



# TALENT PIPELINE REVIEW

VIRGINIA BEACH DEPARTMENT OF ECONOMIC DEVELOPMENT

*City of Virginia Beach, Virginia*

# Acknowledgments

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The **VIRGINIA BEACH DEPARTMENT OF ECONOMIC DEVELOPMENT** is charged with expanding and diversifying the tax base and employment opportunities for the city through business development. VBDED's staff of 20 professionals help create a vibrant economy by attracting new companies, helping existing companies grow, and assisting entrepreneurs with their nascent ideas.

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**TIP STRATEGIES, INC.**, is a privately held economic development consulting firm with offices in Austin and Seattle. TIP is committed to providing quality solutions for public sector and private sector clients. Established in 1995, the firm's primary focus is economic development strategic planning.

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# About This Work

Employers across the country are experiencing severe labor market challenges. Competition for workers is fierce and will be a determining factor for the future economic prosperity of cities and regions alike. The City of Virginia Beach (the City) is no exception. To remain a successful competitor for corporate investment, the City must understand the skills and strengths of its workforce. With this context, Virginia Beach must address its labor market challenges on all fronts—developing the local workforce, attracting skilled labor to the area, and retaining existing talent.

After completing an economic development strategic plan for the City in 2021 (2021 EDSP), TIP Strategies, Inc., (TIP) was re-engaged to review the area’s talent pipeline. Working with the Virginia Beach Department of Economic Development (VBDED), the TIP consulting team conducted an in-depth data analysis of the region’s occupations and skills, talent migration trends, and education and training programs. The resulting [Workforce Explorer](#), delivered as an interactive Tableau workbook, provides a broad analysis of workforce factors that influence the City’s economic vitality and overall competitiveness (see Figure 1, page 1). To supplement the quantitative analysis, TIP also conducted one-on-one interviews and roundtables with stakeholders including employers, staffing professionals, and leaders in the education and training sector.

Based on this work, the *Talent Pipeline Review* details the depth and breadth of the regional labor market, highlights its strengths, and identifies challenges that must be addressed to support current and future employer needs. Building on the talent and workforce goals in the 2021 EDSP, this document is designed to focus VBDED’s efforts to be more strategic and effective in addressing workforce development issues by making talent a core economic development function. While labor market challenges are not unique to the Hampton Roads, Virginia, region, communities that come together to address these human capital challenges collectively will likely be more competitive in the future. By understanding the challenges and implementing the recommendations in this review, the City of Virginia Beach can take the necessary steps to retain, attract, and develop the talent needed to maintain the region’s competitive edge.

**FIGURE 1. VIRGINIA BEACH WORKFORCE EXPLORER**  
AN INTERACTIVE TOOL FOR A DEEP DIVE INTO TALENT MIGRATION PATTERNS, TALENT SUPPLY STATISTICS, AND MORE

## VIRGINIA BEACH WORKFORCE EXPLORER



This analysis describes the workforce in and around the City of Virginia Beach with an emphasis on the occupational structure of the region, talent demands measured by jobs postings, and flow of talent measured by regional completions, graduate employment destinations, worker migration, and commuting patterns.

Developed by TIP Strategies, Inc., for the City of Virginia Beach. Sources include the US Bureau of Labor Statistics (BLS), Emsi Burning Glass; Council for Community and Economic Research (CZER); Massachusetts Institute of Technology (MIT) Living Wage Calculator; National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS); and the Longitudinal Employer-Household Dynamics (LEHD), Origin-Destination Employment Statistics (LODES), Postsecondary Employer Outcomes (PSEO), and Jobs to Jobs Flows (J2J).

### OCCUPATIONAL EMPLOYMENT, JOB POSTINGS, AND HIRINGS



An occupational analysis shows that earnings vary widely and some occupations underrepresent key demographic groups. Additionally, an analysis of job postings by occupation offers a view of in-demand skills and gaps between employer demands and hiring patterns.

Occupation Overview
Occupation Earnings
Job Posting Trends
Hiring Gap
Skills Overview
Company Overview

### MOVEMENT OF WORKERS: MIGRATION



Analyzing the exchange of workers who change jobs gives detailed information about the types of incoming and outgoing workers to the Virginia Beach metro area and where these workers are going to and from. While the region tends to lose workers to the DC area and to the South, the region also tends to attract many workers from the northeast.

Top 10 Sources by Edu.	Top 10 Destinations by Edu.
Incoming Timeline by Edu.	Outgoing Timeline by Edu.
Incoming Map by Education	Outgoing Map by Edu.
Top Net Sources & Destinations by Education	
Net Timeline by Education	Net Timeline by Region & Edu.
Net Flow Map by Education	

### REGIONAL PROGRAM COMPLETIONS & GRADUATE DESTINATIONS



A summary of regional educational outcomes measured by program completions by area of study and institution in the City of Virginia Beach compared with the larger Virginia Beach metro area. Additional data from select institutions shows regional patterns of where employed graduates landed one, five, and ten years after graduation, showing a slow leakage of talent to outside of the state over time.

Program Comparison	
Program Trends	Detailed Program Trends
Institutional Comparison	Selected Institutional Comp.
Regional Graduates 1 Year Post-Graduation	
Regional Graduates 5 Years Post-Graduation	
Regional Graduates 10 Years Post-Graduation	

### MOVEMENT OF WORKERS: COMMUTING PATTERNS



Commuting patterns show the relationship between where a person lives and where they work. The City of Virginia Beach tends to be a net supplier of workers as more people commute out of the city to work than commute in, but nearly 100,000 live and work within the city limits. Additionally, commuting patterns sliced by industry, monthly earnings, and demographic groups show that some groups, such as workers with low-earning jobs, tend to commute in to the city in contrast to the majority.

Commuting Overview	
Commuters by Industry	
Commuters by Race & Ethn.	Commuters by Age & Gender
Commuters by Earnings	Commuters by Education
Where Residents Work	Where Workers Live

Source: TIP Strategies, Inc.

# The Challenge

An analysis of current workforce factors at the national and local level is a necessary component to studying the region's talent pipeline, along with stakeholder interviews and roundtables. Findings from these tasks shaped the *Talent Pipeline Review* and are summarized here. Additionally, the economic and demographic trends highlighted in the 2021 EDSP, including the City's relative lack of population growth and the region's tight housing market, have important implications for the talent pipeline.

## National Factors

The City of Virginia Beach is not alone in facing a dramatic acceleration of workforce trends following the COVID-19 pandemic. Some of the most prominent national factors that will affect the City's talent pipeline potential in coming years are highlighted below.

### *Working from home might be a more realistic option for some workers in the future*

At the onset of the COVID-19 pandemic, tens of millions of US workers scrambled to figure out how to do their jobs from home, accelerating the already-growing share of Americans, a number that includes 11,000+ Virginia Beach residents, working from home in 2019 (see Figure 2, page 3). With the threat of various strains of COVID-19 still front and center, the question remains: is the work-from-home option here to stay? An August 2021 survey of more than 1,000 US workers found that roughly three out of five respondents preferred the option to either work completely from home or in a hybrid format.<sup>1</sup> While this survey is just a snapshot, it points to a trend that could have long-term implications for commercial real estate and the growth and distribution of business services. For workers who can be truly remote—those with little or no obligation to be on-site—the implications could extend to new patterns of talent migration, which could benefit attractive tourist destinations like the City of Virginia Beach. The question of working from home also highlights equity issues. In the same survey, 21 percent of respondents indicated that the nature of their work does not allow for remote work.<sup>2</sup> These types of essential workers are inherently at higher risk of being exposed to COVID-19 due to the in-person interactions these positions require. Additionally, workers who are Black or of African descent, Latinx or Hispanic, and Native American are disproportionately represented in these occupations.<sup>3</sup> While the City of Virginia Beach has begun the necessary work to address these challenges, the recommendations in this review help propel that work even further.

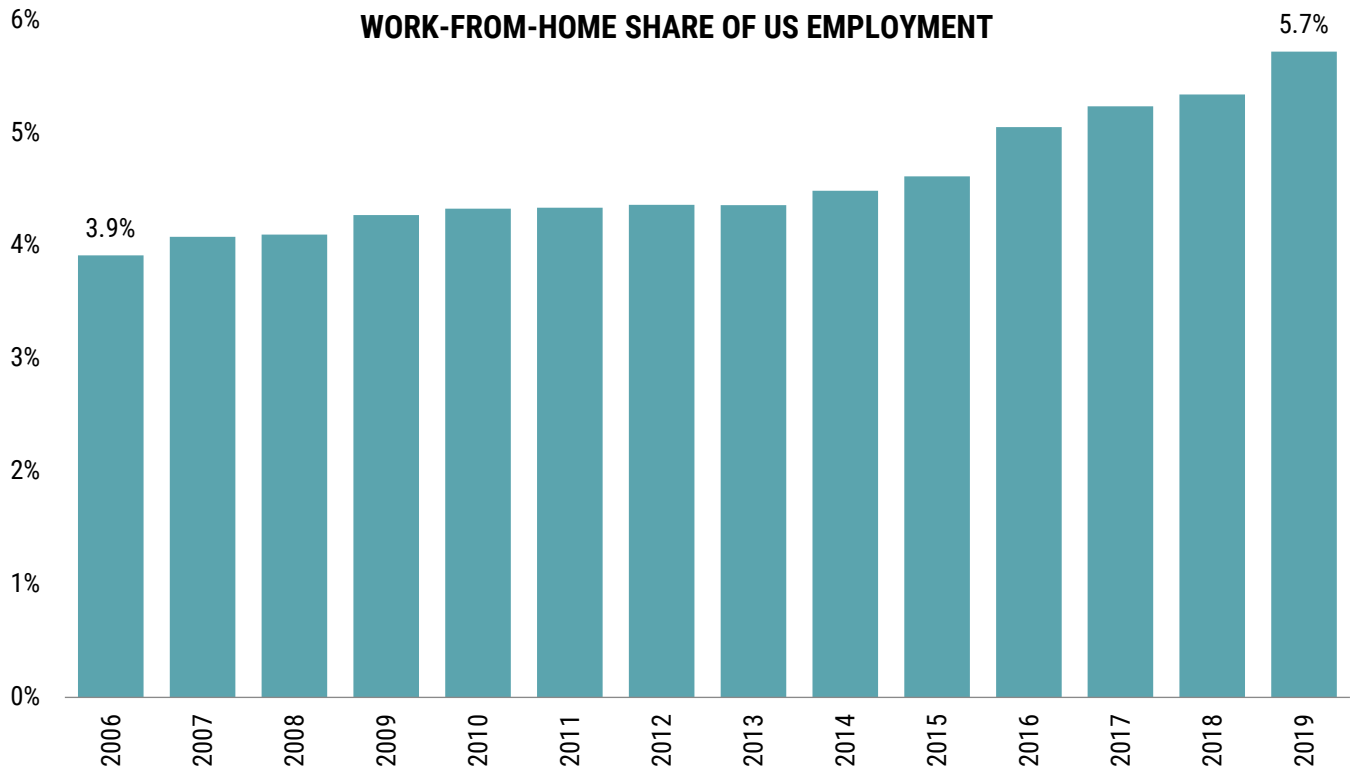
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<sup>1</sup> "PwC Pulse Survey: Next in Work." PwC. August 2021. <https://www.pwc.com/us/en/library/pulse-survey/future-of-work.html>.

<sup>2</sup> PwC. August 2021.

<sup>3</sup> "Health Equity Considerations and Racial and Ethnic Minority Groups." Centers for Disease Control and Prevention. January 25, 2022. <https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html>.

**FIGURE 2. PERCENTAGE OF EMPLOYED PEOPLE WORKING FROM HOME IN THE US, 2006–2019**  
 THE LOCATION OF DAILY WORK WAS EVOLVING EVEN BEFORE COVID-19



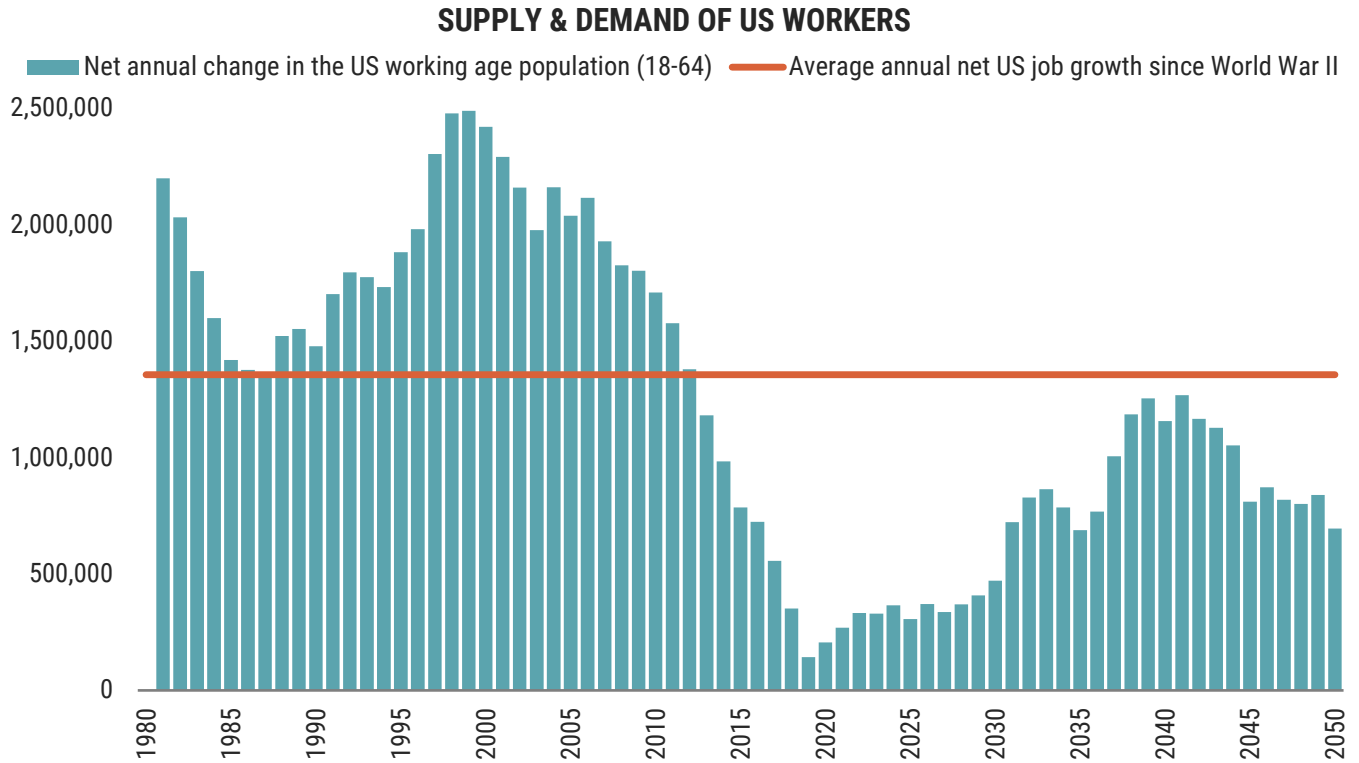
Sources: US Census Bureau, American Community Survey 1-Year Estimates; TIP Strategies, Inc.

***A mix of factors are likely to drive continued labor shortages***

The US labor supply faces long-term pressure. The labor market participation rate is lower today than at the onset of COVID-19 when millions of US workers lost or left their jobs. The pandemic drove an acceleration of retirements in light of the health risks associated with in-person work and COVID-related stresses in fields like healthcare and education. Additionally, as of January 2022, 36 million currently employed Americans are, or will be, eligible to retire in the next 10 years; a number representing nearly one quarter (24 percent) of the US employment base.<sup>4</sup> The pandemic also caused women to leave the active labor force at a particularly alarming rate as remote schooling became more prevalent and as the childcare industry suffered major shortages of its own. With all of these factors, the competitive market for talent is becoming increasingly fierce. National demographic data suggest that competition for workers will not end anytime soon, with labor shortages extending over the next generation (see Figure 3, page 4). The current labor outlook makes it even more critical for all components of the City’s economic development effort to consider and prioritize workforce development, talent attraction, and talent retention.

<sup>4</sup> US Bureau of Labor Statistics, Current Population Survey.

**FIGURE 3. SUPPLY AND DEMAND OF US WORKERS**  
 COVID RECESSION ASIDE, THE US LABOR SUPPLY FACES LONG-TERM PRESSURE



Sources: US Census Bureau, International Database; US Bureau of Economic Analysis, Current Employment Statistics; TIP Strategies, Inc.  
 Notes: Population estimates and projections are for the resident population. The US population components shown in the International Database might not match the official population components for the United States, in part, due to differences in how they are displayed (calendar year versus midyear-to-midyear estimates).

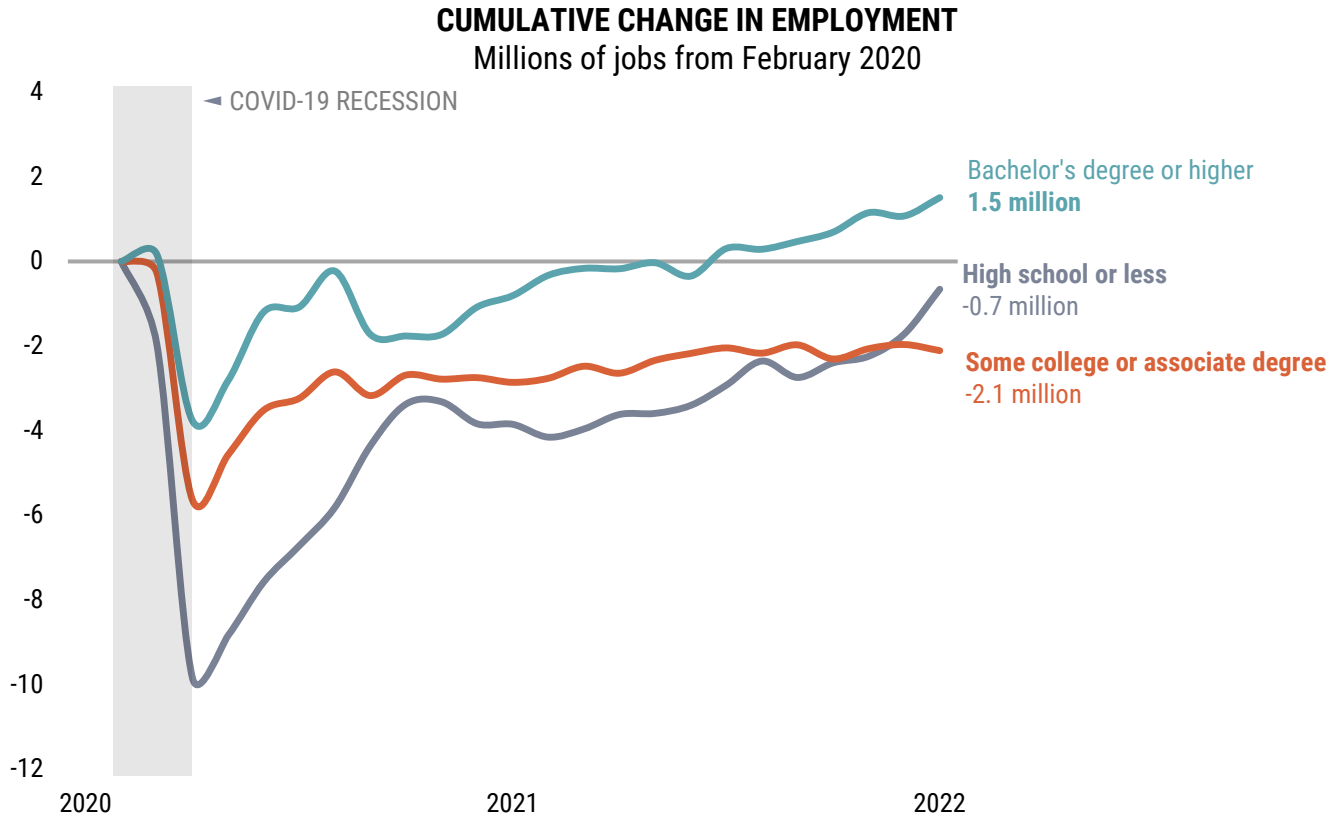
**Economic disparities are evident in the nation’s K-shaped recovery**

The COVID-19 pandemic and the associated recession resulted in disparate economic impacts across socioeconomic and demographic groups. While the US labor market experienced significant job losses at the onset of the pandemic in the spring of 2020, workers with more education suffered less, leading to a K-shaped recovery. Workers with a bachelor’s degree or higher had already gained back virtually all lost jobs by the fourth quarter of 2021. Meanwhile, those with a high school education or less, some college education, or an associate’s degree had yet to recover jobs lost at the onset of the pandemic by late 2021 (see Figure 4, page 5). Additionally, those with less than a four-year degree were nearly twice as likely to be unemployed in 2021.<sup>5</sup> While obtaining a bachelor’s degree is not the right career path for everyone, this trend emphasizes the importance of reinforcing a strong education pipeline within the City and beyond.

<sup>5</sup> US Bureau of Labor Statistics, Current Population Survey.



**FIGURE 4. K-SHAPED RECOVERY**  
 THOSE WITH MORE EDUCATION SUFFER LESS IN THE US JOB MARKET



Sources: US Bureau of Labor Statistics, Household Survey (Current Population Survey); National Bureau of Economic Research (NBER); TIP Strategies, Inc.  
 Notes: Employment is seasonally adjusted and includes all workers age 25 and older. The current recession began in February 2020 and ended (officially) in April 2020.

***Educated workers have the most to gain from the current imbalance of supply and demand***

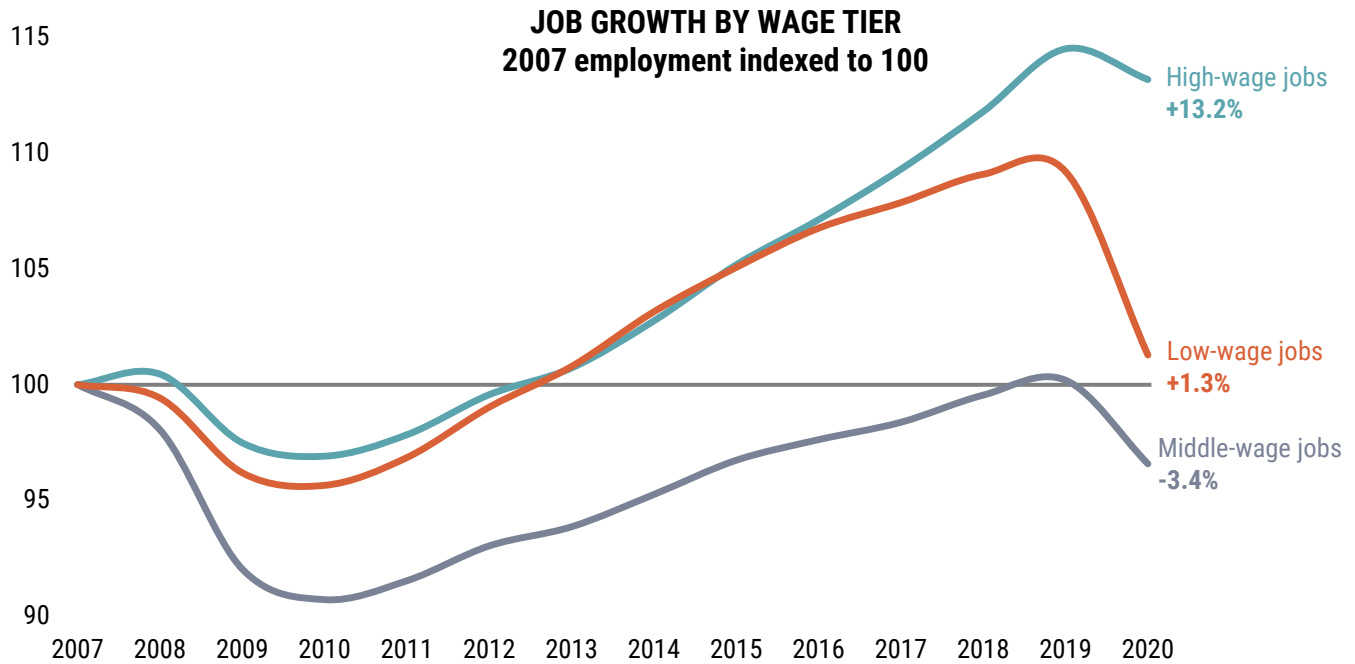
As illustrated previously, workers with higher educational attainment rates typically sustain fewer job losses and recover jobs faster in the aftermath of a disruption. They also tend to hold higher-paying jobs. This combination places educated workers at an advantage in virtually any job market. In the current market, in which high-wage jobs are growing exponentially, educated workers have an extreme advantage. Demand for high-wage, skilled positions has increased so much so that employers are facing shortages of skilled talent (see Figure 5, page 6). The US is witnessing a record mismatch of supply and demand, with five job openings for every three unemployed Americans, yet job losses have piled up for low-wage and middle-wage workers.<sup>6</sup> While Virginia Beach has the largest and most educated workforce in the region, employers in the City struggled even before the pandemic to find the number of workers and the necessary skills they need to be successful. To help local businesses, VBDED should place just as much emphasis on the attraction of talent as it does on the attraction of jobs.

<sup>6</sup> US Bureau of Labor Statistics, Current Population Survey; US Bureau of Labor Statistics, Job Openings and Labor Turnover Survey.



**FIGURE 5. THE IMBALANCE OF SUPPLY AND DEMAND**

EMPLOYERS FACE SHORTAGES OF SKILLED TALENT, EVEN AS JOB LOSSES HAVE PILED UP FOR EVERYONE ELSE



Sources: Emsi 2021.2—Quarterly Census of Employment and Wages (QCEW) Employees, Non-QCEW Employees, and Self-Employed.; TIP Strategies, Inc.  
Notes: Wage tiers are defined by tertiles of total US employment in 2007. US occupations at the five-digit Standard Occupational Classification (SOC) level were sorted by median wage rates and divided into three equal groups (tertiles) based on 2007 employment levels. The resulting three tiers of employment by wage level were then tracked consistently across the subsequent years.

## Local Factors

Over the course of the engagement, common local workforce factors emerged from the quantitative analysis, one-on-one interviews, and roundtable discussions. These themes are outlined in this section, beginning with findings from an analysis of talent migration data to provide a full picture of the workers leaving the region and the industries hit hardest by migration trends. Following an overview of available training programs and the potential supply of graduates, the section concludes with an analysis of occupations and skills data to study the Hampton Roads region workforce, review growth trends, and identify regional strengths.

### Talent Migration

#### *The Virginia Beach metro area competes for talent with the DC metro and beyond*

The Virginia Beach-Norfolk-Newport News, VA-NC metropolitan statistical area (Virginia Beach metro) is a consistent net exporter of workers to other US communities. Over the past 10+ years, the Virginia Beach metro has experienced a net inflow of workers in only four quarters—averaging a loss of over 600 workers per quarter between Q1 2010 and Q3 2020. The Washington-Arlington-Alexandria, DC-VA-MD-WV metropolitan statistical area (DC metro) is the top destination for outgoing workers with more than 130,000 jobs departing from the Virginia Beach metro to the DC metro over a 10-year period. During the same period, the Virginia Beach metro attracted more than 120,000 workers from the DC metro, but the flow of workers consistently falls away from the Virginia Beach metro. Other areas attracting workers away from the Virginia Beach metro are in the South and include destinations like Atlanta, Jacksonville, Charlotte, Dallas, Houston, and Tampa, all of which tend to attract an even number of workers of all education levels. Meanwhile, a recent report from Indeed found that between February 2020 and early January 2022, the Virginia Beach metro’s

growth in job postings outpaced the DC metro by 44 percent.<sup>7</sup> This trend positions the Virginia Beach metro at an advantage for DC residents looking to move for greater job opportunities and a lower cost of living.

**The City attracts workers from the New England and Middle Atlantic regions**

Outside other parts of the Commonwealth of Virginia and the DC metro, the region tends to attract workers from northern urban centers with more than 1,400 workers coming from the New York metro area since 2010 as well as several hundred from the Philadelphia, Boston, Pittsburgh, and Chicago metro areas. Workers coming from New York and Chicago typically have higher educational attainment rates with about a quarter of workers from New York and more than half of those from Chicago holding at least a bachelor’s degree. Many of the workers from other areas including Philadelphia and Pittsburgh tend to be younger (under 25) and might be students with jobs.

**Nearly one out of two Virginia Beach residents commute out of the city for work**

The City of Virginia Beach continues to be a net exporter of workers to other parts of the region (see Figure 6, page 7). The city of Norfolk is the next major employment destination for Virginia Beach residents with more than 33,000 commuters in 2019. The city of Chesapeake followed closely with just over 24,000 commuters in 2019. In both cities, the commuters from Virginia Beach tend to work in employment centers just outside of the City boundary or in the downtown central business district. While the commuting data does not include active military personnel, it does include some federal civilian workers who might work at Naval Station Norfolk, a US naval base, or the North Atlantic Treaty Organization (NATO) Allied Command Transformation headquarters located in Norfolk. Transportation and warehousing, professional services, and manufacturing are the three sectors with the largest net outflow of workers from the City. This is likely related to port workers commuting out of the City for work in transportation, warehousing, and manufacturing-related activities, while professionals commute downtown or to other employment centers outside of Virginia Beach.

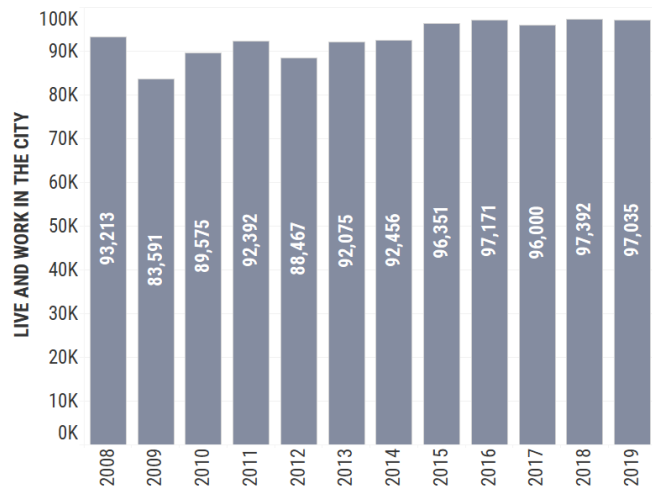
**FIGURE 6. COMMUTING TRENDS TO AND FROM THE CITY**

Commuting **into** the city means a person lives outside of the city and works inside of the city; commuting **out of** the city means a person lives inside of the city and works outside of the city.



**FIGURE 7. LIVE AND WORK IN THE CITY**

These residents have shorter commutes as they both live and work within city limits.



Sources: (both figures) Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES); TIP Strategies, Inc.  
 Note: (both figures) Only includes workers who live in Virginia, North Carolina, Maryland, or DC and work in Virginia, North Carolina, Maryland, or DC.

<sup>7</sup> “Indeed US Job Postings Tracker: Data through January 7.” Indeed. January 13, 2022. <https://www.hiringlab.org/2022/01/13/job-postings-tracker-through-january-7/>.

### *Virginia Beach is a net importer of low-income workers, accommodation and food service workers, and workers who identify as Black or of African descent*

Despite being a net exporter of workers generally, Virginia Beach is also a net importer of low-income workers, defined as those who earn less than \$1,251 a month. Similarly, about the same number of workers (nearly 1,700) in accommodation and food service jobs must commute into the City for work—a likely overlap with the low-earnings group, because many of these jobs pay near minimum wage. Additionally, an analysis of commuting by race and ethnicity shows that more than one-fifth (22 percent) of employed residents of Virginia Beach identified as Black or of African descent in 2019, compared to more than one-quarter (26 percent) of workers in the City in the same group in 2019. In other words, the data suggest that more than 2,700 Black workers commute into the City for work. Taken together, these three factors suggest a high degree of overlap among the low-income workers, accommodation and food service workers, and Black workers, because they are the only groups in each category (earnings, sector, and race/ethnicity) that show a major net commuting in of workers. The high cost of living in Virginia Beach likely plays a significant factor in these trends.

## **Talent Supply**

### *The area's robust network of postsecondary institutions is a significant advantage*

Within the City and the surrounding region are over 20 college and universities awarding an average of more than 27,000 degrees and certificates each year. Old Dominion University is the largest degree provider with over 5,500 for-credit awards (completions) reported in 2020. Camp Community College (formerly known as Paul D. Camp Community College), Virginia Peninsula Community College (formerly known as Thomas Nelson Community College), and Tidewater Community College are the primary two-year institutions that service the region, awarding a combined total of over 5,300 completions in 2020. Of the 26,487 degrees and certificates completed in 2020, over 5,700 (21.9 percent) were awarded for areas of study related to the health professions. The other top programs in the Virginia Beach metro include business, management, and marketing; social sciences; education; and computer and information sciences. Altogether, the City of Virginia Beach enjoys the region's most highly educated population with almost 40 percent of residents over 25 holding a bachelor's degree or higher.

### *The region's military installations provide a pool of workers, including veterans, retired personnel, and spouses*

The region's significant military presence represents another notable advantage for the City's talent supply. In addition to their direct and indirect economic impact, military installations can provide a pool of skilled, disciplined, and motivated workers. This potential workforce includes those separating from active duty and their family members, who themselves are often highly skilled and educated, as well as retired military personnel and civilian workers employed at military facilities. The City's high concentration of veterans—just over 17 percent of the population age 18 and older claimed veteran status in 2019 compared to 10 percent at the state level and 7 percent at the national level—is a strong asset that should be leveraged, especially due to their unique set of often-transferrable skills. Documenting the plans and skill sets of those separating from military service can provide a useful tool for the retention and recruitment of companies.

## **High-Demand Occupations and Skills**

### *Worker interest in skilled trades remains low, despite living wages and employer demand*

Skilled trade occupations, like carpenters, welders, and telecommunications line workers, provide Virginia Beach residents with access to opportunity. Carpenter jobs totaled over 1,500 in 2020, adding more than 100 jobs since

2015. Meanwhile, welders and telecommunications line workers experienced some of the most drastic growth by percent change from 2015 to 2020 (see Figure 8, page 10). All three of these occupations typically require a high school diploma or equivalent and offer a median hourly wage above the City's living wage of \$16.33 to support a single adult. Despite a growing number of jobs and living wages in these occupations, stakeholders shared that local workers are not pursuing these opportunities to their full extent, exposing a leak in the talent pipeline. It remains a challenge to get young residents interested in the skilled trades even as the region continues to attract maritime and offshore wind investments and works to expand broadband access, actions that will further expand these opportunities. As the City looks to strengthen its talent pipeline, focusing career exploration activities on the skilled trades is well warranted.

### ***Licensed vocational nurses offer a strong, equitable career pathway for local residents***

With healthcare programs being the top field of study in the region, more than half of lower-level healthcare regional completions, particularly for vocational nurses, occurred in the City of Virginia Beach. Building on that strong talent pipeline, licensed practical and vocational nurses ranked among the top-ten occupations in the healthcare family with more than 1,200 available jobs in 2020. Growing over 12 percent since 2015, the licensed practical and vocational nurse occupation tends to be a top in-demand healthcare occupation by job postings (about 11 percent), just behind registered nurses (RNs). Meanwhile, this occupation typically requires less than a bachelor's degree as entry education and offers workers a median hourly wage over \$21. Almost half of these workers identify as Black or of African descent, providing minority youth ample opportunity to envision themselves in these types of roles. With a lower barrier to entry, living wages, and a diverse workforce, this occupation provides a strong, equitable career pathway for residents as it is more accessible than an RN while avoiding the lower wages of a nursing assistant.

### ***Following national trends, the region has trouble retaining computer and mathematical workers, leading to a talent deficit in the field***

Computer and mathematical occupations remain a prime area of opportunity for the City of Virginia Beach and the region as a whole. While the Virginia Beach metro awarded 1,506 completions in computer and information sciences in 2020, data and stakeholder input suggest these graduates do not stay in the region, let alone in the state, postgraduation. One year after graduating, 63.2 percent of computer and information science graduates were employed in Virginia compared to just 53.2 percent of graduates 10 years postgraduation (see Figure 9, page 11). This compounds a severe talent deficit as data shows that the City has fewer hires than job postings for these roles (see Figure 10, page 11). With that context, the City would do well to enhance talent retention efforts focused on professional workers in computer and information sciences roles.

**FIGURE 8. GROWING AND CONTRACTING OCCUPATIONS IN THE CITY**  
 TOP 20 OCCUPATIONS WITH THE MOST DRASTIC PERCENT CHANGE FROM 2015 TO 2020

GROWING OCCUPATIONS	PERCENT CHANGE	MEDIAN EARNINGS
Barbers	201.7%	\$12.96
Parking Attendants	184.1%	\$11.05
Psychiatric Technicians	128.0%	\$15.20
Logisticians	111.2%	\$36.90
Welders, Cutters, Solderers, & Brazers	110.2%	\$25.44
Medical Secretaries & Administrative Assistants	109.2%	\$16.07
Health Info. Technologists, Medical Registrars, Surgical Assistants, Healthcare Practitioners & Technical Workers	102.3%	\$32.08
Couriers & Messengers	91.5%	\$14.12
Information Security Analysts	89.7%	\$53.70
Telecommunications Line Installers & Repairers	85.8%	\$30.55
Special Education Teachers, Secondary School	81.9%	\$32.72
Sales & Related Workers, All Other	79.0%	\$11.12
Physical Therapy Assistants	72.9%	\$27.50
Crane & Tower Operators	70.7%	\$29.88
Coating, Painting, & Spraying Machine Setters, Operators, & Tenders	69.6%	\$23.57
Helpers--Production Workers	67.0%	\$12.85
Skincare Specialists	63.1%	\$16.02
Actors	63.0%	\$15.06
Securities, Commodities, & Financial Service Sales Agents	59.2%	\$28.87
Insurance Underwriters	58.1%	\$30.82
CONTRACTING OCCUPATIONS	PERCENT CHANGE	MEDIAN EARNINGS
Ushers, Lobby Attendants, & Ticket Takers	-69.7%	\$10.58
Food Preparation & Serving Related Workers, Other	-57.9%	\$12.32
Chefs & Head Cooks	-54.5%	\$24.49
Cooks, Fast Food	-52.1%	\$9.26
Computer, Automated Teller, & Office Machine Repairers	-51.6%	\$20.25
Packers & Packagers, Hand	-50.7%	\$10.78
Electronics Engineers, Except Computer	-50.3%	\$46.60
Laundry & Dry-Cleaning Workers	-48.5%	\$9.96
News Analysts, Reporters, & Journalists	-48.1%	\$22.99
Sewing Machine Operators	-46.5%	\$13.96
Telemarketers	-46.4%	\$12.89
Packaging & Filling Machine Operators & Tenders	-45.9%	\$12.80
Lifeguards, Ski Patrol, & Other Recreational Protective Service Workers	-43.2%	\$11.61
Music Directors & Composers	-41.9%	\$23.47
Hotel, Motel, & Resort Desk Clerks	-41.4%	\$11.37
Life, Physical, & Social Science Technicians, All Other	-41.3%	\$23.68
Sales Reps., Wholesale & Mfg., Technical & Scientific Products	-40.7%	\$38.99
Chief Executives	-40.6%	\$97.07
Educational Instruction & Library Workers, All Other	-40.0%	\$18.39
Family Medicine Physicians	-38.2%	\$90.31

Sources: US Bureau of Labor Statistics (BLS); Emsi 2021.4--QCEW Employees, Non-QCEW Employees, and Self-Employed; Council for Community and Economic Research (C2ER); TIP Strategies, Inc.

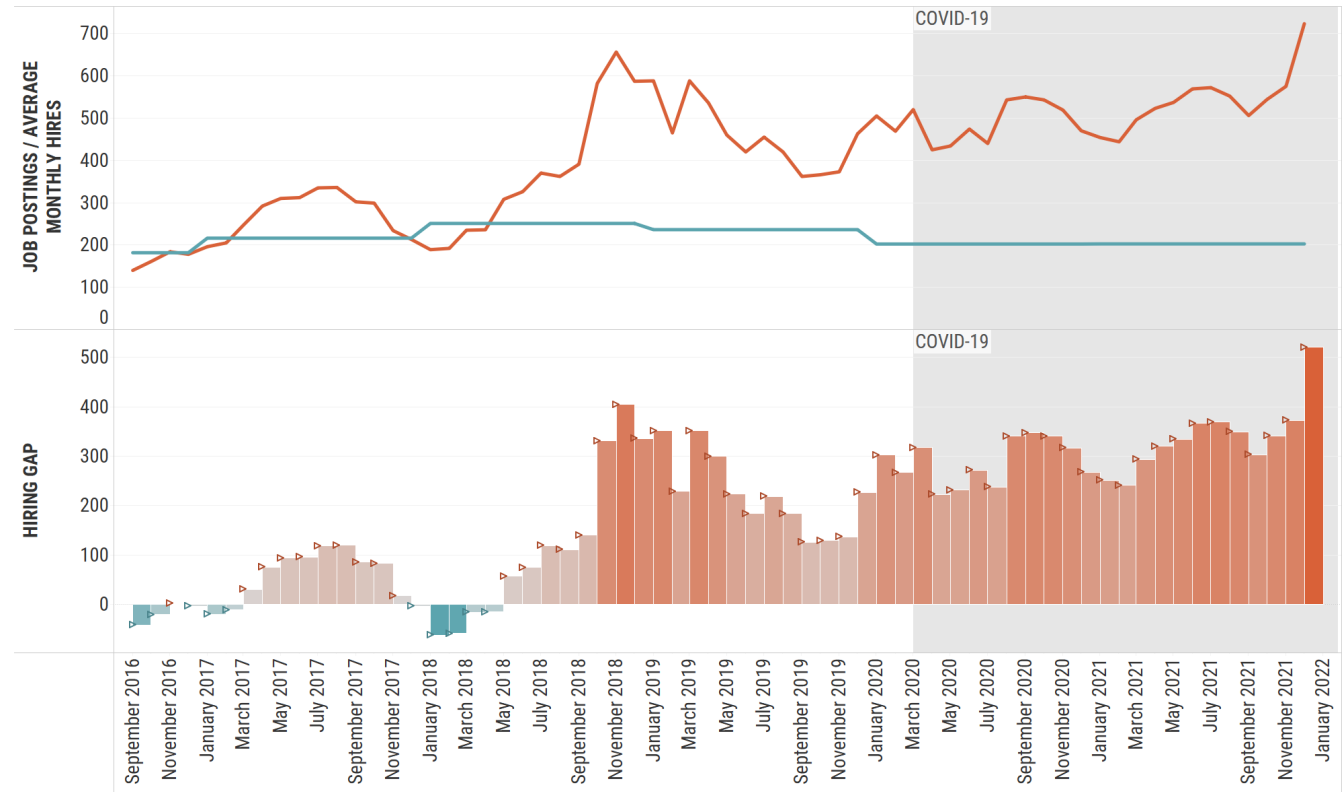
Notes: Only the top 25 detailed occupations with at least 50 jobs in the selected years are presented. Median hourly earnings are in 2020 US dollars.

**FIGURE 9. POSTGRADUATE EMPLOYMENT OF STUDENTS FROM SELECTED VIRGINIA BEACH METRO INSTITUTIONS**  
 A HEALTHY MAJORITY OF GRADUATES TEND TO STAY IN THE STATE, BUT COMPUTER AND INFORMATION SCIENCES GRADUATES ARE LESS LIKELY TO STAY

FIELD OF STUDY	SHARE EMPLOYED IN VIRGINIA POST-GRADUATION		
	YEAR 1	YEAR 5	YEAR 10
<b>All instructional programs</b>	<b>75.3%</b>	<b>67.4%</b>	<b>61.1%</b>
Health professions and related programs	79.9%	72.4%	66.9%
Business, management, marketing, and related support services	78.3%	68.7%	61.1%
Social sciences	84.9%	73.7%	66.0%
Education	79.9%	76.1%	69.6%
Computer and information sciences and support services	63.2%	58.0%	53.2%

Sources: US Census Bureau LEHD, Post-Secondary Employment Outcomes; TIP Strategies, Inc.  
 Notes: Employment counts include graduates who were full-time employed one year, five years, and ten years after graduation from Eastern Virginia Medical School, Hampton University, Norfolk State University, Old Dominion University, Camp Community College, Regent University, Tidewater Community College, Virginia Peninsula Community College, and Virginia Wesleyan University. Unemployment or marginal employment estimates account for the remaining graduates for a given year. Employment includes unemployment-insurance-covered, private-sector businesses; most state and local government workers; and some federal workers (2005 and later).

**FIGURE 10. COMPUTER AND MATHEMATICAL OCCUPATIONS JOB POSTING TRENDS IN THE CITY**  
 A POSITIVE GAP INDICATES A TALENT DEFICIT (FEWER HIRES THAN JOB POSTINGS); A NEGATIVE VALUE INDICATES A TALENT SURPLUS (MORE HIRES THAN JOB POSTINGS); TRIANGLES INDICATE THE NET HIRING GAP



Sources: BLS; Emsi 2021.4—QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc.  
 Notes: Average monthly hires are based on annual hiring data from the Bureau of Labor Statistics. Hiring gap is calculated as the difference between job postings and average monthly hires. Job postings data is gathered by scraping over 45,000 websites, including company career sites, national and local job boards, and job posting aggregators. The number of postings for a selected segment and month reflect unique job postings (duplicate job postings are removed before tabulation). Staffing companies and internship positions are excluded from this analysis.



*Job postings shed light on the region’s high-demand occupations and skills*

Over the past 18 months, job postings—a timely, but imperfect, indicator of employer demand for talent—show a decline after the onset of the COVID-19 pandemic followed by a steep increase in mid-2021. Though job postings can be somewhat cyclical in occupations with heavy seasonal influence, the local trend seems to follow the national sentiment of an increasing demand for workers. Among job postings in the professional, technical, and legal family of occupations, two groups dominate the landscape for demanded occupations. Business and financial operations postings requesting workers with accounting and auditing skills tend to be near the top of the list. Additionally, computer-related occupations requesting a variety of technical programming skills are in high demand, though most recently graphic design skills made the top of employers’ desired skills list (see Figure 11, page 13).

**FIGURE 11. IN-DEMAND SKILLS IN THE CITY**  
TOP SKILLS REQUIRED ACROSS ALL JOB POSTINGS IN THE CITY OF VIRGINIA BEACH DURING DECEMBER 2021



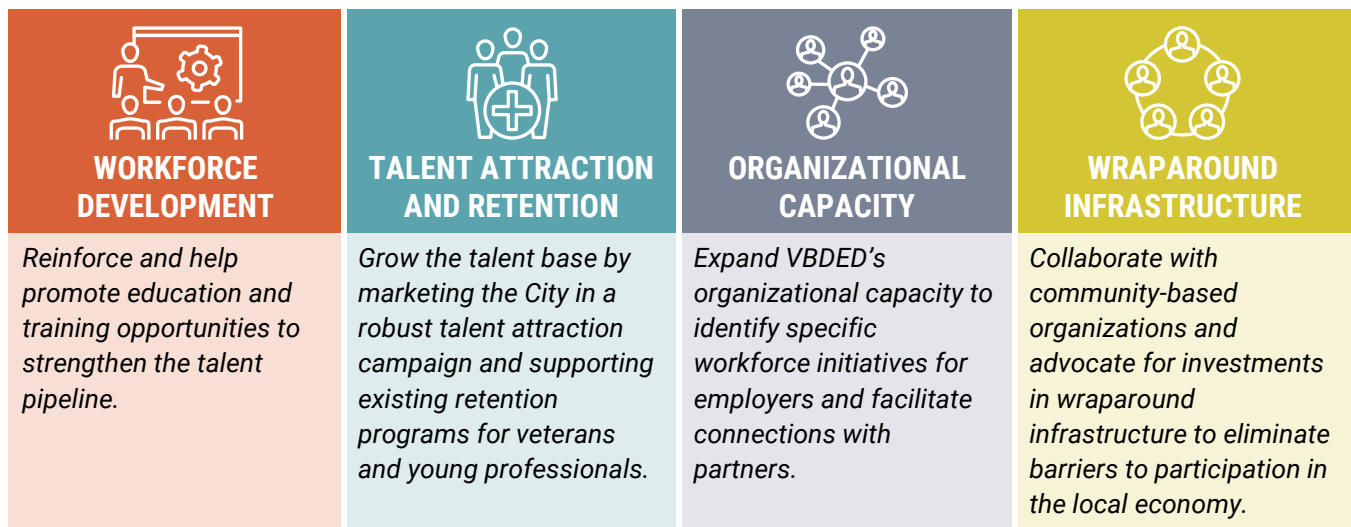
Sources: US Bureau of Labor Statistics (BLS); Emsi 2021.4—QCEW Employees, Non-QCEW Employees, and Self-Employed; TIP Strategies, Inc.  
Notes: Job postings data is gathered by scraping over 45,000 websites, including company career sites, national and local job boards, and job posting aggregators. The number of postings for a selected segment and month reflect unique job postings (duplicate job postings are removed before tabulation). Staffing companies and internship positions are excluded from this analysis



# The Response

The economic development strategic plan completed in 2021 (2021 EDSP) laid a strong foundation for the City of Virginia Beach to expand the talent base and strengthen connections between workforce assets and local employers. Building on that foundation, the recommendations outlined in the *Talent Pipeline Review* are designed to expand VBDED’s efforts in addressing workforce development issues by making talent a core economic development function. This *Talent Pipeline Review* is built around four major focus areas: workforce development, talent attraction and retention, organizational capacity, and wraparound infrastructure (a term encompassing a variety of services and investments that support workforce development efforts). Based on insights gleaned from the quantitative analysis and stakeholder input, the recommendations are meant to enhance the City’s ability to retain, attract, and develop the talent to support the needs of current and future employers.

FIGURE 12. RESPONSE FRAMEWORK



## RECOMMENDATION 1. WORKFORCE DEVELOPMENT

*Reinforce and help promote education and training opportunities to strengthen the talent pipeline.*

Developing Virginia Beach’s existing workforce will be essential to the City’s economic future. By collaborating with regional educational institutions, the City of Virginia Beach can help expand training offerings to meet labor market needs, sponsor career fairs to support career exploration, use pivotal workforce insights to guide dual enrollment offerings, and more. For example, working with Virginia Beach City Public Schools (VBCPS) to expand dual language offerings will be an advantage for international prospects and help fulfill the City’s vision of being a global destination for premier investment, talent, innovation, and jobs. Reinforcing available education and training opportunities will strengthen the talent pipeline by raising the profile of local educational institutions, building awareness of career opportunities among residents, and helping local businesses find skilled workers.

### Strategies and Actions

- 1.1. Deepen collaboration and ties with regional educational institutions (see 2021 EDSP).
  - 1.1.1. Schedule regular annual meetings with the leadership of the region’s colleges and universities and the VBCPS system to discuss opportunities for greater engagement and collaboration on important economic development issues (see 2021 EDSP).

- 1.1.2. Work with VBCPS to expand dual language offerings to assist with international investment prospects.
- 1.1.3. Sponsor and promote career fairs at regional educational institutions to raise awareness of high-growth occupations and high-demand skills.
- 1.2. Leverage VBDED's relationships with local businesses to support career exploration activities.
  - 1.2.1. Facilitate connections between local businesses and VBCPS career and technical education (CTE) to expand career training opportunities for students, including a focused effort on skilled trades.
  - 1.2.2. Use insights from business visitations to help refine education partners' dual enrollment offerings to meet employer needs.
  - 1.2.3. Share business connections with relevant partners at Hampton Roads Workforce Council to facilitate improved employer participation in workforce programs.
- 1.3. Support youth entrepreneurship programs at the local level to foster a culture of innovation and cultivate an entrepreneurial spirit. Entrepreneurship education is especially important for helping the City's low-income and minority youth to develop skills and knowledge that will support their future success and benefit their communities (see 2021 EDSP).

## RECOMMENDATION 2. TALENT ATTRACTION AND RETENTION

*Grow the talent base by marketing the City in a robust talent attraction campaign and supporting existing retention programs for veterans and young professionals.*

With stagnating population growth and a fiercely competitive labor market, Virginia Beach can benefit from talent attraction and retention efforts. In addition to bringing in the workers needed to support local employers, a targeted talent attraction effort would draw new residents to the City, who would then spend and invest locally. The talent attraction marketing campaign should be targeted to specific audiences, including individuals with the skill sets and experiences that match local employer and industry needs. Targeting residents of other large metro areas in top in-bound migration destinations (such as DC, New York, Baltimore, Chicago) and even former residents who left to top out-bound destinations (such as Atlanta, Charlotte, and parts of North Carolina) should also be considered. Meanwhile, talent retention efforts targeted toward young professionals and veterans can ensure that the region is equipped with a qualified workforce needed to support a growing economy.

### Strategies and Actions

- 2.1. Leverage Virginia Beach's position as a tourism destination, its support of entrepreneurship, and the area's high quality of life amenities to promote talent attraction.
  - 2.1.1. Engage talented professionals in conversations about how they can pursue their careers or relocate an existing business to Virginia Beach during locally hosted conferences and meetings. The City's resorts, beaches, attractions, outdoor recreation amenities, and events are exceptional assets to highlight during these conversations (see 2021 EDSP).
  - 2.1.2. Promote The Hive, a collaborative workspace, as a focal point to attract entrepreneurs to Virginia Beach. The Hive's partnerships, education, training, mentoring, and networking opportunities can be a huge benefit to entrepreneurs looking to start a business in the City.

- 2.1.3. Support the talent recruitment efforts of major employers by providing them with marketing resources that effectively promote Virginia Beach to potential employees. Marketing materials should cover topics of interest, including housing, education, entertainment, and recreation (see 2021 EDSP).
  - Target remote workers, former residents who left the City, exiting military service members, and young professional workers to grow the City's workforce.
- 2.2. Promote Campus757's work to develop and retain young professionals in the region by sharing information about Campus757's online jobs placement service and the Summer757 program during business visits.
- 2.3. Connect military personnel separating from service in the region with local employers (see 2021 EDSP).
  - 2.3.1. Work with the Hampton Roads Veterans Employment Center, the Military Economic Development Advisory Committee, and other regional economic development and workforce partners to create a Hampton Roads veterans inventory initiative for soldiers transitioning from the region's military installations to civilian life (see 2021 EDSP).
  - 2.3.2. Adopt innovative models from other regions focused on connecting veterans to employment with critical employers and in strategic growth areas for the City and the region. Examples include the Amazon Veteran Technical Apprenticeship program (see 2021 EDSP).

## RECOMMENDATION 3. ORGANIZATIONAL CAPACITY

*Expand VBDED's organizational capacity to identify specific workforce initiatives for employers and facilitate connections with partners.*

Workers do not stop at city lines for their jobs. With that context, these recommendations would be remiss if they did not include collaboration across jurisdictions. VBDED is in a prime position to serve as a cross-sector convener for partner organizations focused on workforce development issues. Industry sector councils are one way to facilitate collaboration among representatives of business, education, and labor to identify skills gap solutions. Additionally, the [Workforce Explorer](#) provides VBDED with a data-driven tool to better inform decisions across partnerships.

### Strategies and Actions

- 3.1. Catalyze VBDED's role as a cross-sector convener to maximize collective impact.
  - 3.1.1. Reinstate a dedicated VBDED staff member who focuses on workforce issues beyond the GrowSmart early childhood education initiative. This staff member can serve as a direct point of contact for related partners.
  - 3.1.2. Include regional and state workforce development specialists on business retention and expansion (BRE) visits, especially with the largest employers, where workforce is likely to be a major issue of need (see 2021 EDSP).
  - 3.1.3. Continue partnerships with Tidewater Community College, Virginia Wesleyan University, and Hampton Roads Workforce Council to provide educational programs at The Hive for local small businesses looking to address talent strategies.
  - 3.1.4. Partner with education and training providers to facilitate clear career pathways among target industries with transferrable skills including maritime and logistics, offshore wind, and defense.
- 3.2. Promote the formation and expansion of industry sector councils to ensure that the critical workforce and business competitiveness needs of each sector are addressed (see 2021 EDSP).

- 3.2.1. Work with the Hampton Roads Workforce Council and the Hampton Roads Alliance to organize sector councils in critical industries, such as advanced manufacturing, healthcare, information technology, and defense and aerospace (see 2021 EDSP).
- 3.3. Employ the [Workforce Explorer](#) to drive data-driven talent approaches during BRE visits, business attraction efforts, and partnership meetings.
  - 3.3.1. Highlight Virginia Beach's diverse talent pool with the [Workforce Explorer](#)'s occupations overview analysis. This information can be useful for prospects looking to employ a diverse workforce.
  - 3.3.2. Feature regional program completions data to reinforce the region's ability to meet employer needs by training and educating local talent to fill in-demand occupations.
  - 3.3.3. Target business attraction efforts in industry sectors that experience a net outflow of workers from the City of Virginia Beach. These efforts could lead to shorter commutes for employed City residents and increased consumer spending within City limits.
  - 3.3.4. Share key findings from the job posting gap analysis with workforce partners to drive resources and investments toward occupations experiencing severe talent deficits.

## RECOMMENDATION 4. WRAPAROUND INFRASTRUCTURE

*Collaborate with community-based organizations and advocate for investments in wraparound infrastructure to eliminate barriers to participation in the local economy.*

A workforce strategy is not complete without addressing wraparound infrastructure, like transportation, broadband, childcare, and housing. Transportation remains a key topic for prospects. Showing cross-jurisdictional collaboration to improve transportation options for workers is a major competitive advantage. Access to broadband and high-quality childcare also plays a role in supporting remote workers, working parents, and the region's future workforce. When it comes to housing, the link between housing (including variety, availability, quality, and cost) and talent attraction and retention is increasingly clear. Compounding the issue is the fact that Virginia Beach has a low housing vacancy rate (6 percent), well below the national rate (12 percent), signaling a lack of sufficient housing supply for would-be residents. Collectively, these efforts should be coupled with support of organizations and services that regularly interact with residents who experience barriers to employment.

### Strategies and Actions

- 4.1. Advocate for increased infrastructure investments to better support the regional workforce.
  - 4.1.1. Support further transportation and transit developments to enhance workforce access to employment centers in the City.
  - 4.1.2. Work with broadband providers to expand access and ensure network resilience for local businesses and residents who might rely on broadband to work effectively.
- 4.2. Invest in high-quality childcare to support Virginia Beach's working parents and to ensure the region's youngest members are school ready.
  - 4.2.1. Continue to devote resources toward and build capacity of the GrowSmart initiative, which provides customized business training and mentorship to local small businesses in the childcare and early education industry.
  - 4.2.2. Support Minus 9 to 5's work through the Hampton Roads 757 Recovery and Resilience Action Framework to provide local employers with relevant information on childcare and family friendly

practices that support employees in meeting the needs of their young children's care and education.

- 4.3.** Expand and preserve a full range of housing, including attainable workforce housing and transit-oriented development.
  - 4.3.1.** Explore easing permitting processes and changing zoning policies to reduce barriers to housing development.
  - 4.3.2.** Pursue external funding (federal, state, philanthropic) to invest in attainable housing and diversify the housing stock.