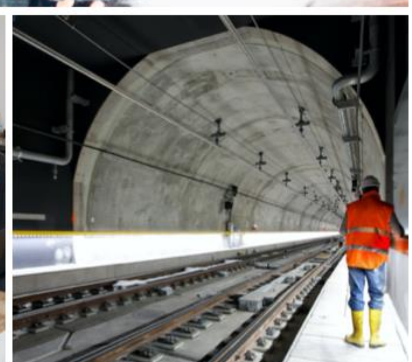
Investing Strategically

A best practices proposal for workforce projects funded by the Virginia Growth and Opportunity Initiative



LANDON WEBBER

Applied Policy Project
Frank Batten School of Leadership and Public Policy

May 2021

Prepared for:

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Virginia Department of Housing and Community Development (DHCD)

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Client
This report was prepared for Sara Dunnigan, in her capacity as Deputy Director of GO Virginia and Economic Development at the Virginia Department of Housing and Community Development.

Disclaimer
The author conducted this study as part of the program of professional education at the University of Virginia's Frank Batten School of Leadership and Public Policy. This paper is submitted in partial fulfillment of the course requirements for the Master of Public

Policy degree. The judgments and conclusions are solely those of the author, and are not necessarily endorsed by the Batten School, by the University of Virginia, or by any other agency, including the Virginia Department of Housing and Community Development.

Honor Pledge

On my honor as a student, I have neither given nor received unauthorized aid on this assignment.

Landon Webber
May 14, 2021

Glossary and Acronyms

AJC – American Job Center, a local office staffed by state departments of labor, workforce commissions, or employment commissions, designed to provide workforce development and reemployment services required under the Wagner-Peyser Act.

ARC – Appalachian Regional Commission, an economic development partnership agency of the federal government and 13 state governments, focusing on 420 counties across the Appalachian Region.

CAMS – Centralized Application and Management System, the system used by DHCD to receive and manage grant applications and grant administration documentation.

COEDIT – Colorado Office of Economic Development and International Trade, Colorado's statewide economic development agency. This office is required to administer the REDI program along with DOLA.

Collaborative Economic Development Act – An act passed by Virginia's General Assembly in 2016 as part of the GO Virginia legislative package, which created the Virginia Collaborative Economic Development Performance Grant Fund ("CED Fund") that is intended to provide grants to at least two or more Virginia localities that collaborate in joint economic development initiatives that result in the location or expansion of a certified company within their respective jurisdictions.

CTE – Career and technical education

DHCD (Virginia) – Virginia Department of Housing and Community Development

DOLA (Colorado) – Colorado Department of Local Affairs, the agency that focuses primarily on interacting with and supporting local governments in the state.

DRA – Delta Regional Authority, a federal-state partnership focused on creating jobs, building communities, and improving quality of life for the nearly 10 million people in the Delta region.

ECB – Enhanced Capacity Building. Each region is permitted to apply for ECB grants, which are generally used for feasibility/market studies, pre-development activities, and business, workforce, or innovation strategies, that enable regions to be successful in implementing later projects.

EDA – U.S. Economic Development Administration, an agency in the United States Department of Commerce.

ETA – Employment and Training Administration, an agency in the United States Department of Labor which administers provisions of WIOA and also manages the WORC Initiative, in collaboration with ARC and DRA.

ERR – The GO Virginia Economic Resilience and Recovery Grant Program, created in 2020, allowed up to $14.66 million in GO Virginia competitive grant funds to be dedicated statewide and used by regional councils to support strategic initiatives in response to the economic crisis caused by the COVID-19 pandemic.

EDO – Economic development organization. These can be constituted as regional economic development organizations (“REDOs”) or local economic development organizations (“LEDOs”).

G&D Plan – Growth and Diversification plan. Under the Virginia Growth and Opportunity Act

GO Virginia or GOVA – The Virginia Growth and Opportunity Initiative, or GO Virginia, was established in 2016 to support regionally-driven development of community-building and economic development assets in each region across Virginia. The program is staffed by DHCD and driven by the leadership of regional support organizations and regional councils in 9 certified regions across the Commonwealth.

JLARC (Virginia) – The Joint Legislative Audit and Review Commission, the program evaluation and policy analysis agency of Virginia’s General Assembly.

PDC – Planning District Commission. Pursuant to Virginia’s Regional Cooperation Act (1968), Virginia has 21 planning district commissions. These commissions serve as voluntary associations of local governments and are required to submit regional development plans and annual reports to member local governments and DHCD.

“Per Capita” Grant - Each region is permitted to apply for “per capita” grants, which are generally used for implementation projects. These can include projects focused on workforce development, business accelerators, research commercialization endeavors, or business site development. They must involve collaboration between two or more localities.

REDI (Colorado) – Rural Economic Development Initiative, a program administered by the Colorado Department of Local Affairs, in partnership with COEDIT. This program provides grant funding and technical support to local governments in rural areas.

RST (Oregon) – Regional Support Teams, teams of state agency officials in Oregon supervised and led by staff at Business Oregon, the state’s economic development agency.

State Competitive Grant – Each region is permitted to apply for “state competitive” grants which, like per capita grants, are focused on implementation projects and are considered competitive if they involve collaboration between two or more regions.

VBWD – Virginia Board of Workforce Development, a Board tasked with overseeing the Commonwealth of Virginia's workforce development activities and programs. The Board was established in 2014 in response to the passage of WIOA and is provided staff support by the Governor's Chief Workforce Advisor (soon to be named Secretary of Labor).

VEC – Virginia Employment Commission, the agency which administers unemployment insurance and workforce reemployment services under Wagner-Peyser and WIOA in the Commonwealth of Virginia.

VEDP – Virginia Economic Development Partnership, the primary statewide agency tasked with conducting traditional economic development activities for the Commonwealth of Virginia.

Virginia Growth and Opportunity Act – An act passed by Virginia's General Assembly in 2016 that created the Virginia Growth and Opportunity Board and established the Virginia Growth and Opportunity Fund. The act gave the Board the power to certify regions and regional councils and directed the Department of Housing and Community Development to provide staff support for what became the GO Virginia Program.

Wagner-Peyser Act – Federal law passed in 1933 that established the Employment Service, run through the Department of Labor and managed by state departments of labor, workforce commissions, or employment commissions. Today, American Job Centers are a nationwide system of local offices staffed and run by these state agencies to support the goals of workforce development and provide reemployment services, primarily to individuals receiving unemployment insurance.

WIB/WDB – Workforce Investment Board or Workforce Development Board. The local workforce-administering agencies established under WIOA and aligned, as one-stop operators, with the AJCs. In Virginia, they are officially referred to as WDBs in state statute, but the term WIB is also used colloquially.

WIOA – Workforce Innovation and Opportunity Act. Federal law passed in 2014 that represents the primary piece of federal workforce development legislation. It aimed to bring about increased coordination among federal workforce development agencies and programs. Notably, it amended the 1933 Wagner-Peyser Act to coordinate the activities of AJCs in the form of one-stop operators advised by a local workforce investment board or workforce development board.

WORC Initiative – Workforce Opportunity for Rural Communities Initiative, a program managed by ETA in the U.S. Department of Labor. The program is run in partnership with ARC and DRA and offers grant funding to rural areas that apply for funding to facilitate the alignment of workforce development efforts with existing regional economic development strategies in rural areas hard hit by economic transition and slow recovery from economic downturn.

Executive Summary

In 2016, Virginia created a regional asset-building economic development grant program branded as the “Virginia Growth and Opportunity Initiative” (or GO Virginia). Housed at the Department of Housing and Community Development (DHCD), GO Virginia represents a marked departure from traditional approaches to economic development which focus on luring outside businesses to a region. Per its original mandate, GO Virginia focuses on assets – people, places, infrastructure, and ideas. The program centers regional priorities and empowers regional leadership to grow and develop these assets by accessing program grant funding for specific projects.

This report focuses on GO Virginia’s workforce-focused projects. While GO Virginia funds can be used for a number of purposes (e.g., infrastructure, capacity-building), addressing workforce-related challenges has been one of the program’s primary objectives since its inception.

Workforce development is the only strategic area referenced in GO Virginia’s founding legislation and early founders framed the challenge employers face in finding qualified, skilled workers as a top barrier to business growth. Indeed, the vast majority of employers across the Commonwealth routinely report workforce development as the number one constraint on growth. In response, the program has dedicated significant resources. Over GO Virginia’s short existence, workforce development efforts have been the object of over 70% of total awarded funding.

Despite this strong focus, the **current processes used by GO Virginia regions to identify and address workforce development challenges are not streamlined and do not adhere to identified best practices**. Multiple stakeholders are interested in development of a decision-making framework that would allow the regions to maximize grant funds in expanding the pool of qualified workers available to meet employer needs.

This report has engaged stakeholders and examined several policy options, ultimately recommending that DHCD GO Virginia program staff come alongside each region and **provide expanded technical assistance, guidance, and support**. By creating clear, concise guidance outlining how regions ought to evaluate and measure skills supply-demand gaps and recommending the use of evaluability assessments and logic models to execute against regional workforce priorities, program staff can support regional priorities, while maximizing program impact.

Ultimately, this option allows for GO Virginia staff to assist each region’s unique and independent efforts to plan for growth and play to their strengths by incentivizing regions to adhere to a simple, foundational set of best practices.

Client Overview

My client for this project, Sara Dunnigan, currently serves as the Deputy Director of the GO Virginia Program and Economic Development at the Virginia Department of Housing and Community Development (DHCD). She reports to the Director of the Department of Housing and Community Development, Erik Johnston, who reports directly to Virginia's Secretary of Commerce and Trade, Brian Ball, appointed by Governor Ralph Northam in 2018. Prior to this role, Sara Dunnigan served at the Virginia Community College System (VCCS), as Governor Terry McAuliffe's Chief Workforce Advisor, and as the Executive Director of the Virginia Board of Workforce Development (VBWD). For this project, I worked with Sara Dunnigan to investigate ways DHCD can continue to provide additional support and guidance to each of the nine GO Virginia regions as they vet and submit applications for potential workforce-related grant projects to DHCD and the statewide GO Virginia Board.

In order to clarify why this set of issues is important to my client, I provide below the mission statements of DHCD, as well as of the GO Virginia program itself.

DHCD Mission Statement:

> ***DHCD is committed to creating safe, affordable and prosperous communities to live, work and do business in Virginia (DHCD, 2021).***

GO Virginia Program Mission Statement:

> ***GO Virginia will create more higher-paying jobs through incentivized collaboration, primarily through out-of-state revenue, which diversifies and strengthens the economy in every region (Virginia Growth and Opportunity Board, 2021).***

Workforce development has been a core focus of the GO Virginia program since its inception. GO Virginia's enabling legislation specifically references "aligning each region's workforce development activities with the education and skills needed by top employers in the region" as a key goal for the program (Virginia Growth and Opportunity Act, 2016). DHCD staff have stressed that program founders and thought leaders originally conceived of labor market shortages in workers trained to fill high-demand occupations. To these early proponents of the program, workforce development challenges often represented the highest priority issues facing the business community and, as such, the most critical issue state and regional economic development efforts ought to address. In these ways, workforce development challenges were framed as

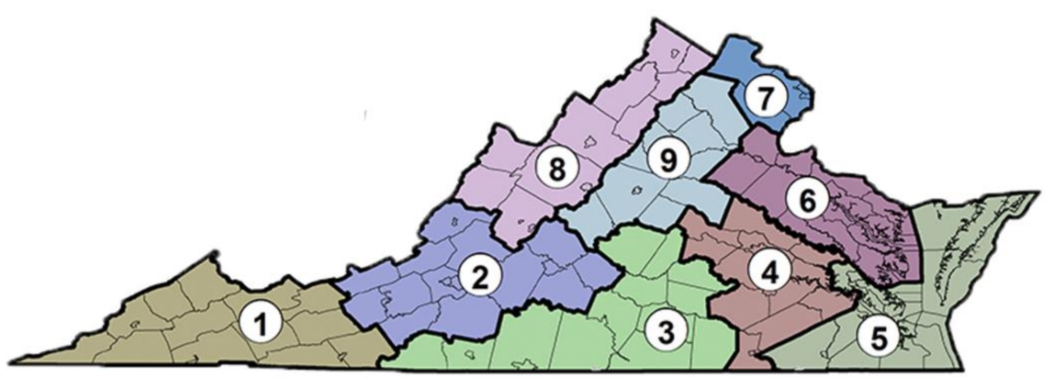
barriers to business growth which is what the GO Virginia program was designed to address.

Introduction and Problem Statement

In 2016, Virginia created a new economic development program to complement its well-established, more traditional efforts focused on marketing and business attraction and retention. This new effort was branded the "Virginia Growth and Opportunity Initiative" (or GO Virginia). The GO Virginia program is distinct in that it focuses on assets – people, places, infrastructure, and ideas – rather than using cash grants or incentives to directly attract new or relocating companies to the state. These types of programs also tend to be state administered. In contrast, the GO Virginia program is regionally oriented and, while state funds are at play, the initiatives are locally driven and managed.

Under the GO Virginia program, Virginia is divided into nine regions. In the interests of promoting regional independence and initiative ownership, GO Virginia programming in these regions is led by regional councils and executed by support organization staff. Regional support organization staff are responsible for identifying workforce projects with strong potential in each of their regions and working with potential applicants to submit applications to the state Board for grant funding.

Figure 1. GO Virginia Program's Nine Regions



Ultimately, it is up to the regions hope to strategically apply the GO Virginia funding available to them. The intent is for them to invest these funds in strengthening or building assets or for planning or capacity-building efforts. While regions can use these funds for a variety of purposes, this report focuses specifically on those projects that address a region’s workforce development priorities and challenges. While the regions adhere to an already-extensive set of guidelines governing the multi-step application process itself, there is no clear set of existing guidelines that outline the process or approach regions ought to use to estimate or assess workforce supply-demand gaps in target industry sectors. This has implications for their “growth and diversification” (G&D) plans (updated every two years), as well as for their ability to independently evaluate a specific project application, which often contain claims that a particular project, if funded, will support unmet employer demand for workers in specific sectors or occupations.

Because of these limitations, this report has identified the following problem area of focus.

> ***Problem Statement:*** *The current process used by each GO Virginia region to identify and address workforce-related barriers to business growth is not streamlined or standardized. As a result, some regions do not apply identified best practices and funds are not maximized strategically to address barriers to business growth and expand and strengthen the pool of qualified workers available in each region.*

GO Virginia staff at the Department of Housing and Community Development are interested in a policy analysis that will identify a standard decision-making framework all regions can use in assessing their needs and prioritizing solutions. This report is intended to fill that need.

In order to address this problem, this report aims to do several things:

- Evaluate the current landscape of regional processes and approaches
- Identify best practices in the form of a conceptual framework regions can use to
    - Identify workforce needs (e.g., high-demand sectors and occupations)
    - Strategize around and prioritize these needs
    - Evaluate and manage funded projects in a way that maximizes the impact the funds can have on a region’s development and growth
- Consider policy options for incentivizing regional adherence to identified best practices as closely as possible
- Identify evaluative criteria to aid in selecting the optimal policy option for recommendation
- Propose clear ways for DHCD staff to move forward in implementing the recommended policy option

Why barriers to business growth matter:
Currently, Virginia is experiencing significant "barriers to business growth" in the form of employers' inability to find workers with the skills and training to fill market demand. If GO Virginia can adopt such a decision-making framework, it can better help to train and match Virginians with unfilled, high-quality jobs that remain open in high-demand sectors across the Commonwealth. In doing so, it can alleviate what has been identified as Virginia's largest barrier to business growth. When an estimated 70% of employers report being unable to find the talent they need and when Virginia has 227,000 workers who are unemployed and nearly 700,000 workers who are malemployed, it is in Virginia's best interests to maximize the return of programs like GO Virginia in helping individuals attain the skills they need to fill high-demand jobs.

Consequences of the Problem

As one of the best-educated states in the nation[1], Virginia's workforce development system faces significant challenges in connecting job seekers with high-demand job opportunities. According to 2018 estimates from the U.S. Census Bureau's American Community Survey, 2.5% of Virginia workers with a bachelor's degree or higher level of education were unemployed, compared with 4.1% overall, 4.2% for workers with some college or an associate's degree, and 5.6% for workers with only a high-school diploma or equivalent credential (U.S. Census Bureau, 2018).

Virginia's Black and Latinx populations consistently face higher average rates of unemployment at nearly educational attainment level when compared with White residents. For example, the unemployment rate (12.5%) for Black Virginians without a high school diploma is nearly double the overall average for this educational attainment group (Bureau of Labor Statistics, 2018). In addition, unemployment rates are consistently higher for Black Americans and Latinx Americans with some college or an associate's degree (5.8% for Black Americans and 3.9% for Latinx Americans, as opposed to 3.8% overall) and even for those with a college degree (3.6% for Black Americans and 2.9% for Latinx Americans, as opposed to 2.3% overall) (Bureau of Labor Statistics, 2018).

In addition, malemployment – the mismatch between the skill requirements of the job and the education of the worker – is particularly acute in Virginia, where 27% of "high-skilled workers" (i.e., workers with at least a bachelor's degree) are working in a job that does not require a college degree (State Council of Higher Education for Virginia, 2020).

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[1] U.S. News and World Report ranks the Commonwealth 10th in the nation for its preschool-postsecondary education system (2019).

To get a sense of the size of the problem, as of August 2020, roughly 375,000 people are unemployed in Virginia; prior to the start of the pandemic, roughly 120,000 people in the state were unemployed (Bureau of Labor Statistics, 2020).

While early data is not yet available at the state level, we know that the economic crisis sparked by COVID-19 has revealed that workers with lower levels of educational attainment, as well as low-income and minority workers have national unemployment rates that are much higher than the average rates for workers with college degrees, middle- and high-income earners, and White workers (Kinder and Ross, 2020).

Broad consequences of barriers to business growth:

There is an undeniable human impact to these unemployment and underemployment statistics. People's inability to qualify for or obtain high-paying, high-quality jobs affects not only their ability to provide for their families and improve their quality of life, but it affects society at large in the form of increased need for social and support services.

Documenting and addressing the consequences that stem from the human side of these challenges, however, is not within the purview of the GO Virginia program and therefore not within the purview of this report. From its outset, the program has been concerned with unemployment and underemployment as "barriers to business growth." Since its inception, the program's founders and staff have acted on the understanding that well-structured, well-executed workforce development projects will grow the "pool of available, qualified workers" for specific industries, alleviating these barriers to business growth. This is part of the program's theory of change.

Consequences of labor market shortages as barriers to business growth

There are, however, significant consequences that stem from employers' inability to locate skilled, qualified talent to meet their needs. It is these consequences – of this specific problem, framed in this way – which are documented below.

In Virginia, large numbers of employers are unable to fill positions for which they are hiring. When employers are unable to locate job seekers who possess the skills and abilities they demand, the result is labor market shortages high levels of market inefficiencies.

Several organizations have attempted to quantify the extent to which newly created positions go unfilled due to a lack of available workers with the requisite skills. The U.S. Chamber of Commerce Foundation's Center for Education and Workforce has studied the issue, particularly for the technology sector, and estimates that more than 5 million technology jobs (17% of the total) go unfilled annually (U.S. Chamber of Commerce Foundation, 2018).

Beyond just calculating the number of unfilled positions, direct queries of employers often report the lack of skilled workers as the top inhibiting factor constraining a business' ability to grow. This is reflected at all business levels, from the smallest, locally oriented establishments to the largest multinational firms. The U.S. Chamber notes that 70% of employers note that their employees lack the technical skills necessary to do their jobs effectively (U.S. Chamber of Commerce Foundation, 2018).

These phenomena are heavily documented in Virginia as well. Researchers have long identified that there is a critical supply-demand gap for skilled labor in the state, as evidenced by the fact that Virginia has the second-highest level of unmet demand in STEM and IT-related occupations in the state, second only to California (Suby and Dickson, 2015). It is important to note that these data are often limited to STEM occupations and the technology industry, since this phenomenon has been widely studied with that focus; additional research will need to uncover the size of similar impacts across other industries.

In addition to job postings analyses, the message from employers in Virginia is clear and mirrors results drawn from similar surveys. In fact, as the GO Virginia program was in its first year of roll out, the Virginia Chamber of Commerce was surveying business community leaders in each region of the Commonwealth about their top challenges. In nearly every one of these regional townhall meetings held across the state, business leaders indicated that workforce development was the top challenge they faced (Virginia Chamber of Commerce, 2017). They recommended using GO Virginia's program structure and regional funding to invest in workforce development efforts specifically (Virginia Chamber of Commerce, 2017). According to surveys conducted during this effort, over 62% of employers reported significant challenges in finding skilled workers (Virginia Chamber of Commerce, 2017). To this day, workforce development remains a primary focus of the program and the primary target of most of the program's grant funding.

The direct costs that employers and the economy bear include the amount employers spend on remedial education or training for new hires, as well as the amounts they spend on recruitment efforts and third-party firms as these are all costs associated with these labor market inefficiencies. Multiple organizations (mostly practitioners and hiring firms) have attempted to create calculators that help employers quantify the true cost of hiring for unfilled positions, with estimates ranging from $4,000-7,000 per employee for normal hiring practices, in addition to 15-25% of an employee's annual salary for recruitment costs (American Society of Employers, 2017; C-Link Consulting, 2018; Zivkovic, 2020). On top of the direct costs associated with labor market shortages, lower worker satisfaction and lost productivity must be factored into the opportunity costs.

All in all, the U.S. Chamber of Commerce estimates that the total costs the economy for the technology industry alone amount to anywhere from roughly $100 billion to $160 billion each year (U.S. Chamber of Commerce Foundation, 2018). When estimating Virginia's share of these impacts, by calculating Virginia's share of the nation's labor force and GDP, the Virginia totals could range from 80,000 to 125,000 unfilled positions and from $2.2 billion to $3.4 billion in lost economic productivity.[2]

It is worth noting that there are a number of scholars who argue that employers' unwillingness to raise wages and fund training or education for employees is a leading cause of the labor market shortage and that there is reason to be skeptical of skills shortages or labor market mismatches (Cappelli, 2013). A full investigation of this issue is outside the scope of this project.

Background – GO Virginia Program

Program Inception and Original Legislation

Beginning in 2015, economic developers, business community leaders, and activists began working to propose and enact a new economic development program to complement its more traditional economic development efforts. This new effort was branded the Virginia Growth and Opportunity Initiative (or GO Virginia). It was distinct from longstanding economic development practices across the country (which generally involve the use of cash grants to companies and dedication of other resources to attract new or relocating "projects" to Virginia) in that it was focused on regionally organized, locally driven initiatives to develop places and people.

The program was initially born after Virginia businessman and investor John O. "Dubby" Wynne committed a significant amount of capital to the GO Virginia Foundation as the first seed funding to launch the program's trust fund. Wynne went on to direct the structure and outline of the program based on consultations with the Brookings Institution's Metropolitan Policy Program, which emphasizes regional place-based policymaking as a preferred approach to community development. The GO Virginia program was enacted by the General Assembly and Governor McAuliffe in 2016.

[2] According to the Bureau of Labor Statistics, Virginia's share of total national employment is 2.5%. Virginia's share of total national Gross Domestic Product is 2.1%. (Bureau of Labor Statistics, 2020).

From the outset, workforce development has been a key component and focus area of GO Virginia grant funding. GO Virginia's enabling legislation specifically references "aligning each region's workforce development activities with the education and skills needed by top employers in the region" as a key goal for the program (Virginia Growth and Opportunity Act, 2016).

A year later, as the GO Virginia program was in its first year of roll out, the Virginia Chamber of Commerce was surveying business community leaders in each region of the Commonwealth about their top challenges. In nearly every one of these regional townhall meetings held across the state, business leaders indicated that workforce development was the top challenge they faced (Virginia Chamber of Commerce, 2017). According to surveys conducted during this effort, over 62% of employers reported significant challenges in finding skilled workers (Virginia Chamber of Commerce, 2017). Because of this, those surveyed and solicited for feedback recommended using GO Virginia's program structure and regional funding to invest in workforce development efforts specifically (Virginia Chamber of Commerce, 2017). By and large, this is what has occurred.

Regionalism as a Program Hallmark

The GO Virginia program was intentionally envisioned and framed as a decentralized program driven by regional initiative and cooperation (Wynne, 2018). Unlike other state economic development programs or federally-funded community development programs funded through DHCD, where state-level initiatives and priorities determined the allocation of funding across the state according to state rules and guidelines, GO Virginia Regional Councils are fairly autonomous in their ability to identify their own priorities through Growth and Diversification Plans (which are updated biennially) and fund these priorities by approving and presenting them as formal funding requests to the GO Virginia State Board for final funding approval.

There are several key ways in which the Board and DHCD staff exercise authority that impacts regional decision-making. This authority, however, is limited in scope and is intended only to be exercised in the form of a high-level check to ensure state grant funds are deployed effectively. First, the Board does exercise the final power of approval over all projects. It is important to note, however, that the Board cannot direct regions to invest in certain areas over others, nor can it engage in discussions with potential grant applicants or seek to get a project started. The Board only engages in discussions with applicants once a regional council has prioritized the project and approved it for consideration by the state Board. This distinction is important in that the Board is only approving or denying funding for regional (as opposed to statewide) priorities.

Second, DHCD staff have been authorized to issue guidance documents to the regional councils and support organization staff (and have done so multiple times[3]). These guidance documents vary in terms of how specifically relevant they are to regional planning or the project application process itself. They include best practices compilations to actual planning and project review instructional documents. Under the Code of Virginia, however, these documents can only ever provide guidance and information. They do not constitute program "rules" and can only indicate to regions the kinds of projects the Board is likely to approve and how to best set applications and applicants up for success.

Since DHCD does not possess any direct mandate or rule-making powers to influence actual regional processes or approaches, DHCD's staff is interested in using this report to investigate potential program policy changes that may enhance their ability to support regional decision-making and incentivize the regions to structure their processes in accordance with best practices wherever possible. As each of the regions put forward grant applications to the state Board, staff at DHCD are looking for ways to incentivize or ensure that the justifications for each project are based on assessments of each region's workforce needs derived from a solid methodology. DHCD staff are also interested in developing some sort of decision-making framework to help the regions rank diverse projects in priority order and pursue those projects with the greatest strategic importance and highest potential impact.

The considerable emphasis placed on regional autonomy in the GO Virginia program design came up frequently in discussions with DHCD and regional support organization staff. As a core tenet of the program, it became clear that this founding principle would need to be balanced against effectiveness and capability considerations related to enabling the program to achieve its stated objective of maximizing high-quality job creation statewide.

Early Program Policy History

Early on in the program's history, the earliest challenges involved clarification over program operations and processes, as well as building awareness of the program in order to generate broad usage. In its first few years, many regions reported having to do extensive relationship-building with community members to build awareness of the program and to identify, meet with, and encourage non-profit organizations or other

[3] In fact, there have been so many iterations of guidance and informational documents issued to regional councils and support staff that DHCD is currently in the middle of an extensive policy review aimed at compiling and significantly streamlining all documents issued thus far. The goal is to provide a more concise and simplified guidance document to each region for completing its Growth and Diversification planning, as well as giving it instructions to aid in the project application and approval process.

entities they considered to be strong potential applicants. During these early years – and to some extent continuing through to today, given that the program is only in its fourth year of full operation – regional support organization staff reported feeling as though most of their work and efforts were spent building support for or interest in the program and proactively cultivating relationships with potential grantees.

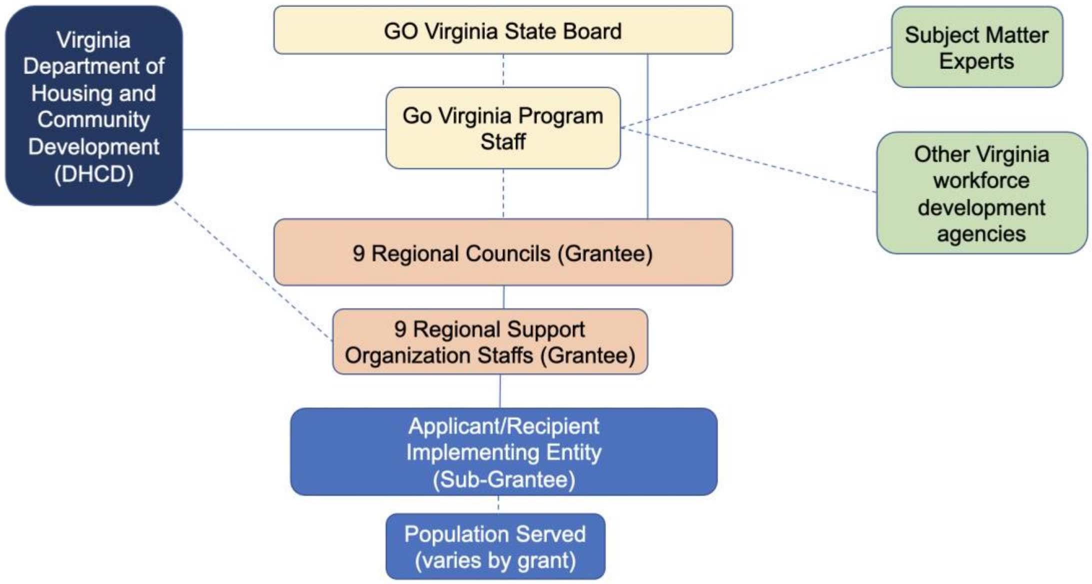
As mentioned above, there were many guidance documents issued in succession. DHCD staff understood the importance of producing thorough, definitive sets of guidelines. Nevertheless, the early philosophy appears to have been codifying everything that could be helpful as “guidance” for regions and potential grantees. When new guidance was issued, however, it was not binding, and no other guidance documents were removed. This early approach has led to some confusion between DHCD and regional support organization staff, regional councils, grantees (current or prospective), and other community leaders across the Commonwealth.

Current Program Process Overview

The GO (Growth & Opportunity) Virginia initiative at the Department of Housing and Community Development has, as its mission, awarding grants to create more high-paying jobs through incentivized collaboration between business, education, and government to diversify and strengthen the economy in every region of the Commonwealth of Virginia. It was established to address the need for regional, ground-up economic development across the Commonwealth.

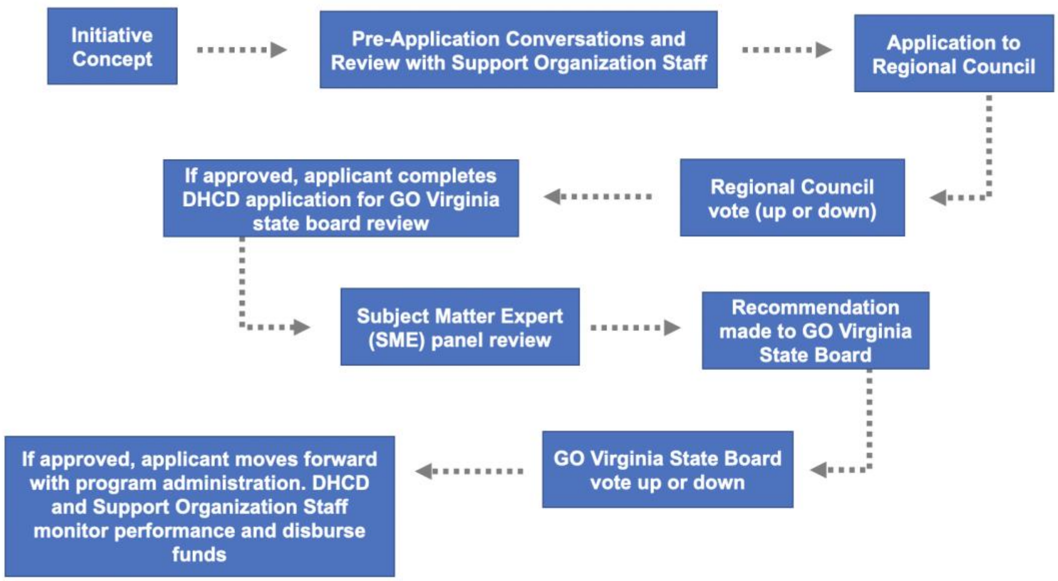
Essentially, a state board appointed by the Governor and the General Assembly receive proposals from 9 regional councils and regional support organizations requesting grant funds for specific economic development initiatives in each region of the state. One of the specific areas for which the board can award grants to regions is for workforce and human capital development. It serves the entire state in this capacity. **Figure 2** provides a full governance map for the GO Virginia program, illustrating how DHCD staff interact with other agencies, subject matter experts, the state Board, regional councils, regional support organizations, and applicants. Solid lines indicate direct or reporting relationships, while dotted lines indicate indirect support or reporting relationships.

Figure 2. GO Virginia Program Governance Map



In addition to a governance map, a process flowchart is necessary to fully illustrate the multistep process GO Virginia program staff and stakeholders use to see a project through from initial application to the final approval and award stages and finally onto project close-out. **Figure 3** provides this process flowchart.

Figure 3. GO Virginia Project Approval Process



In the process, ideas start at the initiative stage. Often, regional support organization staff have early conversations with prospective applicants. Occasionally, regional support organization staff may suggest the possibility of applying for GO Virginia funds to an organization that seems to be a particularly good fit for the program. After pre-application conversations and support provided by support organization staff, the applicant files a formal application with the regional council, which must take up and approve the application before it can move forward.

If approved, DHCD staff begin to review the application. They first put the full application before a subject matter expert panel. Occasionally 1-2 state Board members, as well as subject matter experts, sit on these panels where regional support organization staff and applicants actually pitch their proposal. The subject matter expert panel makes a recommendation to the Board, at which point DHCD (GO Virginia) program staff also make a formal staff recommendation.

At this point in the process, the state Board takes up the applications and, after discussion or deliberation, decides to accept or reject the application. If approved, the applications move into the contracting stage where formal performance expectations are agreed to. Applicants (now sub-grantees) must file quarterly performance reports in order to receive funds (which are first disbursed to the regional support organizations as the official grantees for the project). After the two-year reporting period, sub-grantees and grantees (regional support organizations) file the project close-out forms. Occasionally, if outcomes take longer to report, projects can request an additional year of reporting after the final year of fund disbursement.

Program Usage and Impact

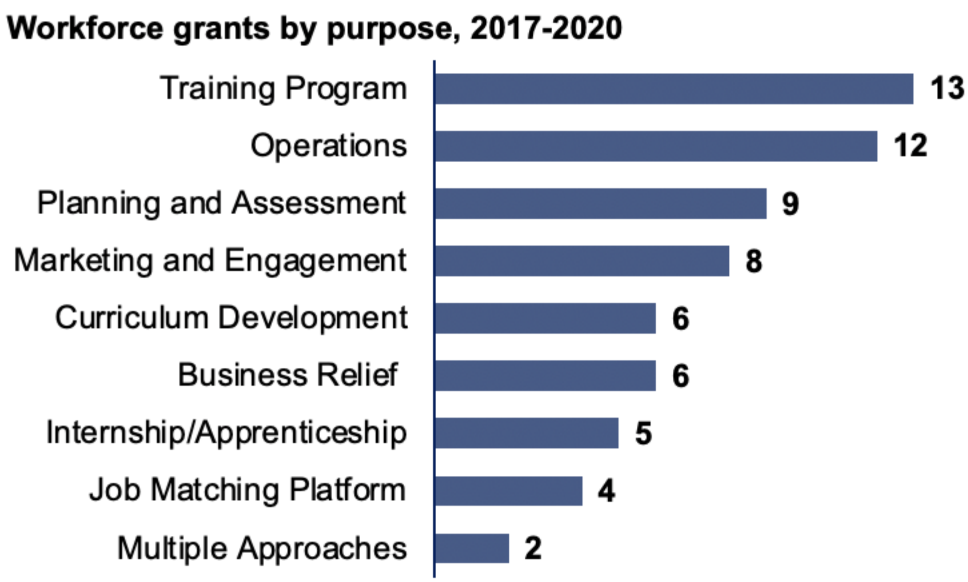
While GO Virginia also has a foundation that leverages private donations that can also be used for economic and community development grants, the actual state appropriation to the fund was roughly $34 million for FY21 and $30 million for FY22 (Virginia Department of Housing and Community Development, 2021).

To date, since 2017 (the first full year of program operation), the program has awarded $37.5 million to 114 projects. 65 (roughly 57%) of these projects have been focused on workforce development or building a broader “pipeline” of talent for employers (Virginia Department of Housing and Community Development, 2021). These 65 projects account for nearly $27 million (or roughly 71% of total awarded funding) (Virginia Department of Housing and Community Development, 2021). Collectively, these workforce-related projects have attracted a total of $34 million in matching funding (Virginia Department of Housing and Community Development, 2021).

Currently, the GO Virginia State Board is evaluating a round of 14 applications, five of which are workforce-development related. If approved, these applications would total over $4 million in additional grant funding for workforce development efforts across three of Virginia's nine regions.

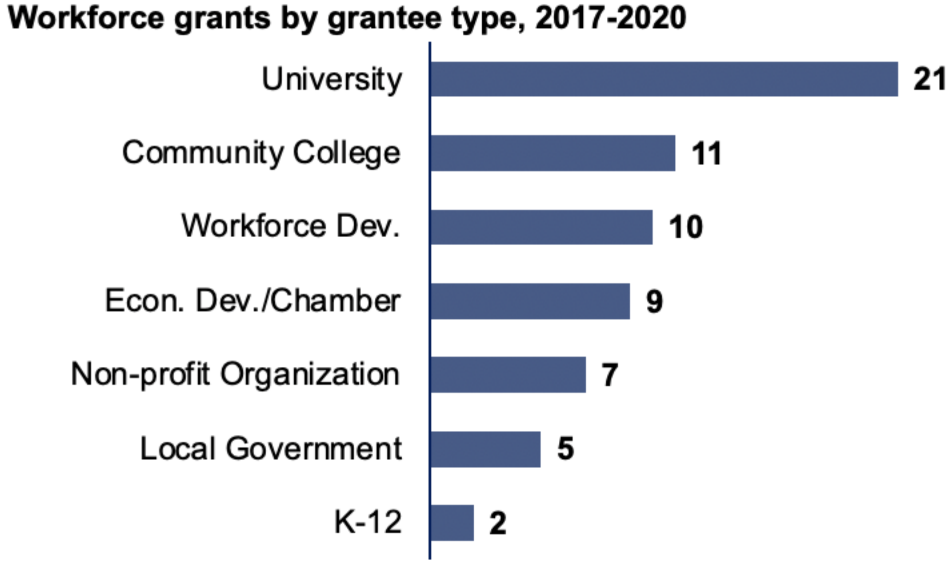
Figures 4, 5, and 6 demonstrate the breakdown of workforce-focused projects for the program. As the charts illustrate, there is wide diversity in the purpose for which applicants seek funding, the type of applicant, and the extent to which projects focus on a single sector, multiple sectors, are building a broader foundation, or remain sector agnostic for other reasons.

Figure 4



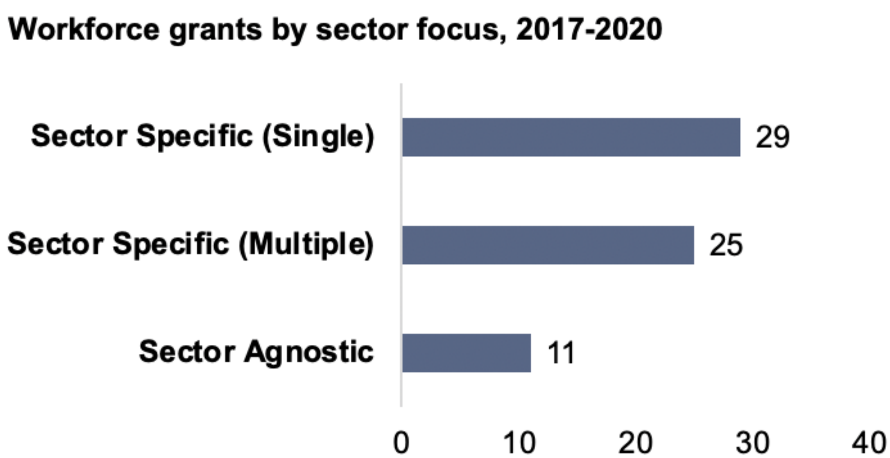
Source: Virginia Department of Housing and Community Development, GO Virginia Program Data, 2017-2020

Figure 5



Source: Virginia Department of Housing and Community Development, GO Virginia Program Data, 2017-2020

Figure 6



Source: Virginia Department of Housing and Community Development, GO Virginia Program Data, 2017-2020

Methodology

Given its strong emphasis on regional independence and its commitment to allowing each region to pursue its own priorities and initiatives with GO Virginia funds, each region has increasingly used its own approaches to workforce development planning and project execution. In particular, DHCD program staff have long noted the fact that a wide variety of regional approaches are used even in the analytics required to assess supply-demand gaps for key occupations and vet findings from these analyses with stakeholders. If regions use widely different approaches in these analyses, this has major implications for the types of projects regions eventually bring to DHCD and to the GO Virginia Board.

While staff indicated during the process that they remain wholeheartedly committed to the ideal of regional independence and that each region using its own approach to planning and project execution is not necessarily a problem, staff asked me to use this project to gather evidence about *how* each of the regions complete each of these steps in the process. This “landscape” or “needs assessment” was valuable because, as I realized early on, DHCD staff themselves did not have very detailed working knowledge of the processes or approaches used in each individual region. Evidence-gathering allowed me to clearly document the different processes used so that staff could have a better understanding of current processes and approaches. On top of this, increased understanding is critical to any effort to incentivize or encourage broader alignment with identified best practices in each of these areas. Without an understanding of how regions are currently approaching these issues, staff risk proposing things that are duplicative or fail to address regions’ hopes, fears, and priorities.

As my problem statement indicates:

> ***Problem Statement:*** *The current process used by each GO Virginia region to identify and address workforce-related barriers to business growth is not streamlined or standardized. As a result, some regions do not apply identified best practices and funds are not maximized strategically to address barriers to business growth and expand and strengthen the pool of qualified workers available in each region.*

Addressing this effectively first required gathering evidence from a variety of sources. This section outlines the methodology I used in gathering this evidence.

Case Studies

In addition to undertaking interviews, I conducted content analyses, as well as several interviews on identified cases of state and federal economic development or workforce development grant programs.

These case studies involved my reviewing documents and websites for each of these programs. For the two other state-based programs examined, I conducted three interviews with staff in these two states to learn more about the specifics of the program, how they provided support to local or regional entities, and how specific services or program offerings were structured. Details on the findings from each of these case studies are provided in the case studies section of this report. Application of these findings in order to estimate the potential performance of each of the proposed policy options against the evaluative criteria is outlined in the policy options section of this report.

Interviews

Early on in this project, DHCD staff determined that it would be valuable to gather candid, honest responses from each of the regional support organization staff. Interviews with these staff and other personnel[4] constitute the bulk of the evidence-gathering for this project. Early on, these interviews were framed for DHCD and regional support organization staff as necessary to conduct a "landscape and needs" assessment of the current regional planning and project evaluation processes and approaches used in conducting supply-demand gap analyses. Regional interviews with staff and personnel from all nine regions were held in late January and early February 2021.

To ensure consistency and comparability across interview results, each interview was conducted using the same questionnaire or discussion guide. In this questionnaire, questions were divided into two broad categories.

The first set of questions asked staff about their processes and approaches used in assessing supply-demand gaps for regional planning purposes. In the interviews, staff were encouraged to answer this set of questions primarily by referring to the work conducted to complete the required Growth and Diversification planning. If other tangentially related, ad hoc, or one-off efforts could be considered regional workforce development planning, and if the support organization staff were familiar with the

[4] In Region IV, regional support organization staff recommended taking a subset of the questions to a sub-grantee representative responsible for implementing the required activities and producing the required outcomes of the project itself. This was the only region where this occurred, however.

methodology used to conduct this planning, participate in the effort, or rely heavily on findings, staff were encouraged to reference these efforts as well.

The second set of questions asked staff about the processes and approaches used in assessing supply-demand gaps for the purpose of vetting and evaluating the strength of specific project applications. For this purpose, DHCD staff selected 13 sample projects[5] to serve as examples or case studies. In selecting the sample projects, DHCD staff attempted to find a strong spread across the regions (at least one for every region), ensure diversity in terms of project close-out dates (i.e., ensuring that there were both open and closed projects included in the evaluation), and ensure diversity in terms of the type of sub-grantee (e.g., community college, non-profit organization) and the industry sector supported by the project. Each region had no fewer than one and no more than three example or case study projects. During the interviews, the regional support organization staff were instructed to use these particular projects as jumping-off points in answering the questions. In addition, they were also encouraged to add to or supplement these answers with other anecdotes from other projects as they saw fit. The primary purpose for asking these questions was to learn about *typical* regional project recruitment, prioritization, vetting, evaluation, and management processes and approaches, as opposed to conducting “deep dives” solely into these specific projects. Regional support organization staff responded well to this and occasionally caveated answers for generalizability or referred to other projects throughout the course of the interviews.

The 13 original projects selected by DHCD staff for evaluation are as follows:

- Smart Farming at the Center for Workforce and Innovation at Appalachia (Region 1)
- Developing a Destination for Talent Development (Region 2)
- Great Opportunities in Technology and Engineering Careers (GO-TEC, Phase 2) (Region 3)
- Campus RVA, Phase 2 (Region 4)
- Virginia Cyber Alliance, Phase 1 (Region 5)
- Virginia Digital Shipbuilding, Phase 1 (Region 5)
- UMW Cybersecurity Certificate Program (Region 6)
- Welding Training Program (Region 6)
- Tech Talent Pipeline Apprenticeship Initiative (Region 7)
- BRCC Cybersecurity (Region 8)
- RAAMP Welding Training (Region 8)

[5] Each of these were approved projects that had made it through the system. Six of these projects had closed at the time of this report, while seven projects were still in progress. One project was discontinued.

- Shihadeh Innovation Center (Region 8)
- Adult Beverage Workforce Development (Region 9)

Document Review and Content Analysis

Finally, to complement the analyses previously mentioned and corroborate findings drawn elsewhere, I conducted a document review and content analysis of each region's supply-demand gap analyses and other workforce-related sections in their Growth and Diversification plans, as well as a document review and content analysis of the project applications for the case study projects selected for my review by DHCD staff.

All regional supply-demand gap analyses presented in Growth and Diversification plans and used as the basis for regional workforce planning were examined against a common framework. All 15 project applications (and any supply-demand gap analyses those included) were also examined against a common set of questions.

The purpose of conducting these document reviews was to give DHCD a comprehensive and balanced assessment of the current approaches and processes used in workforce development-related planning and project evaluation across each of the nine regions. Despite the relatively open and peer-like relationship which exists between DHCD staff and regional support organization staff, early conversations with DHCD staff indicated that they still lacked more granular familiarity with how regions approached workforce-related work (whether planning or project evaluation). This comprehensive document review (presented here with region and specific project names redacted) illustrates where regions could use additional DHCD guidance, support, or technical assistance and where they see themselves as performing strongly.

Case Studies

The following case studies examined model state and federal grant programs for best practices.

Colorado Department of Local Affairs (DOLA)

Overview

The first of two state program case studies considered in this report, Colorado's Department of Local Affairs (DOLA) manages its Rural Economic Development Initiative (REDI). DOLA is unique in several ways. Created in the 1970s, it is one of the longest-serving local government affairs agencies in state government (Unfug, 2020). In addition, it uniquely houses both local government affairs, rural development services, and property and severance tax collections at the same agency, allowing for extensive coordination of policy making and support for community development in rural areas (Unfug, 2020). Finally, DOLA manages one of the largest dedicated revenue streams focused on rural development in the country (Unfug, 2020). The Energy/Mineral Impact Assistance Fund (EIAF) fund is sourced from severance and mineral taxes drawn from extractive fossil fuel industries which primarily operate in rural areas (Olene, 2020).

Capacity-Building

While the program is focused on long-term sustainability and prefers not to fund ongoing local operations or FTEs, DOLA staff recognize the distressed state rural regional and local officials find themselves in. To that end, DOLA has started funding local city or county staff who are focused on economic and community development for up to three years, with step downs in the amount of the salary they pay each year (e.g., 75% in the first year, 50% in the second year, 25% in the third year) (Unfug, 2020). DOLA staff then works intentionally with these local staff to identify sustainability plans and help them find other ways for their own value added to the community to support the work of their offices or programs.

Technical Assistance

In partnership with the Office of Economic Development and International Trade (OEDIT), DOLA supports the Rural Technical Assistance Program (RTAP) which offers non-profit, community, or government leaders in rural communities three years of intensive technical assistance and support in honing leadership skills, developing a strategic economic, community, and workforce development plan, and building support for grant funding and other local funding sources to execute this plan (Thomason, 2020).

Stakeholders and Relationship-Building

DOLA supports what they call a 4R (Rural Response Recovery Resilience) program in rural communities. Under the auspices of this program, DOLA program staff model for local government officials the keys to inclusive stakeholder management and relationship-building. They work with local governments to map stakeholders in a region and then focus on including key public partners (e.g., local land grant universities) and non-profit organizations (e.g., Just Transition Fund) in forming working groups and holding recurring check-in meetings to develop regional plans, iterate on grant applications, and address development challenges.

Oregon – Regional Solutions Teams (RSTs)

Overview

The Regional Solutions Teams run out of Business Oregon, the state’s economic development agency, provide intensive, direct capability-building support and technical assistance to local and regional officials in Oregon seeking to access a wide variety of state, federal, private, and non-profit grant funding opportunities. The goal of Regional Solutions Teams staff (which are assigned regionally across the state) are to take unorthodox, flexible, and innovative approaches to building capacity at the local and regional level to solve economic and community development challenges (Crowell, 2020). The immediate goal of all staff is to try to coordinate and streamline state government support (across all agencies) to these communities so that economic and community development goals can be achieved with as few hurdles as possible (Crowell, 2020).

Capacity-Building

One core RST staff member is permanently assigned to each region of the state and explicitly focused on problem-solving and coordination for rural areas (Crowell, 2020). The goal is to support local capability and capacity-building, but to also come alongside and provide direct support (Crowell, 2020).

Technical Assistance

RST staff are considered a community's first call in many instances when they are wanting to brainstorm about a project or consider potential grant opportunities (Crowell, 2020). Oftentimes, at each stage in applying for a federal or state grant, RST staff will help read through and support a community's application, find letters of support, or convene key work groups (Crowell, 2020). If there is an unforeseen barrier or a reason a community will not fit a grant program's requirements, RST staff will help steer community leaders in other directions to ensure they do not waste time on an impossible proposition (Crowell, 2020).

Stakeholders and Relationship-Building

Oregon state statute requires that RSTs provide staff support for and convene regional solutions advisory committees (Crowell, 2020). These regionally focused staff at relevant development-focused state agencies are convened for the purpose of helping to problem-solve around community development challenges (Crowell, 2020). If, for example, a community is attempting to find grant funding to build a new wastewater treatment facility, the RST team will reach out to federal contacts, engage the state department of environmental quality, and assess existing challenges, all in the interest of helping the community find a way forward as quickly as possible (Crowell, 2020). In the past, these groups have been instrumental in holding mock pitch sessions for communities to rehearse their grant presentation for a federal grant application and in connecting communities with key federal agency staff (Crowell, 2020).

Workforce Opportunities for Rural Communities (WORC) Initiative

Overview

The Workforce Opportunity for Rural Communities (WORC) Initiative is run out of the U.S. Department of Labor (DOL) and led in partnership with the Appalachian Regional Commission (ARC) and the Delta Regional Authority (DRA). The WORC program itself is even newer than GO Virginia (U.S. Department of Labor, 2021). Its first round of funding was announced in September 2019, with $29 million in funding for 17 projects across the ARC and DRA footprints (U.S. Department of Labor, 2021). The period of performance for these grants runs through September 2022 (U.S. Department of Labor, 2021). The second round of funding, also for $29 million, was announced in the summer of 2020 (U.S. Department of Labor, 2021). Grantees were awarded in September 2020, also for three-year performance periods (U.S. Department of Labor, 2021). In general, it is difficult to compare federal grant programs with a state-run program like GO Virginia. On average, grants awarded under the WORC initiative, for example, range from roughly $1-2 million, while the average GO Virginia workforce grant was roughly $400,000 over the entire life of the program (U.S. Department of Labor, 2021; DHCD, 2021).

Technical Assistance

In addition, WORC-dedicated staff provide high-touch technical assistance, helping applicants better understand supply and demand in their region and helping them assess the best way to position a project for success in order to meet program parameters and produce the highest impact for their region (U.S. Department of Labor, 2021). In addition, WORC staff hold several webinars each application cycle and are able to provide offline technical assistance to applicants in need of assistance.

Guidance

The WORC Initiative, with staff support from DOL, ARC, and DRA, provides extensive, detailed guidance on how applicants must demonstrate the need for their project (including in the form of workforce demand in the geographic area being served) (U.S. Department of Labor, 2021).

Grant Management Processes – Quarterly Performance Reporting

The WORC Initiative requires that grantees submit a Quarterly Narrative Report (QRN) and provides a very specific template for grantees to fill out for this purpose (U.S. Department of Labor, 2021). Grantees are prompted to answer in narrative form a concise, but thorough set of questions about project progress as measured against the timeline agreed to in the project contract, as well as activities and accomplishments

(U.S. Department of Labor, 2021). Notably, grantees report on goals, outcomes, and outputs (U.S. Department of Labor, 2021).

Findings from Interviews and Document Reviews

Overview

The following findings represent a synthesis of the insights derived from interviews with each of the nine regional support organizations, as well as a thorough review of each region's G&D plan, as well as the 13 selected project applications.

Staff from each of the support organizations from all nine regions were interviewed over the course of January and February 2021. As previously mentioned, the goal of these interviews, was to understand the current planning and project application vetting processes related to workforce development in each region. For DHCD staff and interviewees, the project was framed as a "landscape analysis" or "needs assessment," with the primary objective being to better understand existing regional processes and approaches used to identify labor market supply-demand gaps in each region, both for G&D planning, as well as for project vetting and evaluation. At the start of the interviews and in a synthesis presentation delivered to the support organizations at the conclusion of the interview phase, the purpose was to help DHCD GO Virginia staff better understand how they might, in light of the current landscape, continue to aid and support process improvement specifically in relation to workforce development planning and project administration.

At the conclusion of the interviews, each region's G&D plan was reviewed against a common framework. In addition, 15 selected workforce-related applications for approved active or closed-out GO Virginia projects were also reviewed against a separate, common document review framework. The following synthesized findings present the final conclusions drawn from both of these research efforts.

Regional Approaches to Workforce Planning

As mentioned above, each region was asked questions about their planning efforts related to workforce development. The context was primarily Growth and Diversification planning efforts, but the regions were also asked to freely share any insights they had from other separate or ad hoc planning efforts, including efforts to attempt to establish a strategic vision or approach for funding workforce development projects within the region.

Current qualitative and quantitative processes used to estimate regional supply-demand gaps

For their Growth and Diversification plans and related planning efforts, **all regions conduct** or hire a third-party entity to conduct a **quantitative analysis of supply-demand gaps**. The last time, most regions did this in a comprehensive way was when they completed the Growth and Diversification plan updates in 2019. Most often, third parties use a **mix of federal and proprietary job postings data** for estimating supply and demand.

All regions also engage in **qualitative vetting** of quantitative findings. Most regions do this by convening **special focus groups or conducting surveys** specifically designed to engage employers and other stakeholders (i.e., education or training providers) in vetting findings. Some regions continue to conduct these efforts in off-years. Some regions rely on the expertise on their regional councils for qualitative vetting.

Link between supply-demand analyses and priority sectors

As with the supply-demand analytical work, the effort to identify priority sectors in all regions is **based in data and vetted by engagement with stakeholders**. Most often this work was led or driven by third-party entities (e.g., contractors, consultants).

Several current regional support organization staff are newer to the program and were not involved in the initial Growth and Diversification planning efforts. Those who were familiar with the 2017 effort noted that, very often, the **identification of those sectors** was **based at least in part on supply-demand analyses** of the regional labor markets.

Unmet demand

All regions indicated that **estimating unmet demand** is one of the **key focal points in Growth and Diversification plan updates**. While support organization staff are not usually deeply involved in making the actual calculations, this insight represents a **key "jumping off point" for action** in the plans.

Most regions aspire to a stage of development where a **clear concept of unmet demand** in high-need priority industries **drives action and application decisions on workforce projects**. At the same time, most regions also readily acknowledge there is **more work to do in operationalizing unmet demand** and **building understanding of what this means at the Council level**.

Considering existing training and educational capacity
All regions indicated that **considering the existing landscape of educational and training programs** was an area of focus (in varying levels of detail) in the Growth and Diversification plans.

A few regions indicated that they **include educational institutions or training providers in their planning process** (either mixed in on working/focus groups or in their own focus group). A few regions also **continue to engage these stakeholders** in their work in **informal project vetting or as subject matter experts**; some have even invited **WIB representatives or educational stakeholders sit on Regional Councils**.

Engagement of business and industry stakeholders
There are **robust efforts** to **engage business and industry** stakeholders in **every region,** as this is a core focus of the program.

All regions had in place **some formal means of engaging with business and industry** (outside of Regional Council members) during the **2019 update to the Growth and Diversification planning efforts**. Some regions **keep this up regularly**, even in off-years in the form of working groups or council sub-committees.

All regions cite **Council membership** as a key part of continuing to engage with the business community and assess their workforce needs.

Hindsight and room for improvement (planning efforts)
Most regions indicated that they would likely make **no high-level changes to the overall methodology** used in arriving at supply- demand estimations in their Growth and Diversification planning efforts, citing relatively **high levels of satisfaction with the insights produced**. A **few regions** indicated that they would push third parties conducting the analyses to **produce insights** that were **more concise, actionable, and/or usable**. **None of the regions** reported any reason to **question any technical findings** that came out of analyses in the 2017 planning effort or 2019 update.

Most regions indicated that the **largest room for improvement** lay in **managing stakeholder relationships**, managing **Council and stakeholder expectations for the end product**, better ensuring that **Councils digest and internalize insights**, and seeking **additional capacity** to produce a plan update that is both thorough and action-oriented.

Additional resources and expertise (for both planning efforts, as well as project evaluation)

While the regions' answers to these questions varied widely, the most common answer was that **additional staff capacity** would be helpful in ensuring that plan updates are successful. In addition, several regions suggested that **DHCD provide one source of data to all regions** to be used for planning efforts and evaluating project applications. Finally, several regions mentioned that inter-regional sharing of ideas, processes, and methods that have worked when it comes to G&D planning or project execution would likely be fruitful.

Regional Approaches to Project Applications and Evaluation

As mentioned above, each region was also asked questions specific approved workforce development projects, in order to allow the project to ascertain more information and better understand the work for evaluating supply-demand gaps as part of the application process. Each region was asked about 1-3 projects. These projects are listed in the Methodology section.

Regions were also asked to use these projects as case studies and "jumping off" points. They were also encouraged to share other specific examples where appropriate.

Rationale for prioritizing specific projects

When asked what the primary impetus was behind the regions' decisions to prioritize these specific workforce development projects, the answers were mixed. Several regions pointed to the fact that project ideas directly came from **initial supply- demand discussions** during the **Growth and Diversification planning efforts.**

Project prioritization

Other regions emphasize that their programs are **still growing and evolving**. They suggested that the application process is **not highly competitive** and that there are **not a large number of potential projects** to decide between. These regions report being more focused on **encouraging potential applicants** to apply indicate that **prioritization is not as much of a concern**.

Many regions suggested that **these projects** were **identified as priorities** to push to the Board **because they were the only compelling workforce-related ideas** with a strong sub-grantee behind them that **emerged for consideration** at the time.

Project-specific supply-demand analyses
In most regions, the **applicant is responsible** for conducting any analyses needed to frame the supply-demand issue being addressed and make the case that a specific project will help address the issue.

Information provided by applicants is **not always analytical in nature**, as this is not required. Occasionally, depending on the project, **applicants will secure letters of support** from industry leaders where need will be documented. When analyses are conducted, applicants will **occasionally contract with third parties** to conduct more detailed quantitative supply-demand analyses that third parties conducted for the project application.

Several regions indicate a **lack of capacity** to go back and check or vet these sections of an application. No regions indicated **any reason to seriously** question the findings in these applicants' analyses (when there were analyses).

Post-award analyses to inform design, roll-out, or course corrections
No regions reported any **ongoing or continuing analyses** that they require or that applicants conduct on their own to test for the need to adjust program parameters or foci. **No regions felt that this was necessary.**

That is not to say that projects have not pivoted or been adjusted, but this is **usually not informed by analysis**. Instead, programs have most often been forced to adjust on the basis of **changing organizational, circumstantial, or market-based conditions**.

Obviously, the regions **continue to report metrics for each project on a quarterly basis**.

Assessing existing regional capability and checking for duplication of efforts
All regions report that **applicants are asked to evaluate the uniqueness of their project idea** against existing efforts in the region as a standard part of the application. Applicants are asked to assess supply-demand needs against the region's current capability to provide the services their proposed project proposes.
All regions indicate that they expect to see a **compelling answer** in response to this question on the application, however, several regions indicate a **lack of capacity** to go back and check or vet these sections of an application.

Link with priority sectors
All regions report that **applicants are required to show that the projects clearly link to one of the priority sectors** identified in the Growth and Diversification report.

Hindsight and room for improvement (project evaluation)
While the answers varied widely, several regions identified things they would do differently in the project vetting and application stages. These include:

-Pushing the applicant to **narrow the scope** of the project
-Identifying a **broader base of employer support and demonstrated need** for the project
-**Refining how they would measure success**, both subjectively (i.e., big picture) and also in the form of project metrics

The regions generally do not suggest they would do anything differently in terms of evaluating analyses the applicant provides or that they question specific findings presented when the case for the project was being made.

Evaluative Criteria

The goal of evaluating policy options to address the challenges identified in interviews and document reviews is to provide best estimates of the outcomes that are relevant to the goals of the GO Virginia program. If we can evaluate each policy option in a comprehensive way against each of the following criteria, we can arrive at a clear final recommendation to improve the process for planning for and approving workforce development-related projects in each of the nine GO Virginia regions. DHCD staff has outlined two clear values (also framed as shortcomings of the current program). These include expanding the extent to which grant program processes adhere to what they see as best practices and maximization of program dollars relative to the statewide objective of creating high-quality jobs. Each of the policy options considered in this report will be evaluated using the following criteria:

Figure 7.

1. Effectiveness
2. Feasibility
3. Equity
4. Regional Independence
5. Total Cost

Effectiveness

This criterion (measured in the form of two sub-criteria[6]) measures the extent to which the proposed policy options (or "alternatives") drive planning and project activity that (a)

[6] I operationalize the *Effectiveness* criterion into these two sub-criteria for two reasons. First, the GO Virginia program is only four years old. It is useful to evaluate the extent to which a proposed alternative adheres to identified best practices, because it might take several years for improvements in planning and grant management processes to result in improved outcomes in the form of job creation. In addition, GO Virginia investments in a given region are incredibly small relative to the region's overall GDP and economic activity. In Northern Virginia, for example, the Gross Regional Product is roughly $2.3 billion (Fuller, 2020), while the total investments made by GO Virginia since its inception in Region 7 amount to roughly $2.2 million (DHCD, 2021). While effectiveness must still be tracked in terms of an impact (however miniscule) on regional job creation and economic activity, I felt it was equally important to track adherence to best practices as a sub-criterion in its own right, since the program is so early in its execution and since, even when fully executed, there might not be a clear tie between best practices (which are nevertheless desirable) and best outcomes.

adheres to identified best practices in design and (b) directly and indirectly drives maximum levels of high-quality job creation in execution. The effectiveness of each of the proposed policy alternatives will be evaluated in the form of several sub-categories.

a. *Do planning and project application and review processes adhere as closely as possible to best practices?* Is the alternative likely to ensure *low*, *medium*, or *high* adherence to best practices on the part of regional councils and support organizations as they execute these processes?

b. *Is this policy change likely to move regional program execution closer to producing maximum levels of high-quality job creation?* Without data on effects of implementation of each of these changes on ultimate program impacts and outcomes for this specific program, it will be difficult to evaluate a policy option's performance against this sub-category. Extensive case study reviews of examples of similar approaches taken for other similar grant programs will be evaluated and a *low*, *medium*, or *high* likelihood of producing maximum high-quality job creation in each region will be assigned. Interviews will be conducted with organizations who implemented similar alternatives for their own grant programs to attempt to estimate performance pre- and post-implementation.

It is worth noting that the "effectiveness" criterion provides perhaps the most direct tie to the problem statement in that it helps to measure regional process adherence to best practices and whether these processes maximize the impact of program dollars.

Feasibility

This criterion (also measured in the form of two sub-criteria) measures the extent to which (a) the regions and DHCD have the *administrative capability* to implement the proposed policy options, as well as (b) the *political feasibility* of each policy option, given stakeholder buy-in levels. These two sub-criteria are expanded upon in greater detail below:

a. To what extent do each of the regional councils and support organization staff possess the administrative capability to meet expectations for planning and project application and review? This criterion will rate proposed approaches to restructuring GO Virginia's grant administration in terms of *low*, *medium*, or *high* administrative capability on the part of regional councils and staff relative to the expectations for planning and project application and review. This sub-criterion will be measured in terms of estimates of available staff hours relative to staff hours needed for full execution of responsibilities.

b. *To what extent will regional councils and support organization staff buy in to any of the proposed policy changes:* Any changes to the GO Virginia program ought to secure relatively strong approval from regional support organizations and staff, otherwise effective execution will be relatively poor. This is because, regardless of the alternative, regional councils and support organization staff largely determine whether or not execution of the program is effective. To this end, does the proposed alternative have *low*, *medium*, or *high* approval from regional councils and support organization staff? Enough data was gathered during the interview phase to give sufficient confidence on rating each policy option against this item.

Equity

While Virginia Growth and Opportunity Board generally attempts to apply the same standards and expectations for each region, the reality is that the regions have widely different resourcing and support at their disposal. This criterion would measure the extent to which (in a *low*, *medium*, or *high* rating) the policy option enables the regions to achieve similar planning and project-specific outcomes.

Regional Independence

Does the proposed approach result in *low*, *medium*, or *high* regional independence in both the planning and project application and review processes? Policy options' performance against this criterion will be assessed by evaluating each against a checklist of indicators of regional independence in each aspect of the process. Performance against this checklist will be scored. The checklist will include, for example, indicators such as regional council ability to choose data sources for its labor market-supply demand analysis. The checklist will be vetted in additional interviews with regional councils, support organization staff, and sub-grantees.

Total Cost

What are the total estimated costs for each proposed policy option? This criterion will be measured by totaling costs using estimates compiled with the best evidence available. Both short-term and long-term costs will be estimated. Short-term costs will include any costs that are initial investments to implement the new policy (e.g., third-party consultants, initial database set-up). Long-term costs will include any ongoing or recurring costs (e.g., salaries for new staff, subscription costs for proprietary data sources).

Policy Options

The following section outlines the various policy options (also referred to as "alternatives") I scored against the evaluative criteria outlined above and discusses these evaluations in depth. I used the insights garnered through my interviews, document reviews, and case study reviews to assess how well each of the policy options would likely perform against the evaluative criteria.

Stakeholders as a basis for identifying policy options and criteria for evaluation

Before outlining the alternatives and criteria for evaluation for this project, it is worth describing the different types of stakeholders who interact with and support the work of the GO Virginia program. Not only is the work of these stakeholders critical to the long-term success of the program, but their support for higher-level changes to program policy or design elements is essential for any eventual implementation. Because of this, I worked with my client and other staff at DHCD to undertake a series of interviews with support organization staff in each of the Commonwealth's nine regions. This work and these perspectives have been critical in the selection of alternatives and criteria for evaluation for this project. Without these insights, arriving at this initial selection would have been much more difficult. See **Figure 2** on page 20 for an overview of the governance of the GO Virginia program and the various stakeholders whose buy-in is important for program success.

Overview

The GO Virginia program was intentionally envisioned and framed as a decentralized program driven by regional initiative and cooperation (Wynne, 2018). GO Virginia Regional Councils are fairly autonomous in their ability to identify their own priorities and fund them by presenting them as formal funding requests to the GO Virginia State Board for final funding approval. While DHCD staff have been empowered to issue guidance documents to the regional councils and support organization staff, these documents are solely intended as informational resources. They are not program "rules." They can only reflect what the Board is likely to approve and how to best set applications and applicants up for success.

Reflecting on the considerable emphasis placed on regional autonomy in the GO Virginia program design, I decided to structure my alternatives as different approaches to balancing this concern for regionally led decision-making against the program's stated objective of high-quality job creation. Effectively, the three potential new alternatives (aside from the option involving maintaining the status quo) represent various ways in which the state, through the Board and DHCD staff, could exercise expanded power to ensure that regionally driven projects actually achieve the program's stated statewide goals.

As my problem statement suggests: ***The current process used by each GO Virginia region to identify and address workforce-related barriers to growth is not streamlined or standardized, meaning some regions do not apply best practices and funds are not being maximized to increase the pool of qualified workers available in each region.*** The policy options outlined below propose a series of ways to help regional planning and project approval better maximized limited program funds.

Policy Option 1: Status Quo

As expected, this proposal would involve making no changes to current program architecture, guidelines, or authority structure. In a robust evaluation of the GO Virginia program and the support provided to regions for planning and project approval, it is important to consider no change as a potential course of action. This ensures that the current program structure gets a fair and accurate evaluation relative to other proposals.

Effectiveness

It is clear that the status quo rates **low** in terms of standardized regional adherence to best practices in the execution of planning and project application evaluation.[7] Interviews with each of the regional support organizations serve as evidence that the regions use widely different processes to estimate workforce supply-demand gaps in target sectors in their biennial Growth and Diversification plans (GO Virginia Regional Support Organizations, 2021). The regional support organizations often contract with third-party consultants or other entities to conduct these analyses (GO Virginia Regional Support Organizations, 2021). In terms of supply-demand analyses and processes for prioritizing workforce funding in the grant application and management process, the regions vary *even more* widely, with interviews indicating that some routinely including letters of support for a proposed project from 1-2 regional employers as the sole indicator of demand for a given training or credential program in a region (GO Virginia Regional Support Organizations, 2021). While newly filled jobs in high-demand fields grew significantly statewide (e.g., greater than 100% for all high-demand fields) between the Great Recession, but prior to the COVID-19-induced economic crisis (Kolmar, 2019), it is not likely this is the result of GO Virginia regional planning or project

[7] While the concept of best practices in terms of supply-demand gap analyses will be discussed in greater depth in the full technical report, two key examples of best practices supply-demand analyses from both a quantitative analytical and qualitative (process-oriented) perspective include a 2018 report by the New Jersey Chamber Foundation, a 2016 report by WorkForce Central conducted on behalf of the Workforce Development Council (WDC) for Pierce County in Washington, and a 2016 report by the Pennsylvania State System of Higher Education.

execution (meaning the status quo's rating for this sub-criterion is also **low**). Notably, a theoretical discussion in the literature indicates that, because of the limited impact of GO Virginia funding in each of the regions, the likely impact of all four alternatives on overall job creation in high-demand sectors will be low. It ought also to be noted that these scores are weighted slightly in order to reflect the fact that anywhere from 3-4 regions *do* adhere to best practices, depending on the component examined. Nevertheless, this alternative still scores low, due to the fact that the approach and process used across the Commonwealth does not adhere to best practices *across the board*.

Feasibility

Given that preserving the status quo requires no changes to existing operating structure, this alternative rates **high** in terms of both administrative capability (as the regions are obviously already operating under this structure and have demonstrated buy-in to the way the system works) and political feasibility (given that no legislation or budget changes would need to be made).

Equity

This option rates **low** in terms of equity afforded to the regions and this finding is derived from the interviews conducted earlier this year. As noted above, regional support organizations report wide variance in the approach used. Regions that can rely on the support and resources provided by external organizations, including universities or other workforce partners, demonstrate stronger adherence to best practices in their outcomes, even if they do not demonstrate widely different job creation outcomes at this point.

Regional Independence

Maintaining existing authority structures and guidance for planning and project evaluation would neither expand, nor contract the level of regional independence currently in place. Thus, the status quo would be rated **high** in terms of its ability to preserve regional independence in decision-making.

Total Cost

Total current funding for the GO Virginia (both staff, operating costs, and total funding available to each of the regions for grants) at the Department of Housing and Community Development amounted to roughly $13-14 million each year. It is roughly estimated that 45% of program dollars are dedicated specifically to supporting regional workforce development project evaluation and planning. This results in a total baseline cost of **$5.85-$6.3 million** in ongoing costs each year. There are no initial or start-up costs, as the program is already underway. The total costs of all other policy options will be evaluated against the extent to which they increase or decrease this total baseline cost of the program.

Policy Option 2: Enhanced Guidance, Technical Assistance, and Support

Under this policy option, DHCD staff supporting the GO Virginia program would engage in a robust evaluation of and completely revise current guidance issued to each regional council and support organization covering both planning and the project application and review process. Specifically, staff would retire all guidance documents issued over the years related to workforce planning and project execution and compile two concise and streamlined guidance documents. The first guidance document would instruct regions on the specifics of completing a Growth and Diversification plan, with specific instructions on a clear, step-by-step process for regions to use in conducting a targeted supply-demand gap analysis. The second guidance document would instruct regions on a step-by-step process for identifying, vetting, and approving competitive projects likely to be approved by the State Board. High-level recommendations and proposals for information to be included in both of these guidance documents are included in **Appendix B.**

Once fully built out, these documents would include specific instructions for what support organization staff should require applicants to produce in terms of a supply-demand gap analysis justifying the need for the proposed project and clear guidance for how to evaluate the robustness of these analyses.

It is important to note that these changes to program administration and guidance, while requiring more direct instructions from DHCD staff to each region, would not require any legislative change limiting regional autonomy or granting more authority to the State Board or DHCD. While costs would be limited, additional staff time or expanded DHCD capacity would need to be calculated. In addition, DHCD might seek to contract with third party consultants or contractors to complete this work.

The case study that I used to aid in estimating potential qualitative outcomes for this alternative was the Workforce Opportunity for Rural Communities (WORC) Initiative, run out of the U.S. Department of Labor (DOL) and led in partnership with the Appalachian Regional Commission (ARC) and the Delta Regional Authority (DRA). I have been able to combine the insights derived from how this program operates and the results it generates in grantee communities to supplement evidence about how this alternative would work in the GO Virginia program sourced from the interviews with GO Virginia regional support organizations. With both sources, I am able to more effectively hypothesize about the potential outcomes of this alternative when weighed against each of the criteria.

In terms of other programs that could serve as case studies for provision of technical assistance, there are two state programs that I used to aid in estimating potential qualitative outcomes for this alternative. The first is that of the Colorado Department of Local Affairs (DOLA) and its Rural Economic Development Initiative (REDI), the funding of which is drawn from a dedicated revenue fund sourced from state severance tax collections. The second is that of the Regional Solutions Teams run out of Business Oregon, the state's economic development agency, which provide intensive, direct capability-building support to local and regional officials in Oregon seeking to access a wide variety of state, federal, private, and non-profit grant funding opportunities. These case studies supplement evidence derived from the interviews with GO Virginia regional support organizations. Together, these sources enable me to gauge potential outcomes of this alternative when weighed against each of the criteria.

Effectiveness

I rate this alternative **high** in terms of the extent to which it would ensure regional approaches to planning and project execution adhere to best practices. The WORC Initiative, with staff support from DOL, ARC, and DRA, provides extensive, detailed guidance on how applicants must demonstrate the need for their project (including in the form of workforce demand in the geographic area being served) (U.S. Department of Labor, 2021). In addition, WORC-dedicated staff provide high-touch technical assistance, helping applicants better understand supply and demand in their region and helping them assess the best way to position a project for success in order to meet program parameters and produce the highest impact for their region (U.S. Department of Labor, 2021). As with all other alternatives, this alternative scores **low** in terms of likelihood to produce high impact on job creation in each region.[8]

Feasibility

This alternative scores **high** on administrative capability. This is because it leverages existing resources already deployed in the regions, and then strategically targets technical assistance, improved guidance, and support to the regions who need it most in order to improve their planning, application review, and project management practices. It is worth noting that the GO Virginia regional support organizations made requests for additional guidance and technical assistance during interviews conducted

[8] It is worth noting that the WORC program itself is even newer than GO Virginia. Its first round of funding was announced in September 2019, with $29 million in funding for 17 projects across the ARC and DRA footprints. The period of performance for these grants runs through September 2022. The second round of funding, also for $29 million, was announced in the summer of 2020. Grantees were awarded in September 2020, also for three-year performance periods.

earlier this year. In addition, given that the additional cost is relatively low and that this alternative does not alter or challenge existing authority structures or operating practices in a significant way, this alternative rates **high** on political feasibility as well.

Equity
This alternative scores **high** in terms of equity, because DHCD staff retain the ability to strategically deploy technical assistance and support to the regions who need additional help. In addition, streamlined guidance will likely be ignored by regions with robust labor market supply-demand analytical capability, as this merely reflect activities they are already undertaking. However, regions with lower capability or expertise at the support organization level will benefit significantly from efforts to streamline and enhance the guidance already provided. This will likely have the effect of leveling the playing field somewhat between the less-equipped regions and those that are better-equipped.

Regional Independence
Even though the practical effect of this alternative will likely be that DHCD staff are more involved in supporting the workforce planning and application review processes, this alternative maintains **high** levels of regional independence. Nothing in this alternative strips away the independence currently given to regions under the program. Regions who decide to decline technical assistance or ignore guidance will find that it is their prerogative to do so, even if it means that their projects are declined at higher rates.

Total Cost
In 2018, DHCD contracted with TEConomy Partners, LLC to produce comprehensive analyses of each of the nine regions' entrepreneurial ecosystems and make targeted recommendations for how GO Virginia funds might best be deployed in each region to better support start-up businesses and entrepreneurs. This alternative includes funding for DHCD to augment its current guidelines and supporting materials and data currently provided to regions by funding a similar set of nine reports focused on supply-demand gaps and labor market insights for each region. This report would likely cost roughly $200,000. In addition, this alternative includes the funding of two new staff members at DHCD to support providing workforce-focused technical assistance. These two staff members, each paid $75,000, would cost $150,000 total. With these costs, I add $350,000 to the total baseline funding under the status quo, for a total cost of **$6.2-$6.65 million** per year.

Policy Option 3: Expanded Resources for Capacity-Building

In the interviews conducted with support organization staff, the need for expanded staff capacity at the regional level arose as the top request. In addition, three of the nine regions acknowledged that unifying the data sources used by each region to conduct workforce supply-demand analyses would be helpful. Building on these insights, this alternative involves new funding would be provided to each region to expand staff capacity in order to support enhanced project vetting, application support, back-end reporting, and ongoing oversight. Funding should be sufficient to provide at least 1 additional FTE staff member in each region. This would come to roughly $100,000 on average for each region (and adjusted for regional cost of living). These staff would be involved in supporting the workforce-focused aspects of the Growth and Diversification planning, in conducting supply-demand analyses on an ongoing basis, and in vetting and reporting on potential and approved workforce development projects. In addition, DHCD would directly provide regions with access to a uniform, common set of data that would be used to evaluate workforce supply-demand gaps at the regional and locality level. While additional work needs to be done to fully assess potential costs, I estimate that a contract giving all nine regions access to a single proprietary data source for labor market analyses would cost roughly $1 million. Under this alternative, no guidance would be changed; in addition, no changes would be made giving greater authority to the Go Virginia State Board or to DHCD staff.

As with the policy option immediately preceding, I relied on the Colorado and Oregon case studies in estimating potential outcomes for this policy option.

Effectiveness

This alternative receives a **medium** rating for the sub-criteria focused on adherence to best practices processes. This is because streamlined, robust guidance, along with added technical assistance, will certainly improve regional adherence to best practices in their planning and project evaluation processes. As interviews with Colorado Department of Local Affairs staff indicate, however, some regions continue to consistently underperform, even with added resources made available to them for capacity-building, because, without clear guidance on *how* to effectively deploy added capability and resources, their planning and project evaluation efforts fall short of identified best practices (Colorado Department of Local Affairs, 2020). In addition, as with all other alternatives, this proposal rates **low** for likelihood that these changes demonstrate significant actual long-term growth in job creation in the geographic footprint served.

Feasibility

Based on interview with regional stakeholders, I rate this alternative **medium** in terms of administrative capability. While the direct provision of added capacity-building resources (and potentially additional staff) would meet the request of several of the regions expressed during interviews, the Oregon case study illustrates that added capacity-building funding and resources provided at the local or regional level are not always sufficient to drive adherence to best practices and longer-term outcomes (Business Oregon, 2020). Instead, extremely clear requirements and guidance and technical assistance are of equal importance. This alternative rates **low** in terms of political feasibility. This is because, although the proposal for additional capacity-building was widely supported among regional support organization staff, it would likely not be approved by the Virginia Growth and Opportunity Board. This is because the Board would likely perceive the addition of any new capacity-building funds as unnecessary, in light of what each regional support organization already receives for this purpose (see earlier section on GO Virginia program background).

Equity

This option actually rates **low** in equity, because the addition of a stagnant and equal set of capacity-building resources to each region actually would not alleviate the gap that exists between regions with well-established higher education assets, or which include large metropolitan areas and regions which are more rural. In addition, regions which lack the technical expertise to effectively conduct or oversee supply-demand analyses and thorough application-vetting activities could still lack this expertise and ability if they are given no clearer guidance or direct technical assistance from DHCD. The Colorado and Oregon examples, according to interviews with agency staff, bear this out.

Regional Independence

This option rates **high** in regional independence, because the regions will still maintain the ability to deploy their added capability or capacity-building funding as they see fit. They will also maintain the ability to plan, interact with potential applicants, vet applications, and forward applications on to the state Board for review on their own terms. Essentially, this alternative does nothing to disrupt the current practice of affording regional councils and support organizations considerable latitude in directing their activities and resources as they like.

Total Cost

While no official proposal of this nature has ever been officially developed or considered by DHCD, this report suggests that providing added capability or capacity-building funding to each region might best be operationalized as follows: One additional full-time equivalent (FTE) staff member in each region, paid roughly $80,000 and dedicated solely to workforce planning and workforce development projects (a total of roughly $720,000 each year), as well as additional funding for each region to directly cover the cost of the Growth and Diversification plan updates each year, at roughly $60,000 per region every two years (a total of roughly $270,000 each year). Finally, in addition to this, GO Virginia would also provide a license to proprietary data sources for evaluating questions of supply and demand in each region. This would cost roughly $15,000 per region or $135,000 total each year. This would represent roughly $1.1 million in added costs to the current operating cost of the program, meaning the total cost would be roughly **$6.98-7.2 million each year**.

Policy Option 4: Mandated Adherence to New Program Rules

This alternative takes to its logical conclusion the contention that achieving state program objectives – large-scale creation of high-quality jobs statewide – requires mandating uniform data, analytical, planning, and project approval and review processes be adhered to by all regions. To be sure, this approach would not completely eliminate regional ownership of certain aspects of the process. Regions would still be responsible for carrying out the essential qualitative vetting of quantitative labor market supply-demand analyses by conducting employer and other stakeholder focus groups and surveys. Still, under this alternative, the Code would be amended in order to give the State Board and DHCD new authority to mandate that all regions adhere to uniform planning and project review and approval processes. This could potentially include a mandate that all regions use the same data sources in their labor market supply-demand analyses. The state could either provide this data to each of the regions, utilizing a single contract with proprietary data providers, or simply mandate the source and methodology, leaving the coverage of cost and capacity to each region. This approach would likely utilize step-by-step planning and project application and review documents nearly identical to those proposed in the second policy option, except that DHCD would be given the authority to codify these frameworks as program rules instead of being limited to issuing suggestive guidance. Costs of this alternative would likely not actually be any different from those under the status quo.

Effectiveness

I score this alternative **high** in terms of ensuring that regional planning and project execution processes adhere to identified best practices. The logic here is fairly simple, as the regions would each be mandated to carry out a very specific set of supply-demand analyses and to arrive at labor market insights in a very specific way. Prescriptive guidance and forced adherence to this guidance through program rules means that this alternative rates highest on this criterion. As with all other alternatives, I rate this alternative **low** in terms of its ability to significantly impact or grow job creation in each region.

Feasibility
This alternative understandably rates **low** on administrative capability, given that it essentially places an unfunded or unsupported mandate on each region to carry out a highly prescriptive set of activities, irrespective of the current resourcing or administrative capability at each of the regions. Because of this, and because it fully dismantles the program's original operating principle of regional independence, I also rate this alternative **low** in terms of political feasibility.

Equity
While this alternative does apply an equal standard to each region, it performs poorly on equity (receiving a **low** rating), because it fails to address the widely different capabilities that exist within the regional support organizations. Ensuring that each region is *required* to adhere to a set of best practices is not sufficient to address the equity issue. There are very real questions about whether or not each region would be able to effectively deliver on these mandates without any additional support, funding, technical assistance, or guidance.

Regional Independence
As might be expected, this alternative completely dismantles (at least in the area of workforce development) the original operating principle of preserving regional independence. As a result, it rates **low** on this criterion.

Total Cost
One of the strengths of this alternative is that it does not add any additional cost to the program. Because of this, the total cost is identical to the status quo baseline of **$5.85-$6.3 million** per year.

Outcomes Matrix

The matrix below, which reflects the numeric scores for each of the alternatives is provided below. The weightings for each of the criteria is as follows: 35% for Effectiveness, 20% for Feasibility, and 15% each for Equity, Regional Independence, and Total Cost.

Table 1. Project Outcomes Matrix

Criteria (Weight %)	**Alternative A: Status Quo**		**Alternative B: Enhanced Guidance, Technical Assistance, and Support**		**Alternative C: Expanded Resources for Capacity Building**		**Alternative D: Mandated Adherence to New Program Rules**		**Total Possible Points**
	Rating	*Points*	*Rating*	*Points*	*Rating*	*Points*	*Rating*	*Points*	
Effectiveness (35%) (a) *How well does the alternative adhere to identified grant application, evaluation, approval, and management best practices?*	Low	**20 / 35**	High	**32 / 35**	Medium	**27 / 35**	High	**30 / 35**	**35**
(5%) (b) *What is the impact on regional job creation, wage growth, and economic activity?*	Low	**2 / 5**	Low	**2 / 5**	Low	**2 / 5**	Low	**2 / 5**	**5**
Feasibility (15%) (a) *To what extent will the regions or DHCD have the administrative capability to implement the proposed alternatives?*	High	**15 / 15**	High	**13 / 15**	Medium	**10 / 15**	Low	**8 / 15**	**15**
(10%) (b) *How politically feasible is this alternative?*	High	**10 / 10**	High	**9 / 10**	Low	**7 / 10**	Low	**5 / 10**	**10**
Equity (15%) *To what extent does the alternative make it possible for all regions to achieve similar, high-quality planning and project specific outcomes?*	Low	**7 / 14**	High	**12 / 14**	Low	**9 / 14**	Low	**7 / 14**	**14**
Regional Independence (15%) *To what extent does this alternative prioritize protecting the original program's organizing principle of regional independence?*	High	**14 / 14**	High	**12 / 14**	High	**11 / 14**	Low	**6 / 14**	**14**
Total Cost (15%) *What is the total (including start-up and ongoing) cost of this alternative?*	$5.85-6.3 MM	**7 / 7**	$6.2-6.65 MM	**6 / 7**	$6.98-7.2 MM	**4 / 7**	$5.85-6.3 MM	**7 / 7**	**7**
Total Score		**75 / 100**		**86 / 100**		**70 / 100**		**55 / 100**	**100**

Recommendation

As the outcomes matrix clearly indicates, there are trade-offs to be made in weighing each of the proposed alternatives against each of the evaluative criteria. Instead of selecting the alternative with the highest effectiveness rating, I believe it is important to balance effectiveness against other criteria, such as feasibility, equity, and regional independence. Because of this, ***I recommend that DHCD and the GO Virginia Program provide enhanced, streamlined guidance and technical support to each region in its workforce planning, application review, and project management efforts.***

While this policy option does result in additional costs, it is not as costly as directly providing additional capacity-building funds and resources to each regional support organization. At the same time, it effectively balances the need to maintain regional independence (which is also critical for political feasibility) and maximizes the use of state funds. After all, regions who have already developed strong processes or approaches to identifying workforce supply-demand gaps or proposing strong projects to close these gaps need not rely on DHCD. The expanded guidance will be helpful to regions that look for more detailed instruction and technical assistance will help close the gaps between well-resourced regions and regions that lack capacity.

Limitations of Recommendation

As with any policy option, there are significant limitations to consider. Given that maintenance of regional independence is important, there is still the possibility that added resourcing and support from the state level will not result in full regional adherence to best practices. This is where the best practices identified above related to relationship-building, communication, and boundary-setting will be critical. DHCD staff must take time to identify and outline those elements of strong workforce planning and execution that they see as ultimate fundamentals. They should then take steps to understand the priorities and pain points in each region and create a structure of incentives and support that ensures that each region plans and executes in adherence to these fundamentals. Clearly identifying the core pain points and working with regions to alleviate these will be crucial to the success of this option.

Implementation

Introduction

My report on the GO Virginia program recommends that the Department of Housing and Community Development (DHCD) provide enhanced guidance, technical assistance, and support to each of the Regional Councils and Support Organizations. This section focuses heavily on defining in more detail *what* exactly those activities ought to entail. This section also focuses attention on stakeholders and consideration of risks and challenges as both factors will heavily affect the success of any attempts to implement this recommendation. As interviews with stakeholders have shown, the GO Virginia program is still very much in a growth and development phase. Roles and responsibilities of both the regional support staff, as well as DHCD staff, are still being defined. Because of this, it is important to clearly outline how best to generate buy-in with stakeholders, as well as which potential risks pose the greatest threat to success.

Core Components and Deliverables

I envision there being five main deliverables or work products that DHCD staff will have to oversee or provide directly over the next year as part of the implementation of this recommendation. These include the following:

Updated Supply-Demand Gap Analysis

DHCD would contract with a third party to provide a series of regional reports[9] providing a robust statewide and regional supply-demand gap analyses for high-priority industry sectors and operations. These reports would serve as an update to the baseline data provided to each region in 2017 and, for regions with less capacity, they could be inserted directly into updates of their Growth and Diversification plans.

Supply-Demand Gap Analysis Guidance Document

Building on these reports, DHCD would issue detailed, step-by-step guidance to all regional councils and support organization staff illustrating best practices and step-by-step recommendations for how to conduct detailed supply-demand gap analyses, both for general planning efforts, as well as for evaluating the strength or weakness of specific planning projects. This is described in more detail in **Appendix B**. The hope is that this guidance document will guide and inform supply-demand analyses within both the GO Virginia program and the workforce development community more broadly in

[9] The process, end deliverable, and roll out to regions of this report would be modeled on a similar effort DHCD funded and disseminated to each of the regions to help with planning and project execution related to entrepreneurship and innovation which, like workforce development, is one of a few policy and development spheres designated for GO Virginia grant funds. In late 2018, DHCD partnered with TEConomy Partners, LLC to complete an an assessment and strategy for each of the 9 regions.

such a way that it is used and followed closely for years to come, almost in the same way that the Circular A-4 has served as the benchmark for cost-benefit analyses as part of regulatory analysis for agencies in the federal government since 2003 (Office of Management and Budget, 2003).

Streamlined, Consolidated Guidance Documents

Currently, there are too many versions of guidance documents issued to the regions on workforce-related topics. Regions have indicated via interviews that it is hard to navigate these documents and know which ones to use for which purposes. Staff ought to streamline and consolidate these guidance documents, making them more actionable.

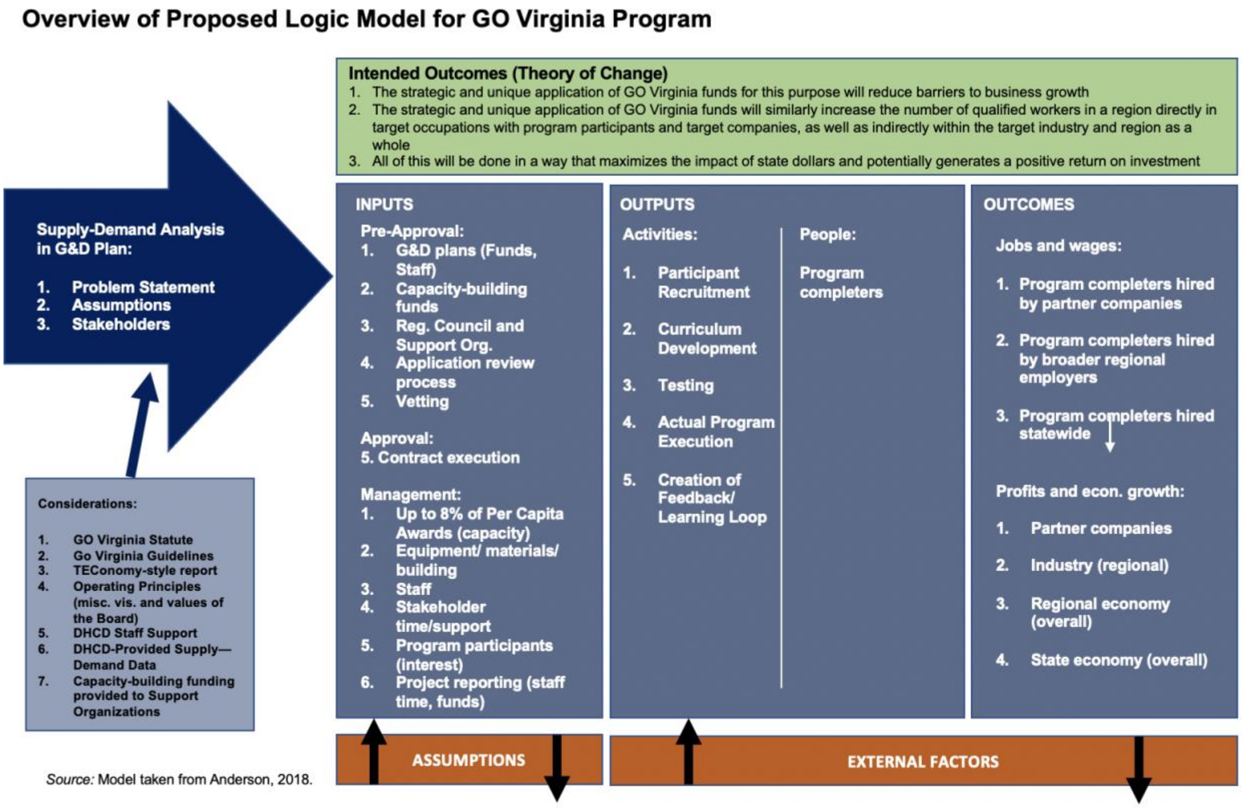
Logic Model and Corresponding Application Revisions

Building on the literature[10] and the theory of logic models, I am recommending that DHCD revise its standard grant applications (filled out by both regional support organizations and prospective grantees) to require applicants to complete a series of research and planning steps when applying for funding. A portion of the logic model framework should also be inserted into the guidelines for regional Growth and Diversification plans. This is covered in more detail in **Appendix A**.

Figures 8 offers a high-level overview of how this recommended logic model (and accompanying prompts and questions) would be filled out by each region.

[10] This includes work like that produced by John McLaughlin and Gretchen Jordan in 1999 that discusses in depth the history of logic models and how they ought to be implemented in order to produce the highest impact. This is discussed in more detail in the section on best practices and other issues raised above.

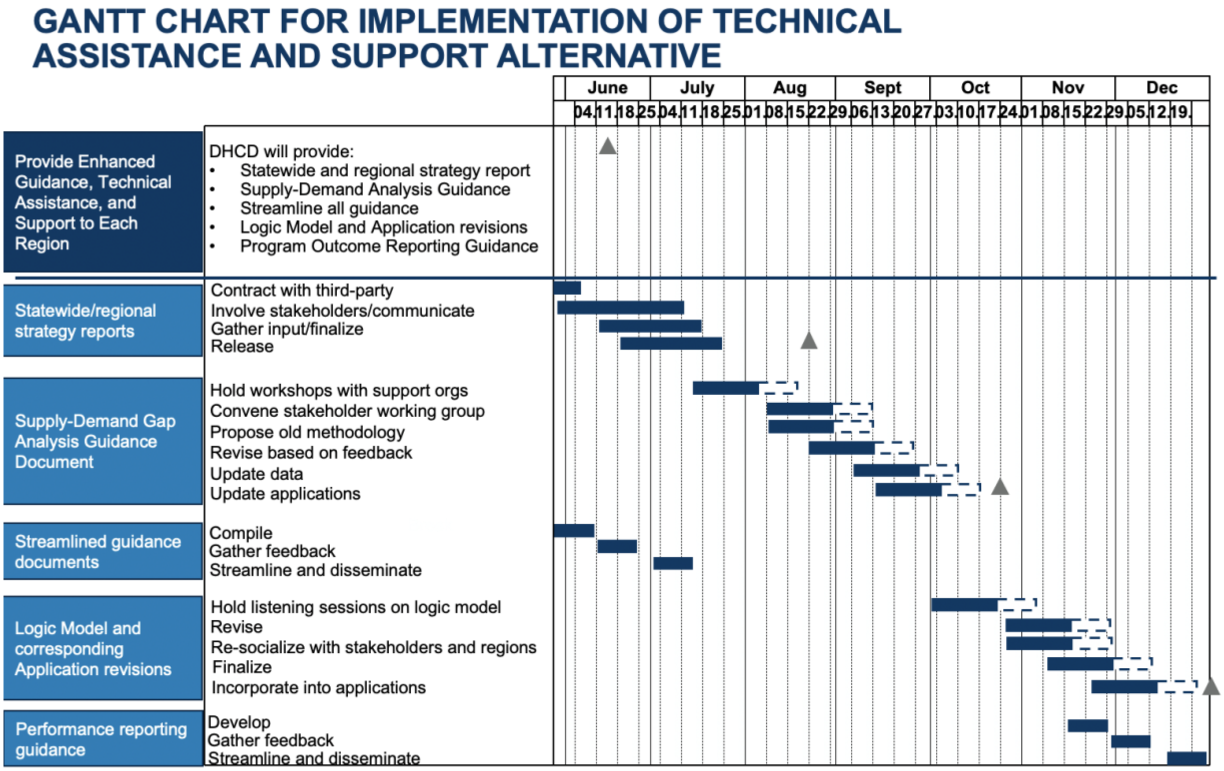
Figure 8.



Revised Guidelines for Program Evaluation (Outputs, Outcomes, and Impacts):
In light of the additional guidance for conducting supply-demand gap analyses and the additional steps required of regions and applicants in completing the logic model, I recommend that DHCD update their guidelines to clarify expectations and instruct applicants to separately think through and begin reporting on their outputs, outcomes, and impacts. More detail will be provided on this in the technical report.

Timeline
A Gantt chart that outlines my high-level recommendations for sequencing and timing is included below as **Figure 9**.

Figure 9.



Stakeholder Mapping and Perspectives

Given that GO Virginia, it is important to think through how to demonstrate an *openness to feedback* and establish *clear and open lines of communication* before rolling out this work. The interviews showed that regional support organization staff (the project's primary stakeholders[11]) already feel very overburdened and overwhelmed with state guidelines and instructions. While offers of technical assistance and support will likely be welcome, new guidance documents have the potential to be perceived as heavy-handed state-level intervention. DHCD staff should be proactive during the existing weekly calls and other stakeholder meetings to bring up this work and frame it appropriately before roll-out. In these communications, staff should be honest about the intended result of this work (to provide support and be helpful to the regions) and be sure to create an environment where feedback and pushback is welcomed and addressed. Interviews demonstrated that the support organizations are expected to be active, optimistic recruiters and proponents of grantees' work, while at the same time pressured by state staff to be impartial evaluators of these same grantees. This is not

[11] The position of regional support organizations is demonstrated in the Governance Map, which is included as Figure 2.

sustainable and new guidance should address this, giving DHCD staff more capacity and backing to take on a tougher, more evaluative role.

Potential Risks and Challenges

There are several potential challenges I have identified. To help DHCD staff confront these issues, I provide brief guidance below, which will be expanded on in the full report.

- *Support organization staff see new guidance as state interference and more well-resourced regions may see it as a threat.* DHCD staff should communicate clearly and openly that new guidance is being provided to help maximize resources and come alongside and support regional efforts. They should clarify that the more understaffed regions requested clearer technical support and that regions need only consult the guidance if they want to.
- *New resources and guidance add to confusion, rather than cutting through it.* Successful streamlining and consolidation of all guidance documents *prior to* roll out is essential here. Staff should ensure that the new versions and *only the new versions* are on the website, emailed to support organizations, and ready for use. If not, they risk these new documents making things more confusing, as opposed to less so.
- *Support organization staff see more evaluative role of DHCD staff as a threat.* Trying out these new roles requires a series of listening sessions and honest conversations. DHCD staff should frame these changes as based in a desire to support regional staff and minimize pressure resulting from their being placed in conflicting roles (i.e., recruiter versus evaluator). DHCD staff should celebrate regions' existing evaluative efforts and stress that these proposed changes are designed to give regions an out if they feel it is too difficult to both recruit, develop, and ideate potential projects, and also apply scrutiny and skepticism about their potential success. To the extent regional staff *want* to continue serving in a more evaluative capacity, they should be encouraged to do so.

Conclusion

Implementation considerations are crucial, given the small and collegial working relationships that exist between small state and regional staff teams and the pressure placed on both for executing high-impact projects. Success will lie in the details of day-to-day execution, including the ability to communicate in an accurate and timely manner, build trust, be truly open to pushback, and have hard, honest conversations. If the framing and communication are handled well and if the follow-through matches the commitments, staff will have done everything in their power to ensure successful execution.

Appendices

Appendix A: Proposed GO Virginia Logic Models and Evaluability Assessments

While program theory might seem replete with abstract concepts, its core tools – evaluability assessments, logic models, and theories of change – can serve as highly effective program design mechanisms when it comes to identifying weaknesses, questioning underlying assumptions, prioritizing action items, and arriving at key performance indicators. This section provides four core items that will hopefully prove useful in encouraging each region to begin using tools in planning and project execution for workforce development. These include:

- A GO Virginia ***evaluability assessment*** that can be shared with each region and completed in the next iteration of the Growth and Diversification plans

- A ***Growth and Diversification planning logic model*** to be used by each region in helping to make actionable the insights coming from workforce or skills gap supply-demand analyses

- A ***workforce development project logic model*** to be used by each region in evaluating individual project applications for responsiveness to regional goals and priorities and

- Proposed recommendations for ***key guidance*** that DHCD should issue to each of the regions for using evaluability assessments and logic models in workforce development planning and project execution

Evaluability Assessment
In their text on the best practices of program evaluation, program theorists Peter Rossi, Mark Lipsey, and Gary Henry argue that program theory is essential to the success of real programs for real people (Rossi, et al., 2019). In their estimation, conducting evaluability assessments and creating logic models are critical to setting programs up for success and are not what they have often been accused of – bureaucratic overplanning or red tape. In *Evaluation*, the authors write: “Such assessments are important because a program based on a weak or faulty conceptualization has little prospect of achieving intended results” (Rossi, et al., 2019).

First, the authors recommend starting with an evaluability assessment. Put simply, evaluability assessments are “appraisal[s] of whether a program’s performance can be evaluated and, if so, whether it should be” (Rossi, et al., 2019; Leviton, et al., 2010). Evaluability assessments ask a series of questions about agreement on a program’s goals. These are taken from *Evaluation* and summarized below:

Key questions addressed during an evaluability assessment:

1. *Is there agreement on goals and objectives for the program?* If stakeholders disagree on the program's goals and objectives, the program is not ready to be evaluated.

2. *Has the logic underlying the program or practice been described in sufficient detail to explain how the program is expected to achieve its goals and objectives?* If not, the evaluator will need to create a logic model or program theory on which stakeholders agree, or the program logic will need to be further developed.

3. *Is it plausible that the program can accomplish its goals and objectives?* Staff may be able to describe program logic, but goals and objectives may not be realistic given the resources available or the activities being undertaken. At this point, an evaluability assessment can indicate the need for further program development or, possibly, a formative evaluation.

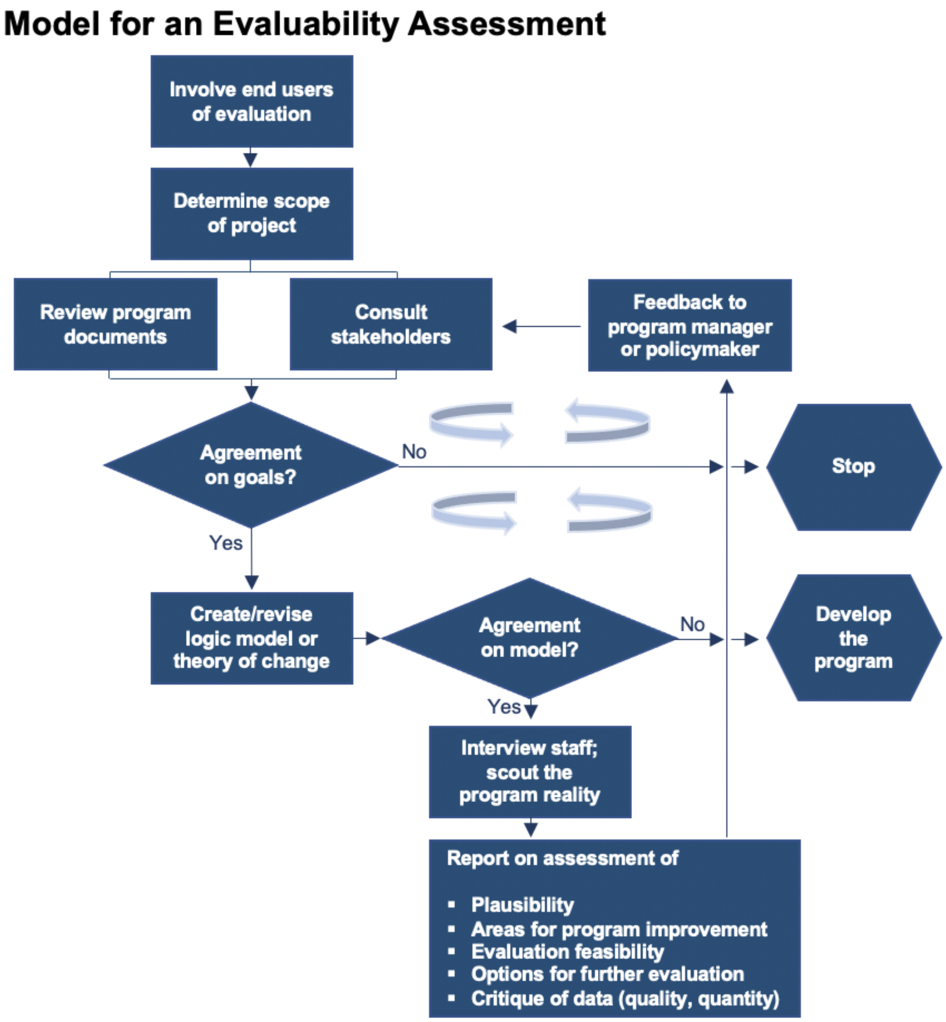
4. *Do key stakeholders agree about performance criteria or how to measure program effectiveness?* Stakeholders need to agree on the criteria by which a program's effectiveness will be judged before an influential evaluation measuring those criteria can be conducted.

5. *Can the program or evaluation sponsor afford the cost of an evaluation?*

6. *Do key stakeholders agree on the relevance of a program evaluation and indicate willingness to make changes to the program on the basis of the evaluation?* If the stakeholders are not open to making changes, the utility of an evaluation is doubtful.

A figure providing the evaluability assessment model proposed by Rossi, et al. is provided below in **Figure 10**.

Figure 10.



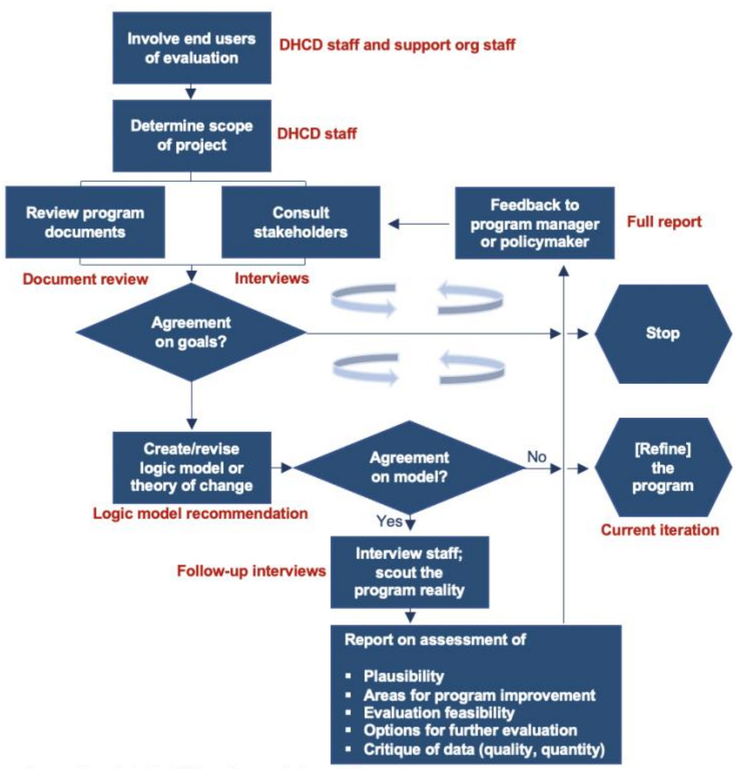
Source: Rossi, et al., 2019

As the figure shows, the evaluability assessment begins by involving the end users of the evaluation. This includes DHCD program staff, as well as regional councils and the regional support organizations. This engagement is used to determine the scope of the project, and then program documents are reviewed and additional stakeholders (e.g., other state agencies and economic development and workforce development practitioners) are consulted. All of this is used to assess the answer to one of the primary questions: Is there agreement on the program's goals? If there is no agreement, practitioners must stop and work until such agreement can be achieved. Without this agreement, program evaluation is futile. If agreement does exist, program evaluation staff can proceed with creating a logic model based on an agreed upon theory of change. If agreement on this model exists, staff can proceed with interviews to assess the extent to which the program is set up for effective evaluation. If not, authors recommend that the program must be further developed. At the end of the process, reports from the evaluability assessment can be used to provide feedback to policymakers and the program managers in order to help them assess revisions and adjustments that could be made to improve program evaluability.

Figure 11 outlines how portions of this report have already completed significant components of what is needed for an evaluability assessment of the GO Virginia program. DHCD program staff could proceed immediately by taking the outputs of this report and supplementing them with additional interviews or evidence-gathering in order to present the GO Virginia Board and DHCD leadership with a clear evaluability assessment with the intent of pursuing specific program revisions or adjustments aimed at allowing GO Virginia staff to better evaluate whether the program's grant-funded projects across the Commonwealth are enabling the program to meet its stated objectives.

Figure 11.

Evaluability assessment model, illustrating how elements of this project can serve as the first iteration of a GO Virginia-specific evaluability assessment



Source: Rossi, et al., 2019; author analysis

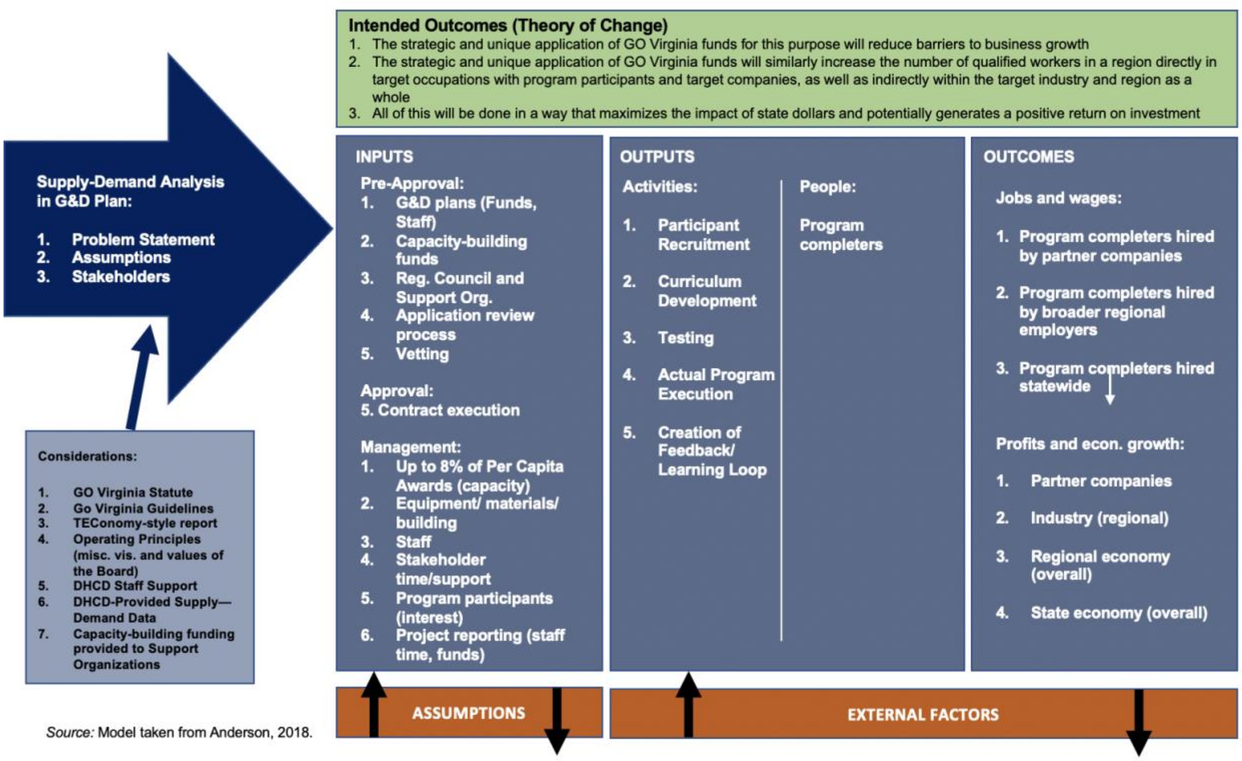
Logic Models for Growth and Diversification Planning and Project Evaluation

Once a program's evaluability is assessed, program theorists recommend using a variety of tools to lay out and test assumptions about a program's theory of change and intended impact. To do this, logic models are often the recommended tool of choice.

I propose the following logic model, outlined in **Figure 12**, to aid DHCD and GO Virginia program staff in helping to improve regional adherence to identified best practices in vetting and approving project applications. Having both state-level staff, as well as the staff of regional support organizations, walk through this logic model during the Growth and Diversification planning process and then revising planning guidelines and application questions to include prompts inspired by this logic model could go a long way toward ensuring that regional efforts to identify and support potential applicants generate strong projects which maximize state dollars and result in lasting impact.

Figure 12.

Overview of Proposed Logic Model for GO Virginia Program



Source: Model taken from Anderson, 2018.

Working through the logic model, staff would start in the bottom left-hand corner of the diagram by considering the resources, documents, and concepts or principles outlined therein. Each of these things represent potential sources of evidence or insight upon which the successive steps of the logic model can be based. Each Growth and Diversification plan includes a supply-demand gap analysis, which inherently contains the key starting points of any true theory of change and logic model. These analyses must be based on aforementioned “consideration” materials. In addition, each supply-demand analysis includes a problem statement, is based on certain assumptions, and results from consultation with various valued stakeholders.

Before proceeding through the steps of outlining inputs, outputs, and outcomes, GO Virginia program staff ought to ensure that there is alignment about the GO Virginia program's theory of change. This includes three core principles:

- That the strategic and unique application of GO Virginia funds for the purpose of addressing workforce development goals in the region will indeed reduce barriers to business growth
- That the strategic and unique application of GO Virginia program funds will simultaneously increase the number of qualified workers in a region directly in target occupations with program participants and target companies, and indirectly within the target industry and (even more indirectly) the region as a whole
- That all of this will be done in a way that maximizes the impact of state dollars and potentially generates a positive return on investment[12]

Agreement on this theory of change enables DHCD program staff and stakeholders to assess transparently the extent to which the execution of individual projects, under the auspices of each region's Growth and Diversification plan, adheres to and realizes this theory of change.

In mapping inputs, staff and stakeholders will see that there are pre-approval, approval, and project management resources that must be in place for the program and individual projects to be successful. Pre-approval inputs include regional Growth and Diversification plans, regional capacity-building funds[13], regional council and support organization leadership and staff support, the application review process, and individual project vetting (largely conducted informally by regional support organization staff and formally by GO Virginia program staff during the official review process). Approval inputs include the effort taken to draw up a contract with core and project-specific outcomes that will effectively measure project progress. During this time period, grantees (regional support organization staff) and sub-grantees (program executors) are set up with access to DHCD's CAMS in order to report outcomes. Finally, project management inputs include any administrative or capacity-building funds (up to 8% of grant totals) taken for the administration of a given project, equipment, materials, and buildings, program staff, stakeholder time and support of the project, the interest and participation of a program's target audience or participants, and any effort and resources expended on project reporting.

I have divided program outputs into activities and people. Output activities include efforts to recruit participants, develop curriculum, test pilot projects, or refine program design, execute the actual program itself, and create a feedback or permanent learning loop so that the program undergoes continuous improvement. The program's participants (and this can take a variety of forms, given the extreme diversity of GO Virginia workforce development projects) are its primary output in terms of people.

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[12] Depending on the project, a negative ROI is not necessarily a bad thing, depending on how long-term the investment is and how much in terms of state dollars are being expended.

[13] As noted above, each region receives roughly $250,000 each year for staff support, administration, and capacity-building and funding for the Growth and Diversification plans is intended to come from this allocation.

The outcomes are the results GO Virginia hopes or anticipates will occur for these program participants as a result of their going through the program. These desired outcomes include, but are not limited to, program participants who are hired by partner employers, in the region more broadly, or in the state *because of* training or other services received through the program. If participants are already working and plan to stay in a given industry, increased earnings that accrue to these participants can also be a desired outcome. Finally, as a result of the jobs attained or increase in earnings that accrue to program participants, GO Virginia's aspiration is that the overall regional economy will benefit in the form of increased profits and economic growth that occur for partner companies, other companies in that region's target industry, the regional economy overall, and, eventually, the state economy overall. The assumptions staff and stakeholders operate from determine the inputs and it is important to note that a variety of external factors outside the program's control heavily influence the outputs and outcomes.

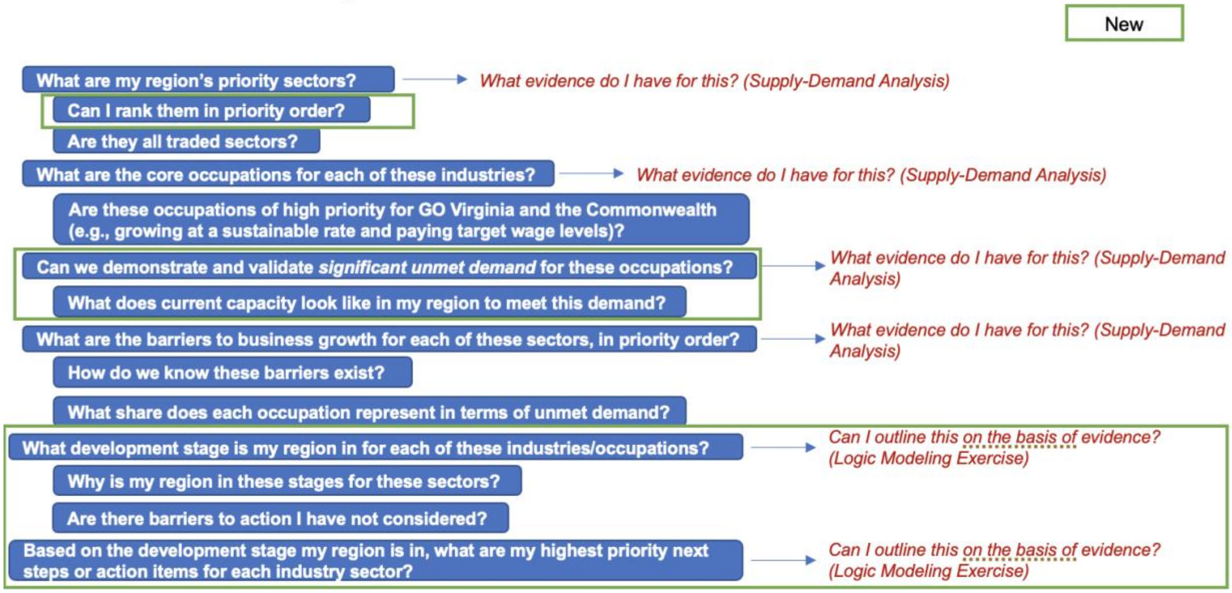
A wide array of data and evidence is needed to enable staff and stakeholders to walk through this model and check whether or not it actually reflects reality for each region's overall strategy and for each individual workforce development project. For this reason, I propose a clear set of prompts that DHCD staff can insert into the guidelines instructing each region *how* to go about completing the supply-demand analysis and workforce development portions of its Growth and Diversification plan. In addition, I propose a clear set of questions that can be incorporated into applications for individual projects. Some of these questions are already inserted in some form into the application process. Some of these questions are new. DHCD staff can assess the extent to which they wish to revise existing questions to reflect the wording proposed here or add the new questions. My hope is that once applicants are given this guidance (along with the guidance instructing regions how to complete an effective supply-demand skills gap analysis, included in **Appendix B**), staff and stakeholders will have the full evidence base they need to evaluate the extent to which the program is adhering to best practices and to its theory of change.

Logic Models and Growth and Diversification Planning

I begin with the proposed set of questions for regional Growth and Diversification planning, presented in **Figure 13** below. The idea behind these questions is that, if regions actually do structure their supply-demand analyses and the workforce-related portions of their Growth and Diversification plans in such a way so as to fully answer these prompts, they will provide a clear and compelling evidence base and set of tools with which to assess regional adherence to best practices, help the region prioritize a very clear set of workforce-related action items, and evaluate how well a region's approved projects are enabling it to address the highest-need barriers to business growth.

Figure 13.

Proposed Logic Model-Inspired Questions for Regional Growth and Diversification Workforce-Related Planning



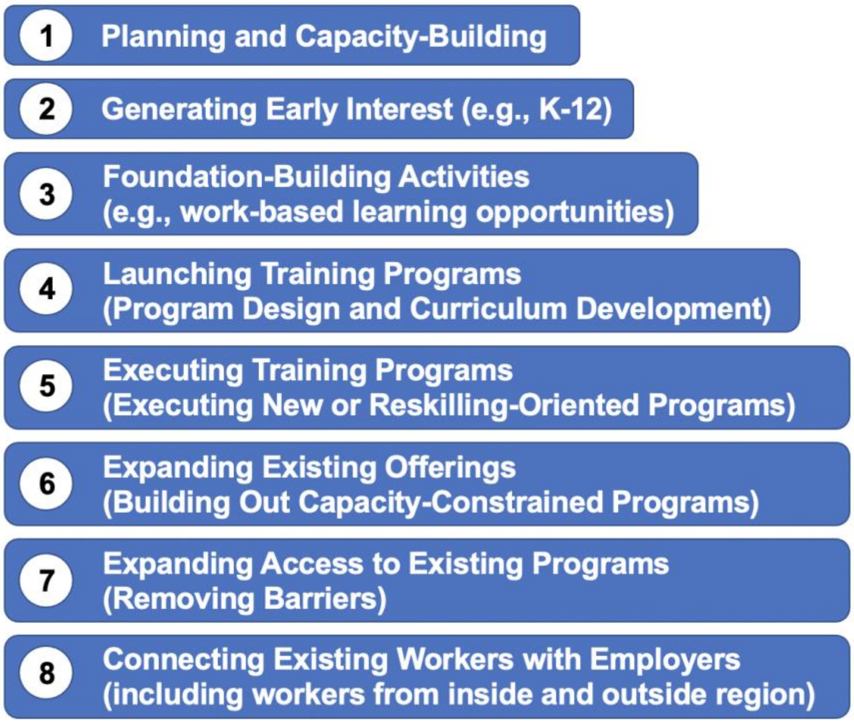
The figure above clearly outlines which questions are already usually addressed in current Growth and Diversification plans, as well as which questions are not currently considered or answered. As is obvious in the figure, the primary addition is the prompt asking regions to take the *insights* arrived at from the supply-demand analysis and to use these to identify development stages for each priority occupation, rolling these up to identify a workforce development stage for each priority or target industry sector. This component of taking the insights from the supply-demand analysis one step further and to use them to actually prioritize, plan, and theorize about clear next steps is not frequently completed. If regions were to label each target sector with a workforce development stage, it would more clearly enable them to sift through and identify truly compelling workforce development opportunities. Under this approach, a given project applicant's proposal for a grant idea that would *address* or *touch* one of the high need sectors would no longer be sufficient. Setting plans up in this way would push applicants to go one step further and prove how they are meeting the regional economy in the development stage it is in and proposing something that would uniquely address the core causes of the growth barriers that exist from a workforce development perspective.

The Eight Stages of Workforce Development

In order to establish a uniform language and vocabulary, I propose that DHCD staff consider and adopt a typology of workforce development stages similar to what I propose below. The eight workforce development stages I outline in **Figure 14** are based on a synthesis of the workforce development literature identified in the background sections and appendices of this report.

Figure 14.

The 8 development stages of workforce development programs



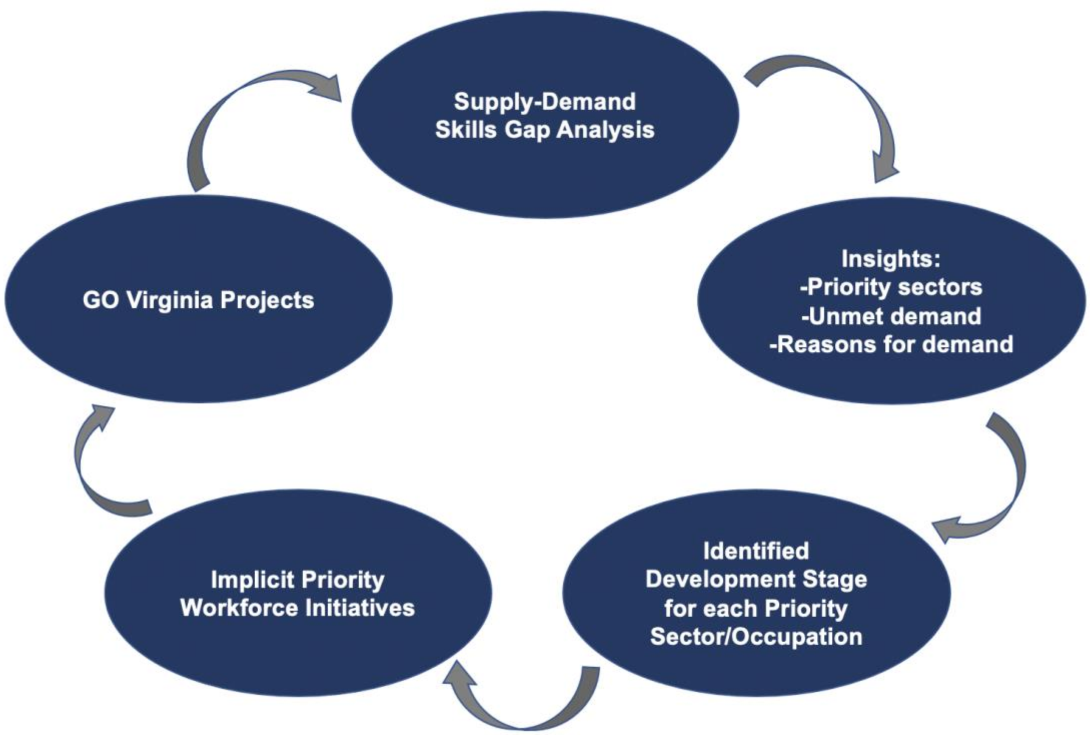
As one can see from the figure above, these eight development stages for workforce development projects are intended to serve two purposes. On the one hand, they are intended to enable staff and stakeholders to easily map where each industry in a region stands in terms of needs, constraints, and opportunities. It is important to note that, in a Growth and Diversification plan, it would be entirely appropriate for a region to be designated as being in multiple development stages. This is because there are often multiple high-need occupations in each sector and there may be multiple barriers for each occupation that prevent business growth in that sector within the region. If a region's support organization staff decide to identify a sector with multiple workforce development stages, it is essential that they clearly label which subsectors and which high-need occupations correspond to each development stage, as this will be crucial for prioritizing when they eventually consider potential project applicants. In addition to being useful for mapping where different industries are in terms of their workforce development stage, the eight stages are useful in that they also inherently tie to a given set of interventions or potential projects. In other words, once a region has labeled a given sector or occupational group as being in a certain development stage, the set of high-priority initiatives, projects, or interventions that the region ought to seek out or target for that sector are usually fairly obvious. In this way, the eight development stages can also be used to organize and group a wildly diverse set of workforce development projects that reflects GO Virginia's current workforce development project composition.

Input Cycle – From Supply-Demand Analyses to GO Virginia Projects

The basic premise is that a region's supply-demand analysis in a region's Growth and Diversification plan can be used to arrive at clear insights. These insights about barriers to business growth and the root causes of these barriers. Once these are identified, development stages for each industry sector can be identified in tandem. As mentioned above, identification of development stages will necessarily imply certain high priority workforce initiatives for each sector. If the regional support organization staff use this tool and the insights derived effectively, they can pursue projects that match this list of high priority initiatives. These projects can then be approved and their execution will help to meet workforce needs in a region and to inform and refine future supply-demand analyses. This cycle is shown in **Figure 15** below.

Figure 15.

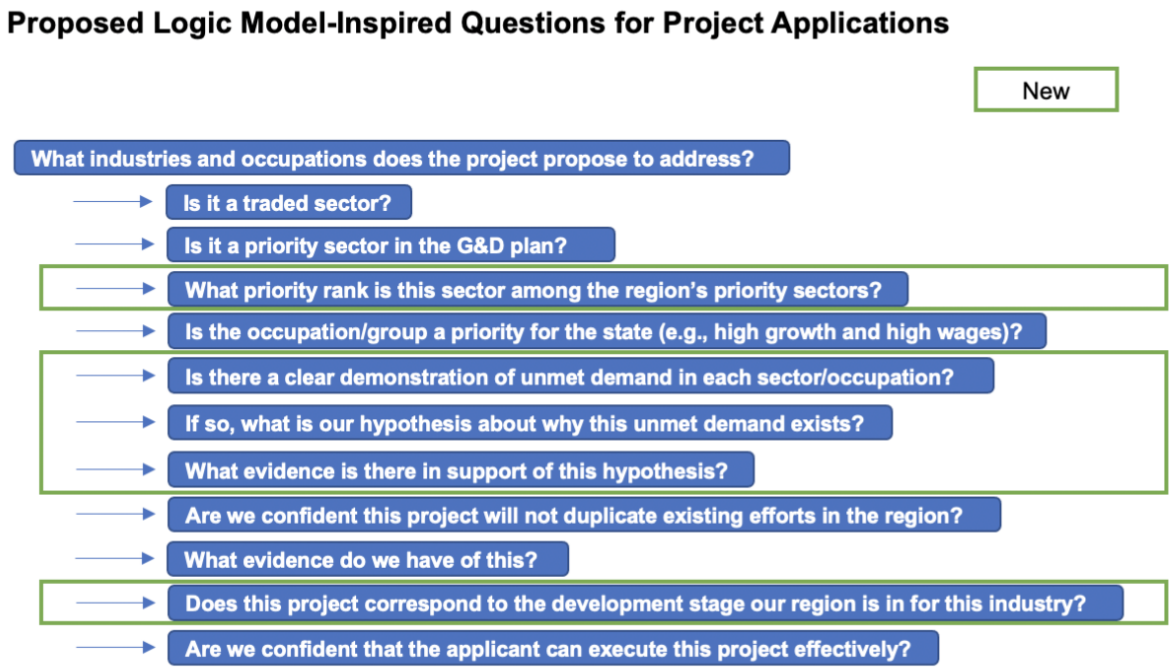
How supply-demand analyses in Growth and Diversification Plans can be revised and supplemented with a prioritization framework in order to better target GO Virginia funding



Logic Models and Project Applications

Finally, the hope is that the use of the evaluability assessment, logic model, theory of change, and revisions to DHCD guidance for how regions ought to conduct their supply-demand analyses and identify sectoral workforce development stages can also be carried through to individual project applications. **Figure 16** shows my suggested key questions that ought to be incorporated into project applications in order to give regional support organization and DHCD program staff the evidence base they need in order to assess adherence to best practices and alignment with regional and program priorities and goals.

Figure 16.



Obviously, many of these questions are already incorporated into the application. DHCD program staff can assess and decide whether they would like to revise or adjust wording based on my suggestions above. The questions not currently covered in applications are highlighted. These include questions asking about the sector being addressed and its priority rank (something new regions would be asked to do, using their supply-demand insights, based on my planning proposal above), questions asking applicants to demonstrate unmet demand that would be addressed through the project (analyses of which could be compared to those in the Growth and Diversification plan), and questions asking about which development stage the industry is in and how the project relates to that particular development stage.

If DHCD staff consider and eventually implement these tools for both planning and project evaluation, my hope is that they inspire the creation of a series of tools and an evidence base that will not be cumbersome to produce and will ultimately be useful in helping each region and DHCD staff assess adherence to best practices and clear alignment with program and regional priorities and goals.

Appendix B: Proposed Model of a Regional Supply-Demand Analysis and Regional Support Organization Analytical Guidance Documents

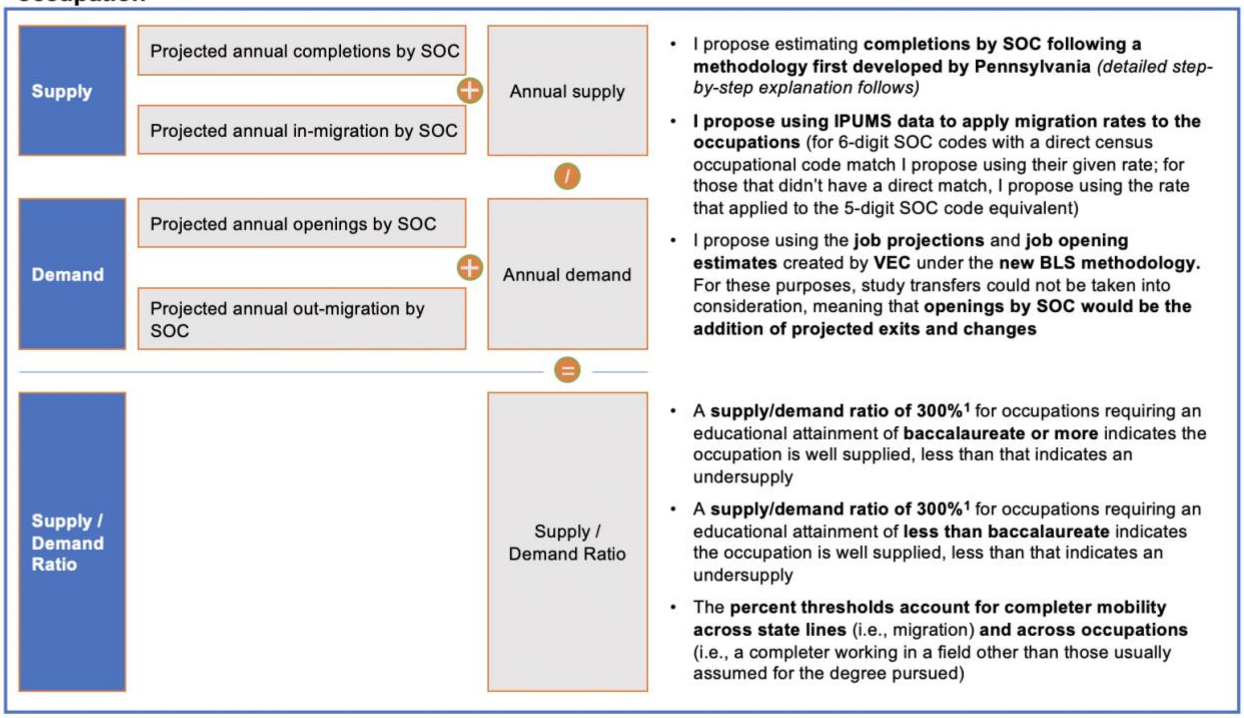
This section is intended to serve as a specific, tactical overview of *how* skills gap supply-demand analyses can be structured. My hope is that this will be helpful to DHCD staff as they seek to supplement and revise their current guidance to offer regions more hands-on assistance in conducting these types of analyses for their Growth and Diversification plans, as well as in evaluating specific project applications. It is worth noting upfront that the methodology proposed below emphasizes and incorporates both *quantitative insights* derived from a variety of data sources as well as *qualitative vetting of these insights* that comes from engagement with stakeholders and community members in the form of focus groups, surveys, interviews, and steering committee or advisory group meetings. This high-level quantitative-qualitative structure has been increasingly adopted by practitioners in recent years and is now seen as standard best practice in conducting these analyses by workforce development practitioners. The three model supply-demand analyses reviewed in the background sections and appendices all utilize this approach (Pennsylvania State System of Higher Education, 2016; New Jersey Chamber of Commerce Foundation, 2018; Pierce County Workforce Development Council, 2016).

Methodology for Analytical Process

Figure 17, below, outlines the full methodology that I propose as a best practices approach to assessing the high-priority, unmet workforce needs of a region.

Figure 17.

Proposed methodology for estimating a supply-demand gap (or unmet demand) for each occupation



[1]It is essential to test and validate these percentage thresholds with three separate stakeholder groups (i.e., industry groups or employers, education institutions and training providers, and workforce development practitioners well-versed in supply-demand analyses and similar efforts. A variety of qualitative methods including steering committees, focus groups, interviews, and surveys can be used to engage these stakeholders.

Source: VEC, Governor's Workforce Development Advisor's Office, VEDP

As the figure shows, the first step in conducting a workforce development supply-demand gap analysis ought to be estimating supply. This is done by using the Pennsylvania State System of Higher Education's methodology to estimate annual completions from higher education institutions by occupational code (otherwise known as Standard Occupational Classification or SOC code). Completion data initially comes in the form of Classification of Instructional Program (or CIP) codes produced by the National Center for Education Statistics (NCES) and its Integrated Postsecondary Education Data System (or IPEDS). The four-part methodology to estimate both supply and demand and translate these into a comparable set of SOC code-based data is outlined in greater detail below. In order to complete supply estimates, Integrated Public Use Microdata Series (or IPUMS) data is used to provide estimates of in-migration for each state of people in certain occupations. To estimate demand, I propose using job projections and job openings estimates produced by the BLS (and arranged by SOC code). While some methodologies propose finding some way to incorporate or account for transfers, I propose defining openings as solely the addition of exits and changes, excluding transfers. IPUMS data is then used to calculate out-migration by SOC code and these numbers are used to adjust the demand estimates.

Once calculations are arrived at for supply and demand, I propose calculating the ratio between the two. Under the Pennsylvania methodology, practitioners recommend targeting a *supply-demand ratio of roughly 300%* for occupations requiring baccalaureate or higher levels of education (Pennsylvania State System of Higher Education, 2016). This is because they apply a very rough assumption that roughly two-thirds of college-educated graduates in a given CIP code will leave the region of the institution they graduate from and move elsewhere for jobs. This assumption is obviously highly flawed, especially for occupations that require less than a bachelor's degree. Nevertheless, I propose holding this constant until DHCD and GO Virginia program staff can use ongoing qualitative conversations with employers and other stakeholders to assess a more realistic ratio for each industry and occupation.

Figure 18.

Part 1 – Output of estimation of supply-demand gaps in Virginia's IT sector (813 occupations), applying the methodology outlined above

SUPPLY

SOC Title	SOC Completions	In-Migration %	In-Migration	SUPPLY
Chief Executives (11-1011)	852	3.7%	318	1169
General and Operations Managers (11-1021)	2660	2.7%	1414	4074
Legislators (11-1031)	57	0.0%	0	57
Advertising and Promotions Managers (11-2011)	14	12.0%	30	44
Marketing Managers (11-2021)	332	3.6%	143	475

DEMAND

SOC Title	Occ Base Year Employment	Occ Proj Year Employment	Annual Openings	Out-Migration %	Out-Migration	DEMAND
Chief Executives (11-1011)	8682	8559	237	3.0%	261	498
General and Operations Managers (11-1021)	53217	59316	1776	5.5%	2915	4692
Legislators (11-1031)	589	647	23	0.0%	0	23
Advertising and Promotions Managers (11-2011)	248	276	10	3.4%	9	18
Marketing Managers (11-2021)	3992	4506	148	7.7%	306	454

CALCULATION OF GAP RATIO (OR UNMET DEMAND)

SOC Title	Supply / Demand Ratio	Completions / Openings Ratio	(Completions + Inmigration) / Openings Ratio
Chief Executives (11-1011)	235%	360%	494%
General and Operations Managers (11-1021)	87%	150%	229%
Legislators (11-1031)	252%	252%	252%
Advertising and Promotions Managers (11-2011)	239%	142%	449%
Marketing Managers (11-2021)	105%	224%	321%

Source: VEC, Governor's Workforce Development Advisor's Office, VEDP

Figure 18, above, illustrates how this methodology proposes calculating supply, demand, and the ratio between the two (getting at unmet demand), using the example of the IT sector. While only the top five occupations appear under the tables for supply and demand, in reality, a full analysis would provide estimates for all 813 IT-related occupations. Given the methodology outlined above, this shows how completions and migration are taken into account in order to calculate full supply by SOC code and how base year employment, projections, openings, and out-migration are taken into account to estimate full demand by SOC code. When the ratio of supply to demand is close to or at 300%, I would propose considering employer demand for a given occupation fully supplied. The table also shows a completions to openings ratio and a completions and immigration to openings ratio to illustrate that the migration assumptions ought to be made, otherwise supply is likely to be overstated relative to demand.

The second step of the process, outlined in **Figure 19** below, shows how I propose incorporating education and experience-related data for each occupation. This information is included in the Occupational Information Network (or O*NET) data produced by the North Carolina Department of Commerce and funded by the U.S. Department of Labor (DOL) Employment and Training Administration (ETA). This data is arranged by SOC code and essentially outlines the base level of education and experience employers are looking for when hiring for this position. O*NET data also includes median annual salary and hourly wages for each occupation, which is pulled in here as well. The example below shows results for IT-related occupations, building on the example from the previous chart.

Figure 19.

Part 2 – Output of linking educational and experience information from BLS to each occupation

ADDITION OF EDUCATION AND EXPERIENCE DATA

SOC Title	Education	Education Tier	Experience	Job Training	Median Annual Salary	Median Hourly Wages
Chief Executives (11-1011)	Bachelor's degree	BA or above	5 years or more	None	n/a	105.41
General and Operations Managers (11-1021)	Bachelor's degree	BA or above	5 years or more	None	122730	59.01
Legislators (11-1031)	Bachelor's degree	BA or above	Less than 5 years	None	18700	n/a
Advertising and Promotions Managers (11-2011)	Bachelor's degree	BA or above	Less than 5 years	None	115510	63.94
Marketing Managers (11-2021)	Bachelor's degree	BA or above	5 years or more	None	156880	80.53

Source: VEC, Governor's Workforce Development Advisor's Office, VEDP

The third part of the supply-demand analysis, outlined in **Figure 20**, covered below, outlines how I propose filtering a longer list of occupations down to focus on only those occupations that meet the state's economic development priorities and the goals of the GO Virginia program. This step involves applying a star rating system created by the Office of the Governor's Chief Workforce Development Advisor during Governor McAuliffe's term. Essentially, this star rating system is supposed to create a priority order of occupations, ensuring that only those with a critical mass of employment in the state, with short and long-term growth trajectory, and with earnings above the state's average hourly wage would be prioritized. I propose applying this star rating system to all occupations considered in the analysis (in this case, the 813 IT-related occupations statewide) and using it to eliminate those with less than one star. As the figure below notes, occupations that did not have at least 150 annual openings in the short- and long-term and which offered below the state's average hourly living wage (as calculated by MIT) were given a 0-star rating and eliminated. Occupations that passed each of these filters were given one star. Occupations were then given an additional star each if they surpassed long-term or short-term annual openings above the state average for all occupations or had long-term or short-term growth rates above the state average for all occupations. DHCD and GO Virginia program staff might consider developing and leaning on growth rates and forecasts that adjust for economic changes that occurred during the COVID-19 pandemic and the ensuing economic recession to make these numbers more realistic.

Figure 20.

Part 3 – Methodology for integrating the star rating system developed by the Governor's Chief Workforce Development Advisor's Office (McAuliffe) to identify "high priority occupations"

High Priority Demand Occupations

- The Governor's Office applied a 5-part analysis ("star rating system") to identify jobs that (first) passed a minimum openings and wage threshold, and had higher than average short- and long-term openings and growth rates
- No particular priority was placed on short- or long-term growth rates or openings levels
- This approach allows practitioners to interpret 5-star occupations as "undeniably" high-demand. As occupations move from 1 to 5 stars, this indicates that we become increasingly certain that an occupation is higher demand than others with lower star ratings.

- Thus, to create a list of high-priority demand occupations, the following steps were taken:
  1. Occupations were filtered by annual openings and median wages:
     a. Occupations that did not have at least 150 annual openings (in the short- and long-term) **and** an average wage of at least **$13.86/hr**[1], were classified as having **0 stars**
     b. Occupations that did pass the filter were given **1 star**

  2. Occupations were then given **an additional star** each time they matched one of the following criteria:
     a. Long-term (10-year) annual openings above state average (320)
     b. Long-term (10-year) growth rate above state average (0.98%)
     c. Short-term (2-year) annual openings above state average (320)
     d. Short-term (2-year) growth rate above state average (1.4%)

[1]Note: MIT calculates a state average living wage for every state. Since the star rating system was developed and applied to Virginia's occupations, the living wage has increased from $13.86/hour to $14.77/hour. As VEDP only has access to the original analysis, occupations had to pass the old wage threshold of $13.86/hour, as opposed to the new threshold of $14.77/hour.

Source: Governor's Chief Workforce Development Advisor's office

The fourth and final part of the supply-demand analysis involves tying the SOC codes (and corresponding occupations), once identified, to key industry sectors. **Figure 21**, shown below, explains the methodology I propose using and an example of what the output would look like for the IT sector. As noted below, the Office of the Governor's Chief Workforce Development Advisor (during the term of Governor McAuliffe) created a "grid" that matches occupations to the Commonwealth's identified target sectors for the purposes of fostering economic growth in every region of the Commonwealth. These sectors are IT, manufacturing, business services, logistics, tourism, agriculture and forestry, energy, and healthcare. Using this grid (which is effectively a crosswalk between SOC codes and North American Industry Classification Code System (or NAICS)), occupations are rated and prioritized according to their rate of "coreness" to an industry. I propose designating occupations that account for 1% or more of total employment in one of the Commonwealth's target sectors "significant" to that sector and designating those that constitute 20% or more of total employment in a target sector "dominant" for that sector. When I applied this to the IT sector, it reduces the 813 occupations down to 31 significant and dominant occupations. In some instances, if the number of significant and dominant occupations exceeds the analytical capabilities of the project, I recommend examining *only* occupations that are dominant for an industry. Once this list of 31 IT occupations is produced, I recommend doing a textual analysis of the occupation titles. For the IT sector, for example, I was specifically looking for occupations that included the words “computer,” “network,” “software,” “web,” and “telecommunications” in the occupational titles. Occupations with these terms were deemed “relevant” to the sector. Occupations without these terms were deemed “general occupations,” which, though they may represent significant levels of employment, do not appear to be constrained by unique challenges facing this particular industry. I propose then examining only the occupations specific or relevant to the sector being examined. In the case of the IT example I have been using, this would be 14 occupations.

Figure 21.

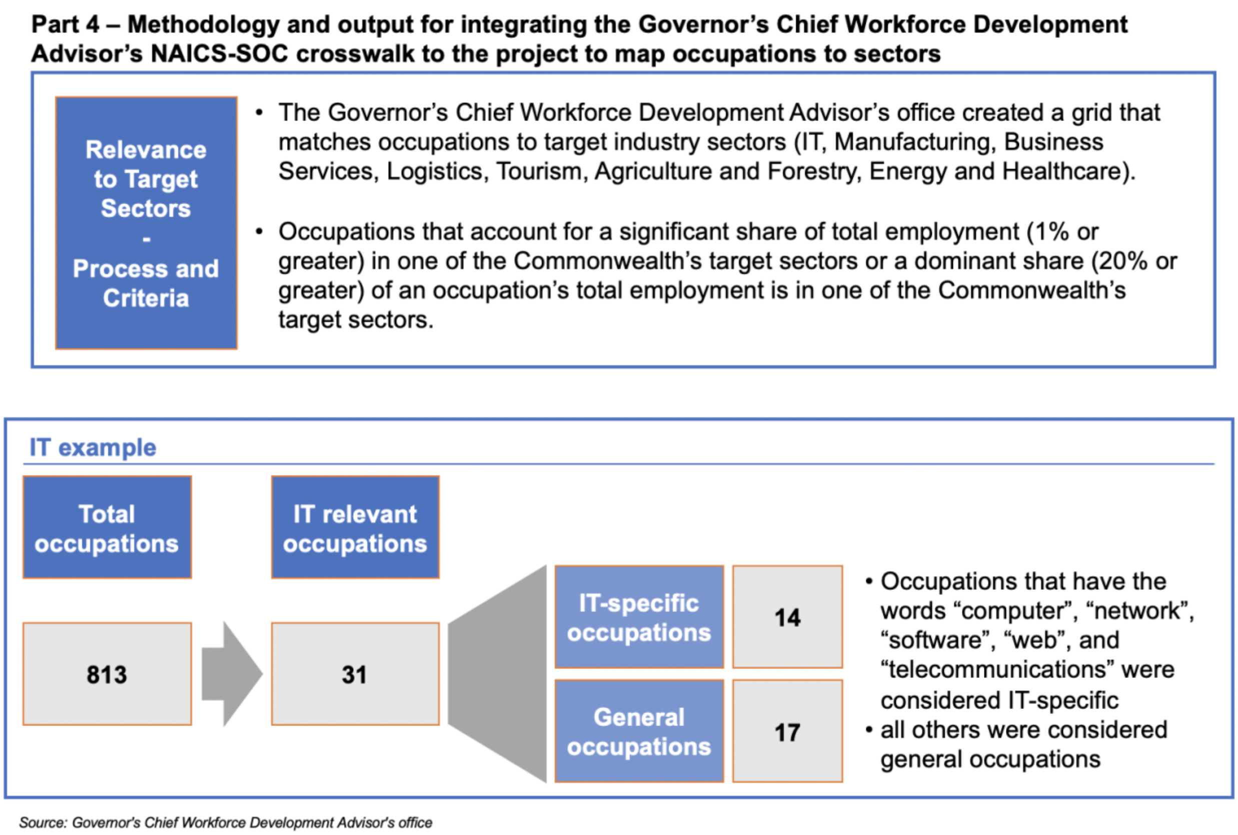
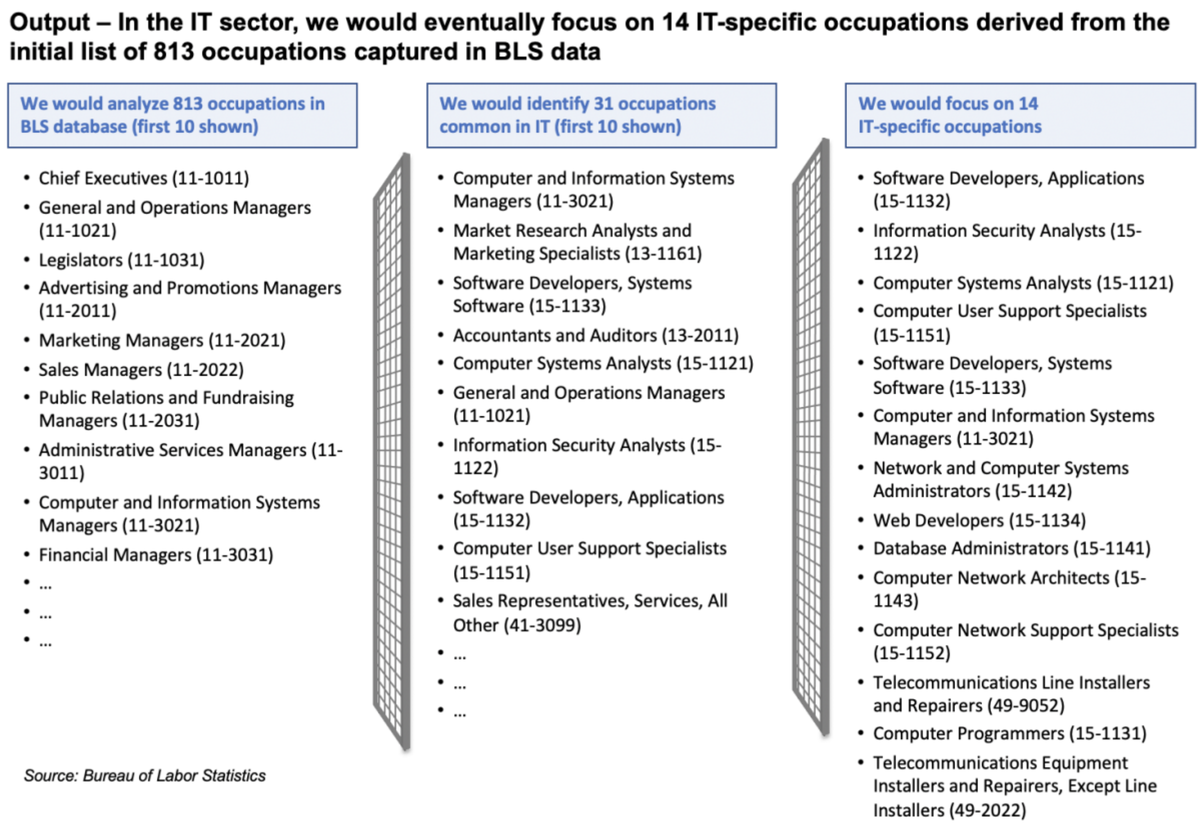


Figure 22 illustrates clearly how this works for the IT sector, charting the path from the 831 occupations originally considered to the 14 occupations eventually assessed during the course of the analysis.

Figure 22.



Once the filtering is complete, I propose eventually returning to the supply-demand ratios calculated for all occupations. In the IT sector, again, these ratios were calculated for all 831 IT occupations. Once we revert to examining only the 14 occupations that are IT-specific and relevant (in this example), it becomes easier to prioritize. **Figure 23,** shown below, illustrates this well.

Figure 23.

Output – Of these 14 occupations, we would propose focusing on 10 with very high or high gaps and at least one star from the star-quality rating

SOC Title	Rating	Education Tier	Estimated gap
Software Developers, Applications (15-1132)	5	BA or above	Very High
Information Security Analysts (15-1122)	5	BA or above	Very High
Computer Systems Analysts (15-1121)	5	BA or above	Very High
Computer and Information Systems Managers (11-3021)	5	BA or above	Low
Computer User Support Specialists (15-1151)	5	Less than BA	High
Software Developers, Systems Software (15-1133)	5	BA or above	High
Network and Computer Systems Administrators (15-1142)	4	BA or above	High
Web Developers (15-1134)	3	Less than BA	High
Database Administrators (15-1141)	3	BA or above	High
Computer Network Architects (15-1143)	2	BA or above	High
Computer Network Support Specialists (15-1152)	1	Less than BA	High
Telecommunications Line Installers and Repairers (49-9052)	0	Less than BA	Very High
Computer Programmers (15-1131)	0	BA or above	High
Telecommunications Equipment Installers and Repairers, Except Line Installers (49-2022)	0	Less than BA	High

Source: Bureau of Labor Statistics

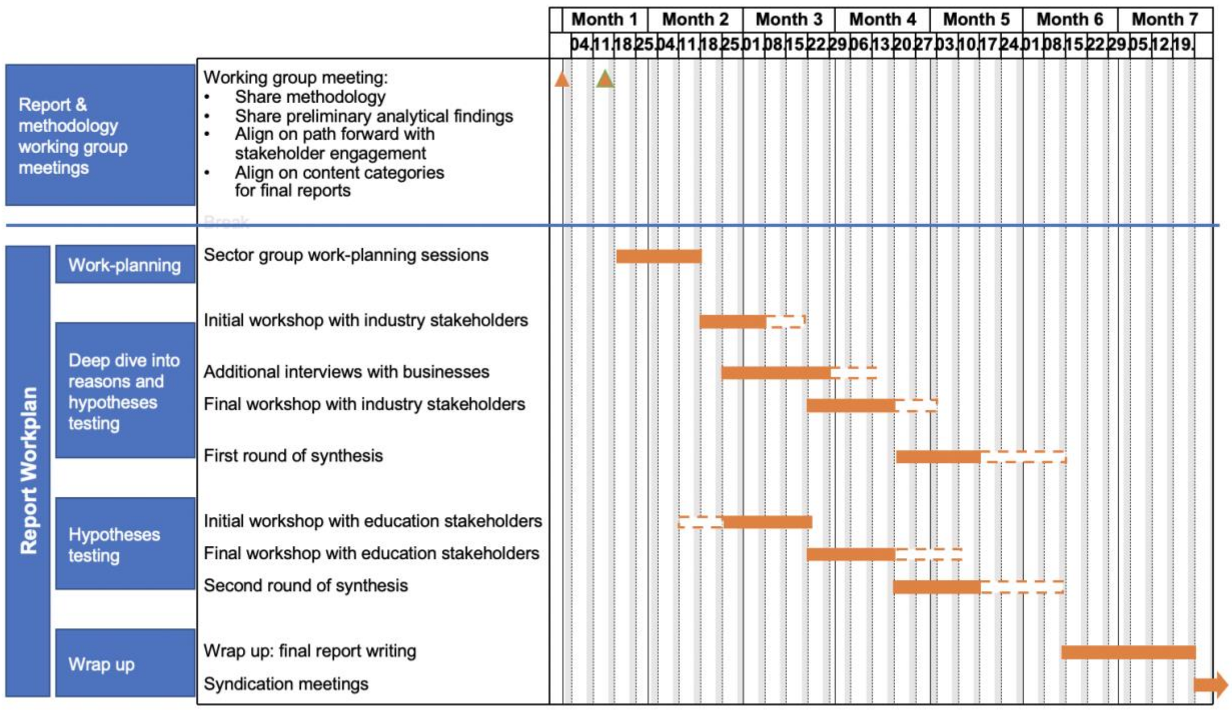
In this figure, the 14 IT occupations are further reduced to 10 occupations. I propose arriving at this further filtering by eliminating those occupations with a 0-star rating and those with a low estimated gap. If time permits, those with low estimated gaps can still be put before stakeholder groups for vetting to ensure that something is not being overlooked by the analysts. This list of occupations, then, represents the workforce development targets for that sector.

Approach for Qualitative Vetting with Stakeholders

As discussed above, the next step would be to vet these results with qualitative methods. This would include robust stakeholder engagement, including having facilitated discussions with advisory groups or steering committees comprised of industry, educational institution, and workforce development practitioners, as well as surveys, focus groups, or interviews with each of these stakeholders. The purpose of vetting is two-fold. First, given the wide array of rough assumptions incorporated into the methodology, it is important to ensure that the directional (and not precise numerical) insights produced by the numbers resonate with stakeholders on the ground. If they don't, there is reason to investigate further, adjust assumptions, or question the findings. Second, qualitative vetting with stakeholders is essential because the data do not clearly explain *why* the gaps identified exist. Problem solving and brainstorming the root causes of these supply-demand gaps is essential for identifying the development stages for each industry sector and occupation and appropriately identifying the highest priority action items or initiatives for each sector. A proposed hypothetical workplan for what this qualitative vetting process would look like, operationalized in the form of interviews and focus groups, is shown below in **Figure 24**.

Figure 24.

Hypothetical proposed workplan for qualitative stakeholder engagement to support a full supply-demand skills gap analysis



Ensuring that numbers are not reported as exact measures of supply-demand gaps, but rather as directional indicators is critical. Workforce development practitioners should be explicitly encouraged not to lean too heavily on exact numbers, given the high level of assumptions being made throughout the process. Part of the way I propose arriving at a set of directionally correct insights is to triangulate findings using a variety of qualitative sources. The four primary sources (one quantitative and three qualitative) that I recommend using in the course of supply-demand analyses and vetting are shown below in **Figure 25**. As covered below, the four primary sources of information I propose using to complete an accurate, well-rounded, robust supply-demand analysis are: Analytics, desk research (also known as a literature review), employer engagement (whether in the form of surveys, focus group meetings, inclusion on advisory committees, or interviews), and education (or training) provider engagement (using a set of methods similar to those proposed for use with employers).

Figure 25.

Strong supply-demand analyses rely on four primary sources for insights

	Details
Analytics	• **Estimate supply-demand relationships** for all occupations in a sector in Virginia (or a given region or locality) based on Bureau of Labor Statistics occupational projections and the Governor's Office's quality jobs star rating system. Validate this analysis with practitioners.
Desk research	• **Review relevant literature** on national, state, metro, and local employment supply and demand dynamics (e.g., trends, employer expectations, talent pipeline quality and quantity) for a given sector's occupations. Validate these findings with practitioners.
Employer Engagement	• **Interview employers** of all sizes, geographies, and sectors who hire talent in the sector being studied. Disseminate and validate these findings with practitioners.
Education provider engagement	• **Interview education and training providers** of all types (e.g., public vs. private; two-year vs. four-year) and focus areas (e.g., short bootcamps for specific skills vs. liberal arts education providers that might offer full degree programs) relevant to a specific sector.

Finally, at each stage of the process, I propose disseminating and vetting findings with a core steering committee or working group made up of workforce development practitioners at state agencies and state-level stakeholder entities. The full list of entities I propose using is shown below in **Figure 26**. This group will help ensure accuracy and enable for better thoughtfulness around analytics, synthesizing qualitative insights, and helping to check and validate methods. At the conclusion of this process, both DHCD and regional support organizations can have confidence that they have relied on a supply-demand analysis process that aligns with identified best practices, forces them to be well-rounded in their findings based on triangulation of sources, and resonates with core stakeholders and audience groups. While not perfect, I am confident that this process, if standardized and regularly used, can regularly and frequently produce and reproduce supply-demand analyses that can guide and inform high-level strategic workforce investment decisions in a way that is rigorous, respected, and repeatable.

Figure 26.

Potential Virginia workforce development stakeholders able to serve on a practitioner or methodology steering committee or advisory group

Appendix C: Background – Workforce Development in Virginia and in the United States

What is "workforce development"?

Put as simply as possible, workforce development can be explained as any education, skills, training, or other preparation an individual might need to fill a given occupation. In their comprehensive definitional work on the term, Ronald Jacobs and Joshua Hawley write: "Workforce development has evolved to describe any one of a relatively wide range of national and international policies and [programs] related to *learning for work*" (2009). Perhaps one of the reasons it is so difficult to clearly define workforce development activities is because so many practitioners seem to differentiate whether or not something is "workforce development" or not by whether or not it is *done for the purpose of preparing people to secure jobs.* In other words, the definition, as it has been constructed, appears largely to be motivation-based. In a given geographic, industry or sector, or occupational context this can encompass a wide variety of activities. Below, I frame the most widely accepted categories of workforce development activities.

- **Direct provision of training outside of the formal education system:** This is perhaps what most people consider "workforce development" services. Prominent examples would include credentialing or training programs that offer individuals the chance to gain specific skills that employers demand when they are *not enrolled* in any formal K-12 or postsecondary educational program. Increasingly, a host of for-profit and non-profit providers have appeared in this space. Sometimes, these services are provided by traditional education institutions, such as community colleges[14] or universities. Sometimes, individuals pay for these services and occasionally, private, local, state, or federal programs will fund or offset the costs (often via reimbursement).

- **Direct provision of training within the formal education system:** As mentioned, this is where the motivation-based aspect of the definition of workforce development plays a role. If universities or community colleges make efforts to revise curriculum or decide to expand offerings in one program while closing out those in another program, for example, and do so *with the intent of filling the need of employers in the region or better preparing students to take certain jobs post-graduation*, this can be considered workforce development. Obviously, this is complex and, oftentimes, educational institutions have multiple motivations for making certain policy decisions. Nevertheless, increased involvement of and consultation with economic development and workforce development officials on these kinds of policy decisions are just one piece of evidence to demonstrate that these are, at least partially, workforce development policy changes.

[14] The Virginia Community College System (VCCS), for example, is structured so that there are both traditional course offerings and workforce training offerings at each institution.

- **Generating or building awareness or interest in certain career pathways:** Oftentimes, this occurs early in the educational or training life cycle. Recently, policymakers seem to have spent increased time and attention thinking about how to get young learners (even as young as preschool-aged students) to build interest in and familiarity with certain occupations or career types, such as those in the technology field.

- **Providing labor market information to nudge people toward seeking optimal or "high-demand" jobs:** Increasingly, state and federal agencies have concerned themselves with creating interactive, public-facing portals that present labor market information about which occupations are in high-demand, the average starting salaries of these occupations, and the types of degrees, credentials, or training needed for an individual to successfully fill these occupations. The idea is that once individuals know which jobs are in high-demand and see the salaries these jobs offer, they will align their education and training decisions accordingly and this improved, targeted information will allow the labor market, currently fraught with shortages in high-demand fields, to right itself.

- **Providing linkage services to connect skilled individuals with employers and vice versa:** Oftentimes the same portals referenced above have platforms designed to link qualified, skilled workers with employers who have occupations to fill. Sometimes these portals are driven by the use of artificial intelligence and algorithms to improve efficiency. The driving assumption behind the design and use of these tools is that the labor market has sufficient levels of qualified workers and open jobs, but that connectivity issues prevent the workers and employers from finding each other.

- **Providing reemployment (as well as other wraparound and support services) to recently unemployed individuals:** As discussed below, the bulk of these services are currently provided through locally- and regionally organized offices, responsive to federal and state mandates, and answering to and staffed by state agencies. For these agencies, recently unemployed or laid-off individuals represent prime targets for interventions and other services designed to help prepare them for reemployment.

- **Providing reskilling services to individuals looking to switch careers:** Occasionally, local, regional, and state actors have proposed creating programs designed to train individuals already in the labor force on a new set of skills or competencies in order to help them move to a new career. Usually, the focus is on moving individuals from traditionally low-paying jobs to higher-paying jobs. During the COVID-19 pandemic, in which specific types of occupations have been heavily affected, these types of proposals have gained considerable momentum.

- **Providing inducements for skilled individuals to move to high-need areas:** Occasionally, workforce developers will turn to policies or programs that can effectively import talent to a given area or region, as opposed to building a pipeline of talent locally. This has gained attention particularly in rural areas, which suffer from significant population loss and the decimation of core, traditional industries. While not often done, metropolitan areas facing acute shortages of workers with specific skills critical to major employers may attempt to bridge the gap temporarily by encouraging in-migration for workers with those specific skillsets.

- **Removing barriers to employment:** Occasionally, employers identify critical shortages of workers that are caused by some sort of external barrier to entry. In some cases, employers have pointed to immigration restrictions, arguing that the United States is not equipped on its own to train workers sufficient to meet their needs. Another domestic example is that of security clearances. If employers are able to access a pool of qualified talent, but that talent is not able to secure security clearances issued by other agencies, workforce developers may take interest in doing what they can to remove these barriers to entry. This is rare, but not without examples.

The inherent vagueness in the definition of workforce development and the many types of policies and programs that are considered "workforce development" make it a difficult field to clearly outline. This is directly relevant to this project and the GO Virginia program. There are no concrete answers. As long as a policy or program has a goal of preparing workers for employment and as long as it can demonstrate effectiveness in doing so, it can be considered workforce development. And, since there are many ways to consider, assess, and propose solutions to tackle labor market issues, there are an equally vast number of ways to structure and fund grant programs designed to execute these solutions. This is part of what makes comparing various workforce development programs so difficult.

Federal Workforce Development Programs and Legislation

In the United States, the federal government has been concerned with the support of workers who are unemployed since the proposal and enactment of Franklin Roosevelt's New Deal-era programs and legislation. During this time, most workforce-related spending was focused on direct, federal government spending aimed at *providing* pay and employment directly to displaced workers in the form of public works projects. During its eight years of operation (1935-1943), the Works Progress Administration (later known as the Work Projects Administration), one of the best known of the New Deal direct relief workforce programs, employed 8.5 million workers on federally funded public works projects (Pennsylvania Workforce Development Association, 2021). This first major program offers the first major example of how, when faced with public crisis and extremely high levels of unemployment, federal investments were made in direct workforce programs which were (and still are) valued over direct public assistance programs in the United States. As historian Robert Leighninger reflected, while "millions of people needed subsistence incomes…work relief was preferred over public assistance (the dole) because it maintained self-respect, reinforced the work ethic, and kept skills sharp" (1996). This continues to the case today.

Roughly every decade or so since the 1960's, the federal government has seen fit to intervene, provide direct funding, and, to some extent, establish and reform the higher-level architecture of workforce training and support programs in the United States. While most programs and services are managed by employees of state governments, most of the funding is federal and, as a result, the federal government has seen fit to incentivize or mandate the services and structure of these programs though passage of federal workforce legislation.

In overall terms, the major pieces of federal workforce-focused legislation are as follows:

- **Wagner-Peyser Act (1933)** – This legislation established a nationwide system of public employment offices, known as the Employment Service, which still exists indirectly today. The Employment Service's ultimate goal, as envisioned in this legislation, was to improve the functioning of the nation's labor markets by connecting individuals seeking employment with employers seeking workers. (U.S. Department of Labor, 2021).

- **Social Security Act (1935) and Federal Unemployment Tax Act (FUTA) (1939)** – This legislation established unemployment insurance, old-age assistance (now known as Social Security), aid to dependent children, and grants to states to provide for various forms of medical care (Social Security Administration, 2021). Importantly, even though the Social Security Act and its programs did not directly provide workforce training, they enabled the gradual creation of many of the structures that now administer workforce programs (modern divisions of the Department of Labor and state departments of labor, employment commissions, and workforce commissions). The Federal Unemployment Tax Act passed in 1939 established the framework for a joint state and federal scheme of unemployment insurance as set out in the 1935 Social Security Act. (Social Security Administration, 2021). All in all, these two pieces of legislation adhered to and reinforced American preferences for social insurance programs over and above direct public assistance.

- **Fair Labor Standards Act (1938)** – This legislation created the right to a federal minimum wage and 'time-and-a-half' overtime pay when people work over forty hours a week in certain occupations. It also prohibits employment of minors in "oppressive child labor." (Grossman, 1978).

- **Manpower Development and Training Act (1962)** – Signed by President Kennedy, this legislation recognized rising unemployment and acknowledged the existence of a worker skills gap in an increasingly changing economy. This act bolstered funding for and instructed agencies to provide training to unemployed adults and a small percentage of youth workers whose skills needed to be upgraded to enter or re-enter the workforce. (Pennsylvania Workforce Development Association, 2021).

- **Comprehensive Employment and Training Act (CETA) (1973)** – Signed by President Nixon, this legislation made many revisions to the Manpower Development and Training Act. The primary focus was creating jobs for unemployed adults and providing summer job opportunities for high school students. A primary focus of the programs established was establishing apprenticeships for unemployed or underemployed individuals to help them gain experience and on-the-job training. Under this act, many federal training programs and services were consolidated and greater responsibility was placed on state governments as “Prime Sponsors” of workforce development programming through activities managed by their departments of labor and workforce or employment commissions. (Pennsylvania Workforce Development Association, 2021).

- **Job Training Partnership Act (1982)** – Signed into law by President Reagan, this act continued the trend of consolidating education and workforce training activities by setting up regional Service Delivery Areas (SDAs, which eventually morphed into today’s Workforce Investment Areas) in each state. Obviously, the federal government and its priorities and regulations continued to play a primary role since all funding was federally sourced. This act represented the first attempts at program analysis or program evaluation with the stated purpose of forcing program administrators to demonstrate that workforce development programming was having a positive impact on society. This act was also the first time that workforce training providers were required to engage the business community to gain input on programming. Each SDA was required to create a private industry council for industry employers to give input and express needs. These councils later became workforce investment boards or workforce development boards. (Pennsylvania Workforce Development Association, 2021).

- **Workforce Investment Act (WIA) (1998)** – Signed into law by President Clinton, the WIA focused on further consolidating the nation’s now vast network of workforce development and training programs and related support services through a nationwide network of community-based, one-stop career centers. These centers were set up to assist all individuals that came seeking support and the legislation mandated that the centers solicit and secure the support of various community partners. Under the WIA, local, business-led workforce investment boards (workforce development boards in Virginia) were created to develop local strategies using labor market data and oversee the administration of programs in their communities. (Pennsylvania Workforce Development Association, 2021).

- **Carl D. Perkins Vocational and Technical Education Act (Perkins IV) (2006)** and the **Strengthening Career and Technical Education for the 21st Century Act (Perkins V) (2018)** – The first version of this legislation was authorized in

1984 (Perkins I) and was subsequently re-authorized in 1998 (Perkins II) and 2000 (Perkins III) (U.S. Department of Education, 2021). The Perkins IV reauthorization, signed into law by President George W. Bush, revised the law in three major ways, introducing the term “career and technical education” (CTE) as opposed to “vocational education,” maintaining the Tech Prep program (key school-to-work transitional programming) as a separate funding stream, and holding state administrative funding for the program constant at five percent of a state’s allocation (U.S. Department of Education, 2021). Perkins IV also included new requirements for “programs of study” that connect academic and technical content across secondary and post-secondary education (U.S. Department of Education, 2021). The law also enhanced local and state accountability requirements (U.S. Department of Education, 2021). All in all, the program provides $1.2 billion in federal funds for CTE programming, including development of integrated career pathways. Perkins V reauthorized the legislation through 2024 (U.S. Department of Education, 2021).

- **Workforce Innovation and Opportunity Act (WIOA) (2014)** – Signed into law by President Obama, WIOA represents the current federal regime that governs the structure, reporting, and delivery of federally-funded workforce training and support programs. Under this legislation, the workforce investment system was reauthorized and the WIA was replaced with yet another restructuring and consolidation effort. The states and local workforce development boards are now tasked with administering the act. According to the U.S. Department of Labor (DOL), WIOA “brings together, in strategic coordination, the core programs of Federal investment in skill development,” including employment and training programs administered by DOL, as well as the adult education and family literacy programs that assist eligible individuals with disabilities in obtaining employment administered by the U.S. Department of Education. (U.S. Department of Labor, Employment and Training Administration, 2021).

Notably, the passage of WIOA required several key changes to federally funded, state-administered workforce development and workforce training efforts. These are outlined below:

- For the first time, states were required to **strategically align workforce development programs** with employer needs. WIOA required the myriad of workforce-related programs to be altered so they could be coordinated and complementary, helping job seekers acquire skills that would match with employer demand.
- Core programs were required to **report on common performance indicators**. Per federal guidelines, these indicators were intended to be targeted to measure key employment information, such as the employment rate of participants after exiting the program, their median wages, whether they attained a credential, and their measurable skill gains.
- States were required to **identify a set of workforce regions in their state**, building on but reforming past federal attempts at regionalizing workforce program administration.

- States were also required to **increase the quality and accessibility of services that job seekers and employers receive at local American Job Centers (AJCs)**, where Wagner-Peyser services were required to be co-located with other locally available workforce programs, as well as social services, such as TANF.
- State and local boards were also required to **formalize and augment existing efforts to engage employers** in planning, program execution, and feedback, as the overall goal of the legislation was to contribute to economic growth and business expansion by ensuring the entire workforce system was job-driven, matching employers with skilled individuals.
- The legislation also pushed states and local workforce investment areas to move toward a **focus on career pathways and industry-recognized postsecondary credentials,** orienting all programs and services around an understanding of these as essential outcomes.
- The legislation also collapsed the old WIA-established service categories of core and intensive services into **one set of career services, eliminating required sequencing of services** and enabling job seekers to access training immediately.
- WIOA also **streamlined and strengthened the strategic roles of the workforce development boards (WDBs)**, requiring them to coordinate and align programs and services and involve the business community as majority membership on the boards and secure business leaders to serve as board leaders. (U.S. Department of Labor, Employment and Training Administration, 2021).

The passage of the Workforce Innovation and Opportunity Act (WIOA) was highly impactful in terms of how the nation conceives of and executes workforce training and support services. The legislation built on existing federal frameworks and also created new emphases (for example, career pathways and responsiveness to employer demand). These carry through to the administration and structuring of current workforce development programming in Virginia today.

Workforce Development Landscape in Virginia

Although federal legislation has provided the majority of the funding and higher-level guidance that has shaped how workforce development programs are structured and executed, state governments and regional and local entities also have considerable influence. Because federal legislation cannot specify every item, there is a considerable amount of discretion left to states and even to local workforce development boards themselves. Because of this level of influence, the role of the Governor and their staff, as well as the role of the Virginia Board of Workforce Development (VBWD) are outlined in the Code of Virginia.

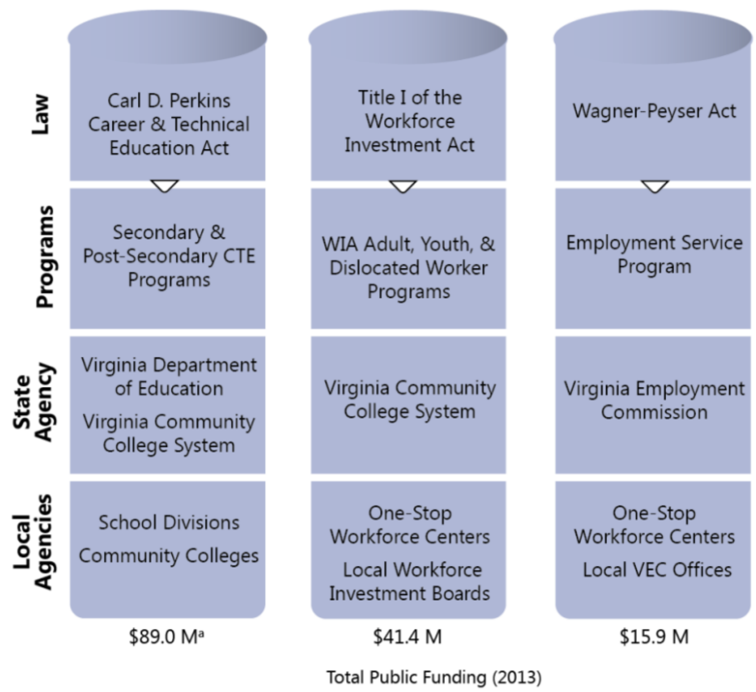
According to the Code, the Governor is considered the Chief Workforce Development Officer in the Commonwealth (Code of Virginia, § 2.2-435.6). Stemming from this role, the Governor is given the authority to appoint a Chief Workforce Development Advisor, who plays a large role in the oversight of the state's various workforce-related agencies and programs, including oversight over the local WDBs. The Chief Workforce Development Advisor is responsible for developing a strategic plan for the Commonwealth's workforce development and training programs, determining the allocation of funds appropriated to the Commonwealth, and developing standards for programs and training providers. The Chief Workforce Development Advisor is also responsible for monitoring the effectiveness of the local WDBs and is required to conduct annual evaluations of their performance (Code of Virginia, § 2.2-435.7). In the 2021 Special Session of the Virginia General Assembly, House Bill 2321 created in the Governor's Cabinet a Labor Secretariat and Secretary of Labor position (HB 2321, 2021). The bill removed the position of Chief Workforce Development Advisor and reassigned its duties to the new Secretary of Labor position (HB 2321, 2021). This change was signed into law by Governor Northam as Chapter 453 and will be effective July 1, 2021.

In addition to the Chief Workforce Development Advisor, there is also a Virginia Board of Workforce Development (Code of Virginia, § 2.2-2471). The Board is given extremely wide latitude and authority, as it is responsible for reviewing the budget of *any* agency that receives federal or state dollars to fund career, technical, or adult education and workforce development programs. Agencies must submit budgets that contain information on the sources of revenues that break down the expenditures into administrative, workforce education and training, and support services.

This system is intended to oversee the vast network of Virginia's many workforce-related agencies and programs. In total, Virginia's Joint Legislative Audit and Review Commission reported in 2014 that Virginia had 24 workforce development programs (JLARC, 2014). These various programs aim to provide a wide array of workforce training and support services to job seekers, students, and employers. JLARC calculated that, in 2014, these programs received $341 million in government funds in Fiscal Year 2013 (JLARC, 2014). By source, the vast majority of these funds (61 percent) were provided by the federal government (JLARC, 2014). These 24 programs were administered by nine state agencies and overseen by three secretariats. Depending on the program, numerous local entities were found to be responsible for directly providing the services to job seekers and employers. These local entities include "one-stop" workforce centers (previously known as AJCs), Virginia Employment Commission (VEC) offices, high schools, and community colleges. As JLARC noted: "To ensure that employers' and job seekers' needs are met by this wide array of programs and agencies, the state aspires to produce a workforce development system that is coordinated and efficient, and that meets the needs of employers" (JLARC, 2014). And, to this end, a variety of efforts have been made over the years to consolidate and streamline workforce-related activities. **Figure 27** gives an overview of the decentralized nature of major workforce development programs in the Commonwealth of Virginia.

Figure 27.

Decentralized nature of major workforce development programs underscores importance of coordination



Source: JLARC staff analysis of federal laws; *Mapping the Virginia Workforce System: A Status Report on Workforce Programs in the Commonwealth*, Virginia Commonwealth University (2013); *Workforce Development in Virginia*, The Commonwealth Institute (2013); and state agency websites.
[a]Includes federal Perkins funds and state general funds. Of the federal Perkins funds that are distributed locally, 85 percent are allocated to school divisions and 15 percent are allocated to community colleges.

Nevertheless, due to the varying (and, at times, conflicting) goals of various programs and the complex network of funding and reporting structures, these goals have not been fully met. JLARC's report highlighted what it identified as a "lack of coordination and inconsistent participation" among the many state and local agencies involved in workforce development (JLARC, 2014).

At the time that this report was completed, the GO Virginia program legislation had not been proposed or enacted. To the extent that a GO Virginia region or sub-grantee is involved in funding or standing up a workforce development program, these programs will necessarily operate in a highly complex and overlapping context. Given how many agencies and programs are focused on workforce development in Virginia, it should come as no surprise that attempting to propose and implement a program where efforts are not being duplicated is an increasingly difficult thing to do.

Workforce Development in the "New Virginia Economy" and Beyond

In August 2014, eight months after taking office, then-Governor Terry McAuliffe issued Executive Order 23, outlining the "New Virginia Economy Workforce Initiative"

(Executive Order No. 23, 2014). This executive order effectively outlined McAuliffe's comprehensive workforce development strategy. From the outset, the Governor's approach to workforce development was distinctly business-focused, with McAuliffe declaring: "The Commonwealth must devise a long-term, comprehensive plan to equip our workforce with in-demand skill sets that will retain and attract businesses" (Executive Order No. 23, 2014). To do this, McAuliffe noted that it was "crucial" to expand capacity of Virginia's educational institutions and training programs so that "enough students [could] graduate from Virginia's educational institutions to meet the demands from current and prospective employers" (Executive Order No. 23, 2014). This could not be done through government action alone, McAuliffe asserted. Instead, McAuliffe directed, the entire workforce development system ought to be re-oriented to see businesses as essential clients and to directly engage with employers to "determine current and future employment needs" (Executive Order No. 23, 2014).

To this end, McAuliffe directed the VBWD and his Chief Workforce Development Advisor to institute four key initiatives aimed at maximizing Virginia's workforce development efforts across the Commonwealth. These initiatives are as follows:

- Establish annual goals and identify opportunities to increase statewide attainment rates of credentials that align with employer needs
- Create seamless transitions for Virginia's veterans by providing high quality education and workforce services that accelerate career opportunities
- Diversify the economy by providing workers with skills to meet new private sector needs, encouraging innovation through entrepreneurship, retooling regions for economic advancement, and educating Virginia's workforce for the future
- Align workforce supply to current and anticipated employer demands by constructing career pathways and training solutions for the dislocated, underemployed, and future worker.

Each of these initiatives makes clear reference to several key concepts. First, Governor McAuliffe clearly directed Virginia's workforce-related agencies and officials to make their work responsive to employer demand. Second, the order clearly makes an effort to prioritize coordination and complementarity of action. Third, the order makes mention of encouraging workers to think about the workforce training system and their own occupational-educational journey as a "career pathway" in reference to language from WIOA, passed just one month before. And finally, the order emphasizes a need to prepare students and workers for the "jobs of tomorrow" as opposed to just making an effort to meet current need.

Several key initiatives came out of this order and followed through McAuliffe's term:

- **Pathway to 50K:** Under the order, McAuliffe set an ambitious goal for his New Virginia Economy. Virginia's various workforce-related agencies and officials were to work toward the attainment of 50,000 STEM-H[15] credentials, licenses, apprenticeships, and associate degrees that met immediate workforce needs.

[15] STEM-H stands for Science, Technology, Engineering, Mathematics, and Health.

McAuliffe’s administration exceeded this goal, securing 50,361 STEM-H credentials statewide (Truong, 2018).

- **Statewide workforce development program metrics and performance reporting:** The Executive Order also established a yearly review and performance report of the Virginia workforce system against a set of common metrics and performance measures. This is something McAuliffe’s Chief Workforce Development Advisor carried out and this performance reporting continued into the Northam administration.
- **Virginia Values Veterans (V3) program:** The Virginia Values Veterans program was started in 2012 under then-Governor Bob McDonnell. The program is run through the Department of Veteran Services and has resulted in the hiring of over 64,000 veterans across the Commonwealth (Hockman, 2020). Governor McAuliffe’s New Virginia Economy added emphases for the program included enhanced performance reporting and an expanded effort to engage over 10,000 employers in signing on to participate in the program (Executive Order No. 23, 2014).
- **Commonwealth Consortium for Advanced Research and Statistics (CCARS):** McAuliffe’s executive order pledged that Virginia would create a consortium effort across state government to directly support education and workforce entities in planning through analysis and research to help drive economic development in the Commonwealth. This consortium effort was intended to provide real-time data about human capital, regional skills gaps, local and state wage data, university research and talent, and availability of local and state workforce programs. The goal was to use this data to inform outcomes-based decision-making at workforce-focused institutions across the Commonwealth, when deciding on curriculum, programming, or service offerings. While CCARS was never actually stood up, several subsequent efforts were attempted and eventually Senate Bill 1314, which establishes the Office of Education and Labor Market Alignment at VEDP, was enacted and funded during the 2021 Special Session of the Virginia General Assembly (SB 1314, 2021). This office will carry forward this mission of providing real-time labor market and workforce data to an entire host of state, regional, and local agencies in order to support enhanced decision-making.
- **New Virginia Economy Workforce Credential Grant Program (Virginia FastForward):** In 2016, the General Assembly created and Governor McAuliffe signed into law the New Economy Workforce Credential Grant Program. Under this pay-for-performance program, students who work toward earning a non-credit workforce credential in a high-demand field are eligible to have up to two-thirds of the program cost covered by the Commonwealth and/or community colleges upon completion of the program and their reporting of a credential earned as a result of the training. To date, the State Council of Higher Education for Virginia, which handles administration and performance reporting for the program reports that FastForward graduates have earned roughly 11,138 credentials, with 98 percent awarded in Virginia’s top 12 occupations (NCSL, 2018). The majority of program graduates experience a 25 to 50 percent wage gain after attaining their credential (NCSL, 2018). The program represents the

most impactful and enduring aspect of the legacy of New Virginia Economy programming on the state's workforce development infrastructure.

Governor Northam's Comprehensive Economic Development Strategy has, in many ways, continue to build on the legacy of New Virginia Economy workforce programming. Governor Northam's plan identified as its first overarching strategy the need to "invest in the education and skills of our people" (Northam, 2018). Drafted prior to the onset of the COVID-19 pandemic, the Governor's strategy acknowledged the Commonwealth's strong educational institutions and the tightness of the labor market and resolved to "work to make sure all Virginians have the skills needed to secure high-quality jobs and provide for themselves and their families" (Northam, 2018). Northam's strategy, drawing on language from VEDP's strategic plan, refers to the state's workers as "human capital" and "talent" (Northam, 2018). The plan outlines little in terms of specific policy initiatives, using as its four primary pillars the following taglines:

- Develop a world-class talent pipeline that delivers high-quality support to students
- Equip young adults with the knowledge, skills, and ambition to succeed
- Empower adult workers to embrace lifelong skills enhancements
- Ensure that the workforce system delivers maximum impact

Drawing on each of these phrases, the strategy proposed investing in early childhood education, developing rigorous and relevant content-area knowledge requirements for K-12 curriculum, expanding the tech-talent pipeline developed in response to Amazon's announced new headquarters in Northern Virginia, tightening connections between workforce and social service providers, and enhancing performance reporting (Northam, 2018). Beyond the broader language outlined in the plan, Governor Northam's signature contribution to the workforce development system in Virginia has been the enactment of the "Get Skilled, Get a Job, Give Back" (or G3) program. First proposed in 2018, Governor Northam finally signed legislation enacting this program in March 2021 following the General Assembly session. The program makes tuition-free community college available to low- and middle-income students who pursue jobs in high-demand fields, and allocates $36 million to cover tuition, fees, and books and provide wraparound support services to eligible students at the Commonwealth's community colleges (Northam, 2021).

Workforce Development as Human Capital or Talent Development

It is important to acknowledge a vocabulary shift that has occurred in recent years that has significant implications for how workforce development programs are structured and how services are administered. Early on, when most of the country's earliest worker-focused safety legislation and programs were implemented, the idea of "labor" loomed large in each of these high-level policy debates. The idea of labor had a duality to it that might not be immediately apparent when reflecting historically on what Americans associate with labor in the context of unions and firm-labor negotiations over pay, workplace conditions, workers' rights, and benefits. Nevertheless, this duality is present.

On the one hand, labor was an agglomerate.[16] The term represented the mass of the entire nation's working population, subsumed into a single concept. Nevertheless, labor-focused policies were concerned primarily with the protection and wellbeing of the individual. These policies took the individual needs of workers into account and were driven by the need to create a safety net for individuals when crises – or, as Roosevelt called them, the "vicissitudes of life" – befell individuals (Social Security Administration, 2021; Alesina, et al., 2001). The creation of a robust safety net focused on protecting workers as one of the nation's greatest assets was the legacy of the New Deal.

In the latter half of the twentieth century as unionization rates declined drastically, the idea of labor as a policy focus and labor-focused policymaking fell out of vogue (Greenhouse, 2011). Increasingly, workers tended to once again be lumped into a mass aggregation, but new terminology emerged that was more business- or employer-focused. In this model, the "work force" or "labor force" are agglomerated assets that can be skilled or trained with the primary focus being meeting the needs of dynamic and growing employers. This conceptual translation failed to immediately carry over in workforce programming. While state and federal programs increasingly took on the terminology of "workforce development," the substance of the programs changed much more slowly. Even when Congress attempted to restructure programming to be responsive to the needs of the economy, this was often driven by more abstract bureaucratic or academic determinations about priority industries or sectors, rather than direct in-person engagement with employers as program clients or customers. The Comprehensive Employment and Training Act (CETA) in 1973 was the first piece of federal legislation that inspired this terminology shift (Pennsylvania Workforce Development Association, 2021). The Job Partnership and Training Act of 1982 (signed into law by President Reagan) was the first to require engagement with and input from the business community, however, it took time for this to be fully implemented and for best practices to take hold (Pennsylvania Workforce Development Association, 2021.) While the language and focus had shifted to business, the substance of the programs – while limited - was still primarily concerned with providing services to displaced or disaffected individuals and helping them find reemployment as quickly as possible in the event of a personal or national crisis.

Finally, beginning in the early 2000s, the terminology shifted yet again. Led by thinkers such as Enrico Moretti and Richard Florida, economic development and workforce development professionals began to use the terms "human capital" and "talent development" to describe their set of activities (Moretti, 2012; Florida, 2012). While the framing was still from the perspective of employers – with the thinking being that employers need to procure and deploy human capital to make their industries run, for example – the terminology belied an acknowledgement of the ultimate dependence of employers on the "talent" that workers provided to a business. Increasingly, writers framed "human capital" or "talent" as the number one commodity businesses sought. The rise of cities and the global economy was increasingly dependent on where workers

[16] To be clear, this duality and the representation of the whole body of the nation's working individuals as one mass carries through to each iteration of the terminology shifts discussed below.

were educated and where they decided to live (Florida, 2012). Companies needed and ultimately sought after the workers, not the other way around.

Indeed, just as firms are engaged in a battle for talent in an increasingly competitive and global marketplace, states also compete with each other to not only produce the skilled talent needed to power the growth sectors of the future but also to attract and retain an increasingly mobile talent pool. According to this new vision, and as both the Governor and Virginia Economic Development Partnership's economic development strategic plans assert, states play an increasingly central role in managing the supply and demand dynamics within the labor force by providing funding throughout the entire cradle-to-career pipeline (from early learning to K-12 to community college and university education to ultimate employment in the workforce) (Northam, 2018; VEDP, 2017). Economic developers have come to see and advocate for this funding is an essential investment, driving increased economic productivity, growth, and prosperity.

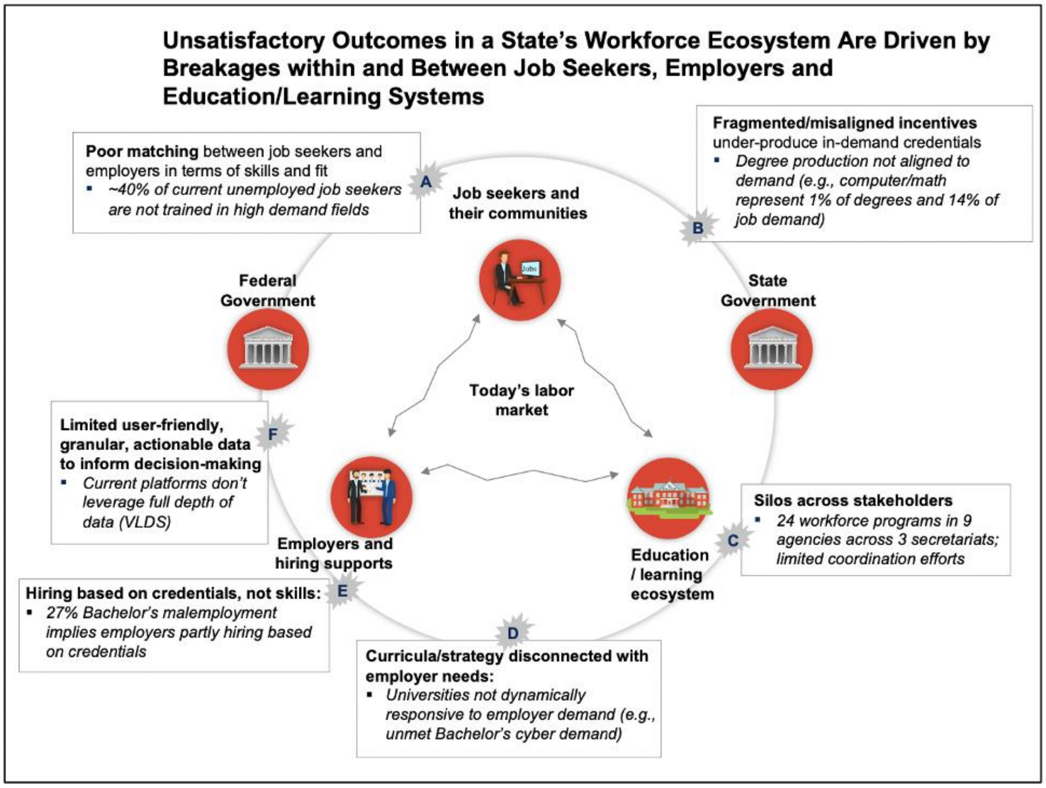
The importance of human capital-focused investments in today's economy cannot be underemphasized. This is certainly true of Virginia, especially in light of the state's growing interest in the IT space. According to Gary Becker and Theodore Schultz, both economists heavily credited with developing the employer-focused concept of human capital, "economic growth closely depends on the synergies between new knowledge and human capital, which is why large increases in education and training have accompanied major advances in technological knowledge in all countries that have achieved significant economic growth" (Becker, 2008; Schultz, 1961).[17]

Virginia's economic development community and public leaders have identified human capital challenges as critical to solving the Commonwealth's growth challenges. For instance, business leaders surveyed during the development of the Virginia Chamber's Blueprint 2025 identified the need for a stronger talent pipeline as the top priority for the future of economic development. More specifically, a substantial majority of the respondents identified workforce development and education as the state's top business climate priorities, indicating that the Commonwealth is not currently preparing students with the skills that businesses demand (Virginia Chamber of Commerce, 2017).

[17] This is not to assert that the field has uniformly and without question accepted the arguments of human capital theorists. Peter Fleming and others have long argued that many premises of human capital theory are seriously flawed, not least of them the implication that employees solely or primarily ought to "bear the costs (and benefits) of their investment" in their own training and education (2017). Nevertheless, as an economic development program, GO Virginia and its stakeholders sit solidly in the realm of economic and workforce development where, for matters of necessity, programs must figure out how best to train willing workers to meet employers' needs. In addition, in a scenario where there is no enforcement of the argument that employers' ought to take more responsibility for worker training, practitioners who do not prioritize the immediate need to train workers and improve their quality of life under the belief that employers ought to take this on will appear as though they are not willing to problem-solve or serve to make peoples' lives better. To economic development and workforce development practitioners, these questions are highly theoretical and the ideas of "talent development" and "human capital" theorists are dominant and widely accepted. For these reasons, a full discussion of this debate is outside the scope of this report.

The suboptimal labor market outcomes described in previous sections ("Consequences of the Problem") are, according to these advocates, driven by breakages (i.e., system and market failures) in the workforce ecosystem within and between three primary actors: individuals, training providers, and employers as illustrated in **Figure 28** below. Most of the challenges highlighted, such as the underproduction of in-demand credentials and the disaggregation and decentralization of workforce programs, are faced by other states, but often called out by advocates for greater investments in talent or human capital development as being particularly acute in Virginia.

Figure 28.



As a key program in this space with the goal of reducing barriers to business growth by expanding the pool of available, qualified workers in each region, GO Virginia has inherited the legacy of this development in both terminology and the changes this has wrought for programming focus. GO Virginia program staff are aware of the complexity of this history and where this new program falls in this legacy. As a program advocated for, driven and led by, and accountable to the business community, GO Virginia must increasingly identify clear ways its limited resources can add value by addressing shortages in the labor market and expanding the "human capital" or "talent" available to meet employers' needs. At the same time, program staff are and should continue to be thoughtful about the wide array of factors that can create barriers for workers and affect individuals' abilities to obtain necessary skills and secure high-paying, high-quality jobs. Such an approach will blend the focus areas of the current moment – a respect for the critical *talent* individuals contribute to the economy and an emphasis on focusing on helping employers meet the demand for this talent – in a way that is responsive to stakeholders' sensitivities and also cognizant of the inequity apparent in individuals' daily realities.

Appendix D: Best Practices and Other Issues Raised

Principal-Agent Problem

In a program where state-level funds are approved for disbursement by regional support organizations and councils (who then work with sub-grantees – various non-profit organizations, government agencies, or other actors – to actually deliver products and execute to secure outcomes), the so-called **principal-agent problem** is at play and worth examination.

The principal-agent problem describes an arrangement where "one or more persons (the principal[s]) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent" (Jensen and Meckling, 1976). While the formulation may seem straightforward, the key point of interest is the presumption (and oft-observed reality) that the agent may end up acting in ways that are not in the best interests of (or which do not meet the preferred outcomes of) the principal. According to the theory, while the principal represents the source of authority (and often resources) for the agent, agents may develop their own set of interests and preferred courses of action. Occasionally, these preferences are self-interested, while sometimes they are the result of the fact that agents have grown and developed their own expertise and insight independent of their interactions with the principal. Because of this, the theory asserts that, while agents may derive their authority to operate from the principal, their on-the-ground expertise and know-how offer their own power that the principal is bound to respect.

If elements of this arrangement are at play in a given policy setting, many have argued that sheer mandates or directives are not enough. Preserving the working relationship between the principal and the agent is critical, especially if program execution is to continue benefiting from the agent's expertise. Instead of added directives or punitive arrangements designed to bend the agent to the principal's will, most scholars argue that the principal ought to instead focus on incentivizing agents to "limit divergences" from the core, fundamental, or non-negotiable aspects of the principal's interests. Indeed, James Q. Wilson in his *Bureaucracy*, noted that principal-agent models are best focused on questions of "*how* a principal (for example, the owner of a firm or the manager of a government bureau) can arrange the incentives confronting an agent (for example, a worker or lower-ranking manager) so that the latter does what the former desires" (Wilson, 1989). The development of principal-agent models is not intended to be a frustrating or overly complex exercise. Instead, it is intended to force the principal to consider why a disconnect might be occurring and be sure to structure directives so that they consider agents' interests and motivations. Oftentimes, these motivations are sincere and straightforward. As Wilson writes: "Bureaucrats have preferences. Among them is the desire to do the job. That desire may spring entirely out of a sense of duty, or it may arise out of a willingness to conform to the expectations of fellow workers and superiors even when there is no immediate financial advantage in doing so" (Wilson, 1989)

In the GO Virginia context of this project, we can think of DHCD staff as the principals (even though they arguably have their own set of principals to respond to, including the Governor and their appointees, as well as the General Assembly) and the regional support organization staff (and, in varying ways, the regional councils) as the agents. If it is the case that DHCD staff detect regional workforce development planning efforts and project that do not quite align with their preferences, the principal-agent model would seem to suggest that they approach this issue as follows:

- First, DHCD staff ought to assess whether or not the regional deviations from their preferences in the realm of regional planning and project application evaluation are indeed worth correcting. To do this, staff might ask themselves: *What are the consequences if regional planning and project evaluation efforts do not adhere to identified best practices? Do these practices conflict with core, fundamental, or non-negotiable interests of the GO Virginia program and its priorities?*

- Second, they ought to assess *how* they might best achieve regional support organization and council re-alignment with identified best practices. To do this, they might ask themselves: *Why are regional support organization and regional council practices not aligning with best practices? What are their current incentives to act the way they do? How can DHCD and the GO Virginia Board restructure current incentives in a way that encourages regional staff and councils to adjust their practices?*

This report has considered the principal-agent problem in its evaluation of the potential policy options, in its ultimate recommendation, and in its discussion of implementation. The hope is that this report models for DHCD staff the first steps in considering these questions and their ramifications in thinking through how to adjust grant management so that it adheres to identified best practices.

Roles, Relationships, and Boundary-setting

One key aspect of the GO Virginia that emerged from conversations with DHCD staff and regional support organizations and that merits further investigation is the concept of clearly identifying the roles and relationships for key parties (e.g., state and regional staff) and setting well-defined boundaries for where the responsibilities of each begin and end. One the one hand, regional support organization staff spoke frequently of their recruitment and relationship-building responsibilities. Especially with a program that has only been in existence for four years, regional support organization staff are critical in helping to educate business and community leaders in their region about the program and how its resources can be maximized for development vis a vis other non-profit, private, or federal grant programs. Aside from serving in an educational capacity, these regional support organization staff play a significant role in “recruiting” potential applicants.

As the personnel most intimately familiar with regional development priorities and target sectors and as the visionaries most prepared to guide the region in its next steps toward achieving its goals, these staff often take it upon themselves to have early conversations with potential applicants. While this does not occur in every region, several regional support organization leaders reported that they frequently will have early conversations with potential applicants (including some where the individual or organization might not have even though of themselves as an applicant), sharing information about the GO Virginia program, what the industry or cluster-based needs are, and how this individual or organization could serve as a sub-grantee. For potential applicants who come to them with ideas, they are facilitating what might be considered the earliest stages of project vetting. When initial ideas do not appear to be a strong fit for the program, support organization staff are often helping to turn people to other opportunities that might be more appropriate. For project opportunities they feel could be a good fit, some support organization staff become invested. They help the applicant brainstorm, problem solve, and ideate about the best ways to structure a project and frame an application.

Yet, after all of this early work recruiting potential sub-grantees, building relationships and helping in very real ways to prepare applicants and develop applications, regional support organization staff are expected to step into a more evaluative role. They are expected, to some degree, to check applicants' assumptions, question the ability of the applicant to successfully execute, and, at a high level, test the project application for potential vulnerabilities or areas in need of improvement.

Perhaps the program would benefit from guidance documents that clearly define roles and responsibilities and set boundaries between what is expected of different stakeholders and participants (e.g., state Board, DHCD staff, regional councils, support organization staff, sub-grantees and applicants).

In an article in *Harvard Business Review* originally published in 1992, Larry Hirschorn and Thomas Gilmore articulate the struggles and challenges that come with companies that struggle to be innovative and flexible, attempting to shed what they see as unnecessary layers of hierarchy or rigid processes. One of their primary examples was General Electric CEO Jack Welch and his view of a new organizational model for the company as "boundaryless…where we knock down the walls that separate us from each other on the inside and from our key constituencies on the outside" (Hirschorn and Gilmore, 1992).[18] On the one hand, Hirschorn and Gilmore push for organizations to embrace innovative and flexibility. On the other hand, they insist that people will always default to searching for boundaries or creating their own. Disagreement about and confusion over which boundaries to use can ultimately hamper efficiency and minimize the impact of any innovative achievements made.

[18] It is worth caveating this analysis by noting that, obviously, not everything from the private sector is transferable to a state economic development grant program focused on supporting regional goals and priorities. Hirschorn and Gilmore's work was focused on and is primarily relevant to the private sector. However, their focus on boundary-setting and balancing the sincere desire to be innovative and flexible against the need to have boundaries that guide and support clear action does have value in this setting.

As Hirschorn and Gilmore write: “Managers are right to break down the boundaries that make organizations rigid and unresponsive. But they are wrong if they think that doing so eliminates the need for boundaries altogether. Indeed, once traditional boundaries of hierarchy, function, and geography disappear, a new set of boundaries becomes important” (1992).

Hirschorn and Gilmore describe these boundaries as being more “psychological” than they are “organizational” (1992). Even if organizations do not reflect clear hierarchies on an organizational chart – or even if no such chart exists – they still must respect the boundaries written on the “minds of [their] managers and employees” and clear communication must ensure that there is a common understanding of these implicit boundaries (Hirschorn and Gilmore, 1992). Hirschorn and Gilmore articulated a series of “boundaries that matter” for “flexible companies.” Ultimately, these are driven by a series of questions around what Hirschorn and Gilmore call the “four dimensions common to all work” – authority, tasks, political affiliation, and identity (Hirschorn and Gilmore, 1992). **Figure 29** below, taken from Hirschorn and Gilmore’s article, presents these questions, the boundaries they relate to, and necessary considerations organizations must make as they attempt to set and communicate around these boundaries. As DHCD and GO Virginia attempt to balance the program’s innovative, business-driven founding with its need to adhere to state-mandated performance reporting responsibilities and the desire to demonstrate a compelling long-term impact, consulting these questions and having a series of clear boundary-setting and role-defining conversations with support organization staff could be fruitful.

Figure 29.

A Manager’s Guide to the Boundaries That Matter

Key Questions		Necessary Tensions	Characteristic Feelings
“Who is in charge of what?”	AUTHORITY BOUNDARY	How to lead but remain open to criticism. How to follow but still challenge superiors.	trustful open rigid rebellious passive
“Who does what?”	TASK BOUNDARY	How to depend on others you don’t control. How to specialize yet understand other people’s jobs.	confident competent proud anxious incompetent ashamed
“What’s in it for us?”	POLITICAL BOUNDARY	How to defend one’s interests without undermining the organization. How to differentiate between win-win and win-lose situations.	empowered treated fairly powerless exploited
“Who is–and isn’t–‘us’?”	IDENTITY BOUNDARY	How to feel pride without devaluing others. How to remain loyal without undermining outsiders.	proud loyal tolerant distrusting contemptuous

Supply-Demand Gap Analyses for Planning and Project Evaluation

Much has been written about the need for workforce development programming to be based on supply-demand analyses There are three models this report relies on. Two of these were conducted at the state level and one was conducted at the local level. At the highest level, these reports model best practices in that they outline an approach for quantitative supply-demand skills or credential gap analyses, and then they outline an approach for these outputs to be vetted and validated qualitatively with the business community, as well as with training providers. This report recommends following this approach. While analyses showing specific numbers for overages or gaps of particular degrees, credentials, skills, or workers in a specific geographic region are certainly attractive to policymakers, their insights must be checked and triangulated against other sources. Just because these reports are data-driven does not mean they are in any way definitive.

Most of these reports rely on proprietary sources[19] which draw on a range of federal, publicly available data and mix this with AI-driven platforms that scrape and analyze job postings data from a host of open and closed job matching sites. To be sure, these platforms have altered a number of fields including economic development and workforce development, as well as business recruitment and higher education planning. However, while it is tempting to take these detailed analyses on highly specific questions (e.g., county-level estimations of the five-year projection of individual workers with a specific skill) at face value, it is important to remember that the methodologies and technologies that operate behind these platforms are still relatively new and in a constant state of improvement.

This is particularly true of the technology used to scrape and catalog data from platforms such as Indeed and LinkedIn. These platforms have gone through multiple iterations honing and refining their approaches to reflecting the educational status and skills possessed by individuals in a given region. In addition, these platforms are only as strong as their source data, which depends on the decisions of millions of profile users to update professional profiles with information that includes job titles, listed skills, and degrees earned among other things.

All of these reasons illustrate why qualitative vetting and validation is highly recommended. Currently, interviews conducted with all GO Virginia regional support organization staff as part of this report indicate that all regions adhere to some form of this recommended approach – using quantitative insights that are eventually validated qualitatively by stakeholder groups and business engagement.

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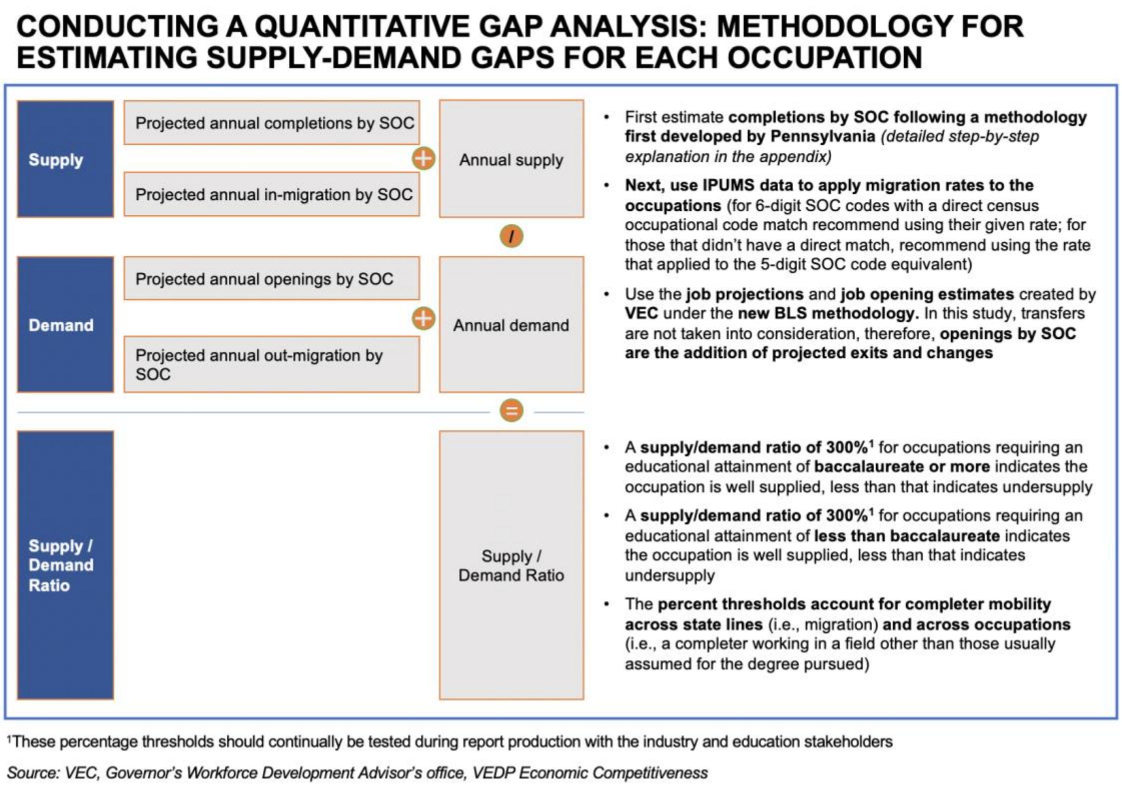
[19] These include, but are not limited to: EMSI, by Economic Modeling, LLC, JobsEQ, a tool developed and hosted by Chmura Economics & Analytics, Labor Insight, developed by Burning Glass Technologies, Talent Neuron, developed by Gartner TalentNeuron, and BeyondHQ. The supply-demand analysis example and methodology were developed using hypothetical datasets pulled from publicly available sources, as well as Chmura's JobsEQ tool. This is all outlined in Appendix B.

The three reports that best capture the methodological considerations and best practices identified in the literature – a 2018 report by the New Jersey Chamber Foundation, a 2016 report by WorkForce Central conducted on behalf of the Workforce Development Council (WDC) for Pierce County in Washington, and a 2016 report by the Pennsylvania State System of Higher Education – have informed the development of the detailed process recommended in the figure below (New Jersey Chamber Foundation, 2018; Pierce County Workforce Development Council, 2016; Pennsylvania State System of Higher Education, 2016). A full example of the quantitative component of a supply-demand skills gap analysis – using a hypothetical manufacturing project in Region VIII – is modeled in **Appendix B**. **Figure 30**, below, captures the recommended high-level methodology.

Figure 30.



Capturing Impacts and Outcomes in Longer-Term Workforce Development Projects

Best Practices Literature:

It is no secret that workforce development programs are often premised on an intended impact that can very rarely be proven or demonstrated. Indeed, this has been one of the biggest challenges workforce development programs have faced, both because it has limited the ability of research to help inform improvements to programming for practitioners, and it has also limited advocates and practitioners in making the case for increased investments by governments and participation by workers and employers (Francis, 2013). In fact, an analysis by McKinsey and Company found that effective communication about robust return-on-investment information made employers willing to pay for training programs up to 15 percent (or roughly two months) of the employee's annual salary, on average (McKinsey & Company, 2017). The same is true of participants. With little evidence that investment of personal time, effort, and financial resources will pay off, candidates are often wary to pursue training programs. McKinsey and Company analysis recommends that program practitioners ought to focus on best practices metrics that will communicate a program's true impact to governments, funders, employers, and individuals, including, but not limited to income before and after program completion, continued employment, job promotion, and reliance on public support (McKinsey & Company, 2017).

A large body of evidence indicates that workforce development programs help participants modestly increase their earnings over time (Francis, 2013). Still, this is increasingly difficult to show for specific types of programs set up in specific contexts, such as GO Virginia. Increasingly, researchers argue that existing studies do not truly capture the potential for a program's full impact on participants and society because they do not follow participants long enough, they misattribute the impacts of different interventions (some of which are more effective than others), and they ignore impacts other than those on earnings (which is one of the easiest metrics for which to gather data) (Francis, 2013).

The reactions in the literature to this phenomenon are what one might expect:

- Researchers acknowledge that, overall, funding for state and federal workforce development programs has steadily declined since the 1960s and 1970s (Holzer, 2009)
- In response to this, summary studies have concluded that "modest expenditures usually produce modest positive impacts" (Holzer, 2009)
- Researchers generally recommend increasing funding for more rigorous program evaluations and tying requirements for funding these evaluations to expansions in funding overall to help inform the development of more effective programs and build the case for augmented investment (Holzer, 2009)
- Even in studies where researchers have concluded that "most employment and training programs have either no impact or modest positive impacts," they acknowledge that data collection and follow-through barriers likely prevent the ability of researchers to measure the fuller, longer-term impact of a program (Barnow and Smith, 2009)
- Indeed, some researchers have argued forcefully that the "conventional wisdom that these programs are ineffective results from misinterpretation and incomplete reading of the evidence" (King and Heinrich, 2011)
- Most studies tend to focus on short-term improvements, which is why summary evaluations have often found that, while programs appear ineffective in the short-term, they are often "associated with positive medium-term impacts" when longer follow-up periods are allowed with program participants (Card, et al., 2010)

- Researchers argue that if more robust follow-up mechanisms are created and if the terms of evaluation are drawn out, the full impact of programs can be measured and that, hypothetically, it could be large (King and Heinrich, 2011). At the very least, studies would be able to start to differentiate between stronger and weaker types of programs. Currently, scholars argue that the literature has scoped workforce development program evaluations “too narrowly, not followed participants for long enough to see programs’ long-term impacts, failed to account for heterogeneity in services, and misunderstood the magnitude of positive impacts of some programs” (King and Heinrich, 2011).

Virginia-Specific Context:
In a GO Virginia context, this is an important caveat to take into account, even though it cannot necessarily inspire or lead to corrective action without more funding or program restructuring. At the very least, program staff can recognize that this is a challenge faced by workforce development practitioners at the local, state, and federal level across the country and that, until funding is available and there is a willingness on the part of stakeholders to invest time and resources in rigorous, long-term program evaluation, there will always be severe limitations on capturing outcomes and the focus will need to be on strong program design, relying on logic models and theories of change.

For stakeholders like the Governor, General Assembly, and GO Virginia Board, framing and terminology is critically important in making this caveat. Staff should be clear in referring to impacts and outcomes. In a traditional sense, the full, longer-term results of a GO Virginia-funded project are its **impacts**. These can be captured with multiple measures, including employee surveys or collection of federal and state data linked to program participants (with their permission) through sophisticated data-matching systems. Without investment in these systems and the full cooperation of all stakeholders including individual program participants, these kinds of long-term measures or follow-up are not currently possible in a GO Virginia context.

What GO Virginia currently tracks on a quarterly basis (via reports filed by regional support organization and sub-grantee staff) are **outcomes**. These are intermediate measures, such as number of students completing a program, number of workers trained, or number of students engaged in career-related school programming. The hope is that the outcomes materialize as longer-term, fiscally measurable impacts. Currently, however, this is only an aspiration.

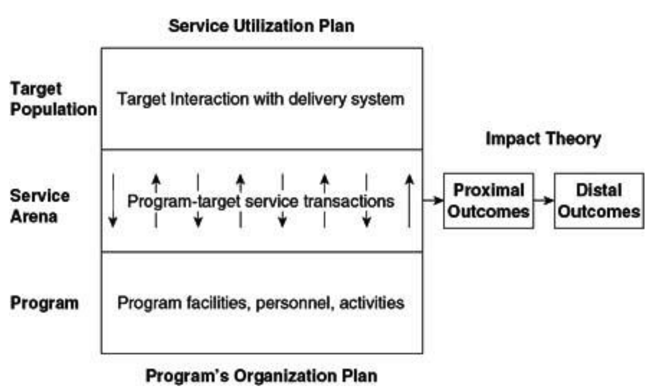
Meanwhile, in applications and contracts, applicants are able to voluntarily commit to reporting on other measures or statistics (e.g., diversity of population served), but they are not held to these. In GO Virginia program language, these voluntary success measures are called **metrics**. Sub-grantees can track and report on these measures quarterly if they want and they are outlined in the contract, but DHCD does not track or penalize for poor performance in these areas if sub-grantees slip behind their goals.

Until the program decides that it is ready and able to request and dedicate the resources to fund robust, long-term program evaluation in order to demonstrate evidence of its intended impact, it can continue to focus on the high-quality work it does currently tracking outcomes quarterly. If its stakeholders decide that long-term impact tracking is a priority worthy of the cost – which is an open question – all staff can do is be sure to frame and communicate about the difference between impacts and outcomes as clearly as possible. Expressly discussing at a GO Virginia Board meeting, for example, why one is measured, why the other is not, and the benefits and costs of measuring each would likely reap benefits when critical observers question the program's long-term impact. Studying and having quick answers for these questions, as well as having rough, draft plans in place to implement robust, long-term evaluation if that becomes a priority for stakeholders would likely also be a valuable next step.

Evaluability Assessments, Logic Models, and Theories of Change

In their text on the best practices of program evaluation, program theorists Peter Rossi, Mark Lipsey, and Gary Henry argue that program theory is essential to the success of real programs for real people. Program theory, the articulated conceptual basis for their work, is a framework scholars have used to prioritize evaluation questions, design evaluation research, and interpret evaluation findings, all with the basic goal of forcing deeper thoughtfulness in program design and structuring better program evaluations to arrive at greater program impact. A visual depiction of the basic overview of program theory is given below in **Figure 31**.

Figure 31.



In their estimation, conducting evaluability assessments and creating logic models are critical to setting programs up for success and are not what they have often been accused of – bureaucratic overplanning or red tape. In *Evaluation*, the authors write: "Such assessments are important because a program based on a weak or faulty conceptualization has little prospect of achieving intended results" (Rossi, et al., 2019).

First, the authors recommend starting with an evaluability assessment. Put simply, evaluability assessments are “appraisal[s] of whether a program’s performance can be evaluated and, if so, whether it should be” (Rossi, et al., 2019; Leviton, et al., 2010). Evaluability assessments ask a series of questions about agreement on a program’s goals. These are taken from *Evaluation* and summarized below:

Key questions addressed during an evaluability assessment:

1. *Is there agreement on goals and objectives for the program?* If stakeholders disagree on the program’s goals and objectives, the program is not ready to be evaluated.

2. *Has the logic underlying the program or practice been described in sufficient detail to explain how the program is expected to achieve its goals and objectives?* If not, the evaluator will need to create a logic model or program theory on which stakeholders agree, or the program logic will need to be further developed.

3. *Is it plausible that the program can accomplish its goals and objectives?* Staff may be able to describe program logic, but goals and objectives may not be realistic given the resources available or the activities being undertaken. At this point, an evaluability assessment can indicate the need for further program development or, possibly, a formative evaluation.

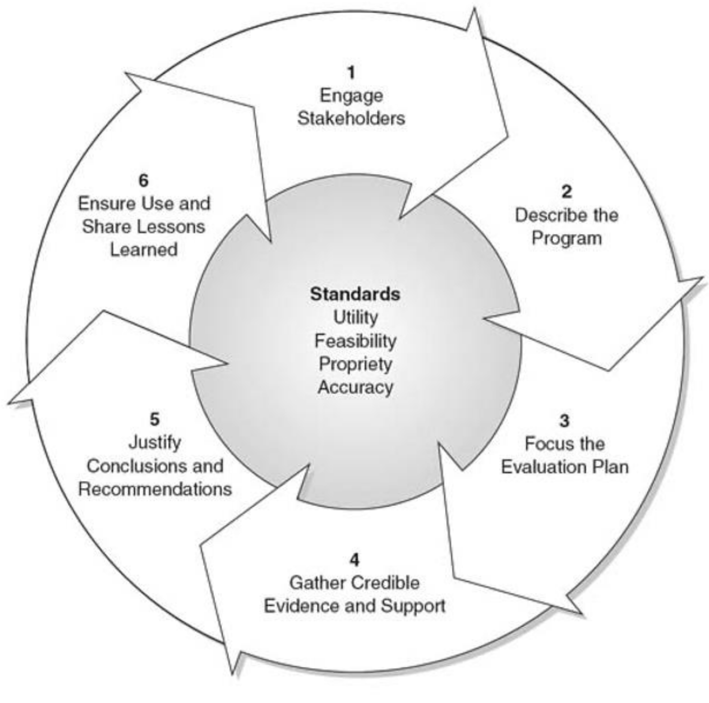
4. *Do key stakeholders agree about performance criteria or how to measure program effectiveness?* Stakeholders need to agree on the criteria by which a program’s effectiveness will be judged before an influential evaluation measuring those criteria can be conducted.

5. *Can the program or evaluation sponsor afford the cost of an evaluation?*

6. *Do key stakeholders agree on the relevance of a program evaluation and indicate willingness to make changes to the program on the basis of the evaluation?* If the stakeholders are not open to making changes, the utility of an evaluation is doubtful.

A figure providing the evaluability assessment model proposed by Holden and Zimmerman (2009) is provided below in **Figure 32.**

Figure 32.



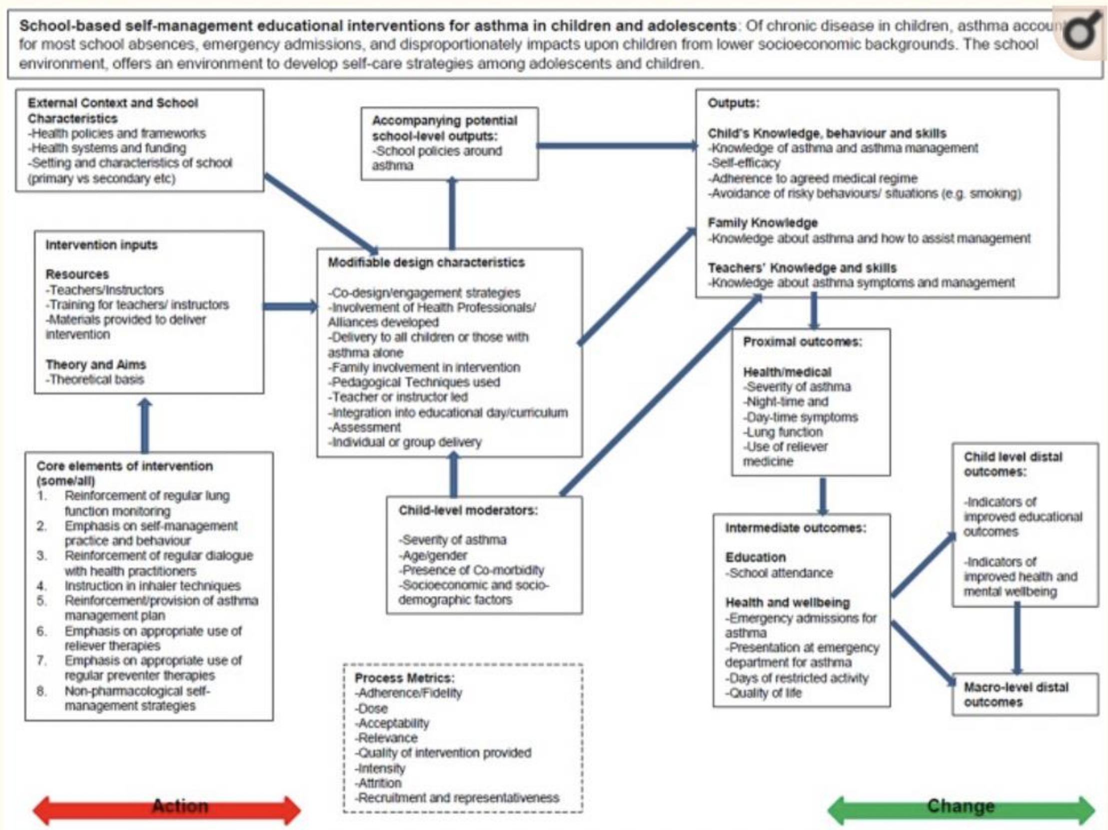
As the figure shows, the evaluability assessment must necessarily be based in stakeholder engagement and predicated on agreement on basic program goals and objectives (Holden and Zimmerman, 2009). Without such agreement, no program can be effectively evaluated. Another important point is that evaluability assessments are necessarily cyclical. After ensuring that essential stakeholders to a program agree on its basic objectives, and after gathering evidence on the program's outcomes and outputs and areas for improvement, the evaluability assessment can be used to improve program design and render it more evaluable in future iterations. Stakeholders can then be engaged again as program evaluations are conducted to ensure that the evaluations are themselves meeting stated goals. This cycle of continuous improvement is essential to the success of any effective evaluability assessment. **Appendix A** outlines a proposed evaluability assessment for the GO Virginia program and outlines key pieces of this report's work which have already completed evaluability assessment components to aid program staff in improving GO Virginia's evaluability in future years.

Once a program's evaluability is assessed, program theorists recommend using a variety of tools to lay out and test assumptions about a program's theory of change and intended impact. To do this, logic models are often the recommended tool of choice.

Increasingly popular in grant funding contexts, *logic models* have been heavily used as tools for program planning and design, administration, and evaluation (Kaplan and Garrett, 2004). First introduced and used in the latter half of the twentieth century, a logic model helps participants and program evaluators to outline (and check the assumptions beneath) the relationship between a program's resources, activities, and intended outcomes (Kaplan and Garrett, 2004). At its most elementary, scholars argue that logic models are valuable because they "force participants to articulate and clarify the project's goals and assign responsibility for tasks and outcomes, thereby helping to foster collaboration and build consensus" (Kaplan and Garrett, 2004).

As traditionally understood in the program evaluation literature, logic models can help practitioners brainstorm around and represent the underlying mechanisms by which an intervention effects a change on individuals, communities, or organizations (Kneale, et al., 2015). While the literature is clear that there is no one particularly right way to build or draw out a logic model, a high-level model is given below in **Figure 33** (Kneale, et al., 2015; Funnell and Rogers, 2011; Brousselle and Champagne, 2011). Although the effort to document, outline, or question underlying assumptions that address "why", "so what", or "for whom" questions is found in literature dating back to the late 1950s, most scholars argue that logic models themselves became an established part of the evaluation methodology beginning in the late 1960s (Kneale et al., 2015; Funnell and Rogers, 2011; Taylor-Powell and Henert, 2008).

Figure 33.



In this way, logic models have come to be taken as core elements of "systematic reviews," where participants and practitioners are asked to outline and question each of their assumptions, not just about *how* they ought to conduct their various activities, but *why* they are conducting these activities in the first place and what the *intended outcomes* and *broader impact* of these activities will be for society at large (Kneale, et al., 2015). At their most developed, logic models have been used to draw insight from stakeholders at all levels of a project with the aim of helping to guide and improve the day-to-day specifics of program administration, development, feedback, and evaluation (Goodman, 1998; McLaughlin and Jordan, 1999; Miller et al., 2001). The logic model and corresponding theories of change have been considered so valuable because, increasingly, the literature on program evaluation argues that one of the first principles of successful, inclusive, stakeholder-based evaluation of the effectiveness of public programs ought to begin with an "assessment of program theory," including the assumptions behind activities and the assertion about why the program matters and the broader impact it produces (Goodman, 1998).

According to McLaughlin and Jordan (1999), logic models are traditionally structured so that participants or practitioners are asked to complete the following steps in the following order in order to produce the highest impact:

1. Gather evidence or information
2. Clearly outline the historical context of the issues, the problem, and any assumptions that stand behind it
3. Brainstorm and list the core elements of the logic model itself (e.g., inputs, outputs, and the theory of change for the particular case or situation at hand)
4. Visually map or sketch the logic model
5. Socialize and synthesize the logic model with stakeholders in order to ensure it resonates with multiple perspectives
6. Act based on the logic model
7. Measure performance and seek continuous improvement.

Despite their widespread popularity and the fact that they have been taken up heavily in scholarly literature, program evaluation theory more generally and the use of logic models in particular remain underutilized by many practitioners across disciplines (Kneale et al., 2015). Perhaps because of this and perhaps because diversity in application of the theory has been encouraged, there are numerous overlapping approaches that have been used within program evaluation literature, including, but not limited to “logic models”, “theories of change”, “theories of action”, “outcome chains”, “program theory”, and “program logic” (Funnell and Rogers, 2011; Brousselle and Champagne, 2011). An illustration of how program theory conceives of a program’s intended or planned impact on a particular population or issue is provided above in **Figure 32**.

Perhaps because there is such wide diversity, not only in the use and application of these tools in various program evaluation contexts, but also in the basic terminology used to describe what evaluators are doing with each tool, these approaches tend to be widely discussed (many non-profit managers and government practitioners have seen and heard of logic models, for example), but rarely used (Ni et al., 2012). Indeed, prior surveys of non-profit organizations have found that a broad majority (i.e., roughly four-fifths) do not report using any formal program theory or logic model tools to understand the way in which their interventions effected change on their beneficiaries (Ni et al., 2012). One key takeaway from this is that organizations that wish their grantees to apply and use some form of a logic model ought to develop a program-specific version to be used by their partner organizations. With so much conflicting terminology and so many divergent applications populating program evaluation practice, making the effort to create a recommended program-specific version of the logic model can go a long way toward streamlined and impactful application.

Draft evaluability assessments and logic models specific to the GO Virginia program have been built out and are provided in **Appendix A.**

Grant Management Best Practices

The literature outlines a helpful set of best practices when it comes to grant management and administration, which are outlined below.

Drafting clear guidance documents

Generally speaking, most literature outlines the importance of providing clear and concise guidance about a program's requirements and purposes upfront to potential grantees (Huang, 2006). This is important for multiple reasons. First, it reduces the explanations and communication staff are required to give to prospective grantees who might have questions or be confused. Second, it prevents confusion later on with awardees once funds have been disbursed and there are reporting or other management requirements that need to be fulfilled. As the Center for Effective Philanthropy advises: "Clear specific funding guidelines can help nonprofits assess for themselves whether they are likely to fit within a foundation's grant making priorities and thus avoid wasting time writing proposals that are unlikely to be funded. With clearer guidelines in place, the proposals that applicants do submit are likely to be of higher quality and relevance" (Huang, 2006).

Communication with applicants and grantees

The Center for Effective Philanthropy specifically suggests that grant-making organizations (including governments) ought to take communication with grantees, as well as potential applicants seriously. While, especially in collegial situations, the temptation can be to answer questions quickly and informally, staff should balance the need for quick responsiveness with the need to ensure accuracy and consistency across the board. The Center outlines a series of practical steps organizations can take to strengthen their communication with applicants and grantees (Huang, 2016). These include:

- Establishing a clear philosophy on communicating with grantees and sub-grantees and communicating this philosophy to staff
- Gathering staff to talk about individual approaches in communicating with grantees
- Encouraging internal sharing of practices
- Creating an internal guide for staff explaining and giving examples of those practices
- Providing orientation to new staff that includes standards on communicating
- Keeping a communication log or reporting interactions with staff in a customer relationship management (CRM) tool to ensure continuity and efficiency over the long-term
- Communicating with declined applicants to build relationships and ensure credibility in the overall success of the program

Researchers have attempted to balance these suggestions for robust tracking of communication against the need for program simplicity and flexibility, and the understanding that staff at grant-making organizations or government agencies are often at capacity. To this end, establishing clear and simple processes as well as times to check in and communicate about day-to-day communication flow with employees can save time in the long run (Bearman, 2008).

Designing grant applications

Researchers have also outlined best practices in terms of application structure and design. Project Streamline, a collaborative initiative of the Grants Managers Network, and several fundraising associations, has actually proposed four key principles that are crucial to making grant issuance and disbursement more efficient for all stakeholders, including program staff and grantees (Project Streamline, 2010). These principles are as follows:

- Carefully consider what information is required: Begin with a robust evaluation of the type of information necessary for the grant-making organization to feel confident issuing a grant to the applicant (Project Streamline, 2010).
- Balance expectations with reality: Make certain that the effort, time, and resources applicants are expected to make preparing for a grant application is sensible given the actual funds they stand to receive. Take into account existing relationships with grantees and any biases this may foster at any level of evaluation (Project Streamline, 2010).
- Minimize the burden on grantees as much as possible: Grant-making organizations should attempt to minimize the burden that the application (and not necessarily other aspects of the grant management process) requires of applicants. By reducing this time and effort as much as possible, grant-making organizations can help augment the resources and effort devoted to essential, community-oriented work (Project Streamline, 2010).
- Ensure communication about application specifics, deadlines, and decisions is clear and straightforward: Strong and clear delivery of specifics in a way that is memorable is essential to helping to smooth a grant application process and make it more efficient. These steps are also critical to encouraging the development of a strong, cordial relationship between grant makers and grant seekers. If a grant-making organization has a bad reputation, eventually high-impact organizations will not see the effort as worthy of their time and work (Project Streamline, 2010).

While these four principles are relevant at each stage of the grant-making cycle, if they are not established early on and a core part of the application process, they will not become a permanent part of the culture of a program in the long term (Project Streamline, 2010). Several researchers have proposed that when planning for and designing applications, grant-making organizations should carefully and thoughtfully consider a concept called “net grants” which is equal to the award amount minus the cost of applying for (on the part of the applicant) and managing (on the part of the grant-making organization and other stakeholders) the grant (Buechel, et al., 2007). Researchers recommend that information on the award amount, as well as the applicant’s status (as an individual or an organization), should be considered when funders request information from applicants (Huang, 2006).

Data requirements in applications and for performance reporting

Researchers have increasingly urged grant-making organizations to be cognizant of the quality (and not merely the quantity) of the data they require in applications and for performance-reporting purposes from grantees (Huang, 2006). As data become increasingly necessary for demonstrating impact (which has been thoroughly discussed above), great pressure can grow with staff to collect as much as possible and as often as possible (Huang, 2006). But researchers warn that collecting data without a clear purpose places a burden on the applicants that have to gather it and grant managers who need to interpret it (Huang, 2006).

Performance reporting

Researchers have also stressed that, whether evaluating applications or in making conclusions about overall project performance, staff often skip over one of the most fundamental activities – articulating a theory of intended impact and, from this theory, articulating clear, answerable research questions (Lee and Linnett, 2013). Organizations ought to be expressly clear upfront about what data will help most with research and reporting requirements and what data will be needed when designing the application form, ensure that the burden on grantees is a minimal as possible given objectives, and then move forward.

In terms of actually reviewing applications, researchers recommend involving non-staff, subject matter expert reviewers (which the GO Virginia program does) (Lee and Linnett, 2013). These external reviewers should be pulled from a diverse pool and ought to be given sufficient time to review applications ahead of time (Lee and Linnett, 2013). Reviewers should be encouraged to actually make comments on applications and score them before interacting with applicants directly. Reviewers should also be encouraged to outline specific questions ahead of these interactions. Researchers suggest the use of several grants management systems that can quickly pull together the inputted, final scores of reviewers, run these through funding formulas (with weighted and average calculations), weight the individual scores against the rest of the pool and weight them (Lee and Linnett, 2013). Evaluators or expert reviewers can then be given additional time to get an accurate picture of the overall recommendation and amend scores accordingly (Lee and Linnett, 2013). These kinds of systems, if utilized effectively, can help staff actually present the final funding recommendations more easily to boards and oversight bodies (Lee and Linnett, 2013).

Telling a story and messaging about impact

Practitioners from all aspects of the grant-making process have very specific, valuable advice for grant-making organizations seeking to improve their storytelling about the impact of their program across specific projects. Mostly, this literature emphasizes the importance of several simple but fundamental lessons:

- Blend data with individual stories to get quality, impactful reporting: Practitioners recommend blending the head and the heart, by invoking both confidence in the accuracy and replicability of results, as well as developing an emotional reason to care (Penley, 2012).

- Guidelines for reporting: Practitioners also recommending making sure to report on three key aspects of program figures – immediate outputs (“outcomes” in GO Virginia program language), outcomes (“impacts” in the language used above), and stories of impact (Penley, 2012). Obviously, the ability of organizations like GO Virginia to report on all three of these is limited given current priorities, but staff could think about creatively solving for missing reporting on outcomes (“impacts”) and stories of impact. Reporting on publicly-available statistics for a given region over the long-term or offering placeholders – such as average wages for an industry served even if specific reporting on actual wages for employees trained in that industry by funded programming is not obtainable – could be effective.
- Regularize formal reporting and boost informal storytelling: Finally, practitioners recommend approaching storytelling in two ways once the information is gathered and prepared:
    - Ensure formal, regular performance reporting (at least once a year in the form of some kind of annual report) with as much publicity as possible (Penley, 2012)
    - Expand earned media and social media presence to ensure the impact of informal sharing of high-level program impact figures and stories (Penley, 2012)

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