Reducing the Underemployment of Highly Skilled Immigrants in Virginia

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

Carly Double

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Glossary

Brain Waste	The situation in which a highly-skilled individual cannot fully use their skills and education in their jobs. The rate of brain waste includes the highly-skilled that are either underemployed or unemployed.
Discouraged Workers	Individuals who are unemployed, desire work, have sought employment in the last year but are not currently looking due to belief that there are no jobs available or for which they are qualified
ESL: English as a Second Language	To study English as a non-native speaker in a country where English is primarily spoken
ESOL: English for Speakers of Other Languages	Describes the study of English for individuals who may already know multiple languages besides English
Labor Force Participation Rate	All persons employed or unemployed (that are both desiring and capable of work) as a percent of the total population
Marginally Attached Workers	Individuals who have the same attributes as discouraged workers but are not currently looking for employment due to non-economic reasons (i.e. lack of childcare)
Multiple Jobholders	Employed individuals with more than one job but would likely be available/prefer one full-time job if given the opportunity
Part-time Workers for Economic Reasons	Individuals who work \leq 35 hours a week, desire and are available for a full-time job, but cannot find one due to lack of jobs available, seasonal decline in demand, etc.
Underemployment Rate	Percentage of total civilian labor force that is unemployed, plus all marginally attached workers, part-time workers for economic reasons, multiple jobholders, and underutilized workers
Underutilized Workers	Employed individuals who are not using their full skillset or are underpaid (with respect to the worker's contribution)
Unemployed Persons	Individuals that are 16 and older who are not employed, available to work, and have made sought employment in the last four weeks

Acronyms

ACS: American Community Survey

BLS: Bureau of Labor Statistics

CCIE: Community College Consortium for Immigrant Education

MSA: Metropolitan Statistical Area

ESL: English as a Second Language

ESOL: English for Speakers of Other Languages

LEP: Limited English Proficiency

LPR: Legal Permanent Residents

NCLEX: National Council Licensure Examination

OIRA: Office of Immigrant and Refugee Affairs (Seattle's office)

ONS: Office of Newcomer Services (Virginia's Office)

ORIA: Office of Refugee and Immigrant Assistance (state of Washington's office)

STEM: Science, Technology, Engineering, and Mathematics

VDSS: Virginia Department of Social Services

WBI: Welcome Back Initiative

WES: World Education Services

Client Profile

Literacy Volunteers of Charlottesville/Albemarle County (LVCA)

The Literacy Volunteers of Charlottesville/Albemarle County is a 501(c)(3) nonprofit organization housed in the Jefferson School near downtown Charlottesville. It provides free basic literacy and English as a second language (ESL) tutoring to adults in the county.

During the 2017 fiscal year, LVCA served a total of 463 students, providing 9 percent of those students basic literacy instruction and the other 91 percent ESOL instruction. This figure represents a 68 percent increase in the number of students served over the last five years. LVCA was able to tutor these students with the help of 391 tutors providing over 31,000 volunteer hours. Despite these capacity increases, LVCA was only able to accept 221 new students from the 522 inquiries last year, signaling a shortage of supply in literacy services for the region (LVCA, 2017).

"We believe the ability to read, write, and communicate is critical to adults to fully realize their potential as individuals, parents, and citizens."

(LVCA Mission Statement)

In addition to prioritizing proper tutor training and student development, LVCA aims to continually improve its programming to better serve the community. Students are offered more than literacy assistance; learners and tutors also plan and discuss employment, education, community, and health goals.

Last year, LVCA reported that 60 students entered employment or got a better job, 48 improved their employability skills, 151 accomplished a work-based goal, 34 increased involvement in community activities, 71 improved their consumer skills, and 51 improved their health and wellness (LVCA, 2017). While these goals are unique to each student, they signal LVCA's belief that improving literacy coincides with other educational, health, and economic benefits for the individual and the community.

LVCA's organizational goals promote their interest in exploring the economic impact of an effective, literate immigrant labor force. This report aims to address the following problem definition: High-skilled immigrants in Virginia are underemployed at significantly higher rates than their native-born counterparts.

I. Executive Summary

Immigrants in the United States face unique and significant challenges when trying to achieve economic stability. Copious research details the nuanced relationships between an individual's status as an immigrant and that individual's likelihood to encounter particular negative economic outcomes like poverty or unemployment. While access to jobs is an important indicator of how well immigrants are able to integrate into the economy, researchers and advocates underemphasize other important aspects of economic integration such as underemployment.

High-skilled immigrants in Virginia are underemployed¹ at significantly higher rates than their native-born² counterparts. Twenty-three percent of college-educated immigrants who obtained their degree abroad worked in low-skilled jobs compared to ten percent of native-born equivalents (Batalova et al., 2014).

The underemployment of high-skilled immigrants is highly detrimental to the wellbeing of the individuals, their families, and their communities. Associated social and monetary costs include significant losses in lifetime earnings, state and local tax revenue, job productivity, as well as negative mental and physical health outcomes. The adequate employment of these immigrants would be mutually beneficial to the individuals, their families, select occupational industries, and to the Commonwealth of Virginia as a whole.

To combat brain waste in the Commonwealth, the state government should consider the following options: maintaining the status quo, establishing an Office for Immigrant and Refugee Assistance, or Creating a Welcome Back Center in northern Virginia.

The most effective solution for reducing underemployment among foreign-born immigrants will reduce common barriers to adequate employment. The solution's efficacy is determined by its political feasibility for both the community and the state governments, logistical feasibility, equity implications, and its total predicted cost. Ultimately this report recommends Option 2, to establish an Office of Immigrant and Refugee Assistance (OIRA) in Virginia's Department of Social Services.

¹ Consistent with the most prominent literature, this analysis will define "high-skilled" to mean the individual possesses at least a bachelor's degree or equivalent from a foreign institution. This analysis does not include immigrants educated in the United States. "Foreign-born" and "immigrants" will synonymously refer to those who have immigrated to the United States, inclusive of those that have naturalized, are legal permanent residents (LPRs), have acquired a legal form of temporary stay (H1B1 workers, for example), and the unauthorized. The report will specify if the data pertains to a more particular subset of immigrant. This analysis will also use the definition of "underemployment" that includes: those who are unwillfully unemployed, unwillfully working part-time (part-time workers for economic reasons, and those that are underutilized, or working unskilled jobs that do not require the completion of a bachelor's degree.

² "Native" and its plural variations will refer to Americans who were born and received college degrees in the United States.

II. Problem Definition

High-skilled immigrants are underemployed at significantly higher rates than their native-born counterparts.

Defining "immigrant", "high-skilled", and "underemployment" is integral for appropriately narrowing the scope of this paper. The immigrants discussed in this analysis are specifically foreign-born adults that are willing and able to work a full-time profession and include individuals that have naturalized, are legal permanent residents (LPRs), have acquired a legal form of temporary stay (H1B1 workers, for example), or are unauthorized. "High-skilled" and "educated" will be interchangeably used with language to mean that the individual acquired at least a bachelor's education from a foreign institution. Evaluating the underemployment for immigrants educated in U.S. institutions falls outside of the scope of this analysis. Lastly, underemployed individuals will include those who are unwillfully unemployed, unwillfully working part-time (part-time workers for economic reasons), and those that are underutilized or working unskilled jobs that do not require the completion of a bachelor's degree.

Costs to Society

Loss of Potential Economic Gains

Literature indicates that the underemployment of the highly-skilled immigrant population is costly to the immigrants themselves. Generally, employment outcomes impact the economic well-being of immigrants more than they impact the economic well-being of natives. Immigrants' incomes are more dependent on employment earnings — wages constitute the greatest share of their yearly earnings — while natives' incomes contain greater shares of additional sources like public assistance programs, capital gains and dividends (Slack & Jensen, 2007).

A 2016 study produced in partnership by the Migration Policy Institute, New American Economy, and World Education Services found that roughly 1.5 million underemployed immigrants forwent nearly \$40 billion in earnings that resulted in \$10.2 billion in lost annual tax revenues (Batalova et al., 2016). The Commonwealth has not pursued the same level of research on the economic costs of underemploying this population; however, the state of Washington has a near equivalent number of underemployed, foreign-born individuals that comprise roughly the same total percentage of the equivalent population in Virginia³. Between 2009 and 2013, Washington State's highly skilled immigrant population lost roughly \$830 million in potential earnings. This equates to a loss of roughly \$75 million forgone in state and local taxes (Batalova et al., 2016). These figures provide valuable estimates for potential economic losses in Virginia and also demonstrate that economic losses for underemployment extend further than the household.

³ Virginia's underemployment rate for foreign-educated, high-skilled immigrants is 23 percent. Washington's rate is 26 percent. Each state has about one million immigrants in their total population.

The presence of high-skilled labor in the workforce is associated with large economic gains (Marcus, 2017; Smith, 2012; ILO, 2011). These gains can be seen in the form of GDP increases. For instance, Australia has recently prioritized the acceptance and integration of highly-skilled labor into their professional workforce. Their new policies to do so are expected to increase the nation's gross domestic product (GDP) by \$1.2 trillion through 2050 (Marcus, 2017). In 2014, the U.S. Chief economist for Standard & Poor's estimated that immigration reform to help high-skilled foreign residents work in America could potentially add 3.2 percentage points to the nation's real GDP over the span of 10 years (Badger, 2011).

These individuals have been educated abroad, meaning all of the education costs incurred by the individual and that country's government or university do not impact Virginia. The state only benefits from having the additional level of education and skill in the state. Therefore, utilizing the skill-sets of these foreign-educated individuals provides a net gain to the economy (Nguyen et al., 2015).

Lost economic gains are more extreme in particular industries. Labor forecasts for both the state of Virginia and the entire country project a large gap in the STEM field between the demand and supply of skilled applicants (New American Economy, 2017). Research shows that between 10 and 25 percent of the productivity growth of 219 U.S. cities between 1990 and 2010 can be attributed to the employment of high-skilled immigrants in the high-skill STEM workforce (Nowrasteh, 2015). Other occupational fields in Virginia, like nursing and teaching, face employment shortages, but simultaneously under-employ high-skilled immigrants below the rate of those workers' native counterparts.

This troubling statistic has been a priority for Virginia's legislators, as they have been focusing on how to solve the state's teacher shortage. In March of 2018, state senators Tim Kaine and Mark Warner announced a \$1.2 million plan to provide scholarships and stipends to students interested in becoming math and science teachers in Richmond (Kaine Newsroom, 2018). While this plan addresses the particular needs and desires of Richmond, it also demonstrates the state government's willingness to pay for the new education of its citizens rather than capitalize on a subset of the workforce that is already educated and would benefit greatly from those positions. This is but one example of the ways particular industries in the state are facing increased economic costs by not adequately employing high-skilled immigrants.

Negative Health Impacts

Underemployment is associated with several negative health outcomes. However, medical literature is currently limited in its exploration and conclusions of underemployment as an economic status distinct from unemployment. Most studies conclude that the health and psychological impacts of

both the underemployed and unemployed are nearly equivalent. Researchers indicate a desire to further study what may (or may not) make these populations distinct.

The research finds that the stress levels for the underemployed are similar to the unemployed due to financial strain (Dooley, 2003). Both employment outcomes are associated with decreases in social esteem, increases in depression, and increases in risky or unhealthy behaviors (Dooley, 2003; Milner & LaMontagne, 2017). For instance, underemployment is associated with a 70 percent increased risk for developing symptoms of depression (Dooley, 2003). Additionally, underemployment is associated with declines in physical health, often demonstrated by the rise of chronic disease (Friedland & Price, 2003).

Causes of Underemployment

Like the unemployment rate, technological change and economic recession also increase the underemployment rate. As available jobs decrease, individuals may feel obligated to obtain less-than-ideal positions that offer worse hours, wages, and/or inadequately utilize the individuals' skills (Amadeo, 2018). While these economic events cause increases in underemployment more generally, the literature suggests that there are several more specific causes for the underemployment of high-skilled immigrants.

Cultural differences may facilitate less effective approaches to the job search by immigrants. Some cultures take issue with self-marketing as it signifies a lack of modesty. Chinese American immigrants, for example, are more likely to show emotional composure and a group, interpersonal focus during an interview, focusing less on themselves as an individual but rather their harmony within a group (Kwan et al., 2011). However, self-promotion is a necessary skill for the job search and is proven to impact hiring decisions in the U.S. (Gilmore & Ferris, 1989; Stevens & Kristof, 1995).

Additionally, the job search is exacerbated by the impact failing to find proper employment may have on an individual's psyche. The literature indicates that Americans are more likely to believe that its employment opportunities are primarily based on a meritocracy, which aligns with the nation's commonly held self-image as a land of opportunity (Lawton, 2000; Unz, 2012). These studies note that such an idealistic understanding of America's job and education opportunities undermines the impact of personal diversity characteristics (such as an individual's gender, ethnic background, sexual orientation, or race) and job market barriers in the minds of applicants. As a result, individuals inaccurately overestimate the impact of their personal merit (education, skills, and personality) on their employment outcomes. Then, when these individuals fail to find proper employment, they are more likely to become discouraged (Lawton, 2000; Unz, 2012). For immigrants, the impact of this discouragement can be more significant due to a lack of experience and awareness of the employment systems.

Complicated Credentialing Processes

The U.S. government used to host a Foreign Credential Evaluation Service in the former version of the Department of Education until 1973 when the office was disbanded (Yildiz, 2009). After 1973, universities, employers, and state licensing boards were tasked with recognizing foreign credentials in different sectors, which requires document and diploma verification as well as an evaluation of how these educational attainments align with U.S. or state standards (Yildiz, 2009).

These different local, state, and industry authorities established their own credentialing processes due to the importance of having such systems. Professional certification ensures that individuals in any given occupation are qualified for that line of work. For particular professions (such as those in the medical field), proper credentialing helps ensure the safety of those who seek out the profession's services. In other industries, credentialing helps establish a uniformity of standards. Today there exists ongoing debate over the benefits and costs of credentialing in certain industries. While this debate falls outside of the scope of this analysis, the inconsistent credentialing systems are relevant to this report for their negative impact on the adequate employment foreign-educated immigrants.

This lack of a primary authentication authority creates a dizzying system of incompatible licensing standards from state to state and even from company to company. The struggle to understand the nuanced differences between these standards and the absence of formal advice creates systemic barriers to immigrant employment. In general, the evaluation process is often time-consuming and expensive (Mchugh & Morawski, 2017).

A survey study published by the Community College Consortium for Immigrant Education (CCCIE) found that there were statistically insignificant differences in reported earnings, skills utilization, and professional fulfillment between individuals whose credentials were "fully recognized" and those whose credentials were "partially recognized." Individuals whose credentials were never evaluated reported statistically significant worse outcomes (Bergson-Shilcock & Witte, 2016). Thus, the act of acquiring a credential evaluation, regardless of its assessment, is impactful for determining the employment outcomes of high-skilled immigrants. This signals that educated immigrants suffer substantially from a lack of understanding about the status of their education.

The credentialing process is further complicated if the skills assessment indicates that the individual needs to fill any gaps. The process of recertification can be very expensive across professions, often requiring additional examinations, courses, or job experience (Mchugh & Morawski, 2017).

Poor Literacy

High-skilled immigrants who report speaking English either "not well" or "not at all" (recognized to have "Limited English Proficiency" or LEP) are up to five times more likely to be underemployed

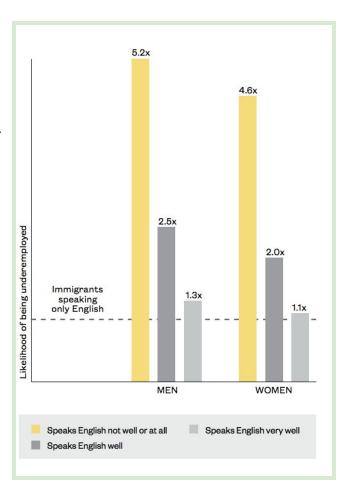
than high-skilled immigrants that speak English very well or use English as their primary language (Batalova et al., 2016). This is demonstrated in the figure provided by the Batolova report.

Poor literacy can exacerbate the impact of other employment barriers for highly skilled immigrants. For instance, struggling to speak English can make it even more challenging for applicants to convey the validity of their foreign work and education experiences to employers or to effectively engage in the job market. A survey analysis conducted by the CCCIE claims that for LEP skilled immigrants, "investing in English language training is likely the single most powerful step" for improving one's professional employability (Bergson-Shilcock & Witte, 2015, p. 33).

Demographic Differences & Employer Bias

A person's immigration status is particularly

salient to discussions of immigration reform. While it remains outside of the scope of this analysis to discuss the moral arguments behind accepting and employing immigrants of different levels of citizenship, this variation significantly impacts the employment outcomes of immigrants. Gaining citizenship or becoming a naturalized citizen decreases the probability of a foreign-educated immigrant to face underemployment or unemployment (brain waste). Nationally, 27 percent of naturalized citizens experienced brain waste, while this number increased to 33 percent for legal permanent residents (LPRs) and to 43 percent for undocumented/unauthorized individuals (Batalova et al., 2016). While citizenship is a very significant variable in determining the likelihood of a foreign-born, high-skilled immigrant being underemployed, the degree to which an immigrant has gained lawful residence may be a proxy for how familiar the individual is with American job markets, customs, and the English language.



There exists a significant caveat to the aforementioned relationship between poor literacy skills and underemployment. It is true that many surveyed employers and foreign-born job-seekers indicate that the language barrier is the predominant barrier to adequate employment (Duchene et al., 2013; Moss & Tilly, 2001). However, problematizing the language barrier may also be a proxy for employers' negative attitudes about cultural differences (Duchene et al., 2013). For example, an employer may hear an individual's accent and either subconsciously or consciously decide that the applicant is unrelatable and thus does not possess certain desirable personality traits that would make them "belong" in the company (Duchene et al., 2013; Campbell & Roberts, 2007). This conflation of personality and literacy is problematic for identifying causes of underemployment because it is challenging to both identify and address; ultimately, many policy interventions do not address employer bias.

Many immigrants encounter additional employer biases in the job market that limit their ability to acquire high-skilled jobs. Race, ethnicity, and country or region of birth are all relevant demographic data associated with varying levels of inequitable employment outcomes. Hispanic and non-Hispanic black immigrants (most commonly from Latin America and Africa) face the highest rates of skill underutilization. Among high-skilled immigrants, 51 percent of Central Americans, 44 percent of Carribeans, 37 percent of South Americans, and 37 percent of Africans are underutilized compared to 18 percent of European Union countries (Batalova et al., 2016). Even when all other factors (including nativity and English proficiency) were held constant, black immigrants consistently faced higher rates of underemployment (Batalova et al., 2016) signaling systemic barriers to employment for black immigrants in the U.S. One extensive study on high-skilled immigrants conducted by IMPRINT, a leading coalition of nonprofits concerned with the economic integration of immigrants, found that twenty percent of those surveyed reported "discrimination" as a barrier to adequate employment (Bergson-Shilcock & Witte, 2015).

Implementing policies to disable the impact of discrimination in the employment process is challenging given that employers may not believe (or would not admit) that they are making hiring selections based on demographic information. Common practices can further enable discriminatory practices to hinder the fair economic integration of immigrants. For instance, some online applications may include particular questions or drop-down menus that do not include options to select particular nativities, foreign degrees, or foreign colleges, effectively blocking access to particular demographics (McHugh & Morawski, 2017).

III. Common Concerns & Data Limitations

Common Concerns

Despite the predicted economic returns on incorporating high-skilled immigrants into the professional workforce, some literature suggests that states should not prioritize high-skill work. These critics argue that initiatives should be directed toward increasing the number of total jobs available, rather than potentially increasing a supply of educated workers that will ultimately be underemployed or unemployed. However, research shows that an increase in the supply of high-skilled labor in a region can actually increase the labor demand by at least two-thirds of the increase in the supply (Berger & Fisher, 2013). More specifically, integrating a high-skilled immigrant into the professional labor force is associated with an increase in 1.4 jobs for natives and integrating a high-skilled immigrant into the professional STEM labor force is associated with an increase of 2.5 additional jobs for natives (Tobocman, 2015).

Additionally, the discourse surrounding immigrant employment often includes debate over the relationship between immigrant employment and wages versus native employment and wages. The polarizing "steal our jobs" debate was routinely performed between presidential candidates in the 2016 general election. As a result, a group of 14 leading economists, demographers and immigration experts collaborated to determine the validity of this claim, and found that the employment of low-skilled immigrants negatively impacts particular demographics (like high-school dropouts) to a minor degree while the employment of high-skilled immigrants produces a substantial, positive impact on the employment and wage outcomes of natives with and without a college education (Preston, 2016; Blau & Mackie, 2016). This report further corroborated the general consensus in the literature that high-skilled immigrant labor acts as a complement, rather than a substitute, for native labor (Wang & Lyseko, 2013; The Commonwealth Institute, 2017).

Data Limitations

It is nearly impossible to measure the more "invisible" counts of underemployment that occur when employees have an overqualified skill set but do not realize their abilities could be better applied at a different job. The Bureau of Labor Statistics (BLS) does not publish a concrete estimate of underemployment because of these measurement complications, but instead, will publish estimates of particular categories of underemployment including "part-time workers for economic reasons" (Amadeo, 2018). This data limitation inevitably impacts the accuracy of all estimates and promotes continual underestimation.

Lastly, underemployment is relatively new in the research field and lacks longitudinal research similar to other economic indicators (Dooley, 2003; Friedland & Price, 2003). As previously discussed, most studies utilize different definitions of underemployment, requiring researchers to clearly define the scope of underemployment. As different researchers operate under different assumptions of underemployment, the research often struggles to coordinate its efforts, which makes general comparison more challenging. For this reason, the data is limited in its general coherence and often limited in its distinction from unemployment research. Therefore, underemployment studies should be scrutinized with these considerations in mind.

IV. Regional Profile: Virginia

Foreign-Born Demographic Data

Immigrants significantly impact Virginia's cultural diversity and economy. One in eight Virginia residents was born in a different country (American Immigration Council, 2017). In total, immigrants comprise roughly 12.2 percent of the entire state's population (American Immigration Council, 2017) and of these immigrants, just over half are naturalized citizens (Commonwealth Institute, 2017).

A U.S. Department of Education study using estimates from 2009-2011 American Community Survey (ACS) data reports that roughly two percent of the entire state's total population are adults who do not speak English "well or at all" (OCTAE, 2016). While nearly 80 percent of immigrants in Virginia report speaking English either "well" or "very well" (American Immigration Council, 2017), there are roughly 140,000 high-skilled individuals that are considered LEP (McHugh & Morawski, 2015).

About 41 percent of Virginia's immigrants have obtained at least one college degree compared to 36 percent of native Americans (American Immigration Council, 2017). While immigrants have a higher rate of holding a college degree compared to natives in the state, immigrants also have a higher share of individuals holding less than a high-school diploma. Twenty percent of immigrants do not hold at least a GED while this is true for only 10 percent of natives (American Immigration Council, 2017).

Foreign-Born Employment Data

One in six Virginian workers is an immigrant (American Immigration Council, 2017). Immigrants in Virginia have a labor force participation rate of 73 percent while Virginian residents who were born in America have a participation rate of 65 percent, 8 percentage points lower than the foreign-born average. (Demographics Research Group, 2014). Despite this relatively high labor force participation, 28 percent of high-skilled immigrants in Virginia experience brain waste (Batalova et al., 2016).

According to an analysis conducted on the 2015 ACS 1-year PUMS data, the most common industries of employment for immigrants in Virginia are the "professional, scientific, and technical services" followed by "accommodation and food services," "retail trade," "healthcare and social assistance," and "construction" (American Immigration Council, 2017). Additionally, immigrants comprise roughly 21 percent of all self-employed business owners in Virginia (American Immigration Council, 2017). Most studies discuss foreign-born employment in the context of an hourglass, with most immigrants employed in either the most-skilled or least-skilled labor. However, 23 percent of educated immigrants are underemployed.

This underemployment is particularly prevalent in the teaching, engineering, and nursing workforces. Foreign-educated engineers are almost five times more likely to be underemployed and foreign-educated nurses and teachers are four times as likely to be underemployed (Batalova et al., 2014). Virginia's healthcare sector faces severe projected shortages. According to the Virginia Education Association, there will be approximately 1,300 unfilled teaching jobs in the coming year (Vergakis, 2017).

Recent Political Context

"If we take these steps, we will answer the charge our voters gave us to make Virginia work better for everyone — no matter who they are or where they are from."

-Governor Ralph Northam during the State of the Commonwealth Address to the Joint Assembly, 2018

"Immigration" and "the economy" are two policy focuses that voters have recently and consistently ranked amongst their highest priorities when deciding how to vote for federal and state representatives. Thus, it is essential to analyze the economic and political opinions of Virginia's s voters to better understand and predict support for policy solutions to reduce the underemployment of high-skilled immigrants in Virginia.

Impact of Virginia's Economic Condition

Virginia's economic indicators are generally positive. As of March of 2018, the unemployment rate is 3.4 percent, which is lower than the national average of 4.1 percent (BLS, 2018). Virginia has the twelfth largest state economy in the nation with a GDP of roughly \$500 billion (BEA, 2018). One could reasonably assume that these economic indicators would positively impact public opinion on the state of the economy and politics. However, Virginia's economy varies considerably across the state and not all regions view the state's recent economic policies to be helpful, particularly with respect to employment opportunities.

The Commonwealth is comprised of both very rural and very metropolitan regions that host distinct industries. These different job sectors and their host regions have recovered from the financial downturn in 2007 at different rates of success, with metropolitan regions typically faring better than rural areas (Schneider, 2017). For instance, Charlottesville, Richmond, and counties in northern Virginia have returned to pre-recession employment levels while rural regions like the city of Lynchburg have yet to recuperate from the jobs lost during the economic downtown (Schneider, 2017). As a result, Virginians' opinions on economic reform and employment options cannot be generalized because of the extent to which Virginia's regions are performing at different levels.

Virginia also faces a significant employment crisis in the healthcare sector, particularly in rural regions. In 2013, Virginia had 90 primary Health Professional Shortage Areas (HPSAs), 50 mental health HPSAs, and 83 dental HPSAs. These HPSAs demonstrate Virginia's shortage of health professional services which will only worsen as the baby boomers get older and require more services (KFF, 2014).

Election Analysis

In November of 2017, Ralph Northam decisively won the Virginia gubernatorial election by winning the popular vote by a margin of nine percentage points while simultaneously losing the majority of congressional districts (See Appendix A). He ran as a Democrat that routinely voted in favor of pro-immigrant policies. This win took place a year after Donald Trump, a Republican with a history of anti-immigrant policies and campaign rhetoric, won the national election. The exit polls and the literature concerning the outcome of the national election signal that President Trump's stance on immigration policy can be largely attributed to his ultimate election (Enten & Bacon Jr., 2017; CNN, 2016). Given that immigration issues are often debated at a national level, both of these executive elections depict the political context in which immigrant employment policy will be discussed by the general public and by Virginian legislators.

In the 2017 Virginia general election last November, "immigration" was tied with "taxes" as the third most important issue that decided how voters cast their vote for the governor (NBC, 2017). Another exit poll conducted by Edison Media Research found that of the individuals who ranked the candidate's stance on immigration to be their primary vote determinant, 74 percent of them voted for Republican Ed Gillespie (Clement & Guskin, 2017). This shows that topics of immigration were important to all voters, but individuals who made immigration policy their top priority as a voter preferred the conservative candidate.

The Virginia Public Access Project (VPAP) conducted a statistical analysis of locality variables to find how strongly they could predict the locality's percentage of votes for either Northam or Gillespie. The project found that localities with a larger percentage of its population comprised of individuals that did not speak English at home had one of the strongest correlations with the percentage of votes cast for Northam. They found a positive correlation coefficient greater than 0.3, which means that while this variable does not perfectly predict how a locality would vote (which would be represented by a correlation coefficient of 1), the percentage of individuals who do not use English at home could predict the votes for Northam with moderate to strong confidence (VPAP, 2018). Given that immigrant families would primarily represent this population of households where English was not the primary language spoken at home, it is reasonable to believe that the presence of immigrants in a region is impactful for how the locality voted for the governor.

The study also found a slight correlation between the percentage of individuals with a bachelor's degree in a locality and their likelihood of voting for Northam. The correlation coefficient was between 0.2 and 0.3, meaning that with some confidence, one can predict that a higher percentage of high-skilled individuals in a locality would make that locality more likely to support Ralph Northam (VPAP, 2018).

Large cities and counties in Virginia hold the majority of the state's population and wealth are decidedly pro-immigrant and are working to combat many Trump administration policies, particularly concerning the protection of undocumented citizens. For instance, in Fairfax County (which is the most populous county in Virginia and one of the top ten richest counties in the nation), the Board of Supervisors encourages its city officials to resist the administration's orders to increase deportation efforts of illegal immigrants (Mara, 2018.)

Since the general election, Virginia's legislators and executives have had mixed opinions on reform to immigration policy. Notably, Governor Northam vetoed a bill that would have prohibited sanctuary cities, confirming his commitment to protecting illegal immigrants in the state from deportation. Most opposition to immigration policy in the media reflects concerns directed toward the unauthorized population of immigrants and their integration into the economy.

More telling, however, was the inaction on HB 1461: Office of Immigrant Assistance created. This bill, which had a Virginia senate companion bill, aimed to establish an Office of Immigrant Assistance (called "The Office") within the Department of Social Services. The Office, for which former Governor Terry McAuliffe designated money in his last budget proposal, would have provided a variety of services to all Virginia's immigrants excluding those that were unauthorized. Notably, one of the primary intended services was to aid immigrants in finding and securing employment. It would have also provided online resources for immigrants to learn about different employment services and their different benefits and eligibilities (HB. 1461, 2018). Both the house and Virginia senate versions of the bill did not pass out of committee and were effectively stalled out of action.

V. Best Practices

Extensive literature about interventions to reduce the underemployment of high-skilled immigrants is markedly limited. There are a handful of nonprofits that effectively lead the way in this emerging field of research and are guiding reform efforts for smaller nonprofits and municipal governments. These intervention and research leaders include the CCCIE, Upwardly Global, the Welcoming Center for New Pennsylvanians, the Massachusetts Immigrant and Refugee Advocacy Coalition (MIRA), the Welcome Back Initiative, and World Education Services. These nonprofits all cooperate in a growing coalition named IMPRINT.

IMPRINT's main objective is to promote the effective economic integration of immigrants and refugees (See Appendix B). While each of the member organizations has different intervention priorities and strategies, their general consensus is that the best intervention practices tackle the need for accessible and extensive data collection on immigrant professionals; skills/credentials assessment and advising; language and technical skill-building programs; job networking help; and organizational cooperation.

These leading scholars and organizations propose that the aforementioned interventions can be effectively implemented at either the state or community level. In accordance with the literature's attention to both statewide and community initiatives, this analysis will review best practices and policy alternatives run by both city and state governments to consider best strategies for Virginia.

Washington State ORIA and Seattle OIRA

"While Seattle is economically strong and getting stronger, the benefits of our thriving city are not jointly shared...We see inequities in our workforce with the simultaneous growth of both high-paying, high skilled jobs along with low-wage jobs without a career path to economic stability."

-Mayor Ed Murray, 2015

The literature suggests that a government office for immigrant affairs is an effective practice for aiding immigrant integration in the region (Pastor et al., 2015). Additionally, the location of such an office within the state impacts its likelihood for success. Generally, offices that serve the primary goal of integrating its immigrants (rather than protecting immigrants from hate speech, per se) are most effective when placed in areas that have a longstanding, sizable immigrant population and several advocacy and nonprofit institutions to help coordinate (Pastor et al., 2015). The immigrant affairs offices for the state of Washington and for the city of Seattle serve as effective examples of this intervention.

The state of Washington is an effective comparison for the state of Virginia. Like Virginia, the state has nearly one million immigrants (980,158 in 2015) which comprise about 13.7 percent of the state's population ("Immigrants in Washington", 2017). Virginia's immigrant population comprises about 12.2 percent of its population. However, on the whole, Virginia's immigrant population is more educated and has higher rates of naturalization compared to that of Washington (American Immigration Council, 2017). However, Washington state has a smaller rate of underemployment for high-skilled immigrants educated abroad. In Washington state, this rate is 18 percent, five percentage points lower than Virginia's 23 percent (Nguyen et al., 2015). Exactly like Virginia, Washington's foreign-educated nurses are also four times more likely to be underemployed than their native counterparts (Nguyen et al., 2015). The state is similarly identifying ways to make industry-level changes to the underemployment rate.

Washington established an Office of Refugee and Immigrant Assistance (ORIA) each in their Department of Social and Health Services, Economic Services Administration, and Community Services Division. This office provides a host of benefits to include the provision of state monetary assistance programs, health and mental health benefits, naturalization help, and employment and training services. Their website has a platform for limited English proficiency programs as well as employment and training opportunities for low-income immigrants or refugees.

At the local level, the city of Seattle is considered one of the top 10 cities in the nation for immigrants and nearly one in every 20 residents is foreign-born. It has its own OIRA that has conducted its own research on the underemployment of its immigrant population. The U.S. Department of Labor recognized the OIRA's Ready to Work program in 2016 for its innovative approach to supporting immigrant economic integration (Office of Immigrant and Refugee Affairs). As a result, Seattle's foreign-born, high-skilled labor has a similar underemployment rate (15.8 percent) to its native-born counterpart population (14.5 percent) with a difference of 1.3 percentage points (Davis, 2017). Seattle has identified similar target industries for which the disparity in employment outcomes persist including the healthcare and teaching industries. In response, Seattle's OIRA coordinates with the state to place immigrants and refugees in services to increase immigrant employment in the education industry, particularly as pre-K and K-12 teachers (Davis, 2017).

Washington's ORIA also coordinates with nonprofits to improve immigrant opportunities in employment. OneAmerica is the largest immigrant and refugee advocacy organization in the state of Washington and is highly active at the state and national level to empower foreign-born communities (OneAmerica, 2018). OneAmerica and the state of Washington formed a public-private partnership to aid the naturalization process (providing process information and legal document review and simultaneously advocate for improved information-gathering and general services for the state's immigrant population.

This programming and resource clarity (where sources are readily available online) differ from that of the state of Virginia. Virginia does not offer an office equivalent to Washington's ORIA or Seattle's OIRA.⁴ These two offices provide an effective liaison role in the community, connecting immigrants and service providers and then filling in any resource gaps if necessary. These offices effectively utilize an online platform to promote clarity and to coordinate with other state agencies Without such an office, the state government neglects the needs of Virginia's robust immigrant population by effectively delegating their problems to nonprofits.

The Welcome Back Initiative (WBI)

Research suggests that it can be very effective for leaders to tackle underemployment in particular industries rather than adopt a general approach. Usually, these targeted programs are designed to fill an employment need for the state. Different organizations have established pathway programs for industries (primarily in the healthcare, teaching, and engineering sectors) that aid skilled immigrants with these professional backgrounds to overcome employment barriers particular for that job sector.

The Welcome Back Initiative (WBI) is a member of IMPRINT that has developed a widely respected program for aiding immigrant health professionals to find adequate employment in the health services sector. After receiving a series of national accolades, WBI expanded its operations from San Francisco to open up new centers in San Diego, Boston, Providence, Puget Sound in Washington, Silver Springs in Maryland, Alamo Ara in Texas, New York City, and Denver (WBI, n.d.). While many cities begin their WBIs by offering a nursing program, many have expanded to include services for physicians, dentists, social workers, midwives, physical therapists, pharmacists, and laboratory technicians (WBI, n.d.).

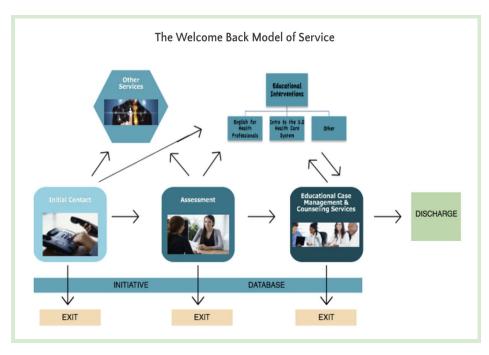
WBI is successful for its specific approach as depicted in Figure 1. It targets an industry where participating communities require significant employment gains. Additionally, these communities have relatively high numbers of underemployed foreign-trained health professionals. This is likely because the healthcare field has a particularly challenging set of state-specific licensing requirements that often require immigrants to take additional licensing tests and obtain practice experience within the state (McHugh & Morawski, 2017).

⁴ Dissimilarly, Virginia hosts programs catered specifically to refugees, or persons that are seeking protection in America and cannot return to their host countries for fear of persecution. The Virginia Department of Social Services (VDSS) offers "Refugee Benefits & Services" in their Office of Newcomer Services (ONS) but does not include any similar programming for immigrants.

WBI encourages the creation of a Welcome Back Center that will provide free health industry-specific advice and assistance to adequately employ these immigrants while coordinating with local employers and other nonprofits. Though each Center is distinct, a study conducted by the OIRA in Seattle found that the most successful Centers offer one-on-one case management, National Council Licensure Examination (NCLEX) preparation (which is required to become a

registered nurse), healthcare internships, ESL help in the context of the profession, networking opportunities with healthcare employers, and financial assistance (Davis, 2017).

decision Maryland's to support the creation of a county Center provides a useful example for neighboring Virginia. Montgomery County opened the Welcome Back Center of Suburban Maryland in 2006. Center offers The paid



hospital internships to foreign-trained nurses so they can practice the trade under supervision, get acquainted with local medical customs, and build a community professional network in order to become re-licensed as a nurse (McHugh & Morawski, 2017). Maryland's pilot nurse program began in 2006 and provided 25 participants with intensive training and advising services. Between the years of 2006 and 2015, 163 participants joined the nursing program, 29 percent of them were placed in Registered Nurse (RN) programs, another 29 percent began working as Nurses-in-Training, and 15 percent began working in the healthcare field as patient care technicians. On average, the program takes about 32 months to complete and yields a 201 percent increase in wages. Upon the nursing program's success, the Montgomery County Welcome Back Center opened services to behavioral health professionals and physicians (LHI, 2015). These outcomes demonstrate the capability of Welcome Back Centers to prioritize one professional industry to reduce its foreign-trained underemployment.

VI. Policy Alternatives

Option 1: Maintain the Status Quo

This alternative continues present trends. This option, by nature, requires no additional programming or strategizing. As immigration into Virginia increases at the same rate, the rate of underemployment will likely increase over time without implementing a policy change. Nonprofits in the region will have to increase service capacity to aid the growing number of immigrants. This would allow the state and local governments to avoid spending political and logistical capital for this cause. Further, the state will continue being considered the "Best State for STEM Jobs" and would not face the distraction from its main economic priority to increase the general educational capacity of the state more generally (EO 23, 2014).

Option 2: Create an Office for Immigrant and Refugee Assistance (OIRA)

This alternative proposes establishing an OIRA that would include services suggested by both HB 1461 (from the most recent state legislative session) and by the example of successful offices like Washington's OIRA and Michigan's Office for New Americans. The Office would not be entirely new, but rather would be a reformation of VDSS's Office of Newcomer Services (ONS). Similar to Washington's methods, the office would be represented in an official capacity at the Virginia Employment Commission (VEC) hosted under the Department of Commerce and Trade. It would also coordinate with Virginia's Department of Professional and Occupational Regulation (DPOR). This would ensure that the Office had a state agency network of economic actors that could help facilitate adequate employment opportunities for high-skilled immigrants. This Office would slightly deviate from the outlines of HB 1461 and would provide services and information to unauthorized immigrants as well.

The Office would serve as an official coordinator of immigrant and refugee services and would collaborate with nonprofits across Virginia. Its most significant service would be to exist as a formalized hub of resources and information for the economic integration of educated immigrants. Like other state Offices, OIRA would collaborate with effective nonprofits and collect Virginia information to produce statistical reports for both legislators and immigrants.

Similar to other state practices, the Office will first collect and provide information; it would not host many services itself during the first two years. OIRA would refer in-need immigrants to appropriate nonprofits for comprehensive case management. After the first two years, the Office would itself provide comprehensive need assessments for incoming immigrants to assess each immigrant's educational, vocational, and skill needs to enable adequate employment.

Option 3: Establish a Welcome Back Center

This option mandates the creation of a Welcome Back Center in coordination with the WBI using the programs in Maryland and Washington as adoption models. The Center would coordinate with the Virginia Department of Health Professions and the DPOR to allocate state grants to supplement nonprofit and county funding.

Like other Centers, the one in Virginia will first host only 25 foreign-trained students for the nursing field and will later expand its services to provide behavioral health tracts. The Center will offer comprehensive training in occupational healthcare English, NCLEX study programs, healthcare job interview practice, and will provide networking opportunities with local healthcare professionals to coordinate mentorships, internship positions, and future job placements.

Effective Welcome Back Centers are located in popular metropolitan areas in the state with sizable skilled, foreign-born populations and several potential health center employers for internship opportunities and networking purposes. Thus, the Welcome Back Center in Virginia would be located in Fairfax. Fairfax County has 27 hospitals surrounding that region, and an immigrant population of nearly 360,000 (VHI, 2018; County of Fairfax, n.d.). Additionally, healthcare and professional services is the County's top industry for projected job growth (PolicyLink, 2015). The Welcome Back Center would coordinate with Fairfax County's Office of Human Rights and Equity Programs to organize funding and Center staffing.

This Center would effectively target a specific subset of the total population of Virginia's underemployed highly skilled immigrants, or those with a background in nursing or a similar health or professional degree.

VII. Methodology & Evaluative Criteria

This report utilizes four evaluative criteria to analyze the proposed policy options: political feasibility, equity, ease of implementation/logistical feasibility, and cost. Each of these criteria is assigned different weights consistent with the literature's attention to which programmatic characteristics influence intervention outcomes.

Evaluative Criteria

Political Feasibility

This criterion reflects an analysis of the current political atmosphere in Virginia. Virginia's gubernatorial characteristics, as well as the characteristics of Virginia's General Assembly, impact the policy alternatives' probability of success. In addition to Virginia's government officials, political feasibility analyzes the probability of stakeholder support or opposition. For each policy alternative, various advocacy groups related to immigration policy will largely impact the success of a government-funded initiative. To determine political feasibility, this report will specifically consider the relevant parties' explicit statements, past voting record, ongoing initiatives, and determine the likelihood of each party to fund, support, or spearhead the given alternative. Given that immigration policy is often discussed at the federal level, this criterion will include an analysis of possible federal intervention or assistance that may impact political feasibility. While this report uses several state and local comparative analyses, the intervention outcomes in these other geographic regions will not be included in the assessment of this criterion.

Political feasibility for each alternative will be ranked on a scale of 1-3.

1 = Low Political Feasibility

2 = Moderate Political Feasibility

3 = High Political Feasibility

Equity

Equity refers to the fair allocation of costs and benefits among different social groups. In this analysis, equity concerns are particularly salient as the intention of an intervention is to cure inequity of employment opportunities occurring in Virginia. Immigration policy often refers to an in-group (the native group) and an out-group (the foreign-born group). Each group can be further stratified by race, ethnic background, country of origin, degree type and educational background, gender, age, sexual orientation, and citizenship status, among others. It is thus essential that the policy alternatives account for these identity distinctions so as not to inadvertently reduce the opportunities for a particular subgroup.

The equity measure will reflect any negative impact or costs on natives and what kind of people will receive the benefits. This measure will also account for the number of people impacted by the alternative with respect to the state's entire population of highly skilled immigrants.

Equity for each alternative will be ranked on a scale of 1-3.

1 = Low Equity

2 = Moderate Equity

3 = High Equity

Ease of Implementation

This criterion reflects the logistical burden of each alternative, focusing primarily on the administrative abilities of the relevant actors. Analysis of this criterion focuses on the ability to change the status quo to implement a change rather than the ability to encourage a change to occur. The burden of influencing opinion is reflected in the political feasibility criterion Ease of implementation accounts for personnel and resource requirements and burdens. This criterion will also include an assessment of the sustainability of each alternative.

Ease of Implementation for each alternative will be ranked on a scale of 1-3.

1 = Low Ease of Implementation

2 = Moderate Ease of Implementation

3 = High Ease of Implementation

Cost

Cost in this analysis measures the estimated cost burden of implementing the option, using the status quo as a baseline of analysis. This analysis assumes that current costs of the status quo are negligible given the lack of any programmatic or policy attempt to tackle Virginia's immigrant, high-skilled underemployment rate. Each program will receive a total cost estimate that will be discounted to depict the estimated cost over the timespan of the project in 2018 dollars.

Analysis Methods

Weighting

While each of the aforementioned criteria helps signal the success or efficacy of each policy alternative, they have varied relative impacts. For this reason, each variable is assigned a weight that totals to an option's total efficacy. The criteria are weighted in the following manner: political feasibility, 30 percent; equity, 20 percent; ease of implementation, 35 percent; and cost, 15 percent.

Time Scope of Analysis

Virginia's state budget is created under a biennial cycle where the budget is adopted in even-numbered years and amended in odd-numbered years. Because the budget has already been discussed for 2018 (to be amended this year), these alternatives are assumed to begin in 2020, allowing for the possibility for inclusion in the 2020 budget.

The timeline for improving the employment outcomes for a foreign-educated immigrant is highly variable and depends on which barriers are most prominently impacting a specific individual's underemployment. For instance, individuals that require re-licensing and additional literacy training may require several years of industry educational classes, testing, language training, and work experience. In accordance with other state initiative plans, this analysis will review each alternative over a time frame of 10 years.

VIII: Analysis

Option 1: Maintain the Status Quo

Political Feasibility

Pursuing the status quo will allow the ongoing political debate over immigrants to persist without action. The new governor of Virginia and the Virginia General Assembly demonstrated growing unrest with inaction toward integrating immigrants in the most recent legislative session. Given that recent proposed legislation to support economic integration in Virginia was not largely opposed, the governor and his cabinet have explicitly expressed an interest to support immigrants, and national advocacy toward protecting immigrants will predictably increase in response to federal policy, Virginia's "status quo" will be challenged politically. However, the recent actions to disregard (but not oppose) the economic integration of immigrants conveys an ambivalence that may enable the status quo. For these reasons, political feasibility for current trends receives a 2.

Equity

Presently, highly skilled immigrants with high-skilled jobs are most likely to be white, male, originating from a European country or China, fully literate, and naturalized. The severity of the demographic disparities between highly skilled immigrants who have all obtained a college degree demonstrates that only certain immigrants are likely to be effectively integrated into the economy. More significantly, there is a severe equity problem between the native population and the immigrant population, which remains the main catalyst for this analysis. The status quo does not promote equity even minimally. This option receives a 1 for equity and is the least equitable option of the four.

Ease of Implementation

Not implementing a new strategy requires no additional intervention. There is no need to engage any new resources or a logistical timeline. The state government and local governments will not face the burden of any additional coordination as nonprofits will continue to attempt to provide services effectively. As a result, this option has the highest ease of implementation of all options and receives a 3.

Cost

Because this analysis uses the total costs of the status quo as a baseline for comparison, the total net cost of Option 1 amounts to \$0 as this option requires no additional expenditures.

Table 1: Evaluative Criteria for Retaining the Status Quo							
Political Feasibility	Equity	Ease of Implementation	Cost				
Moderate (2)	Low (1)	High (3)	N/A				

Option 2: Create an Office for Immigrant and Refugee Assistance (OIRA)

Political Feasibility

The political feasibility of this option is primarily evaluated in the context of the Virginia legislature's recent response to this exact proposal during the 2018 legislative session and by the prior governor's decision to officially authorize funds for such an office in his budget proposal. The bills to form "The Office" were passed on in both houses of the General Assembly, meaning it was never put up to a real vote but was either overlooked (due to its low priority) or purposefully bypassed. The legislation faced no explicit opposition and will likely resurface in the next session. Additionally, it is highly probable that Governor Northam would repeat the same authorization allocated by the former Democratic governor, which approved funds for building an entirely new office. Given that this option does not seek to build a new office altogether but rather expand ONS, Governor Northam would be even more likely support a cheaper version of an initiative supported by former his predecessor. However, given that a bill to establish OIRA was never put to an official vote, it is challenging to predict latent opposition. Lastly, the interventions are expected to begin in 2020, which is the same year of the next presidential election. Given that the 2016 election spurred heightened, polarized attention to immigration more generally, any proposed policy may suffer from a vitriolic dialogue about immigrants during the president's re-election campaign. This option has moderate political feasibility and receives a 2.

Equity

OIRA's mission is to provide official information and resources to all of Virginia's immigrants, including the unauthorized. These services are designed to improve the knowledge base of all parties who may be interested. Reports outlining the impact of high-skilled immigrants in Virginia will be useful and important for the native population as well. While this initiative is designed to ultimately ensure the adequate employment of highly skilled individuals, the provision of information and assessment tests, as well as OIRA's ability to refer individuals to other nonprofit services, will enable this initiative to impact a wide array of stakeholders and demographics. For this reason, creating OIRA provides the most equity of all of the alternatives. This alternative receives a 3 for this criterion.

Ease of Implementation

This initiative will not require the construction of a new center but rather requires that ONS be expanded. In other states like Maryland and Washington, leaders budgeted for the creation of two new positions to specifically coordinate immigrant affairs. These personnel hires will not be challenging to obtain given the likelihood that there are several interested and qualified individuals that currently work on ONS programs to coordinate refugee assistance. Additionally, the Office will already have access to a variety of resources and nonprofit relationships related to refugee employment services that will also be beneficial to non-refugee immigrants. Some new technology and space to occupy two individuals and a greater influx of visitors will need to be allocated for the new hires but in general, the technical and managerial capabilities already exist. For these reasons, this option receives a 3 for this criterion.

Cost

The Virginia Department of Planning and Budget (DPB) produced a fiscal impact statement for HB 1461 from the 2018 legislative cycle. In accordance with best practices, DPB provided funds for the creation of two new positions, a program administrations manager and a program administrations specialist. DPB also allotted money for general operating costs and a multilingual public outreach campaign. The net present value of the ten year program, rounded to the nearest dollar is \$2,184,333.

Table 2: Evaluative Criteria for Creating OIRA							
Political Feasibility	Equity	Ease of Implementation	Cost				
Moderate (2)	High (3)	High (2)	\$2,184,333				

Option 3: Establish a Welcome Back Center

Political Feasibility

The Virginia legislature and the governor currently seek methods to reduce the current and impending health professional shortage. Current proposals generally aim to fund the full instruction of uneducated individuals across the state while this program seeks to hone the skills that Virginia's residents already possess. Also, the WBI was successfully implemented in Maryland. Virginia's state government may be compelled by the success of the Maryland either supportively or competitively. If Maryland implements successful programs to integrate its immigrant workforce while simultaneously improving access to healthcare, Virginia's economy could suffer. High-skilled

residents may have greater economic mobility to move just north to receive relatively better employment and healthcare outcomes. This potential competition with Maryland could encourage Virginia's legislators to be more supportive of community employment efforts, especially in the context of Virginia's growing trend of out-migration (Lombard & Cespin, 2017).

However, unlike Options 1 and 2, the political feasibility measure of Option 3 reflects local support more than state-level support. Like other Welcome Back Centers, the Fairfax County would be primarily responsible for the program's startup and maintenance costs while the state and national non-profits would provide supplementary grants. In 2015, Fairfax County released a 72-page statistical report outlining its level of "Equitable Growth." The study revealed a persisting wage and occupational gap between minorities (particularly between white natives and black immigrants) and quantified its associated economic losses to be \$26.2 billion in 2012 (PolicyLink, 2015). Given Fairfax's wealth, large immigrant population, and explicit interest to quantify and resolve economic losses related to inequitable economic opportunities for its minorities, this initiative receives a 3 for political feasibility.

Equity

This program would be primarily funded by Virginia's taxpayers but would be strictly available to the skilled immigrant population. Though natives and foreign-born individuals would both contribute to the explicit costs of the program, natives are excluded from the specific benefits. However, the program aims to fill an occupational need in Virginia that burdens the entire state. Natives currently suffer (and will continually to suffer) from unmet medical needs across the state. Indirectly, this program will benefit the native population as well by increasing the healthcare workforce.

This initiative reflects a common tradeoff expressed in the literature for immigrant employment programs. Providing services for a large number of industries or demographics often requires more generalizable services that lack industry-level nuance. Given the scarcity of resources directed toward immigrant affairs in Virginia, there is a tradeoff between the quality and quantity of services the state can provide at any given time. For example, programs may either provide significant information and services for a few occupations, or, alternatively, lower amounts of information for a greater number of occupations. The Welcome Back Center will impact a smaller demographic, but will provide extensive and effective services targeted to facilitate the adequate employment among the specific demographic, foreign-trained health professionals. For these reasons, this initiative receives a 1 for equity.

Ease of Implementation

This program requires significant logistical planning as there is no present center designed to coordinate cultural and vocational healthcare lessons for foreign-trained immigrants. Implementing a

new Welcome Back Center will require a great deal of coordination between several actors: the Fairfax County government, the local hospital boards, and the local immigrant advocacy organizations. The different stakeholders will coordinate to find instructional classroom space, hire licensed instructors, and establish a referral system from various agencies to the Center. While creating a new program will require significant managerial coordination, the burden of the implementation process will be significantly aided by the abundance of resources. The WBI will assist to establish the Center and will provide examples of best implementation strategies from Washington and Maryland. The Fairfax Center will follow the same guidelines as these other Centers and begin modestly with a 25-person class. In addition to other Welcome Back Centers, Fairfax (and the greater region of Northern Virginia) offers an abundance of healthcare employers and immigrant advocacy initiatives or nonprofits that will likely take interest in assisting a nationally renowned program. Given that the creation of a Welcome Back Center requires significant coordination between numerous stakeholders and that Fairfax County has access to significant monetary and human resources, this option receives a 2 for ease of implementation.

Cost

This analysis uses cost estimates from Maryland's Welcome Back Center program given its similar proximity to DC will impact personnel and rental space costs in similar manners. Additionally, the Fairfax Center would provide the same programs to the same number of participants during the first ten years. The estimated net present value for the program, rounded to the nearest dollar, iis \$908,009.

Table 3: Evaluative Criteria for Creating a Welcome Back Center							
Political Feasibility	Equity	Ease of Implementation	Cost				
High (3)	Low (1)	Moderate (2)	\$908,009				

IX: Outcomes Matrix

Table 5: Outcomes Matrix									
Policy Option	Political Feasibility	Equity	Ease of Implementation	Cost					
Weights	30 percent	20 percent	35 percent	15 percent					
Status Quo	Moderate (2)	Low (1)	High (3)	N/A					
OIRA	Moderate (2)	High (3)	High (3)	\$2,184,333					
Welcome Back Center	High (3)	Low (1)	Low (2)	\$908,009					

X: Recommendation & Implementation

This analysis recommends **Option 2: Create an Office for Immigrant and Refugee Assistance (OIRA).** This option is the best first step for the state of Virginia in tackling the underemployment rate for highly skilled foreign-born individuals. Firstly, creating OIRA already has sufficient political support in the state government given its previous budget allocation and the proposal of HB 1461. Additionally, this office will have a low logistical burden due to the presence of existing resources for refugee management in VDSS's ONS.

This office promotes an equitable solution for all of Virginia's foreign-born population as it caters to the particular needs of different barriers, whether they pertain to English skills, job search skills, or the particular credentialing process for a certain industry. The variety of immigrant experiences pertaining to the struggle of adequate economic integration signals the need for a generalizable option. Additionally, the state of Virginia has very limited data on underemployment and on the employment outcomes for its highly educated immigrants. Implementing Option 2 will reap the additional benefit of providing increased data to better serve the population in the future.

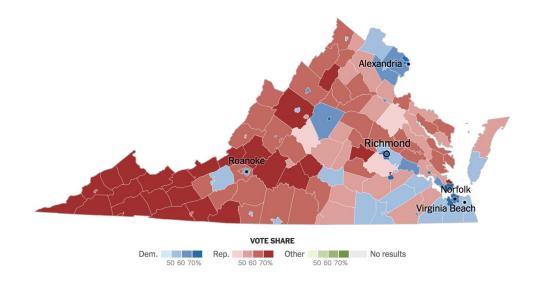
To obtain this office, advocates must prepare their advocacy efforts in 2018 to prepare for the next budget and legislative cycle. Advocates should utilize and sharet the successful example of

Washington's office, which provides a very satisfactory comparison for the state of Virginia. More specifically, advocacy organizations in Virginia should lobby Governor Northam and his staff to ensure OIRA is allocated money in the next budget. Further, lobby efforts must be directed toward members of the house Committee on Health, Welfare, and Institutions given its reluctance to put HB 1461 to a vote in the last cycle.

Following the establishment of Option 2, this report suggests that legislators pursue Option 3 in the future. OIRA would provide a useful informational service for the creation of a Welcome Back Center, further reducing the implementation burden of establishing the nursing program. Initiatives like WBI can produce clear and impactful results given their industry-specific methods. While OIRA is an important first step for Virginia, leaders should continue exploring abilities to offer specific case-management services. Having both a formalized center for immigrant affairs and several industry-specific programs would be most beneficial for reducing the underemployment of Virginia's highly skilled foreign-born population.

Appendices

Appendix A: Vote Share in Virginia's Gubernatorial Election (November 2017)



Source: New York Times reported "Virginia Election Results"

Appendix 2: IMPRINT Statement of Principles

"We advance the following FIVE PRINCIPLES for immigrant professional integration in the United States: OPPORTUNITY. Immigrants and refugees should have the opportunity to contribute their skills in professional roles that draw on their talents, education, qualifications and experience ACCESS. Immigrants and refugees should have access to the professional workforce and the resources and information that can help them prepare for and become better integrated into the U.S. labor market, higher education, and American society.QUALITY. Foreign-trained candidates for professional licensure and certification should be held to the same standards as U.S.-trained candidates. These requirements should be transparent, objective, impartial and be reflective of local community needs. DIVERSITY. Communities, public officials, and employers should actively work to draw on the full range of talents and abilities of immigrants. Bilingual and bicultural skills should be recognized, valued and utilized. ENGAGEMENT. Communities should work to engage skilled immigrants not only as workers but also as neighbors, parents, business owners, volunteers, stakeholders, leaders, and community members."

Source: IMPRINT 2018

Appendix 3: Explanations of Cost Estimates

This report utilizes a discount rate of **0.07** (per the standards of the Office of Management and Budget) to determine the estimated total cost for the ten-year timeframe of analysis in 2018 dollars. The net present value equation, shown below, was used to determine the final estimates for each option. In this equation, PV stands for the present value, A denotes the annual cost, r represents the discount rate, and t represents the number of years.

$$\mathbf{PV} = \frac{FV}{(1+r)^t}$$

- For Option 2, the DPB provided the following guidelines and assumptions:
 - The office will require two positions, a program administration manager and a program administration specialist
 - Estimated manager salary = \$93,113
 - Estimated specialist salary = \$58,120
 - Outreach campaign cost = \$200,000 in year one and \$50,000 each year after

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total PV
1	2	3	4	5	6	7	8	9	10	Sum
\$ 440,830.0	\$ 280,506.0	\$ 228,976.4	\$ 213,996.6	\$ 199,996.9	\$ 186,912.9	\$ 174 , 685.0	\$ 163,257.0	\$ 152,576.6	\$ 142,595.0	\$ 2,184,332.
0	0	5	8	0	9	4	5	8	3	82

Option 2: Annual Cost Estimates to Calculate Net Present Value

- For Option 3, the Latino Health Initiative of Montgomery County, Maryland provided the following guidelines and assumptions:
 - The office was allotted \$28,087 from the federal government, nonprofit donations, and private donations.
 - The office was budgeted \$100,000 by the Montgomery County Council budget in 2014.
 - These estimations are utilized as constants in the yearly estimate for lack of data surrounding routine allocations for FY 2006-2015

Option 3: Annual Cost Estimates to Calculate Net Present Value

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total PV
1	2	3	4	5	6	7	8	9	10	Sum
\$ 128,087.00	\$ 111,876.1 5	\$ 104,557.1 5	\$ 97,716.96	\$ 91,324.26	\$ 85,349.78	\$ 79,766.15	\$ 74,547.80	\$ 69,670.84	\$ 65,112.94	\$ 908,009.0 1

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