

THE STATE OF THE HEALTH CARE WORKFORCE IN NORTHERN VIRGINIA

PREPARED FOR THE SKILLSOURCE GROUP AND NOVAHEALTHFORCE

EXECUTIVE SUMMARY



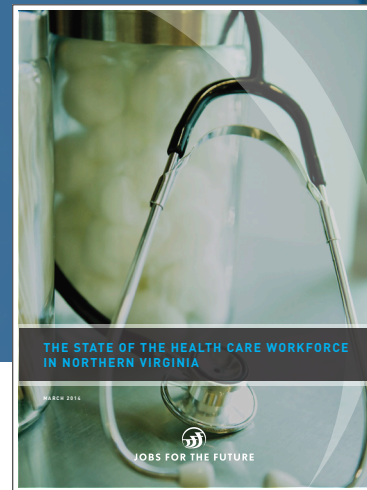
JOBS FOR THE FUTURE

Since its inception in 2003, NoVaHealthFORCE has sought to identify and address health care workforce challenges in Northern Virginia. The coalition of business, academic, and community leaders has commissioned empirical studies of current and future workforce demand in nursing, allied health, and other health care professions. It has applied these research findings to design and implement a multistep action plan to strengthen the pipeline of qualified health care workers.

NoVaHealthFORCE hired Jobs for the Future (JFF) to update two previous studies, produced by Pricewaterhouse Coopers in 2005 and 2008.¹ These reports identified current and projected shortages in 24 critical health care occupations (see box, *Critical Occupations*, on page 4), including a significant gap in the nursing workforce, with the potential to limit access to care and to lower the quality of care. Armed with this information, NoVaHealthFORCE worked with the Commonwealth's General Assembly, regional employers, and federal grant programs to expand the region's capacity to produce nurses and allied health professionals, including radiation therapists and diagnostic medical sonographers.

Northern Virginia, part of the metropolitan Washington, D.C. region, is home to more than 2.3 million people.² It encompasses Arlington, Fairfax, Prince William, and Loudoun counties and the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park. Its outlying counties of Prince William and Loudoun are among the fastest growing and wealthiest in the United States.³ Health care is Northern Virginia's fourth-largest industry, employing over 7 percent of the workforce.⁴ The region's largest health care employer, Inova, is also one of its largest private employers, with more than 13,000 workers.⁵

Over the past decade, the regional health care landscape has shifted significantly and grown more complex. While some earlier trends have continued, new patterns are emerging.



The population has continued to grow, become more diverse, and the average age is increasing. Meanwhile, new health care providers have entered the regional marketplace, new and upgraded facilities have opened, and access to care has improved in the high-growth areas of Prince William and Loudoun Counties. In addition, new partnerships have formed between hospitals and physician groups, as well as between care providers and insurance providers. Moreover, several major hospital systems are changing the way they deliver care, focusing greater resources on preventive care and community-based settings, altering the staffing mix between practitioners and support personnel, and assigning new job tasks to incumbent workers. Despite uncertainty over how the Affordable Care Act will affect patient demand and care delivery going forward, the system changes already in progress have substantial implications for the health care workforce, by spurring job creation, altering demand for occupations, and raising skill requirements.

SUMMARY OF RESEARCH METHODS

Analyzing this dynamic environment requires the best data and projections possible. JFF used multiple methods and data sources to bring the previous studies up to date, including real-time labor market information based on searches of thousands of job ads from online and traditional

sources. Complemented by interviews, focus groups, and surveys, these sources provide a variety of lenses for examining occupational demand and supply in the region. They also offer specific feedback from employers on the skills and experience they seek in job candidates.

JFF applied these methods to analyze supply and demand in the 24 occupations identified in the two earlier studies, as well as in 16 additional occupations that NoVaHealthFORCE deemed critical today (see box, *Critical Occupations*, on page 4). The jobs covered a broad spectrum of the health care industry, including: allied health, dental, diagnostic and laboratory, direct care, health information management and technology, nursing, rehabilitation and therapy, and social and human services.

KEY FINDINGS

Ten years ago, Northern Virginia's health care workforce could not keep up with demand. Today, the more pressing problem is ensuring that all workers deliver efficient, quality patient care.

In 2005, the Pricewaterhouse Coopers regional health workforce study identified a serious shortage of nurses, expected to last through 2020. Now, however, employers report a sufficient supply of registered nursing candidates for the time being. In fact, new graduates are waiting up to six months to find employment. In addition, the region's educational institutions appear to have enough registered nursing students to meet projected needs. But potential future workforce challenges across the health care industry demand careful monitoring and planning.

Northern Virginia's health care labor market is facing rapid change in some areas, while it experiences relative stability in others. The places, professions, and methods for delivering care, as well as models of paying providers and covering patient costs, are evolving. Today, the top priority is the delivery of quality patient care in a cost-effective manner. Whether nurses or nurse assistants, pharmacists or physical therapy assistants, every caregiver and support staff member must work at the top of their job description, providing better care, at lower cost, with improved health outcomes. Attaining these goals requires health care

workers to develop higher-level skills and different skills, in some cases, than their training provided. To be effective, health care employees across the field must demonstrate communication, teamwork, critical thinking, and leadership skills, as well as the clinical skills they learned in school and new skills developed on the job.

DEMOGRAPHIC TRENDS

NORTHERN VIRGINIA'S POPULATION CONTINUES TO GROW AND DIVERSIFY

The region's overall population grew by 22 percent in the past decade, to 2.3 million residents in 2011. Population growth is projected to slow over the next decade, increasing to 2.5 million residents by 2020.⁶ Most of the recent growth has been among racial and ethnic minorities, who now comprise 31 percent of the region's population, and are projected to increase to 41 percent of the population by 2020. While most residents of Northern Virginia have health insurance (about 87 percent), the figures are much lower for racial and ethnic minorities and people with incomes near or below the federal poverty line. Just two-thirds of Hispanic residents, and less than two-thirds of people living in poverty or near the federal poverty line, have insurance coverage.⁷

POPULATION AND EMPLOYMENT IN PRINCE WILLIAM AND LOUDOUN COUNTIES ARE EXPECTED TO INCREASE FASTER THAN IN OTHER AREAS

Continuing a trend of rapid growth, the populations of Prince William and Loudoun counties are projected to grow at 27 percent and 21 percent, respectively, over the next decade. By contrast, the region as a whole is expected to grow only 13 percent. Moreover, the population aged 65 and older in these two outlying counties is expected to increase by 42 percent, putting additional stresses on the health care system.⁸ Providers are responding by opening or upgrading several facilities in Prince William and Loudoun counties, and significant job growth in health care is projected for the two counties—an estimated 5,600 positions. By 2020, these areas will employ over 25 percent of Northern Virginia's massage therapists, dental assistants, dental hygienists, pharmacy

technicians, speech and language pathologists, and physical therapists.⁹ This continues the trend of substantial outward expansion of jobs and population in the northwestern and southern sections of the region and more modest growth closer to Washington, DC.

CRITICAL OCCUPATIONS

OCCUPATIONS STUDIED

JFF analyzed supply and demand in the 24 critical health care occupations studied in 2005 and 2008, as well as in 16 additional occupations that NoVaHealthFORCE deemed critical today. The occupations are listed in the box on the next page.

A REGION IN TRANSITION

NORTHERN VIRGINIA'S HEALTH CARE WORKFORCE LANDSCAPE HAS CHANGED DRAMATICALLY IN A DECADE

The 2005 study of the region's health care labor market uncovered a shortage of almost 2,800 health care workers in 24 job categories, and predicted much more serious gaps, particularly in nursing, unless the region increased its supply of nursing and allied health graduates.¹⁰ In response, health care employers and educators worked in partnership, as NoVaHealthFORCE, forging an action plan and leveraging private and public investment to expand the health workforce. Annual investments and coordinated planning and information sharing increased capacity in nursing and allied health professions, including radiation therapists and diagnostic medical sonographers.

The Northern Virginia health care environment—and the work of its providers, patients, employees, and educators—has undergone considerable change since 2004. The health care industry has been rapidly reorganizing through acquisitions and mergers of large systems with smaller hospitals and physician groups. The location of care delivery is shifting from hospitals to outpatient and home-based settings. New players are entering the Northern Virginia marketplace in long-term and outpatient rehabilitation, walk-in and in-store health clinics, urgent care centers, assisted living communities, and in-home health care. The implementation

of the Affordable Care Act promises further change in patient enrollment and policies to promote lower costs and better outcomes. Providers, in response, are changing care delivery, staffing, and job duties, to lower costs. As part of this strategy, providers are putting pressure on all staff to work at the top of their license, or job description, creating greater demand for higher performance from both licensed professionals and support staff.

TRENDS IN NURSING

SERIOUS SHORTAGES EASED DURING RECESSION, BUT KEY CHALLENGES REMAIN

After a decade of change, the Northern Virginia health care labor market is experiencing a better alignment of worker supply and demand. The Great Recession slowed demand across the spectrum of health care occupations. Nurses postponed retirement, and turnover in all occupational groups decreased. Online jobs advertisements for nurses are one indication, with postings for Registered Nurses and Licensed Practical Nurses falling from a peak of 2,000 in March 2007 to a low of 580 ads in May 2010.¹¹ As the recession eased in 2011-12, demand for nurses and other health care workers increased. But it has slackened again over the past year, as indicated by a drop in online job postings. Even with relative stability compared to the shortages of 2004 and the surplus of the recession years, many uncertainties and challenges lie ahead.

While the supply of nursing graduates appears to be aligned with demand now and for the next several years, several factors could pose challenges in meeting the region's need for nurses in the longer run. The rate of retirements—reportedly deferred during the recession—could increase more rapidly in the coming years, as the median age of registered nurses practicing in Northern Virginia is 49.¹² The regional cost of living could discourage new graduates from remaining in the area, as could employer preference for hiring more experienced nurses. Finally, the capacity of the region to supply new graduates could be compromised by faculty retirements as well as diminishing resources for higher education.

CRITICAL OCCUPATIONS

OCCUPATION GROUPS	OCCUPATIONS SPECIFIED IN STUDY
Allied Health	<p>Biomedical Engineer (in lieu of Biomedical Equipment Technician) Emergency Medical Technician</p> <p>Medical Assistant Medical and Health Services Manager Medical Equipment Repairer (in lieu of Biomedical Equipment Technician) Pharmacist Pharmacy Technician Radiation Therapist (in lieu of Radiation Oncology Therapist) Respiratory Therapist Respiratory Therapy Technician¹³ Surgical Technologist</p>
Dental	<p>Dental Assistant (including Certified DA I and II) Dental Hygienist</p> <p>Dental Laboratory Technician</p>
Diagnostic and Laboratory	<p>Diagnostic Medical Sonographer (in lieu of Ultrasonographer) Medical and Clinical Lab Technologist Medical and Clinical Lab Technician</p> <p>Nuclear Medicine Technologist (in lieu of Radiation Technologist) Phlebotomist Radiologic Technologists and Technicians (in lieu of CT Scanning Technologist and MRI Technologist)</p>
Direct Care	<p>Certified Nurse Assistant Home Health Aide</p>
Health Information Management and Technology	<p>Medical Records and Health Information Technicians¹⁴ (in lieu of Clinical Data Coder, Registered Health Information Technician, Registered Health Information Administrator, Health Data Analyst)</p>
Nursing	<p>Licensed Practical Nurse Nurse Practitioner Registered Nurse</p>
Rehabilitation and Therapy	<p>Audiologist Chiropractor Massage Therapist Occupational Therapist</p> <p>Occupational Therapist Assistant Occupational Therapist Aide Orthotists and Prosthetists (in lieu of Orthotic Technicians and Prosthetic Technicians) Physical Therapist Physical Therapist Assistant Speech/Language Pathologist</p>
Social and Human Services	<p>Child, Family, School Social Worker Social and Human Service Assistant Social Worker, Other Social and Community Service Manager</p>

NOTE: Occupational titles are based on Standard Occupational Classifications used by the U.S. Bureau of Labor Statistics. Bolded titles represent occupations added at the request of NoVaHealthFORCE, or those found to be the best approximation by JFF. Definitions for all occupations can be found in Appendix A of the full report.

NORTHERN VIRGINIA NEEDS HIGHER-SKILLED AND MORE EXPERIENCED NURSES

Northern Virginia's educational institutions are currently supplying a sufficient number of entry-level nursing candidates, and are projected to continue to do so. The most important workforce gap in nursing, from the viewpoint of providers, is finding candidates with sufficient experience, in general, and finding those with highly specialized skills, in particular. These include surgical assistance, intensive care, oncology, cardiovascular, and labor and delivery. Employers would also like schools of nursing to give greater emphasis to skills needed for new models of caregiving prompted by the Affordable Care Act, which emphasize teamwork, customer satisfaction, communication skills, and critical thinking. While the region's nursing schools do include these general skills in their curricula, employers' perception of preparation in such areas is of concern.

CLINICAL PLACEMENTS IN NURSING AND OTHER ALLIED HEALTH OCCUPATIONS ARE IN SHORT SUPPLY

College officials report that regional hospitals offer too few clinical slots to satisfy student demand. They also raised concerns about students having insufficient opportunity to carry out clinical tasks as well as to observe bedside care. The limited supply of clinical slots has forced some colleges to forego plans to increase student enrollment. Employers agree that new arrangements for clinical education are necessary. They cite cost constraints and other pressing priorities for staff time, including integration of electronic health records, to explain the drop-off in availability of clinical training positions.

NORTHERN VIRGINIA IS ON TRACK FOR MEETING THE INSTITUTE OF MEDICINE'S NURSE EDUCATION GOAL OF 80% BACHELOR-PREPARED NURSES

The Institute of Medicine's 2010 report *The Future of Nursing: Leading Change, Advancing Health* recommended that the proportion of nurses with Bachelor degrees be increased from 50 to 80 percent by 2020. In 2011, 74 percent of nursing graduates from Northern Virginia's regional programs had earned a Bachelor degree or higher. Many colleges have expanded program options in support of

accelerated completion of Bachelor of Science in Nursing for students with a Bachelor degree in another field, or for registered nurses with an Associate degree. The region's major hospitals, while not universally requiring a Bachelor in nursing as a condition of employment, are primarily hiring candidates with a Bachelor of Science in Nursing to fill open positions. The majority of hospitals expect their demand for Bachelor-level nurses to increase over the coming year.

The drive for higher credentials raises potential concerns about equity and diversity in the nursing workforce. Incumbent Registered Nurses can take advantage of financial assistance to attain a Bachelor credential. However, others seeking a nursing career face considerably higher costs to complete a four-year Bachelor program than a two-year Associate degree in nursing, and do not achieve an initial advantage in earnings.

TRENDS IN ALLIED HEALTH AND OTHER OCCUPATIONS

HEALTH CARE PROVIDERS ARE SHIFTING TO A NEW MIX OF WORKERS AND RESPONSIBILITIES

Federal government mandates—associated with the Affordable Care Act—to lower costs while improving the quality of care are changing the internal labor markets of Northern Virginia's hospitals and other care providers. To enable nurses and clinicians to work at the top of their license, while reducing costs, support staff and technicians are assuming greater responsibilities and performance expectations. One major system has reduced its nursing staff and delegated more functions to paraprofessionals, such as clinical technicians. Other workers required to work at higher skill levels include physical therapist assistants, pharmacy technicians, and surgical technologists.

EMPLOYERS REPORT SHORTAGES IN ALLIED HEALTH AND REHABILITATION OCCUPATIONS, INCLUDING PHYSICAL THERAPISTS

While the supply of nurses appears sufficient for the present, surgical technologists and technicians, physical and occupational therapists, and pharmacists are in short supply, according to employers. While Northern Virginia has nationally respected training programs in physical therapy, the region has no programs for training surgical

technologists. Representatives of the region's major hospitals also report difficulty in filling vacancies for clinical medical coders and ultrasonographers.

ADDITIONAL OCCUPATIONS FACE RISK OF SHORTAGES

In the next five to ten years, other health care occupations face potential shortages in Northern Virginia. This finding reflects the small applicant pool for selected positions, relative to either projected openings or to online job advertisements, and/or high turnover rates. In some cases, the occupations at risk are low paying relative to other health care occupations and prone to high turnover, including home health aides, dental assistants, massage therapists, and social and human service assistants. Other positions that may be difficult to fill include occupational therapists, medical and health services managers, and speech-language pathologists.

COST OF LIVING AND COMMUTING PATTERNS COULD CONTRIBUTE TO LABOR SHORTAGES IN THE LONG RUN

High housing and other living costs make it difficult to recruit health care professionals and attract faculty to the area. It is especially challenging for new graduates in nursing and other programs to afford the cost of living in Northern Virginia, and considerably harder for those working in support occupations, such as nursing assistants and home health aides. Traffic congestion and long commutes contribute to high living costs and detract from the quality of life—exacerbating workforce attraction and retention problems. The average commuter in Northern Virginia faces longer drive times than their counterparts in the rest of the Commonwealth and the nation. Almost 15 percent require commutes of 60 minutes or more, compared to 10 percent for all Virginians and 8 percent of commuters nationwide.¹⁵

RECOMMENDATIONS

The only certainty about the state of the Northern Virginia health care workforce over the next five to ten years is that more changes are in store. Between population growth, specific occupational shortages, educational program developments, and the impact of the Affordable Care Act, it

will be imperative to closely monitor trends in the region's health care industry as they unfold. Using up-to-date labor market information is an essential tool in this dynamic environment. Certain factors will always be beyond control, but it is possible to react much more nimbly when accessing data that is available much more quickly.

Based on the findings from the workforce analysis, we present the following recommendations to assist the region in navigating the uncertain times ahead and ensuring a strong and well-qualified workforce capable of delivering excellent care to all.

IMPROVE THE ALIGNMENT OF NURSING EDUCATION WITH EMPLOYER NEEDS

Convene leaders from the region's nursing education programs and major health care employers to determine areas in need of improvement. Appoint a working group of faculty, professional licensing officials, nurse managers, and educators to overhaul curricula and instructional methods. Include development of leadership, communication, and teamwork skills.

ADDRESS GAPS IN CLINICAL EDUCATION AND IN DEVELOPMENT OF SPECIALIZED NURSING CANDIDATES

The educator-employer working group should seek both to streamline the process of managing clinical placements and to identify alternative forms of experiential education that meet professional requirements. Identify and replicate the most promising practices in work-based learning, including employer-provided fellowships and institutes to train nurses in specialized roles in high demand. Work with professional licensing authorities to analyze regulations governing clinical placements and other work-based learning experiences, in order to expand the supply, while improving the quality.

ADDRESS WORKFORCE SUPPLY GAPS

Collaborate with physical and occupational therapy educators to assess the need for expanded training programs, and with professional licensing authorities on the potential for relaxing doctorate-level requirements. Develop the future pipeline by educating youth and adults about career paths that begin with physical therapy and

occupational therapy aide and assistant credentials. Convene hospital and education leaders to verify need for and feasibility of developing new training program capacity for surgical technologists. Convene dental and education leaders to expand capacity for educating dental assistants, including potential satellite programs in Prince William and Loudoun counties.

BUILD REGIONAL CAPACITY FOR USING REAL-TIME LABOR MARKET INFORMATION FOR PLANNING

Develop effective ways of collecting regular, up-to-date workforce data from Northern Virginia health providers beyond the major hospitals participating in NoVaHealthFORCE, especially primary care, long-term care, home health, and dental care providers. Update findings from this study regularly with real-time labor market information drawn from online job advertising. Continue to monitor occupations noted as potential shortage areas, particularly in rehabilitation and paraprofessional support roles, such as home health aides and dental assistants. Closely monitor the size of the nursing applicant pool relative to demand trends. Study scope and significance of health care employment demand in non-industry settings, such as retail clinics, as well as in newly created urgent care facilities.

WORK WITH FEDERAL AND STATE AGENCIES AND EMPLOYERS TO ALIGN OFFICIAL JOB CATEGORIES WITH EMERGING OCCUPATIONS

A limitation of this report is the inability to distinguish between two different kinds of health information functions—managing health information versus using information technology in health care—owing to outmoded categories used in public data sets. (The U.S. Bureau of Labor Statistics combines both activities under the title “Medical Records and Health Information Technicians.”) Patterns in job advertising reveal important trends, such as the growth of health information management positions requiring higher skills than traditional medical records and coding functions. However, the growing adoption of electronic health records and other applications of technology and data analytics in health care suggests the need for updated occupational categories allowing analysis of workforce trends with greater precision.

ADDRESS COST OF LIVING AND COMMUTING BARRIERS TO WORKFORCE RECRUITMENT AND RETENTION

Convene employers and regional workforce, housing, and transportation officials to identify potential strategies to address cost of living and commuting barriers facing the health care workforce, including entry-level staff and new graduates. Adjust compensation and bonuses to improve recruitment in emerging shortage occupations. Adopt innovations such as transit-oriented development, mixed-use properties, and incentives for affordable housing, where practical, in new or expanding health care locations. Encourage new applications of telecommuting and telemedicine. Explore feasibility of additional satellite programs in verified shortage occupations in Prince William and Loudoun counties.

REDUCE THE IMPACT OF RETIRING HEALTH CARE WORKERS AND FACULTY

Provide alternative work options for older nurses, such as case management or care coordination, in order to extend their tenure and to “bridge” to younger and less experienced employees. Work with educational and professional accrediting bodies to expand use of part-time faculty. Encourage educational leaders from regional colleges to create new models of collaboration on faculty recruitment and hiring, including shared positions in areas with high rates of retirement or shortages.

FACILITATE TRANSITION TO BACHELOR-LEVEL NURSING WHILE MAINTAINING OPPORTUNITIES FOR A DIVERSE WORKFORCE

Educators and employers should continue to promote and expand accelerated educational programs for nurses with Associate degrees to earn Bachelor degrees in nursing. Continue to educate and recruit Associate-level nurses in order to help maintain a diverse pipeline, representative of the region’s population, for Bachelor-level candidates.

ENDNOTES

¹ Pricewaterhouse Coopers, *The Health Care Workforce Shortage: An Analysis of the Scope and Impact on Northern Virginia, 2005*, and *The Health Care Workforce Shortage: An Update on the Scope and Impact on Northern Virginia, 2008*.

² Weldon Cooper Center for Public Service, University of Virginia. 2013. Population Data.

³ Weldon Cooper Center for Public Service; Carol Morello. 2013. "The D.C. Suburbs Dominate the List of Wealthiest U.S. Counties." *The Washington Post*. December 12. Accessed December 13, 2013.

⁴ Economic Modeling Specialists International (EMSI), 2013.

⁵ Steven Overly. 2012. "Washington Region Expected to See Surge of Health Care Jobs, Study Finds." *The Washington Post*. July 1. Accessed October 3, 2013.

⁶ Weldon Cooper Center for Public Service. 2013. Population Data. Accessed May 15, 2013.

⁷ U.S. Census. 2010. *Income, Poverty and Health Insurance Coverage: Tables and Figures*. Accessed September 3, 2013.

⁸ Weldon Cooper Center for Public Service, 2013.

⁹ EMSI, 2013.

¹⁰ Pricewaterhouse Coopers, 2005.

¹¹ The Conference Board *Help Wanted OnLine*®, 2013.

¹² Virginia Department of Health Professions.

¹³ While the "Respiratory Therapy Technician" title is listed in both federal occupational statistics and in NoVA online job

advertising, it is no longer a distinct certification offered by the National Respiratory Care Board (NRCB) or the Northern Virginia Community College Medical Education Campus. The NRCB has replaced the classification "Certified Respiratory Therapist Technician" with "Certified Respiratory Therapist"; obtaining the latter credential is a prerequisite to sitting for the NRCB examination for "Registered Respiratory Therapist." A taskforce convened in 2010 representing respiratory therapy education, licensure, and practice recommended that a Bachelor degree be made the minimum for entering respiratory therapy practice. See Barnes et al., 2011.

¹⁴ The title "Medical Records and Health Information Technician" is employed in both federal Occupational Employment Statistics and in NoVA online job advertising, and was used here to obtain labor market information consistent with that used for the 39 additional occupations studied in this report. Its use is limited, however, as it does not fully reflect distinct work activities and skill requirements associated with health information management (HIM) functions, which have evolved with changes in technology and industry practices, and health information technology (HIT). HIM encompasses entry-level occupations associated with medical coding and maintenance of patient records, and higher-skilled occupations associated with management of health information, while HIT refers primarily to the application and use of information technology to health care. Examples of HIM job titles include Coders, Revenue Cycle Analysts, and Clinical Documentation Improvement Specialists. HIT job titles include Electronic Health Records Implementation Specialists and Technical Software Support Specialists.

¹⁵ Sara Okos, Laura Goren, & Michael Cassidy. 2012. *Under Pressure: The State of Working Northern Virginia*. Richmond, VA: The Commonwealth Institute for Fiscal Analysis.

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Jobs for the Future works with our partners to design and drive the adoption of education and career pathways leading from college readiness to career advancement for those struggling to succeed in today's economy.



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