficient table	2009	University of Virginia

Source: JLARC staff.

Economic Impact Analysis Was Performed for All Grant-Funded Projects and Selected Case Study Projects

JLARC staff collaborated with economists at the University of Virginia (UVA) Weldon Cooper Center for Public Service, who performed a comprehensive and robust economic impact analysis to obtain a more complete and accurate picture of the impact of Virginia's grant projects on the State economy. Projects included in this analysis were those that were approved for one or more grants

during or after FY 2002 but the performance period was closed by the end of FY 2011.

Economists at UVA Evaluated the Economic Impact of Grant Projects Using REMI. JLARC staff relied on experts at UVA to conduct the economic impact analysis of grant-funded projects in Virginia using the Regional Economic Models, Inc. Policy Insight Plus (REMI) model. The REMI model is a dynamic, multi-sector regional economic simulation model that can be used to forecast the effect of public policy changes on economic activity, population characteristics, and government fiscal variables. The model used by UVA includes 70 industry sectors and has been specifically calibrated for Virginia to refine national information from the Bureau of Economic Analysis, Bureau of Labor Statistics, and Bureau of the Census among others.

The REMI model is regarded as one of the most sophisticated econometric modeling tools available and is widely used in both the private and public sectors. REMI has been extensively peer-reviewed over a period of two decades. The model is categorized as an integrated regional econometric input-output model that offers several advantages over stand-alone econometric or input-output models, such as IMPLAN, because it has the ability to show the dynamic adjustments that occur in individual variables over time. For example, where IMPLAN assumes that wages will remain the same (static), the REMI model assumes that wages may increase in response to the higher demand for labor (dynamic).

Table B-3 illustrates the scope and parameters of the analysis, which included all completed projects (and all State-level grant funding that they received) that were approved for an incentive grant between FYs 2002 and 2011. The analysis was conducted across all grant-funded projects and was not segmented by grant program because many projects were awarded grants from multiple programs.

To conduct the economic impact analysis, JLARC staff provided experts at UVA with information for all grant projects (Table B-4). Of note, the project information included in this analysis is based solely on data reported by agencies. JLARC staff did not verify the accuracy of the data. The project information was aggregated by industry sector, which is the unit of analysis used by the REMI model. For many projects, the REMI industry sector had to be imputed, based on the description of the industry sector recorded by agency staff.

Table B-3: UVA Staff Conducted Economic Impact Analyses for All Grant-Funded Projects Collectively

Scope and Parameters	Collective Analysis of All Grant-Funded Projects
Subject of Analysis	Sum of all projects approved for an incentive grant through at least one of the State's programs under review
Grouping of Projects for Analysis	All projects approved, by year of approval (FYs 2002-2008) All completed projects (FYs 2002-2011)
Measures of Economic Impact	Employment State GDP[a] Real disposable personal income Net State revenue
Type of Impact	Total[b]
Time Period for Results	Short- and long-term (cumulative results by year)
Government Focus	State only

[a] Gross Domestic Product.
[b] REMI provides the total impact rather than segmenting it by direct, indirect, and induced impacts.

Source: JLARC staff analysis.

Table B-4: Several Assumptions Were Used to Generate Information for UVA to Use to Perform the Economic Impact Analysis

Information on Each Project	Assumptions Made
Total grant payments	Payment dates were used to assign grant funding to the appropriate year(s), net of clawbacks. Payments for each project were aggregated across all grant programs.
Jobs created	Job creation was spread equally over the years of the performance period or years when the project was considered "active." Job levels at the end of the performance period remained intact for at least 15 years for all projects. New jobs began midway through the first year they were created. Job levels for projects receiving multiple grants were assigned based on program for which performance information was most complete and accurate.
Capital invested	Investment was spread equally over the years of the performance period or years when the project was considered "active." Investment was imputed for projects for which information was missing based on investment levels for projects for which information was available. Investment was divided between the estimated amounts used for building and infrastructure versus machinery and equipment.[a] Capital investment for projects receiving multiple grants was assigned based on program for which performance information was most complete and accurate.
Salaries paid	Average annual wage of project was multiplied by the number of jobs to obtain salaries paid. Half of the average annual wage was used in computation of salaries for jobs in their first year. Salaries were inflated using the CPI-U[b] so that they could be carried out at least 15 years for all projects. Salaries were imputed for projects for which information was missing using the prevailing average wage for the locality.[c]

[a] Based on Annual Capital Expenditure Survey conducted by U.S. Census Bureau.
[b] Consumer Price Index for Urban Consumers (historical and future projects) from the Congressional Budget Office.
[c] Prevailing average local wages were obtained from the Virginia Employment Commission. Average locality wages were used because majority of projects with wage information paid wages near the locality average.

Source: JLARC staff analysis.

Analyses Assumed Only a Portion of Projects Located or Expanded in Virginia Because of Grant Funding. Additionally, JLARC staff examined the impact of grant-funded projects using a conservative assumption as to the percentage of projects for which the grant(s) was the decisive factor for locating or expanding in Virginia. According to the national research literature, past studies have estimated this proportion of projects to be approximately ten percent. Although it appears that certain Virginia programs could sway a larger percentage of business decisions, the exact proportion is unknown. Therefore, the analysis where it is assumed that ten percent of projects were swayed by grants is provided primarily for illustrative purposes.

Economic Impact Analysis Was Also Conducted on Selected Grant-Funded Case Study Projects. In addition to estimating the economic impact of all grant-funded projects in the study period, UVA staff estimated the impact of selected case study projects using REMI. The purpose of these analyses was to provide additional context as to the performance of individual projects, such as the associated changes in employment levels and revenue collections that occurred. The scope and parameters of the analysis of the economic impact of the case study projects was similar to that described in Table B-4, with respect to the model used, measures of economic impact, type of impact, time period for results, and government focus.

JLARC staff selected eight case study projects that received an incentive grant during the study period (FYs 2002-2011). Primary selection criteria included business size, extent to which project met criteria for having a high economic impact, and whether the project was a business new to Virginia or an expansion of an existing business. Additional criteria were also used to select the case studies including the grant program(s) from which the project received an award, the project's industry sector, the total grant amount approved for the project, and the location of the project.

STRUCTURED INTERVIEWS

To obtain information about the effectiveness of Virginia's economic development incentive grants, JLARC staff conducted interviews with State agency staff responsible for implementing grant programs. JLARC staff also interviewed economic development stakeholders from outside of State government, including site selection consultants, economic development experts, and business representatives of projects that received a State incentive grant.

State Agency Staff

JLARC staff conducted structured interviews with State agency staff responsible for administering Virginia's economic development incentive grant programs. The agencies and topics discussed are presented in Table B-5.

Table B-5: Staff at Eight State Agencies Were Interviewed to Understand Virginia's Incentive Grant Programs

Agencies Interviewed	Topics Discussed
Department of Business Assistance	Program role in influencing business location and expansion decisions
Department of Housing and Community Development	Program design and guidelines
Department of Rail and Public Transportation	Grant award practices and amounts
Department of Transportation	Practices for recording and tracking data of project performance
Tobacco Indemnification and Community Revitalization Commission	Practices used for ensuring accountability (monitoring and verification)
Virginia Coalfield Economic Development Authority	Aspects of program that are effective or in need of improvement
Virginia Economic Development Partnership	
Virginia Film Office	

Source: JLARC staff.

Site Selection Consultants

JLARC staff interviewed site selection consultants that specialize in helping businesses choose the proper site for their locations or expansions. These consultants have experience in weighing all of the factors that a business must consider when making a location or expansion decision. Furthermore, the site selection consultants have experience working with businesses that were considering Virginia among other states, and, therefore, could provide insight into how Virginia grant programs, as well as the State's overall economic climate, compared to those in other states. Interviews with site selection consultants focused on the role that incentive grants play in influencing business location or expansion decisions when compared to other factors, how Virginia incentive grant programs compare to those offered in other states, and ways in which Virginia could improve incentive grant programs to make them more effective in achieving their economic development goals.

Economic Development Interest Groups

JLARC staff interviewed representatives from the Virginia Economic Development Association (VEDA), which represents a membership of numerous public and private stakeholders including State, regional, and local economic development agencies, site selection consultants, and Virginia businesses. Interviews with VEDA provided background on Virginia's incentive grant programs and detail on how State economic development incentives

compare to local incentives. Representatives from VEDA also assisted JLARC staff with the development of its phone survey of local and regional economic developers.

Business Representatives

Finally, structured interviews were conducted with representatives from 12 businesses that had received State incentive grants. Businesses were selected based on recommendations from site selection consultants and/or State and local economic development agency staff, and were chosen to represent a spectrum of different business sizes, industries, and locations in Virginia. Table B-6 lists the 12 businesses that JLARC staff interviewed for this review.

The purpose of these interviews was to understand how businesses make their location and expansion decisions, how State incentive grants factor into the location and expansion process, and how their respective projects have performed relative to their expectations. The interviews were also designed to identify opportunities for improving the effectiveness of the State's incentive grant programs.

Table B-6: JLARC Staff Interviewed 12 Businesses That Received at Least One State Incentive Grant Between FYs 2002 and 2011

Business (Locality)	
ABB, Inc. (Halifax)	Micron Technology (Manassas)
Altria Group (Richmond City)	Northrop Grumman (Russell)
Canon Virginia (Newport News)	Polymer Group, Inc. (Waynesboro)
CGI (Russell)	Rolls-Royce North America (Prince George)
Continental Corporation (Newport News)	Sabra Dipping Company (Chesterfield)
Hilton Worldwide (Fairfax County)	SAIC (Fairfax County)

Source: JLARC staff analysis.

PHONE SURVEY OF LOCAL AND REGIONAL ECONOMIC DEVELOPERS

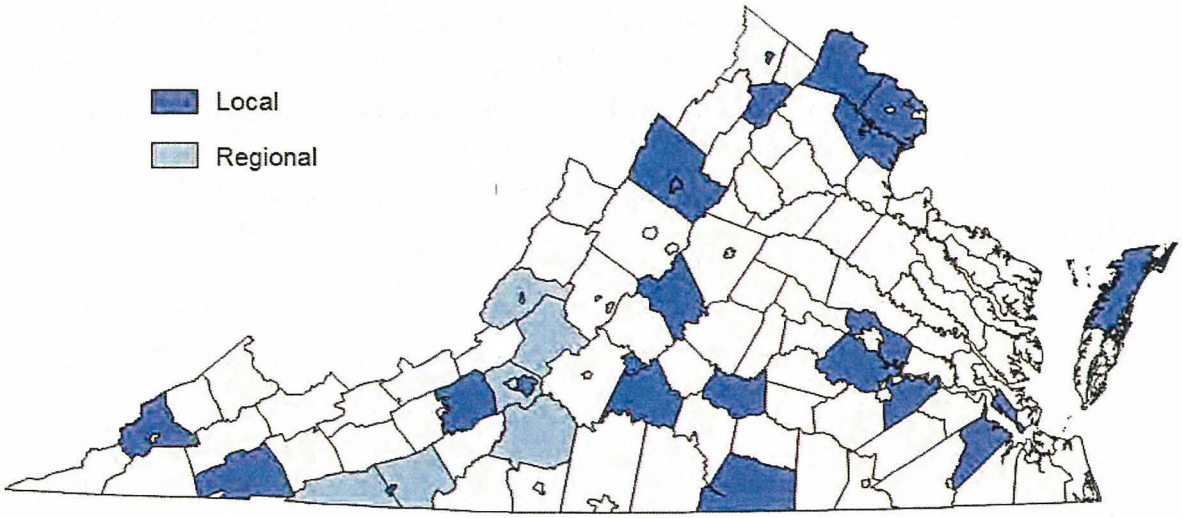
JLARC staff conducted a phone survey of local and regional economic development agencies. The goal of the survey was to gather the perspective of local economic developers regarding the effectiveness of State economic development grants. The survey included both closed-ended and open-ended questions. Topics covered by the survey included

- background information about the local economic development agency;
- how State incentive grants have been used in the locality;
- the importance of grants to economic development efforts in the locality;

- a comparison of State incentive grants to other economic development incentives provided at both the State and local level;
- effectiveness of the State's enterprise zones (where applicable);
- the local economic impact of projects that received State incentive grants; and
- potential improvements to the State's incentive grant programs.

JLARC staff selected a representative sample of localities and regions in Virginia to participate in the phone survey based on geography, population density, and the total amount of State grant-funded economic activity. JLARC staff also specifically targeted localities that contained a State enterprise zone or had a project that was awarded a custom grant. Figure B-1 includes a map highlighting each locality or region that participated in the phone survey.

Figure B-1: Local and Regional Economic Developers Serving 25 Localities and Two Regions Participated in Phone Survey



Source: JLARC staff.

REVIEW OF OTHER STATES' INCENTIVE GRANT PROGRAMS

JLARC staff also reviewed reports on incentive grant programs administered in other states. Specifically, JLARC staff researched how many incentive grants have been awarded in other states and the total amount awarded by other state's grant programs, as well as how these figures compare to Virginia's totals both on an annu-

al basis and per capita. In addition, JLARC staff also examined practices and procedures used by other states' grant programs.

REVIEW OF DOCUMENTS AND RESEARCH LITERATURE

JLARC staff reviewed State grant program guidelines, language establishing grant programs in the *Code of Virginia*, and annual reports of grant programs. The purpose of this review was to identify the goals of each grant program, understand how grant programs are implemented, and learn of reporting practices currently used by State agencies that implement grant programs.

JLARC staff reviewed the research literature in several areas related to the effectiveness of economic development incentive grant programs. An extensive review of the literature was conducted in

- the level of influence of economic development incentive grants on the business location and expansion decision process,
- recommended practices for grant program design and implementation,
- recommended practices for increasing the likelihood that grant projects meet their performance goals and generate a high economic impact,
- recommended practices for data recording, verification, and reporting, and
- economic impact analysis using the REMI model.

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Appendix D Agency Responses

As part of an extensive validation process, State agencies and other entities involved in a JLARC assessment are given the opportunity to comment on an exposure draft of the report. JLARC staff provided an exposure draft of this report to the following State agencies:

- Secretary of Commerce and Trade,
- Virginia Economic Development Partnership,
- Department of Business Assistance,
- Department of Housing and Community Development,
- Virginia Tobacco Indemnification and Community Revitalization Commission,
- Department of Rail & Public Transportation,
- Virginia Department of Transportation,
- Virginia Film Office, and
- Virginia Coalfield Economic Development Authority.

Appropriate technical corrections resulting from their comments have been made in this version of the report. This appendix includes letters received from the Virginia Economic Development Partnership, Department of Housing and Community Development, and Virginia Department of Transportation.

Virginia
YesVirginia.org
BEST STATE FOR BUSINESS

VIRGINIA ECONOMIC DEVELOPMENT PARTNERSHIP
P.O. Box 798 . 901 East Byrd Street
Richmond, Virginia 23218-0798
804-545-5600 . www.YesVirginia.org

NOV 06 2012

November 6, 2012

Mr. Glen S. Tittermary
Director
Joint Legislative Audit and Review Commission
General Assembly Building, Suite 1100
Capitol Square
Richmond, Virginia 23219

Re: Response of the Virginia Economic Development Partnership to the Review of State Economic Development Incentive Grants

Dear Mr. Tittermary:

Thank you for this opportunity to respond on behalf of the Virginia Economic Development Partnership to the Review of State Economic Development Incentive Grants prepared by the Joint Legislative Audit and Review Commission.

Your staff has done a masterful job of collecting, analyzing and synthesizing a vast amount of information regarding economic development incentive grants. We are grateful for their diligence and their months of hard work in seeking to understand this topic.

As noted in the Review, discretionary economic development incentive grants are an effective tool in VEDP's efforts to attract business location and expansion projects to the Commonwealth. We are mindful of the need to be good stewards of the taxpayers' dollars entrusted to us and to be judicious in our recommendations of which projects should, or should not, receive discretionary incentive grants. During the administration of Governor McDonnell, discretionary incentive grants have been offered through VEDP to approximately 15% of the projects that we have pursued. In effect, we self-select out those projects for which these grants are not appropriate. Many of the 15% of projects that receive such grants locate or expand in Virginia for the same reasons as do the other 85% – solid business climate, talented labor force, and easy access to customers and suppliers. These 15% of projects, however, have features, such as more jobs, higher wage jobs, and more capital investment, which make them highly competitive and sought after by other states and countries. For these projects, discretionary incentive grants are needed to help tip the balance to Virginia.

While discretionary incentive grants alone are not the reason for a final location decision, they are an increasingly important variable in the overall array of variables that comprise a company's decision matrix. An incentive package may not be the most important of the business location factors, but it is, indeed, one of the factors, particularly as Virginia positions itself in an increasingly competitive global economy.

The Review makes several positive observations about VEDP's administration of the incentive programs under our purview. VEDP strives to develop business-like procedures and administrative practices for our incentives, leading to a solid return on investment and positive economic outcomes for our citizens, companies, and communities. This recognition coming through a respected independent evaluation is welcomed by the Board and staff of VEDP, and undoubtedly by the economic development community across the Commonwealth.

Economic development incentive grants are used for projects locating in communities spanning the Commonwealth. Not surprisingly, a higher percentage of the grants have been offered in localities and regions with the largest population and the most robust business climates. Through the Office of the Secretary of Commerce and Trade, including the Deputy Secretary for Rural Economic Development, the Office of the Chief Jobs Officer, our partner Virginia agencies, and our own VEDP staff, community and economic development activities continue in the less-populated areas of the Commonwealth to position those communities for future economic growth. We are committed to working with all communities across the Commonwealth to ensure that they have the knowledge base and tools to be as successful as they want to be.

Again, we thank you and your staff for a comprehensive review of a challenging topic.

Sincerely,

Martin J. Briley
President and Chief Executive Officer

Robert F. McDonnell
Governor

James S. Cheng
Secretary of
Commerce and Trade

COMMONWEALTH of VIRGINIA

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

William C. Shelton
Director

November 5, 2012

Mr. Glen S. Tittermary, Director
Joint Legislative Audit and Review Commission
Suite 1100 General Assembly Building, Capitol Square
Richmond, Virginia 23291

Dear Mr. Tittermary:

Thank you for the opportunity to comment on the Exposure Draft of JLARC's *Review of State Economic Development Incentive Grants.* We support the report and the comments with regard to the Enterprise Zone incentives in principal.

As noted in the report, the Enterprise Zone grants differ somewhat from the other programs analyzed because of its dual purpose of traditional economic development and community revitalization. This is by **design**. The Job Creation Grant (JCG) is the Commonwealth's investment for higher-wage job creation in distressed communities. The Real Property Investment Grant (RPIG) is the Commonwealth's investment for significant real property improvement that leads to physical and economic revitalization in distressed communities. It allows DHCD to be responsive to the varying levels of economic distress and opportunity across the Commonwealth. The incentives support the state's major economic development activities, and the JCGs have funding priority. They also support community-based economic development and revitalization.

Distressed communities struggle with a significant number of large buildings whose original economic purpose is no longer relevant. The RPIG can support their re-use, re-purposing, and re-investment to accommodate emerging local economic opportunity like small business and entrepreneurship. Often these are components of a larger economic development strategy.

Economic development is not a "one size fits all" endeavor. The Commonwealth does and should offer a range of incentives to support the differing levels of economic distress and opportunity of Virginia's communities.

Sincerely,

Bill Shelton

Bill Shelton

wcs\ljm

Partners for Better Communities

VIRGINIA DHCD

www.dhcd.virginia.gov

Main Street Centre • 600 East Main Street, Suite 300 • Richmond, Virginia 23219 • Phone (804) 371-7000 • Fax (804) 371-7090 • Virginia Relay 7-1-1

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COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219 2000

Gregory A. Whirley
Commissioner

November 5, 2012

Mr. Glen S. Tittermary
Director
Joint Legislative Audit and Review Commission
Suite 1100, General Assembly Building
Richmond, Virginia 23219

Dear Mr. Tittermary:

Thank you for the opportunity to review and provide comments on the draft report of *Review of State Economic Development Incentive Grants.*

Our comments relative to the Economic Development Access (EDA) program are as follows:

- The EDA program expressly focuses on capital investment as a performance measure. Therefore, the EDA program does not rate as well as other programs in JLARC's assessment which is more focused on job creation and high economic impact.

- The EDA program is based upon documented capital investment, which demonstrates a return on the Commonwealth's investment of at least 5:1. The report does not appear to give the EDA program credit for qualifying projects based on return on investment. In fact, the report never specifically addresses how well the EDA program meets its own stated goals or the goals of the JLARC analysis.

- The EDA program is a very specific program aimed at providing adequate access when none currently exists. Many of the recommendations in the report are focused on more global economic benefits to the state and the report seems to focus on utilizing economic development funds toward larger projects. Having a program that benefits all localities based on the type of development that locality is able to attract is beneficial, since many localities are not in a position to attract the types of development that meet the criteria referenced in the report. EDA is arguably more egalitarian or automatic if minimum eligibility criteria are met (including the capital investment commitments) and therefore more readily contributes to the broader goal of economic development throughout Virginia.

- The report statistics seem skewed given the lack of consideration of the EDA bonded program. The bonded program represents the majority of EDA projects (55 of the 79 projects during the report period or 70%) and under the bonded program the locality must payback funds if they cannot demonstrate capital investment. This is a short-coming of the report as the EDA program clearly links performance with funding by requiring payback if capital investment is not met. At a minimum, the report should reference the number of bonded projects relative to the project awards for named industries, thus clearly indicating that projects for named industries are in the minority for EDA allocations.

- The report does not give consideration to the changes in the EDA program (approved by the Commonwealth Transportation Board in June) to enhance funding opportunities for sites identified by the VEDP as "mega sites", nor does the report reflect our partnership and coordination with VEDP on the EDA projects. On page 61, the report indicates that VEDP is involved in less than half of EDA projects. Pursuant to Code and CTB policy, all (100%) of EDA projects eventually result in consultation with the VEDP and VDBA in documenting the goal of a qualifying business being met, unless the locality is unsuccessful in attracting business on a bonded project. For our named projects (which this report focuses on), our allocation of funds is contingent on a determination by VEDP and DBA that the business is a qualifying business that meets the program goals.

- On page 69, the report indicates that VDOT performs no analysis of EDA projects because they have been completed prior to application. Completed projects are not eligible for EDA funding and our funding is available on the front end to provide access to the sites. We rely on VEDP and VDBA to make the determination in the eligibility or qualification of a business operation under the provisions for administering the EDA program. Information pertaining to the immediate economic impact is typically provided with the locality's request for project funding. VDOT confirms the actual impact with documentation of capital investment by the business in support of project award and ultimate expenditure which requires a 5:1 return on investment.

Our comments relative to the Transportation Partnership Opportunity Fund are as follows:

- On page 12, Table 3 provides a listing of the 18 grant programs and their respective activity. The $26.4 million presented for TPOF is incorrect. Our records indicate a total of $78.4 million in grants during this period. The details of the awards are provided in the Biannual Reports of the program.
  - Report Document No. 79, Publication Year 2012 – for period ending December 31, 2011
  - Report Document No. 173, Publication Year 2012 – for period ending June 30, 2012

- The total amount of the TPOF grants is also referenced in Table 4 on page 13. The amount is incorrect as explained above.

- Page 17, third line from the bottom of the page – after "GOF," have it read "the Transportation Partnership Opportunity Fund (TPOF) and VJIP," as this is the first mention in the chapter.

- Editorial comment on page 32, second paragraph, last sentence. "Partnership" is missing between "Transportation" and "Opportunity". Also, the GOF requirements used for determining eligibility of the TPOF grant are reviewed before providing the grant.

- Editorial comment on page 43, first line below table – "Than" should not be capitalized…"than".

- The TPOF program is an application based program and each application is reviewed based on its own merits. On page 46, first paragraph, second sentence…states TPOF targeted awards most effectively for performance goals, meeting both high employment multiplier and export-based. Since TPOF is application-based, the recipients cannot be targeted. The language in this paragraph should be revised to state that most TPOF grants are expected to have a stated outcome, and not that such grants were sought out and targeted.

- Editorial comment on page 60, last paragraph, second sentence, insert "to" between "effort" and "deter-".

- Page 64, first paragraph, last sentence – VDOT relies on VEDP to provide us with the data (numbers) for jobs and investment. As stated, VDOT verifies that the transportation improvements meet the requirements of the Code and are delivered in accordance with the TPOF financing (grant) agreement.

- Page 64, first paragraph under "Most Virginia Grant Programs…", last sentence – The main concern of the TPOF program is that the transportation project is completed. The projected economic benefits related to the need for the transportation project is accessed before the grant is made.

- Page 64, last paragraph, second sentence concerning enforcement of economic requirements fails to take into account the value of the transportation project.

- Editorial comment on page 66, first paragraph, between lines 3 and 4, the return needs to be deleted.

- On page 70, in Table 25 – TPOF should have both High Employment Multiplier and Export-Based goals indicated as "Yes"…blacked out circle rather than a "No". This relates to the previous comment on page 46.

I respectfully ask that you revisit the information provided on the EDA program and the TPOF program based on our comments to provide a more thorough picture of these programs. If you have questions, or would like to discuss the EDA program in more detail, please contact Jennifer DeBruhl, Local Assistance Division Administrator at (804)786-0334. For the TPOF program, please contact Laura Farmer, Financial Planning Division Administrator at (804) 786-3096.

Sincerely,

Gregory A. Whirley

c: Mr. Richard L. Walton, Jr.
Mr. John W. Lawson
Ms. Jennifer DeBruhl
Ms. Laura Farmer

JLARC Staff

Lauren W. Axselle
Jamie S. Bitz
Justin C. Brown
Andrew B. Dickinson
Christopher J. Duncombe
Martha L. Erwin
Kathryn A. Francis
Nicole K. Gaffen
Harold E. Greer III
Mark R. Gribbin
Anna B. Haley
Nia N. Harrison
Joan M. Irby
Betsy M. Jackson
Borna Kazerooni
Paula C. Lambert
Joseph M. McMahon
Ellen J. Miller
Nathalie Molliet-Ribet
Laura C. Parker
Gregory J. Rest
David A. Reynolds
Kimberly A. Sarte
Walter L. Smiley
Tracey R. Smith
Glen S. Tittermary
Christine D. Wolfe

Joint Legislative Audit and Review Commission

201 North 9th Street• General Assembly Building • Suite 1100 • Richmond, Virginia 23219

804-786-1258 • Fax 804-371-0101 • http://jlarc.virginia.gov