



STRONG WORKFORCE, STRONG ECONOMY

BALTIMORE REGIONAL WORKFORCE DEVELOPMENT PLAN

MARCH 2015











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At the height of its strength, the Baltimore region's economy was driven by its workforce opportunities. Historically, our port, steel mills and rail yards provided stable, family supporting employment to Baltimore's workers. In the mid-twentieth century, Bethlehem Steel and Lockheed Martin provided over 80,000 jobs in southeast Baltimore County alone. Today, those jobs have all but vanished.

The Baltimore region is among the wealthiest in the country and we outpace the national average on several critical quality of life indicators including educational attainment, median income, and unemployment. While these numbers correctly showcase the economic strength of our region, they belie the reality of our ever-shrinking middle class. Moreover, these statistics ignore the stark socioeconomic disparities that run through our region on educational, racial and jurisdictional lines.

The Baltimore Regional Workforce Development Plan delineates the web of workforce development challenges facing our region and charts a course forward through broad strategies and specific action steps. In addition to the fact that workforce resources are shrinking, the resources we have are inflexible and often fail to meet the needs of today's job seekers. In response to these challenges, this plan rightly calls for a coordinated, multi-jurisdictional approach to solving these issues and proposes forward thinking revisions to our workforce development system.

By building on the existing assets in our region — our historic role as a shipping hub, the emerging cyber security market, and the strength of our healthcare sector — we have an opportunity to use education and employment to fight systemic poverty and allow the entire region to benefit from our wealth.

We would like to thank the region's workforce investment boards, non-profits, community colleges and funders who partnered with us to develop this plan. As co-chairs of the Opportunity Collaborative, we look forward to the work of turning these strategies into reality.

William H. Cole, IV President and CEO **Baltimore Development Corporation** Co-Chair, Opportunity Collaborative

Scot T. Spencer Associate Director, Advocacy & Influence **The Annie E. Casey Foundation** Co-Chair, Opportunity Collaborative

INTRODUCTION

% OF LABOR FORCE UNEMPLOYED



THE BALTIMORE REGION WORKFORCE DEVELOPMENT PLAN COVERS BALTIMORE REGION, INCLUDING BALTIMORE CITY, BALTIMORE COUNTY, ANNE ARUNDEL COUNTY, CARROLL COUNTY, HARFORD COUNTY, AND HOWARD COUNTY. The Opportunity Collaborative seeks to promote the economic wellbeing of the region's low skilled adult population by increasing their access to employment and economic opportunity. Many of the region's low skilled adults face multiple barriers to employment opportunity that must be addressed wholistically in order for individuals to successfully enter and maintain family-supporting careers. Solutions that can close the region's opportunity gap are complex and require the combined efforts of organizations that provide education, training, and wrap around support services, in close partnership with the region's local workforce investment boards, economic development organizations, and employers.

The Baltimore Region Workforce Development Plan is the product of nearly two years of research by the Opportunity Collaborative Workforce Development Committee. The committee includes representation from each of the workforce investment boards in the Baltimore Region, from higher education stakeholders, social services organizations, workforce development funder organizations, community workforce development, higher education, economic development stakeholders, transportation planners, and other stakeholders with an interest in improving access to employment opportunity across the Baltimore Region.

The plan is informed by the experience of those on the committee in addition to several studies that have explored the region's workforce development opportunities and problems. These studies included the Baltimore Region Talent Development Pipeline Study, which assessed future demand for workers in the region's industry sectors, demand for occupations, identification of mid-skilled occupations in demand, key characteristics of those occupations including earnings, educational and training requirements, experience requirements, advancement opportunity, and the inventory of education and training available to prepare workers for jobs and careers. This study included a survey of over 1,000 job seekers in the Baltimore Region to assess the prevalence of barriers to employment opportunity. The committee also undertook a study of Barriers to Employment Opportunity in the Baltimore Region, which identified the complex and interconnected barriers that keep low skilled adults from finding a job and advancing into a career that pays a family-supporting wage. A study of careers in the region's transportation and logistics sector further explored the career paths that workers could follow to move into a mid-skilled family-supporting career. With the information collected in these studies, the workforce committee identified:

- four overarching goals for workforce development in the region
- six workforce development strategies to achieve the four goals
- forty-five key action plans to implement the six strategies

The 45 key action plans have been designed to address what the committee saw as the region's top challenges and problems. While efforts have been made to assure that most of the region's workforce development problems are addressed within the plan, the plan does not set out to solve every problem. Rather, the strategies prioritize actions that are expected to have the greatest impact and bring the region closer to achieving the four goals. To track progress toward implementing the strategies, the committee has identified a series of key performance indicators which will be tracked over time to provide feedback on progress toward stated goals and help the region's stakeholders to adjust the plan's implementation as needed.

WORKFORCE DEVELOPMENT COMMITTEE MEMBERS

Anne Arundel Community College Anne Arundel Workforce Development Corporation Associated Black Charities Baltimore City Community College Baltimore City Mayor's Office of Employment Development Baltimore County Department of Economic & Workforce Development Baltimore Workforce Funders Collaborative Carroll County Business & Employment Resource Center Central Maryland Transportation Alliance Community College of Baltimore County Goodwill Industries of the Chesapeake, Inc. Greater Baltimore Committee Howard County Office of Workforce Development. Housing Authority of Baltimore City Job Opportunities Task Force Johns Hopkins School of Education Maryland Department of Business & Economic Development Maryland Department of Labor License & Regulation Susquehanna Workforce Network, Inc.

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WORKFORCE DEVELOPMENT VISION, GOALS, & STRATEGIES

VISION

People in the Baltimore Region will have more opportunities to attain family supporting careers and experience fewer barriers to employment opportunity. As a result of a higher-skilled workforce, the region will experience increased economic competitiveness and create a better quality of life for all people.

GOALS

- Give every person in the region an attainable opportunity to enter the talent development pipeline and progress into a family-supporting career.
- Remove barriers that keep low-skilled or low-income adults from progressing into family supporting careers through strategies that address skills gaps, housing and transportation barriers, social barriers, structural racism, industry biases, and workforce development system limitations.
- Ensure that businesses in each of the region's industry sectors have access to a highly skilled workforce with the right competencies needed to make businesses nationally and globally competitive.
- Reverse the region's trend toward a growing number of people who have low wages or are living in poverty. Concurrently, increase the number of people achieving economic self-sufficiency.

ACTION AREAS & STRATEGIES

ACTION AREA	TOP CHALLENGE / PROBLEM	STRATEGY	KEY LEADERSHIP
1. INDUSTRY-LED PARTNERSHIPS FOR WORKFORCE DEVELOPMENT	Jobs in the Baltimore Region fall mainly into two categories: (1) low skilled jobs with low pay and limited advancement opportunities and (2) high skilled jobs that offer high pay and opportunities to advance. There are too few mid-skilled jobs and too few effective on-ramps that help workers move into these careers.	Implement industry-led sector strategies for workforce develop- ment and offer a broader menu of pathways into family supporting careers. Increase the competi- tiveness of industry sectors with effective training and credential- ing that make use of stackable, industry-valued credentials that lead to careers that pay family- sustaining wages with benefits.	Workforce Invest- ment Boards and Maryland DLLR EARN Program
2. STRONGER BASIC SKILLS, ABE, ESL, AND POST- SECONDARY EDUCATION	Many of the region's low-skilled adults lack basic reading and basic math skills. Those who do are the most likely to face multiple employment barriers to opportu- nity and become trapped in poverty without an effective way out.	Increase the availability, aware- ness, and completion of Adult Basic Education (ABE), ESL, and GED preparation courses and continuance into skills training and higher education.	Department of Labor, Licensing and Regulation (DLLR)
3. BETTER JOB TRANS. AND JOB-ACCESSIBLE HOUSING	The region's low-income workers face transportation barriers traveling to work or accessing affordable housing near the region's fast-growing job centers. These barriers leave workers cut off from much of the region's economic opportunities.	Improve transportation access and connections between low-income neighborhoods and high-growth job centers as well as aligning affordable housing and jobs.	Central Maryland Transportation Alliance (CMTA) and Citizen's Planning and Housing Associa- tion (CPHA)
••••••			
4. UNDERMINING STRUCTURAL RACISM	Despite federal legislation in 1965 that made discrimination illegal, a complex array of historical, cultural, educational, institutional, and interpersonal dynamics continue to produce cumulative and chronic barriers to opportunity for people of color, perpetuating racial inequities in access to opportunity.	Eliminate policies, practices, and institutional cultures that promote and support structural racism and implicit biases against people of color. Work to change societal cultures that promote and support the same.	Associated Black Charities (ABC)
5. BETTER RESOURCES FOR PEOPLE WITH CRIMINAL RECORDS	About one in five job seekers in the Baltimore Region report that they have a criminal record that is a barrier to employment. A criminal record is a permanent barrier to employment, precluding workers from attaining stable employment that greatly contributes to desistance from future crime.	Strengthen and expand work- force development pathways for people with a criminal back- ground; reduce the number of individuals entering the criminal justice system by addressing the factors that lead to crime; and create policies that serve to eliminate hiring biases against ex- offenders.	Job Opportunities Task Force (JOTF) and Associated Black Charities (ABC)
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6. STRONGER RESOURCES	While trends show that a growing number of Baltimore Region residents are falling into poverty, the resources that are available to help workers to overcome barriers to employment opportunity are declining.	Increase the level of resources available to industry and work- force development organizations, technical assistance to small businesses, and capacity to help workers with multiple barriers to employment.	Baltimore Area Workforce Funders Network, JOTF and Governor's Work- force Investment Board (GWIB)

ECONOMIC DEVELOPMENT IN THE BALTIMORE REGION

REGIONAL ASSETS FOR ECONOMIC DEVELOPMENT

The Baltimore Region enjoys tremendous potential as a large and diversified economy, with growth occurring in many industries that create high-skilled and high-paying jobs.

In 2012, the Baltimore Region ranked as the nation's 19th largest economy with gross metropolitan product (GMP) of \$157.2 Billion — a regional economy that would rank as the 55th largest country in the world by GDP. The Region's location at the heart of the Mid-Atlantic Region of the United States places it in the center of one of the most successful economic regions in the world. Together the Mid-Atlantic states of New York, New Jersey, Pennsylvania, Maryland, Washington DC, and Virginia represent over 18 percent of the US labor force and 21 percent of nation's GDP and together these states comprise a regional economy of over \$3.4 trillion which ranks as among the largest in the world. The Baltimore Region's neighboring metro areas include the nation's 5th largest metro economy, Washington–Arlington–Alexandria (GMP of \$449 billion) and the nation's 7th largest economy, Philadelphia–Camden–Wilmington (GMP of \$364 billion).

The states and cities in the Mid-Atlantic region enjoy some of the world's high levels of wealth and income. Maryland ranks first in the US for median household income (nearly \$73,000 per year in 2011). The Baltimore Region is home to Howard County, which has the second highest income per capita of all 3,007 counties in the United States (\$108,844), as well as Anne Arundel County, which ranked as having the 18th highest income per capita (\$89,178).¹ Overall, the Washington–Baltimore, District of Columbia–Maryland–Virginia–West Virginia CMSA had the third highest median household income of any city in the United States, after the San Francisco Bay Area and Greater New York City.

The region enjoys an enormous consumer base and a diversified economic base that creates a large number of highly skilled and high-paying jobs. Economic assets that support the region's competitiveness include its strategic location in proximity to Washington DC and its place along the most inland seaport on the US East Coast; robust physical infrastructure for transportation of people and goods, strong availability of broadband telecommunications, a large and growing base of IT companies and talent, a high level of innovation and R&D in sectors including biosciences, cybersecurity, health IT and other fields; the presence of large educational, healthcare, and government institutions; a large number of diversified industry sectors; and the highly educated population of 2.17 million adults over age 16.

The Baltimore Region is also home to many fast-growing companies. Throughout the 2000s, the Baltimore Region ranked among the top cities in the US for its number of fast-growth Inc. 500 companies and in 2013, 63 of the nation's Inc. 5000 companies were located in the Baltimore Region. These fast-growing companies had an astounding average 3-year growth rate of 418% and most were concentrated in the government services, IT services (and cybersecurity), and business services sectors. Between 2010 and 2013, the Economic Alliance of Greater Baltimore tracked over 1,000 new companies that relocated to open their business in the Baltimore Region. Between 2002 and 2011, there were 931 venture capital deals in Maryland that together raised \$5.7 billion in capital to fund fast growing businesses and start-ups in the region.

The region's heritage as a manufacturing center and its robust shipping infrastructure have supported ongoing growth as a shipping port serving manufacturers in the US Mid-West. Exports from the Baltimore–Towson MSA totaled \$5.8 Billion in 2012. Producers of computer and electronics parts led the region in exports (\$1.25 Billion), followed by

OUR REGION'S ASSETS

The region's success is rooted in several structural economic assets that give the region a competitive advantage and support ongoing business growth. These assets include:

- A strategic location
- Robust physical infrastructure
- The presence of major institutions for education, healthcare, and government
- Capacity for innovation and new technology
- A diversified and growing base of industry sectors
- Fast-growing businesses, entrepreneurial start-ups, and corporate headquarters that spur growth
- A highly-skilled workforce
- Extensive workforce development, education and training infrastructure

producers of chemicals (\$912 million), transportation equipment (\$787 million), and machinery (\$637 million). Major international trading partners for the region include Canada, the Netherlands, China, Saudi Arabia and Mexico.

One of the strongest assets supporting the region's economic success is its large and highly educated labor force.

The region is among the nation's top metro areas for growth and concentration of workers in the professional, scientific and technical services industry. The region's university educational infrastructure is one of the strongest in the country, creating a talent pipeline that includes nearly 200,000 student enrollments in post-secondary education and training. The Baltimore-Washington Census Metro Area has a larger concentration of IT talent than Silicon Valley or Boston, and the region is regarded as having the world's leading cybersecurity sector, which employs over 13,000 cybersecurity professionals in one of the nation's fastestgrowing industries. The region's biosciences sector employs advanced research and development talent both at research institutions such as The Johns Hopkins University and at the region's numerous bioscience start-up businesses. The Baltimore Region's healthcare infrastructure and talent is regarded as the best in the country and the region's healthcare services sector has seen rapid expansion and investment in hospital and research infrastructure as well as patient cares services. The financial services and insurance industry, hightech manufacturers, regional headquarters, and other industries all benefit from a young and highly-skilled labor force and regional Mid-Atlantic labor shed that is well connected via train, highway, and mass transit.

A STRATEGIC LOCATION

The Baltimore Region is strategically located in one of the nation's largest population centers. The Baltimore Region — including Baltimore City, Baltimore County, Anne Arundel County, Carroll County, Harford County, and Howard County — has a population of 2.7 millionⁱⁱⁱ and the region belongs to the Washington–Baltimore–Arlington Combined Statistical Area (CSA), which has a population of 9.3 million people, the fourth largest CSA in the United States after New York, Los Angeles and Chicago. The region's location in the Mid-Atlantic places the Baltimore Region in proximity to densely populated metro areas of Washington DC, Philadelphia, New York, and Richmond and less than 12 hours travel time to major manufacturing centers in Ohio and Indiana as well as Chicago. The Baltimore Region benefits from a large commuter labor force that supports business growth in the region. Over 118,000 residents commute from the DC metro area to the Baltimore Region for work daily while about 193,000 residents in the region commute out to the Washington DC and surrounding suburbs.^{IV} In addition, compared to other major metro areas in the region, the Baltimore Region has comparatively lower costs of living and offers employers access to a workforce that is among the most educated in the United States and a consumer market that is among the wealthiest.^V

The region is also a strategic location for international exports and imports as well as distribution of goods to US markets. Out of 171 ports in the US, the Port of Baltimore Ranked 8th for total volume of exports in 2013 at 30.3 million tons of cargo and at a value of \$52.6 billion.^{vi} The Port of Baltimore is one of the nation's leading ports for roll-on/ roll-off cargo (automobiles and trucks) and is a major shipping port for coal, salt, waste paper, sugar, iron ore, wood pulp, lumber, construction equipment, and other commodities and goods. Distribution warehouses operating in the Baltimore Region are able to reach over a third (35%) of the US population via overnight ground travel (located within 500 miles of Baltimore City). Because the Port of Baltimore is the most inland port on the East Coast, it is able to provide importers with faster connections to both consumer markets and other inland ports and cities in the Eastern and Midwestern United States.

ROBUST PHYSICAL INFRASTRUCTURE

The Baltimore Region benefits from robust transportation infrastructure for movement of goods and people by air, land and water. BWI airport is the busiest airport serving the Baltimore and Washington DC area and ranks as the nation's 22nd busiest and the world's 68th busiest for passenger loadings, serving over 22.5 million passengers per year.^{vii} BWI is also a major cargo-shipping airport and the airport is served by four scheduled cargo airlines (DHL/ ABX Air, FedEx, FedEx/Mountain Air and UPS). A 395,000-square foot Air Cargo Center is used to ship commodities through BWI including machine parts, electrical machinery, aircraft/spacecraft components, seafood, chemicals, and pharmaceutical/biological goods. In addition to BWI, the region is served by Martin State Airport and 11 public use general aviation airports.

The Port of Baltimore ranked as the nation's 14th largest port in 2013 in terms of foreign cargo tonnage and 9th in terms of total dollar value of goods. In recent years, the port has experienced declines in cargo as the volume of coal exports has decreased and the closure of the Sparrows Point steel mill eliminated most iron ore imports; these declines have been offset, however, by an increase in the volume of light trucks and automobiles shipped through the port, which is particularly well equipped for roll-on/roll-off automotive cargo. The Port of Baltimore recently completed a major expansion, which included building a 50-foot berth and dredging the channel, which positions the Port of Baltimore as one of only two ports on the US East Coast that is capable of handling large cargo ships that will begin passing through the Panama Canal once the widening project is complete in 2015. This could potentially lead to a major boost in cargo shipping volume in the Port of Baltimore.¹¹⁷ The Port of Baltimore is located 150 miles inland from the Atlantic Ocean, providing the Port with a strategic location advantage for movement of goods across the US. Compared to other ports in the Mid-Atlantic, such as the ports of Philadelphia, New York, and Norfolk, the Port of Baltimore has the shortest truck distances to Pittsburgh, St. Louis, Indianapolis, Cleveland, Columbus OH, Cincinnati, Detroit, Louisville, and Chicago — some of the nation's largest cities and leading manufacturing centers.

Norfolk Southern and CSX Transportation provide rail service to the region and to the Port of Baltimore, offering direct service to the eastern United States and connecting service throughout the United States, Canada and Mexico. The Canton Railroad provides switching service to private facilities located in the port area. Dundalk Marine terminal features a heavy lift berth that can handle dimensional cargo directly from ship to rail. Intermodal containers are transported by rail from either CSX's intermodal facility or Norfolk Southern's Bayview facility. In addition to freight rail transportation, Amtrak provides passenger rail service as part of its heavily traveled Northeast Corridor service.

Mass transit in the region is provided by the Baltimore Metro Subway, Central Maryland Light Rail, Maryland Rail Commuter (MARC) trains, MTA's regularly scheduled bus service, and private bus services. The regional highway network is comprised of over 10,900 miles of streets and highways and over 2,100 bridges and provides rapid access throughout the region and to markets throughout the East Coast and North America.

MAJOR INSTITUTIONS FOR EDUCATION, HEALTHCARE, AND GOVERNMENT

Educational and healthcare institutions are major contributors to the regional economy in terms of jobs and research capacity. Johns Hopkins Institutions directly or indirectly accounted for nearly \$9.98 billion in economic output in Maryland and accounted for 3.8 percent of the state's wage and salary jobs. Johns Hopkins Hospital & Health System employs over 18,500 workers, the University of Maryland Medical System employs 9,830, MedStar Health employs 6,479, and LifeBridge Health employs 5,026. In addition, there are 17 other major healthcare services institutions^{ix} in the region that each employs over 1,000 workers. The region's higher educational institutions are equally robust. The Johns Hopkins University employs over 21,550 workers and the region is also home to UMBC, the U.S. Naval Academy, Towson University, UMB, UB, Coppin State University, Morgan State University, Loyola University Maryland, McDaniel College, Stevenson University, Goucher College, and the community college systems in Anne Arundel County, Baltimore City, Baltimore County, Carroll County, Harford County, and Howard County. The higher education and training institutions in the Baltimore Region collectively offered 2,049 educational programs during the 2011-2012 period with combined enrollments of 199,218 students and a total of 46,250 student graduations.

Because of the region's connectivity to Washington DC, the region is home to many national agencies, military

bases, and federal contractors. The Social Security Administration and the Centers for Medicare and Medicaid Services are major employers located in the Baltimore Region; the United States Cyber Command is located at Fort Meade; Aberdeen Proving Ground — the nation's oldest proving ground — is located in Harford County; and the US Naval Academy is located in Anne Arundel County. The region is also home to a large number of other US federal agency offices* including the National Security Administration as well as major government contractors such as Northrop Grumman, Booz Allen Hamilton, Allegis Group, Lockheed Martin, ARINC (aircraft / avionics telecomm systems), CSC (IT services), and L-3 Communications — each of which employs at least 500 workers in the region.

TECHNOLOGY & INNOVATION

The Baltimore Region is a competitive leader in research and development. Total R&D expenditures in Maryland totaled \$18.4 billion in 2010, the 4th highest expenditure level of all US states.^{xi} Maryland ranked 2nd in R&D intensity with R&D expenditures representing 6.2 percent of the gross state product.^{xii} The region also benefits from an enormous concentration of science, engineering, management, and high tech talent. The region's innovative high-tech sectors are experiencing strong growth: Bioscience start-ups in Maryland attracted \$491 million in venture capital in 2012-2014Q1^{xiii} and the cybersecurity industry is expected to climb to an expected \$14 billion by 2017.^{xiv} The Johns Hopkins University is the region's premier bioscience research institution and the region is also home to affiliated research centers such as Johns Hopkins University Applied Physics Laboratory, which employs 5,000 workers. IT development in the gaming and multimedia software industry is strong with over 32,000 people in Maryland employed at gaming firms.^{**xv**} Because of the proximity of major educational institutions and defense contractors, the region offers unique opportunity to design simulations for educational or military purposes.

DIVERSIFIED INDUSTRIES AND GROWING INDUSTRY SECTORS

The Baltimore Region enjoys a diversified economy, but given its proximity to Washington, DC and the many federal institutions within the region, the federal government contributes substantially to the region's prosperity and growth. Including both civilian and military components, federal government accounted for nearly \$14 billion of the region's gross metro product in 2011, or about 9.3% of the region's GDP. The 2005 Defense Base Closure and Realignment Commission (BRAC) brought 8,500 federal jobs to Aberdeen Proving Ground and 6,200 jobs to Fort Meade. Another round of BRAC is expected in 2015, which may again spur additional growth. Procurement contracts for federal expenditures represent another large, albeit volatile, component of the economy. When combined with state and local government, the total government sector accounted for the largest component of the region's output (about 17.6% of the regional economy in 2012). Government has the fifth largest employment among the region's industries with over 101,000 workers in 2013, representing about 8.3% of the region's employment.



FIGURE 1 SHARE OF GDP IN THE BALTIMORE-TOWSON MSA, BY INDUSTRY, 2012 Source: Bureau of Economic Analysis

GOVERNMENT: 17.6%	REAL ESTATE/RENT./LEASE: 14.2%	PROFESSIONAL/SCI./TECH.: 10.8%	HEALTH CARE/SOCIAL ASST.: 8.9%
MANUFACTURING: 6.6%	FINANCE/INSURANCE: 6.3%	WHOLESALE TRADE: 5.4%	RETAIL TRADE: 5.3%
CONSTRUCTION: 4.3%	OTHER(EXCEPT PUB.ADMIN.): 2.5%	INFORMATION: 2.5%	EDUCATIONAL: 2.2%
	ARTS/ENTERTAINMENT/REC.: 1.0%0	THER INDUSTRIES: 12.4%	



FIGURE 2 SHARE OF EMPLOYMENT IN BALTIMORE REGION, BY INDUSTRY, 2013 Source: Quarterly Census of Employment and Wages, Bureau of Labor Statistics

HEALTH CARE/SOCIAL ASST.: 16.2%	RETAIL TRADE: 11.3%	EDUCATIONAL: 9.5%	PROFESSIONAL/SCI./TECH: 8.8%
GOVERNMENT: 8.3%	CONSTRUCTION: 5.6%	MANUFACTURING: 5.2%	FINANCE/INSURANCE: 4.2%
WHOLESALE TRADE: 3.8%	TRANS./WAREHOUSING: 3.5%	OTHER(EXCEPT PUB.ADMIN.): 3.5%	REAL ESTATE/RENT./LEASE: 1.7%
ARTS/ENTERTAINMENT/REC.: 1.6%	INFORMATION: 1.6%	UTILITIES: 0.5%	OTHER INDUSTRIES: 14.8%

Other major components of the region's economy include the healthcare sector (representing 16.2% of employment and 8.9% of GDP), the IT sector (including cybersecurity, health IT, gaming, and other specialized high-tech development), the manufacturing sector (which accounts for 6.6% of GDP and 5.2% of employment), educational services, construction, and finance/insurance.

The region's healthcare industry cluster has shown the strongest job creation over the past decade and an annual output of \$14.0 billion and is expected to add the most new jobs in the 8-year period between 2012 and 2020, a total increase of about 20,049 new jobs. The healthcare sector is one of the largest employment sectors in the Baltimore Region with 188,000 employees as of 2012. An aging workforce and interlinks between the healthcare and bioscience sectors are expected to support growth of the sector over the next decade.

The region's IT sector has experienced strong growth over the past decade and employs a strong base of nearly 68,000 workers. The IT sector added over 18,600 jobs between 2002 and 2012 and is projected to add at least 7,800 new jobs between 2012 and 2020. Demand for IT professionals is driven by the region's growing knowledge industries including health IT, cybersecurity, and gaming and is also attributable to the number of federal government agencies and contractors in the region.

Despite declines, the manufacturing sector remains a top contributor to the region's economy. The city's major manufacturing clusters include high-tech manufacturers such as Northrop Grumman, BD Diagnostics, AAI, Middle River Aircraft Systems, Nutramax Laboratories, and General Dynamics Robotic Systems. An apparelmanufacturing sector is anchored by Under Armour, Jos. A. Bank Clothiers, and English American Tailoring and a consumer products and food products manufacturing cluster includes companies such as McCormick & Company, Domino Sugar, Procter & Gamble, Dreyer's Grand Ice Cream, Frito-Lay, Constar, Clorox and Alcore.

In addition to the larger industry sectors, other smaller clusters are also contributing to the region's growth and economic diversification. The Baltimore Region is also home to a bioscience sector that is comprised of several larger biosciences employers including BD Diagnostics, Chesapeake Biological Laboratories, Martek Biosciences, Eisai Corp, Pharmaceutics International, ProSpect Pharma, Shire US Manufacturing and other firms and is supported by research and development at Johns Hopkins and the University of Maryland. Major institutions in the region include the National Institute of Health, Johns Hopkins Applied Physics Lab, and Centers for Medicare and Medicaid Services. Three major science parks support growth of the private sector: Science+Technology Park^{xvi} at Johns Hopkins, University of Maryland BioPark, and bwtech@UMBC Research & Technology Park. These parks together have over 3.2 million square feet of lab and office space and have attracted state-of-the-art facilities including bioscience, medical devices, chemistry, biology labs and nuclear magnetic resonance (NMR) facilities.

The transportation and logistics sector is growing in the Baltimore Region and attracting more companies that leverage the transportation infrastructure of the region to operate distribution centers. Amazon.com has announced plans to open a one million-square-foot distribution center that will employ 1,000 people at the site of the former General Motors plant in Southeast Baltimore City. Other companies with distribution centers in the region include United Postal Service (UPS), Stanley Black & Decker, Sephora USA, Solo Cup, and the Rite Aid Mid-Atlantic Customer Support Center. In the transportation industry, the region's larger employers include MTA, Southwest Airlines, and Ports America Chesapeake.

The region also enjoys a strong tourism sector that attracted nearly 22.3 million visitors in 2011 that spent nearly \$4.75 billion. The region's gambling industry is growing. Maryland Live, located in Anne Arundel County, opened in 2012 featuring 4,337 slot machines, 122 table games, a live music venue, several restaurants, and almost 5,000 parking spaces. The new Baltimore Horseshoe Casino which opened in the summer of 2014 has brought additional entertainment options as well as nearly 2,000 new jobs to the region. The Baltimore Region has hosted a number of major public events like Artscape, the nation's largest free arts festival. The region also hosts the annual African American Festival, the largest cultural festival of its kind on the East Coast, the Star-Spangled Sailabration, the Grand Prix of Baltimore, American Le Mans Series racing and other events that contribute to growth in visitor spending. Driven by recent investments in tourism and growth in the gambling industry, the Baltimore Region is projected to add 6,000 tourism jobs between 2012 and 2020.

Finally, the education sector is one of the largest employment sectors for the region with approximately 117,000 workers in 2013. The sector has shown strong growth over the past decades and it has one of the strongest growth outlooks of all sectors in the region, driven largely by growth of the region's higher education institutions. Expansion of the education sector creates a large number of high skilled jobs, in particular for workers with a Bachelor's degree or higher level of education. The Maryland Governor's Workforce Investment Board has defined twelve industry sectors — or combinations of industries — that are significant employment sectors in the Baltimore Region. These twelve sectors are expected to drive much of the region's growth over the next decade (See Table 2). Because of the differences in geographic concentration of these sectors, most of the growth is expected to occur in Harford County, Howard County and Anne Arundel County, each of which are expected to outpace the overall growth of the region. Job growth in Baltimore City and Baltimore County are expected to be more modest.

SECTOR	2013	2014	2015	2016	2017	2018	2019	2020	2014- 2020
TOTAL EMPLOYMENT	1,229.7	1,239.4	1,249.4	1,259.8	1,271.2	1,282.5	1,293.2	1,303.9	5.2%
BY GEOGRAPHY									
ANNE ARUNDEL COUNTY	235.6	238.0	240.1	242.4	244.9	247.1	249.0	251.0	5.5%
BALTIMORE COUNTY	356.2	368.5	372.2	375.5	378.5	380.8	382.7	384.6	4.4%
BALTIMORE CITY	330.4	330.7	331.7	332.9	334.9	337.3	339.8	342.2	3.5%
CARROLL COUNTY	55.8	56.1	56.4	56.8	57.3	57.7	58.2	58.7	4.6%
HARFORD COUNTY	86.5	88.0	89.3	90.7	92.2	93.9	95.7	97.4	10.8%
HOWARD COUNTY	156.3	158.1	159.7	161.5	163.4	165.7	167.8	170.0	7.5%
BY SECTOR*									
BIOSCIENCE	57.7	58.3	58.9	59.6	60.3	61.2	62.0	62.9	7.9%
BUSINESS SERVICES	192.3	194.0	195.7	197.5	199.6	201.8	204.0	206.2	6.3%
CONSTRUCTION	68.5	69.3	70.1	70.9	71.7	72.4	73.1	73.8	6.6%
EDUCATION	117.6	118.8	120.2	121.6	123.3	125.1	127.0	128.8	8.5%
FINANCE & INSURANCE	71.8	72.0	72.2	72.4	72.7	72.9	73.1	73.8	6.6%
HEALTHCARE	190.6	192.6	194.9	197.4	200.1	202.9	205.6	208.5	8.2%
HOSPITALITY & TOURISM	119.20	120.3	121.1	121.8	122.6	123.2	123.8	124.3	3.3%
INFORMATION TECHNOLOGY	49.7	50.2	50.7	51.2	51.8	52.4	53.0	53.7	6.9%
MANUFACTURING	63.0	63.1	63.2	63.4	63.5	63.6	63.6	63.7	0.8%
RETAIL TRADE	139.3	140.0	140.6	141.3	141.9	142.4	142.7	143.0	2.2%
TRANSPORTATION/LOGISTICS	79.0	79.4	79.8	80.2	80.7	81.1	81.5	81.9	3.1%
UTILITIES	5.9	5.9	6.0	6.1	6.1	6.2	6.3	6.3	6.5%

TABLE 2 BALTIMORE REGION PROJECTED EMPLOYMENT, BY GEOGRAPHY & SECTOR

Source: Baltimore Region Talent Development Pipeline Study * Defined b Mar land Governors Workforce Investment Board



FAST-GROWING BUSINESSES, ENTREPRENEURIAL START-UPS, AND CORPORATE HEADQUARTERS

Fast-growing companies have played a key role in the region's growth and prosperity. Over the past two decades, approximately 20 percent of private sector jobs created in Maryland have been from the formation of new business establishments. The Baltimore Region benefits from a sizable number of high-growth start-up businesses that operate in many industry sectors, although a significant number of the region's successful startups are high-tech companies that operate in government services sector, the IT services and security sectors, and business services sectors (see Figure 3, following pages). High-tech entrepreneurship in the region is supported by a nationally ranked set of local business incubators, the concentration of major research institutions, ready access to venture capital, and a highly educated population. The region's talent has attracted several corporate headquarters to the region, the largest of which include McCormick & Co. Inc., W. R. Grace & Co., T. Rowe Price Group Inc., Legg Mason Inc., and Ciena Corp., all with revenues ranging from \$1.7 Billion to \$3.7 Billion.

COMPANY NAME	3-YEAR % GROWTH	REVENUE (MILLIONS)
GOVERNMENT SERVICES		
CLEARABILITY		\$2.5
BRMI		\$17.9
PCI STRATEGIC MANAGEMENT		\$26.9
INOVEX INFORMATION SYSTEMS	210%	\$12.2
FEDERAL STAFFING RESOURCES		\$30.7
BRIDGES CONSULTING	159%	\$24.0
CLEAREDGE IT SOLUTIONS	137%	\$16.7
PRIME SOLUTIONS	130%	\$10.1
2HB SOFTWARE DESIGNS		\$4.6
КЕЛЈҮА		\$24.2
ACADEMY SOLUTIONS GROUP	58%	\$5.7
JASINT CONSULTING	48%	\$4.3
IT SERVICES/SOFTWARE/SECURITY		
SIGNATURE CONSULTING GROUP	882%	\$9.6
MINDGRUB TECHNOLOGIES	872%	\$3.0
SECURITYHUNTER	820%	\$21.8
INFOJINI	464%	\$4.8
7DELTA	258%	\$49.6
ORBIS TECHNOLOGIES	258%	\$9.6
CLEAR RESOLUTION	252%	\$2.5
AUDACIOUS INQUIRY	238%	\$5.3
EDGEWEBHOSTING	117%	\$10.0
HOSTVENTURES.COM	100%	\$4.6
QUALITY IT PARTNERS	84%	\$4.1
GANTECH	79%	\$26.4
VISION TECHNOLOGIES	36%	\$77.4
BUSINESS PRODUCTS & SERVICES		
LINQ SERVICES	1892%	\$57.5
UNLEASHED TECHNOLOGIES	557%	\$2.1
SALES FOCUS	217%	%8.6
HIGH STREET PARTNERS	145%	\$30.0
EDWARDS PROJECT SOLUTIONS	108%	\$6.6
RAM SUPPLY COMPANY	74%	\$2.5
OFFIT KURMAN	53%	\$37.6
MURTHY LAW FIRM	49%	\$12.0
HUMAN RESOURCES		
TOWNE PARK	57%	\$178.9
LEVEL ONE PERSONNEL	48%	\$4.4

FIGURE 3 FAST GROWING BUSINESSES IN THE BALTIMORE REGION, BY SECTOR Source: Inc. 5000 Rating, 2013

COMPANY NAME	3-YEAR % GROWTH	REVENUE (MILLIONS)		
CONSTRUCTION				
AROCON ROOFING & CONSTRUCTION	1982%	\$8.8		
DAYTNER CONSTRUCTION		\$22.8		
CFM ENGINEERING		\$19.1		
MAZZUCA CONTRACTING	119%	\$33.6		
GUTTER HELMET SYSTEMS	37%	\$14.0		
MARKETING, ADVERTISING & MEDIA	• • • • • • • • • • • • • • • • • • • •			
VIDEOLOGY	2727%	\$137.5		
DOUBLEPOSITIVE		\$26.2		
GROOVE COMMERCE		\$2.3		
PLANIT		\$10.5		
SMARTCEO		\$4.9		
FINANCIAL SERVICES & INSURANCE	• • • • • • • • • • • • • • • • • • • •			
SCEPTER TECHNOLOGIES		\$7.5		
INDISOFT		\$5.1		
HERITAGE FINANCIAL CONSULTANTS	116%	\$12.9		
HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL	47%	\$17.3		
CONSUMER SERVICES,RETAIL & ENERGY				
ASTRUM SOLAR (ENERGY)	2665%	\$41.0		
GIFTCARDRESCUE.COM (CONSUMER SERVICES)	2518%	\$6.6		
THERAPEARL (CONSUMER SERVICES)	2017%	\$5.0		
NORRIS AUTOMOTIVE GROUP (RETAIL)	48%	\$219.4		
EDUCATION	• • • • • • • • • • • • • • • • • • • •			
PHOENIX TECHNOLOGY SOLUTIONS	204%	\$2.9		
UMBC TRAINING CENTERS	74%	\$4.9		
HEALTHCARE	• • • • • • • • • • • • • • • • • • • •			
PROCARE AMBULANCE OF MARYLAND	80%	\$3.7		
DC DENTAL SUPPLIES	125%	\$37.1		
TRANSPORTATION & LOGISTICS				
THREE DOG LOGISTICS	132%	\$14.7		
ENGINEERING	• • • • • • • • • • • • • • • • • • • •			
INTELECT	119%	\$24.1		
RUSSELL CORROSION CONSULTANTS	116%	\$3.7		
TELECOM				
MESSAGE SYSTEMS	102%	\$22.2		
MANUFACTURING				
MILTEC UV (MANUFACTURING)	77%	\$11.8		
MARLIN (MANUFACTURING)	47%	\$5.0		

FIGURE 3 FAST GROWING BUSINESSES IN THE BALTIMORE REGION, BY SECTOR (CONTINUED) Source: Inc. 5000 Rating, 2013

A HIGHLY-SKILLED WORKFORCE AND A ROBUST WORKFORCE DEVELOPMENT, EDUCATION AND TRAINING INFRASTRUCTURE

Much of the growth in the Baltimore Region has been fueled by a highly educated population. The region's knowledge industries require workers with a high degree of specialized knowledge and skills and the region's employers have access to a workforce that is among the most highly educated in the US. As of 2012, 36 percent of the region's residents had attained at least a Bachelor's degree and 15 percent have a graduate or professional degree — the ninth highest percentage among US cities. As a major center for higher education, the region attracts a large number of students per year and produces graduates that continuously add to the region's base of highly skilled workers. Retention of this bright, young talent is difficult and the Baltimore Region can benefit from more strategies that effectively retain these workers in the region.

The region also benefits from a large number of workforce development organizations. In addition to the workforce investment board and one-stop job centers, a network of charitable and philanthropic organizations help low-skilled or low-income workers to overcome some of the specific barriers to employment opportunities. Two large national foundations based in Baltimore (Annie E. Casey Foundation and Harry & Jeanette Weinberg Foundation) are significant investors and thought leaders in effective workforce development practice and have a strong commitment to the Baltimore Region. Through the Baltimore Workforce Funders Collaborative (BWFC), they join with other local funders such as the Abell Foundation and the National Fund for Workforce Solutions to pool and align resources. With resources of over \$11M since 2006, the BWFC has launched and sustained nationally recognized sector-based workforce approaches in Baltimore. These efforts have created models that effectively connect job seekers and entry-level workers to employment opportunities while addressing labor market needs of key industry sectors.

In addition, organizations such as Vehicles for Change help low-income families to get access to a car to get to work. A portion of the region's formerly incarcerated residents have found jobs thanks to the work of advocacy groups like the Job Opportunities Task Force, workforce development organizations like the Jericho Re-Entry Program and employers like Johns Hopkins Hospital. Organizations like the Center for Urban Families' STRIVE program, help unemployed people master essential skills for workplace communication, customer service, and work-readiness. Organizations like Associated Black Charities have long been an investor in workforce training and have been helping citizens, policy makers, corporations, nonprofit organizations and investors to understand how structural and institutional racism limits outcomes for people of color. Career training organizations such as Biotechnical Institute of Maryland, the Baltimore Alliance for Careers in Healthcare, Humanim, the Caroline Center, Associated Builders and Contractors, Civic Works, Goodwill, Movable Feast, Baltimore Building and Construction Trades Council, and other unions and organizations offer education and training that leads to higher paid careers. Many of these organizations partner with one another to offer a broader scope of services to help clients overcome barriers and access more resources.

JOB GROWTH IN THE REGION

The rise of institutions — healthcare institutions. educational institutions, and federal government institutions — has accounted for more than half of the region's job growth over the past twenty years (1993–2013). During this period approximately a third (29 percent) of the region's new jobs have been in healthcare many of which are mid-skilled jobs that have historically required some post-secondary education, but less than a Bachelor's degree. Nearly a tenth of the region's new jobs have been in education — led by the region's robust network of nationally recognized higher education universities. The expansion of federal agencies has also accounted for much of the region's growth in the last two decades — both in federal government employees and in jobs created by federal contractors. Arguably the greatest impact on the region's economy has been the emergence of high-tech industries, which have become a major driver of the region's growth. High-tech sectors such as the cybersecurity sector, health IT, educational technology, technology supporting the defense sector, bioscience technology, and other new technology development have brought ongoing investment and job creation to the region. As a result, the professional, technical, and scientific services sector has accounted for nearly a guarter (24 percent) of new jobs created in the Baltimore Region in the past two decades. Together, the healthcare, education, IT and government sectors have pushed a strong shift in opportunity in the region, away from basic manufacturing and low-skilled jobs and toward jobs that pay higher wages, require a high level of technical skills, and increasingly require specialized knowledge and a high level of education.

Beyond the aforementioned knowledge industries, industries like tourism, construction, and transportation and logistics have been other major contributors to the region's economic growth. Baltimore City's Inner Harbor Tourism Sector alone had an economic impact of \$2.3 billion in 2012, *** which represents an impressive 14% of the estimated \$17 billion annual direct economic impact of all businesses in downtown Baltimore City. *** Investments in hotels, regulatory changes in the gambling industry, and investment and development in arts and entertainment have resulted in an increase of over 33,000 tourism jobs in the region in the past two decades. Development of the region's physical transportation infrastructure, including growth of the Port of Baltimore, increased use of BWI Airport, expansion of the region's rail and highway infrastructure, and ongoing investment in transit infrastructure and services, has supported new job creation for the region, supporting construction sector jobs and expansion of the transportation and warehousing sector. While the transportation and warehouse sector accounted for just 2.9 percent of the region's employment in 2013, it represented 4.0 percent of all new jobs in the region — many of which are available to lower-skilled adults. As the region expands, jobs are also being created in other industries including engineering services, financial/insurance services, advertising, and other service industries that support business growth and infrastructure expansion.

SELECTED INDUSTRY SECTORS	NET JOB CREATION 1993-2013 IN THOUSANDS	SHARE OF NEW JOB CREATION
TOTAL NON-FARM EMPLOYMENT	235.0	100.0%
HEALTH CARE/SOC. ASSISTANCE	68.4	29.1%
PROF./SCI./TECH. SERVICES	57.4	24.4%
LEISURE/HOSPITALITY	33.5	14.3%
ADMIN./SUPPORT/WASTE MGMT. & REMEDIATION SERVICES	29.6	12.6%
GOVERNMENT	22.5	9.6%
EDUCATION SERVICES	21.1	9.0%
TRANS./WAREHOUSING	9.3	4.0%
RETAIL TRADE	5.5	2.3%
FINANCE ACTIVITIES	1.9	0.8%
MANUFACTURING	-50.5	N/A

TABLE 3 NET JOB CREATION BY INDUSTRY, THE PAST 20 YEARS

 Source: Current Employment Statistics Database, BLS

OPPORTUNITY OUTLOOK

The region's economic assets create advantages for retaining and attracting businesses and attracting new investment. Over the long term, the total number of job opportunities in the region (total hiring activity) is expected to increase in several sectors. The sectors that are projected to experience the greatest hiring demand between 2012 and 2020 include healthcare (hiring demand of approximately 49,400 workers including turnover), business services (46,800 workers), hospitality and tourism (39,700 workers), retail trade (37,500 workers) and education (33,270 workers). In the retail and hospitality sectors, most hiring demand will be for replacement of lost workers, while new business growth will account for a larger portion of hiring demand in healthcare, business services and education. Hiring demand is projected to be more modest in other sectors ranging from a low of 1,500 workers in the utilities sector to a high of 17,250 workers in the construction sector.

The region ranks high nationally for economic potential, supported by high-tech, professional, scientific, and technical jobs, a highly-educated workforce, strong in-migration of knowledge workers, many fast-growing companies, broadband telecommunications, non-industry investment in R&D, and venture capital. These resources are expected to support future business expansion, entrepreneurship, and attraction of new investment and businesses to the region.



NEW JOBS 2012-2020

HIRING FROM TURNOVER

ECONOMIC DEVELOPMENT CHALLENGES & PROBLEMS

While the Baltimore Region is one of the nation's most successful economic regions, not all residents are able to enjoy high levels of prosperity. Statistics from the 2012 American Community Survey (ACS) highlight the stark disparities in economic status of residents: while the region had overall 2012 unemployment of 9.7%, the unemployment rate was dramatically higher among youth age 16 to 19 (24.9%), people with less than a high school diploma (20.4%), people with a disability (19.9%), blacks (15.8%), and single mothers (11.5%).

Over 170,000 of the region's residents — or about 7.9 percent of adults over age 16 — live in poverty and over the past few years, the Baltimore Region's poverty problem has become worse as the effects of the 2007–2009 recession continue to affect low-skilled adults. In the five years between 2007 and 2012, the number of adults living below the federal poverty level grew from 124,400 individuals to 170,600 individuals — an increase of 46,200. The figures reflect not just an increase in poverty, but also an increase in the working poor. In 2007, 55.9% of people living below the poverty line were not seeking work. By 2012, this figure had dropped to 51.0% as a growing number of people living below the poverty level sought work. Despite their intentions, the unemployment rate for people living in poverty grew from 23.9% in 2007 to 38.7% in 2012, a worrisome indicator that many people in the region are unable to access the region's rich and growing high-skilled employment opportunities (Figure 5).

The causes of the region's poverty problems are complex and are reinforced by an interconnected web of barriers to employment opportunity that keep low-skill workers from accessing career opportunities in the region's high-paying industries. These problems are long-standing with deep historical roots that are linked to the Baltimore Region's economic and social history.



FIGURE 5 GROWING POVERTY IN THE BALTIMORE REGION Source: American Community Survery, Annual Estimates

EMPLOYED

UNEMPLOYED

NOT IN THE LABOR FORCE

HISTORICAL ECONOMIC CONDITIONS IN THE BALTIMORE REGION

In 1950, Baltimore City was the 6th largest city in the United States. The city had nearly a million residents and enjoyed a robust economy driven by the steel industry as well as other related manufacturing and shipping industries.^{xix} Over the past sixty-five years, the region has undergone a massive transformation where economic, social, and industrial changes have reshaped the region's opportunities and created new challenges. The post-industrial decline in manufacturing jobs across North America had dramatic effects on Baltimore City, which lost over 100,000 manufacturing jobs between 1950 and 1995 (75% of the city's manufacturing base). The resulting joblessness caused by the post-industrial decline was described in a report by the Abell Foundation in 1997 that found that "the most significant problem facing the Baltimore metropolitan region is the concentration and extent of joblessness and poverty in Baltimore City and [related] social and economic consequences."^{xx} In addition, during the same period, Baltimore City experienced a long-term population decline as many middle-class and upper-class families relocated to the surrounding counties, with much of the redistribution of population occurring along racial lines. Between 1971 and 2011, Baltimore City's population declined almost every year, cumulatively losing over 250,000 residents while other counties in the region gained over 850,000 residents (See Figure 7, opposite page).

These trends introduced new structural problems for the region including:

- Geographic disparities in opportunity: As more residents and jobs expanded in the counties surrounding Baltimore City, many of the region's less affluent and lower-skilled workers remained concentrated in some of Baltimore's inner city neighborhoods. A lack of accessible public transit from the city's core, expanding out to the region's growing job centers outside of Baltimore City plus limited affordable housing in those areas left some of the region's least empowered populations to face increasingly difficult challenges of either seeking jobs in surrounding counties or searching for scarce jobs in Baltimore City.
- An opportunity gap for low-skilled adults: Low-skilled workers who lost well-paying but low-skilled jobs in the manufacturing sector were left with few options to earn a family supporting wage. By 1996, a majority (62 percent) of Baltimore City's jobs were low-skilled, low-paying jobs, and at the time, more than half of new jobs being created in the city were low-skilled jobs. These conditions meant that there were few incentives for low-skilled workers to increase their skills, while at the same time there was a dwindling number of low-skilled jobs that paid a family-supporting wage.
- Long-term unemployment problems arose for low-skilled adults as a result of the combination of economic and social influences. By 1997, the region had a ratio of almost three potential low-skill job seekers for every one low-skill job in the region. As technology began to rapidly change the workplace and labor force skills requirements throughout the 1990s, a divide began to emerge between high-skilled high-paying jobs and low-skilled low-paying jobs with fewer and fewer mid-skilled jobs available. This bifurcation of the labor market continued to intensify, leaving many low-skilled adults in situations of chronic unemployment.
- Periods of economic stagnation: In the 1980s and 1990s, the Baltimore Region struggled to attract businesses or experience organic business growth. By the mid-1990s, the Baltimore Region had one of the lowest rates of economic growth of larger cities in the United States and the region's slow rate of economic and employment growth could not absorb the region's low-skilled workforce. As economic growth improved during the tech boom in the late 1990s and 2000s, the region began to see stronger economic growth, but with new job creation increasingly requiring stronger technical skills.

Effects of the post-industrial economic decline continue to affect the Baltimore Region today, although over the most recent twenty years, growth and investment in institutions, technology, and physical infrastructure have mitigated many negative impacts and the Region's economy has shifted from a manufacturing-dependent economy to a diversified economy with growth fueled by knowledge industries. The growth of these industries is a game-changer for economic development in the region because most of these industries have few low-skilled or mid-skilled positions. In addition, many of the low-skilled positions that do exist in knowledge industries do not offer career ladders leading to higher skilled and higher paying positions. As a result, higher educational attainment is becoming more essential to any effective on-ramp to real opportunity.







FIGURE 8 TOP BARRIERS TO EMPLOYMENT OPPORTUNITY IN THE BALTIMORE REGION

Education, Training & Skills Barriers

Many job seekers face four skill barriers to employment opportunity:

- **Basic Skills Barriers:** Poor math and reading skills or lack of a high school diploma/GED excludes workers from higher paying jobs.
- **Essential Skills Barriers:** Many workers lack skills in professionalism such as getting to work on time and professional work communication that affect their ability to maintain a job.
- Computer Skills Barriers: Workers who have low computer skills have more limited job oportunities.
- **Technical Skills Barriers:** Educational requirements are rising for many jobs with most jobs requiring some education and job skills training beyond a high school diploma.

Transportation & Housing Barriers

- Most Baltimore Region residents living in low-income neighborhoods can not effectively travel by public transportation to growing job centers in areas north and south of Baltimore City.
- Limited service schedules at off-peak times keep 2nd and 3rd shift workers from getting to and from work.
- The cost of public transportation is high as a percentage of income for low-income residents.
- Lack of driver's license excludes workers from many jobs in sectors like transportation, logistics and construction; other jobs require a drivers license for identification. Obtaining a driver's license is very challenging for low-income people.
- A lack of permanent, affordable, quality housing keeps workers from maintaining a job and remaining out of poverty.

Structural Racism

- Policies and practices that are rooted in structural racism limit hiring and career advancement opportunities for African Americans.
- Narrow recruiting practices at some employers do not target African American professional networks or educational institutions.
- In many workplaces, African Americans lack adequate mentoring, networking opportunities, and professional development or training opportunities leading to higher-level positions.
- Lower-income communities that are predominantly African American have fewer resources and social and economic capital. These challenges create negative outcomes that manifest as lower performing schools, higher poverty, higher crime, and limited opportunities, placing individuals at a disadvantage from the start.
- Targeted law enforcement in lower-income and other communities of color ensure over-representation of African Americans in the criminal justice system, truncating their future employment opportunities.

Industry & Career Barriers

- There are practically no entry-level jobs for people with less than a Bachelor's degree that pay a familysupporting wage (\$22/hr.)
- There are limited job and career opportunities that lead from entry-level jobs to mid-skill jobs (requiring less than a Bachelor's degree) that offer a living wage.
- The cost of college education or career training is high.
- New entrants to the job market and displaced workers report that they are unsure what career they want to pursue. They also report that they don't know where to get training.
- Limited work experience keeps many workers from obtaining their first job. This affects both young people and middle-aged adults who have little or no work experience.

Social Barriers

- Many low-income adults can not afford necessities to apply for a job, such as a bus ticket or professional attire.
- Low-income adults often face high costs of housing and transportation as a percentage of their avg. income.
- Criminal records exclude a fifth of job seekers from most job oportunities.
- Limited personal support systems lead to lower resilience when low-skilled or low-income people encounter a setback. This can destabalize their progress when trying to move out of poverty.
- Health problems, mental health problems and addictions are a barrier for many individuals that may preclude their capacity for work.
- Social networks fall along racial and gender lines and influence who gets referred for a job opening.
- Transit travel times to child care, work, and other services can be prohibitively long.

System Limitations

- Workforce development is mainly funded through federal resources that are declining.
- Conflicting program requirements limit the extent to which workforce development staff can leverage multiple resources to help an individual.
- Program rules for TANF participants create a disincentive for recipients to earn higher incomes. If they progress in their career and earn more, they will lose benefits that can not be replaced at an incrementally higher wage.
- There is limited Adult Basic Education (ABE) to help individuals master basic math and reading skills needed to obtain their GED.
- Schools lack resources to offer GED classes for students up to age 21.
- Program requirements inadvertently discourage agencies from spending resources on people with multiple employment barriers.

The study of barriers to employment opportunity in the Baltimore Region found that six categories of barriers have the greatest impact on limiting access to opportunity:

- **1.** Education, Training, and Skills Barriers
- 2. Industry and Career Barriers
- 3. Transportation and Housing Barriers
- **4.** Social Barriers
- 5. Structural Racism
- 6. System Limitations

The barriers that keep many of the region's residents from gaining access to family-supporting careers are interconnected and complex. Workforce development managers are quick to point out that people who come through their doors usually face multiple barriers to employment and a survey of over 1,000 job seekers in the Baltimore Region found that the majority (82%) of job seekers face at least three barriers to employment and more than half of job seekers (55%) report facing six or more barriers (Figure 8, seen on previous pages).

SIX MAJOR CHALLENGES FOR WORKFORCE DEVELOPMENT

These barriers create six major challenges for workforce development that form the basis for the strategies that are recommended in this plan. These challenges are:

- 1. Jobs in the Baltimore Region fall mainly into two categories: low-skilled jobs with low pay and limited advancement opportunities and high-skilled jobs that offer high pay and opportunities to advance. There are too few mid-skilled jobs and too few effective on-ramps that help workers move into these careers.
- 2. Many of the region's low-skilled adults lack basic reading and basic math skills. Those who do are more likely to face multiple employment barriers to opportunity and are most likely to become trapped in poverty without an effective way out.
- **3.** The region's low-income workers face transportation barriers while traveling to and from work or accessing affordable housing near the region's fast-growing job centers. These barriers leave workers cut off from much of the region's economic opportunities.
- **4.** Despite federal legislation in 1965 that made discrimination illegal, a complex array of historical, cultural, educational, institutional, and interpersonal dynamics continue to produce cumulative and chronic barriers to opportunity for people of color, perpetuating racial inequities in access to opportunity.
- **5.** About one in five job seekers in the Baltimore Region report that they have a criminal record that is a barrier to employment. A criminal record is a permanent barrier to employment, precluding many workers from attaining stable employment that contributes greatly to desistance from future crime.
- 6. While trends show that a growing number of the Baltimore Region's residents are falling into poverty, the resources that are available to help workers to overcome barriers to employment opportunity are declining.

The focus of the region's strategic workforce development plan is twofold: First to solve problems linked to these six challenges and secondly to strengthen the region's industries by ensuring access to an available and right-skilled workforce.

BALTIMORE REGIONAL WORKFORCE DEVELOPMENT STRATEGIC PLAN

VISION & GOALS

ACTION AREA	TOP CHALLENGE / PROBLEM
MORE OPPORTUNITIES FOR FAMILY SUPPORTING CAREERS	1 . Give every person in the region an attainable opportunity to enter the talent development pipeline and progress into a family-supporting career.
FEWER BARRIERS TO OPPORTUNITY	2. Remove barriers that keep low-skilled or low-income adults from progressing into family supporting careers through strategies that address skills gaps, housing and transportation barriers, social barriers, structural racism, industry biases, and workforce development system limitations.
INCREASED ECONOMIC COMPETITIVENESS OF THE REGION	3. Ensure that businesses in each of the region's industry sectors have access to a highly skilled workforce with the right competencies needed to make businesses nationally and globally competitive.
BETTER QUALITY OF LIFE FOR ALL PEOPLE	4. Reverse the region's trend toward a growing number of people who have low wages or are living in poverty. Concurrently, increase the number of people achieving economic self-sufficiency.
ACTION AREAS & STRATEGIES	
ACTION AREA	STRATEGY

1. INDUSTRY-LED PARTNERSHIPS FOR WORKFORCE DEVELOPMENT

2. STRONGER BASIC SKILLS, ABE, ESL AND POST-SECONDARY EDUCATION

3. BETTER JOB TRANSPORTATION AND JOB-ACCESSIBLE HOUSING

4. UNDERMINING STRUCTURAL RACISM

5. BETTER RESOURCES FOR PEOPLE WITH CRIMINAL RECORDS

6. STRONGER RESOURCES

Implement industry-led sector strategies for workforce development and offer a broader menu of pathways into family supporting careers. Increase the competitiveness of industry sectors with effective training and credentialing that make use of stackable, industry-valued credentials that lead to careers that pay family-sustaining wages with benefits. Increase the availability, awareness, and completion of Adult Basic Education (ABE), ESL, and GED preparation courses and continuance into skills training and higher education. Improve transportation access and connections between low-income neighborhoods and high-growth job centers as well as aligning affordable housing and jobs. Eliminate policies, practices, and institutional cultures that promote and support structural racism and implicit biases against people of color. Work to change societal cultures that promote and support the same.

Strengthen and expand workforce development pathways for people with a criminal background; reduce the number of individuals entering the criminal justice system by addressing the factors that lead to crime; and create policies that serve to eliminate hiring biases against ex-offenders.

Increase the level of resources available to industry and workforce development organizations, technical assistance to small businesses, and capacity to help workers with multiple barriers to employment.

ACTION AREA 1:

INDUSTRY-LED PARTNERSHIPS FOR WORKFORCE DEVELOPMENT

Challenge: There are too few mid-skilled jobs and too few effective on-ramps.

The Baltimore Region has few mid-skilled jobs that pay family-supporting wages, making it difficult for many low-skilled workers to attain a financially sustainable career. In addition, there are not enough on-ramps that provide workers with effective pathways that lead to these jobs and onward to sustainable careers.

THE MID-SKILLED JOBS VACUUM

Most jobs in the Baltimore Region can be divided into two categories:

1. High-skilled jobs that pay a family-supporting wage^{xxi} but require significant post-secondary education, typically at the Bachelor's degree level: Many of these jobs offer good career tracks where workers are able to progress from one occupation to the next as the worker gains knowledge, experience and competency in a skill area. Examples include careers as a registered nurse, an accountant, an engineer, a construction apprentice/journeyman, or another skilled occupation.

2. Low skilled jobs that pay less than a family-supporting wage: While some of these jobs have opportunities for progression into higher level positions with pay increments, few of these jobs progress into careers that can pay a family-supporting wage. This leaves workers entering these jobs with few real opportunities for career advancement.

Research performed in the Baltimore Regional Talent Development Pipeline Study (BRTDPS) found that there were few mid-skilled jobs available in the Baltimore Region. Many of mid-skilled jobs that exist are niche occupations with comparatively few job openings per year. To make matters worse, many of the traditional mid-skilled positions that have been available are disappearing, as employers increasingly need higher-skilled workers, especially in knowledge industries.^{xvii} The healthcare sector stands out as the sector with the highest number of mid-skilled jobs, and the healthcare industry has one of the region's most robust training and talent development pipelines in the region. Several workforce development organizations offer healthcare careers. Other industries also employ workers in mid-skilled occupations, although there are not a large number of these jobs and the jobs available are in many different occupations (i.e. a few mid-skilled jobs in demand in a lot of different occupations). Most existing career education training programs in the US are built to prepare workers for a job in a particular occupation where there is an adequately large number of job positions that become available each year — however, with most mid-skilled jobs having few openings per year, it is difficult for traditional educational institutions and other stakeholders to build a talent pipeline of skills training, career services, social support services, and other support services around a large number of different occupations, each with few job openings.



FIGURE 9 SHARE OF MID-SKILLED FAMILY SUPPORTING JOBS IN THE BALTIMORE REGION Source: Baltimore Regional Talent Development Pipeline Study

EFFECTIVE CAREER PATHWAYS AND INDUSTRY-LED PARTNERSHIPS

A significant body of evidence-based research has found that sector strategies for workforce development for midskilled careers has been more effective than traditional occupational training or generalized workforce development services (job placement, etc.). Industry-led partnerships (ILPs) are one type of sector strategy that addresses the demands of businesses by focusing intensively on the workforce needs of a specific industry sector over a sustained period. ILPs can address the needs of workers by creating formal career paths to good jobs, reducing barriers to employment, and sustaining or growing middle class jobs. They can also include job readiness training, GED preparation, occupational skills development, literacy advancement, and transportation and child care components. ILPs have been shown to result in longer continuous employment, higher numbers of hours worked, and higher wages for workers when compared to other forms of workforce development and training.^{xxii} In addition, participants in sector-focused workforce training programs are more likely to work in jobs that offer benefits.

Career Pathways programs are another form of sector strategy that offers a clear sequence of education and training courses and credentials that are built around "stackable" training that is non-duplicative and leads to industry-recognized credentials such as certifications or professional designations, many of which can be completed in less than two years time. They offer accelerated and integrated learning that often combines basic adult education (basic math and reading skills) with technical skills training in a manner that accelerates career advancement of participants. Learning occurs in the work context (rather than limited to classroom) and programs are designed for working learners. Effective Career Pathways programs offer intensive wrap-around support services that help participants successfully move through transition points through career counseling, job placement, and other support services such as transportation vouchers or assistance with child care during training (see Figure 10).

SECTOR	"STACKABLE"	CONTEXTUAL	ACCELERATED/
STRATEGIES	TRAINING	LEARNING	INTEGRATED LEARNING
 Aligned with the skill needs of industry sectors Employers actively 	 Arranged or "chunked" in a non-duplicative progression of courses Provide opportunities 	• Instructional strategies that make work a central context for learning and help students attain work	Combine adult education with postsecondary technical training Accelerate careers
engaged in determining	to earn credits that have	readiness skills	advancement
skill requirements	labor market value		of participants
MULTIPLE ENTRY/	INTENSIVE WRAP-	DESIGNS FOR	INDUSTRY
EXIT POINTS	AROUND SERVICES	WORKING LEARNERS	CREDENTIALS
• Enable workers of varying education and skill levels to enter or advance in a specific sector or occupational field	 Incorporate academic and career counseling and wraparound support services (particularly at points of transition) 	• Meet needs of nontraditional students who combine work and study	• Lead to the attainment of industry-recognized degrees or credentials that have value in the labor market.

FIGURE 6 EMPLOYMENT IN THE BALTIMORE REGION, 1949-2013 Source: The Promise of Career Pathways, June 2012

ILPs and Career Pathways are related concepts, although ILPs may or may not have a Career Pathways approach for workforce development. Similarly, Career Pathways can be developed within an ILP or outside of one.

OPPORTUNITY TO CREATE MORE CAREER PATHWAYS AND INDUSTRY-LED PARTNERSHIPS

EARN, the state's \$4 million Employment Advancement Right Now grant, has been created by the Maryland legislature to create new industry-led partnerships. As of August 2014, twenty-eight industry-led partnerships have been awarded EARN planning and implementation grants, following a model shown to create effective on-ramps and pathways to sustainable careers.

The BRTDPS found that that Career Pathways approaches can address a significant portion of the Baltimore Region's high unemployment rates for workers who have low educational attainment. Six sectors were recommended as strong candidates for developing more industry-led Career Pathways programs because of the number of mid-skilled jobs available in these sectors:

- 1. Healthcare
- 2. Construction
- **3.** Information Technology
- 4. Transportation & Logistics
- 5. Business Services
- 6. Manufacturing

There are at least 39 occupations in demand by employers in these sectors that offer good potential for workers to progress into mid-skilled family-supporting jobs (See Table 4). The combined hiring for the selected 39 mid-skilled occupations is expected to account for over 35,800 new job hires between 2012 and 2020, which could support employment for approximately one third of the unemployed adults in the Baltimore Region in 2012.

EXAMPLE IN THE TRANSPORTATION LOGISTICS SECTOR

Beyond the top 39 selected occupations that are candidates for Career Pathways, most sectors employ workers in other occupations that can lead to higher-paying mid-skilled occupations. For example, a recent study of Career Pathways in the Baltimore Region's transportation and logistics sector ^{xxiv} found that workers could progress into family-supporting careers in several sub-sectors including careers in distribution warehouse operations, as vehicle operators, as diesel mechanics, in logistics and international trade, as mariners (See Figure 11 for a description of career pathways in the merchant marine), as vehicle operators and diesel mechanics

The region's transportation and logistics sector is growing and many of the region's employers in this sector report that they face chronic difficulties finding reliable workers to fill open positions, especially in entry-level distribution warehouse positions. This creates an opportunity for development of industry-led Career Pathways programs that address both the needs of employers (access to reliable, skilled workers) while concurrently addressing the needs of low-skilled adults (offering on-ramps to careers, basic skills training, technical training and other services). While the demand for industry-led career pathways programs exists, there are limited resources directed to creating sustainable career pathways in this field. In 2012, there were 45 educational programs in the region that prepared workers for careers in occupations related to the transportation and warehousing sector,^{xw} however, many of these programs have low enrollment and the majority of graduates (87%) earned awards mainly in two occupations: truck driving or diesel mechanic programs. The Maritime Institute of Technology and Graduate Studies (MITAGS) located in the Baltimore Region offers a two year vocational education and apprenticeship for workers seeking careers in the merchant marine, however, the cost of the program is high (\$32,000) and the program is not eligible for financial aid. Maryland New Directions has recently started work on an industry-led partnership to meet the needs of the warehouse employers, but this program is one of the few in the region that designs on-ramps into transportation, logistics, and warehousing careers.

SOC	OCCUPATION	TOTAL EMPLOYMENT BALTIMORE/ TOWSON MSA 2012	TOTAL HIRING BALTIMORE/ TOWSON MSA 2012-20	MEAN WA HOURLY	GES 2011 ANNUAL
31-9092	MEDICAL ASSISTANTS	4,600	1,094	\$15.68	\$32,620
29-2071	MEDICAL RECORDS & HEALTH INFO. TECHNICIANS	2,100	553	\$19.45	\$40,470
29-2052	PHARMACY TECHNICIANS	3,260		\$14.59	\$30,340
29-2055	SURGICAL TECHNICIANS	1,150	275	\$22.75	\$47,320
29-2034	RADIOLOGIC TECHNOLOGISTS & TECHNICIANS	3,200	720	\$32.34	\$67,260
29-2012	MEDICAL & CLINICAL LABORATORY TECHNICIANS	2,100	542	\$20.86	\$43,390
29-2061	LICENSED PRACTICAL & VOCATIONAL NURSES	6,560	2,080	\$24.45	\$50,860
29-2041	EMERGENCY MED. TECHINICIANS & PARAMEDICS	3,200	841	\$20.69	\$43,040
29-1141	REGISTERED NURSES	28,310	6,864	\$37.14	\$77,250
29-1126	RESPIRATORY THERAPISTS	1,200	296	\$31.22	\$64,930
29-2021	DENTAL HYGIENISTS	1,450	421	\$35.55	\$73,940
47-2111	ELECTRICIANS	5,230	1,583	\$24.69	\$51,350
47-2152	PLUMBERS, PIPEFITTERS & STEAMFITTERS	6,170	1,961	\$26.36	\$54,830
47-2031	CARPENTERS	4,560	1,161	\$20.98	\$43,640
47-2073	OPERATING ENGINEERS/CONSTRUCTION EQUIP. OPERATORS	2,610	716	\$21.06	\$43,810
47-4051	HIGHWAY MAINTENANCE WORKERS	995	297	\$17.46	\$36,310
47-2021	BRICKMASONS & BLOCKMASONS	1,180	293	\$20.40	\$42,430
47-4021	ELEVATOR INSTALLERS & REPAIRERS	640	207	\$35.36	\$73,550
49-9021	HEATING, AIR COND. & REFRIG. MECHANICS/INSTALLERS	2,990	682	\$22.71	\$47,240
15-1150	COMPUTER SUPPORT SPECIALISTS	8,480	2,680	\$26.93	\$56,020
15-1121	COMPUTER SYSTEM ANALYSTS	4,720	1,245	\$39.57	\$82,290
15-1142	NETWORK COMPUTER SYSTEMS ADMINISTRATORS	5,170	1,266	\$40.35	\$89,920
15-1179	INFO. SEC. ANALYSTS, WEB DEV., COMP. NETWORK ARCHS.	8,610	1,975	\$44.06	\$91,640
53-7051	INDUSTRIAL TRUCK & TRACTOR OPERATORS	3,710	1,048	\$17.87	\$37,170
53-3032	HEAVY & TRACTOR-TRAILER TRUCK DRIVERS	11,580	2,562	\$20.06	\$41,730
43-5011	CARGO & FREIGHT AGENTS	570	138	\$19.76	\$41,110
43-5032	DISPATCHERS EXCEPT POLICE/FIRE & AMBULANCE	1,850	382	\$18.08	\$37,610
49-3031	BUS & TRUCK MECHANICS & DIESEL ENGINE SPECIALISTS	1,380	319	\$20.98	\$43,630
13-2082	TAX PREPARERS	930	246	\$15.55	\$32,350
43-4161	H.R ASSISTANTS EXCEPT PAYROLL & TIMEKEEPING	2,090	665	\$20.52	\$42,680
47-4041	HAZARDOUS MATERIALS REMOVAL WORKERS*	395	93	\$18.85	\$39,200
19-4091	ENVI. SCI./PROTECTION TECHNICIANS INCLUDING HEALTH	220	96	\$24.25	\$50,450
17-3022	CIVIL ENGINEERING TECHNICIANS*	925	242	\$23.13	\$48,110
17-3023	ELECTRICAL & ELECTRONICS ENGINEERING TECHNICIANS	1,700	439	\$29.73	\$61,840
17-3027	MECHANICAL ENGINEERING TECHNICIANS	410	108	\$28.63	\$59,540
17-3029	ENGINEERING TECHNICIANS, EXCEPT DRAFTERS/OTHER	1,570	415	\$32.66	\$67,930
17-3011	ARCHITECTURAL & CIVIL DRAFTERS	490	128	\$24.65	\$51,280
17-3013	MECHANICAL DRAFTERS	550	144	\$25.90	\$53,870

TABLE 4SELECTED OCCUPATIONS OF CANDIDATES FOR DEVELOPMENTOF INDUSTRY-LED CAREER PATHWAYS TRAINING PROGRAMS
Source: Baltimore Regional Talent Development Pipeline Study



ENTRY LEVEL REQUIREMENTS:

- An Ordinary Seaman ticket from the Coast Guard is required. This requires a physical exam, criminal background check & driver's license.
- Ability to work in a physically demanding enviornment.
- Ability to work away from home for months (for blue-water vessel).
- Applicants with a criminal record may need to re-apply more than once.
- Basic reading and math skills (for AB Seaman).
- Must have reliable transportation to the vessel.

* Qualified Member of Engineer Department

FIGURE 11 MERCHANT MARINE CAREER PATHWAYS

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OCCUPATION AVAILABLE ON MOST VESSELS, SHORELINE/NEAR HARBOR OCCUPATION AVAILABLE ON OCEAN GOING (BLUE WATER) VESSELS
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STRATEGY AND ACTION PLANS

To meet the needs of employers, address gaps in skills training, and help the region's low-skilled adults move into family-supporting careers, the following strategy and six action plans are recommended.

Strategy 1: Implement more industry-led sector strategies for workforce development and offer a broader menu of pathways into family supporting careers. Increase the competitiveness of industry sectors with effective training and credentialing that make use of stackable, industry-valued credentials that lead to careers that pay family-sustaining wages with benefits.

	ACTION PLAN
1.1	Increase the number of industry-led partnerships for workforce development, especially in sectors offering career ladders into family-supporting jobs. Ensure that more people are trained in good programs that are aligned to industry needs.
•••••	
1.2	Prioritize programs that emphasize credentialing , in particular programs that provide stackable industry-valued credentials and lead to careers that pay family sustaining wages with benefits.
•••••	
1.3	Implement an effective "dual-customer" approach in industry-led partnerships that fully addresses (1) the HR needs of employers for recruitment, retention, skills acquisition, and talent development as well as (2) the needs of workers for skills training, career mobility, wrap-around support services, and other needs.
1.4	Create a shared understanding among all workforce development stakeholders of the existing career pathways available to low-skilled adults including on-ramps and steps to progress into family-supporting careers. Ensure that the same understanding is shared by workforce development organizations, colleges and universities, employers, community groups, job seekers, and industry associations.
•••••	
1.5	Leverage the industry-led partnerships to attract more businesses to the Baltimore Region, including businesses that create mid-skilled jobs that pay a family-supporting wage.
1.6	Implement economic development policies that favor businesses which offer career laddering and advancement opportunity and favor industries that offer high paying mid-skilled jobs. Encourage employers to implement career laddering that helps low-wage/low-skilled workers move into higher-level positions through mentorship and other effective approaches.

The measures of progress toward these plans will include tracking of the region's industry-led partnerships and Career Pathways programs to ensure there are an adequate number of programs and that they are available to residents throughout the region. Key measures to track success include:

- The number of Industry-Led Partnership (ILPs) in each geographic area and key sector. This information will show the number of ILPs that exist in each county and Baltimore City and the number of key sectors they serve with an emphasis on healthcare, construction, information technology, transportation and logistics, business services and manufacturing
- Measures of the Success of Individual ILPs: This will include tracking of the number of Career Pathways participants, the number of job placements, the number of companies making hires, average wages, and average length of continuous employment.

These measures will provide ongoing feedback on the success of ILPs and help workforce development stakeholders adjust their tactical implementation of these action plans in order to give every person in the region an attainable opportunity to enter the talent development pipeline and progress into a family-supporting career.

ACTION AREA 2:

Stronger Basic Skills, Adult Basic Education, English as a Second Language, and Post-Secondary Education

Challenge: Many of the region's low-skilled adults lack basic reading and basic math skills. Those who do are more likely to face multiple employment barriers to opportunity and are most likely to become trapped in poverty without an effective way out.

EDUCATIONAL ATTAINMENT AND OPPORTUNITY

Educational attainment is undeniably a critical determinant of employment outcomes. While the region as a whole has one of the highest levels of educational attainment in the United States, the region's individuals with low levels of education have shockingly poor employment outcomes. The 2012 unemployment rate for Baltimore Region residents who have less than a high school degree was 21 percent and nearly half (42 percent) of adults that don't have a high school diploma are not participating in the labor force (not seeking work).^{xwi} For these individuals, the prospect of a sustainable career that pays a family-supporting wage may appear impossible, because they face multiple barriers to employment opportunity.

In addition to the direct barrier of not possessing a high school diploma or GED (a prerequisite for many jobs), a 2013 survey of job-seekers in the region found that 70% report that they face difficulties finding a job that covers basic living expenses, 65% report that they have difficulties with basic math, 58% report facing difficulties using technology and computers, 54% lack a driver's license and 53% have problems affording education or job training.^{xvvi} Over 40% of these individuals report that they face another barrier such as lack of work experience, difficulties finding permanent housing, difficulties due to a criminal record, difficulties affording basic items needed for work such as work clothes or fare for a bus ticket, and lack of knowledge of where to obtain training or education or what career they might want to pursue. Racialized outcomes are also evident in educational attainment; among the region's job seekers who do not have a high school diploma, over three quarters are African American (77% of survey respondents). Because employment outcomes improve dramatically at higher levels of education, effective strategies to increase educational attainment are critical to accessing opportunity and achieving economic self-sufficiency.



SHARE OF POPULATION, AGE 25-65


FIGURE 13 UNEMPLOYED & NON-PARTICIPATION RATES IN LABOR FORCE, AGE 25-65, BY EDUCATIONAL ATTAINMENT, 2012 Source: American Community Survey



< HIGH SCHOOL GRAD.

HIGH SCHOOL GRAD.

COLLEGE/ASSOC. DEGREE

BACHELOR'S DEGREE GRAD/P

GRAD/PROF. DEGREE

REDUCING DEFICIENCIES IN BASIC MATH AND BASIC READING

Basic math and basic reading skills are a necessity for many jobs and they are a prerequisite for entering educational programs that lead to higher paying jobs. Approximately 30% of the job seekers surveyed indicated that low math skills were a barrier to employment, 28% reported having difficulties with basic computer skills, 14% reported literacy problems as a barrier, and 13% reported that lack of a high school diploma was a barrier. A high school diploma or GED is a first step to better earnings and for adults over age 21, Basic Adult Education (ABE) to master basic reading and math skills and GED preparation courses to prepare for the GED exam are main resources available. However, the number of ABE spaces available is limited and students can face long wait times to enroll and begin work in ABE courses. Increasing the number of available ABE slots is a critical step to helping students progress toward higher education. This could be accomplished in several ways:

- Provide high schools funding to implement ABE courses by allowing them to count young adults enrolled in GED classes as part of their FTE.
- Implement adult education charter schools, following the approach used in the District of Columbia. The D.C. Public Charter School Board has approved seven adult charter schools in the District which serve students ages 16 and up and receive public funds of up to \$14,000 per student. Some adult education charter schools provide a combination of basic adult education to prepare for the GED while concurrently receiving job skills training and support services that increase student success.
- Increase the level of funding available to existing ABE providers such as community colleges in order to increase the number of people who have access to ABE.

In addition to availability of ABE, there is a similar need to increase access to ESL courses, increase continuance on to higher education, and improve educational program completion rates. Programs that include accelerated cohort models, contextualized learning opportunities, and hybrid instructional models that are aligned with or imbedded in the work of the industry partnerships have been shown to be effective for improving program outcomes. To further maximize outcomes, low-income students enrolled in ESL, ABE and other education will require access to social supports such as tutoring, childcare, transportation, access to public benefits, and subsidized jobs. In addition to basic reading and math skills, many students and individuals entering the workforce require essential skills training in professionalism, workplace communication, and business etiquette. The Opportunity Collaborative has addressed workforce readiness by developing the 21st Century Job Readiness Toolkit.

STRENGTHENING K-12 EDUCATION

Much is being done by community organizations and schools to improve reading and math skills at the K–12 level. Programs such as YO! Baltimore, Baltimore City Career Academy, Civic Works, Job Corps, and the Living Classrooms Fresh Start Program provide youth with educational and career-training supports to create better work outcomes for at-risk youth. Still, more can be done to connect students with mentors in the business community, or create connection for mentorship and tutoring between universities and at-risk youth in surrounding neighborhoods. There are opportunities to implement youth apprenticeship programs, support after school camps for learning industry skills, and create or reintroduce vocational programs at the high school level. Stronger alignment of the K–12 system with the workforce development system can improve the transition of youth into the labor force.

STRATEGIES AND ACTION PLANS

Strategy 2: Increase the availability, awareness, and completion of Adult Basic Education (ABE), ESL, and GED preparation courses and continuance into skills training and higher education.

	ACTION PLAN
2.1	Increase the number of ABE/ESL slots available by: (1) implementing policy change to effectively increase funding to high schools to implement GED programs by allowing them to count young adults enrolled in GED classes as part of their FTE or (2) increasing the level of funding available to existing ABE providers such as community colleges in order to increase the number of people who have access to ABE.
2.2	Explore and evaluate alternative approaches to increase the number of ABE/ESL slots available (i.e. Washington D.C. has created adult education charter schools which serve students ages 16 and up and provide a combination of basic adult education to prepare for the GED while concurrently providing job skills training and support services that increase student success).
2.3	Implement reforms to traditional developmental education and ABE/ESL programs so that they include accelerated cohort models, more contextualized learning opportunities, and hybrid instructional models that are aligned with or imbedded in the work of the industry partnerships. (Examples: BTI's BioStart program teaches basic skills in a Biotech lab setting with practical learning experiences; the ACE Program (MI-BEST) provides integrated basic skills courses alongside sector-targeted skills classes at community colleges.)
•••••	
2.4	Increase collaboration and funding to provide comprehensive academic and social student supports to low income students (e.g., tutoring, child care, transportation, access to public benefits, and subsidized jobs).
2.5	Monitor the outcomes of the new General Educational Development (GED) exams and take appropriate action to ensure that the new exam format, cost, and level of rigor is appropriate without creating new barriers for low skilled adults. This can include monitoring how the exam works and the results as well as alternatives that other states embrace (e.g. external diploma, certificate, GED equivalent, competency profiles).
2.6	Institutionalize the usage of the Opportunity Collaborative's Job Readiness Toolkit (Essential Skills Standards) alongside ABE and other training across the region and increase recognition of the qualification.
2.7	Increase successful transition from basic adult education and high school through college education or career training, ensuring that more residents achieve higher education leading to better paying jobs.
2.8	Support the efforts of the school system and community organizations to improve math and reading skills at the K-12 level. Ensure high academic achievement in the K-12 system.
2.9	 Consider and implement strategies to improve career outcomes at the K-12 level. This could include approaches such as (1) mentorship by business community at an early age (elementary school) to build awareness of jobs, careers, and stepwise pathways to develop skills for those jobs; (2) apprenticeship programs starting in middle school; (3) after school "camps" that are skill/industry focused (Example: Digital Harbor Foundation after-school program); (4) new/reintroduced and expanded career and technology pathway programs that address specific high-growth industry needs; and (5) expanded job shadowing and internships for high school students.
•••••	
2.10	Positively influence a solid alignment of the K-12 system with the goals and strategies of the workforce plan.

The measures of progress toward these plans will include:

- Tracking the educational attainment of the population at all levels, across the spectrum (High School/ABE, Associates Degree, Skilled Trades Certificate, Bachelors, etc.).
- Measuring the number of successful graduates throughout the region's education and training programs.
- Tracking the number of organizations using the Job Readiness Toolkit created by the Opportunity Collaborative.
- Tracking and reporting the number and/or percentage of individuals completing job readiness training.

STRATEGY 3:

Better Job Transportation and Job-Accessible Housing

"ACCORDING TO OUR CAREER ADVISORS, THE SCENARIO OF CLIENTS LOSING OR TURNING DOWN JOBS DUE TO TRANSPORTATION BARRIERS OCCURS ON A REGULAR BASIS."

— Sid Wilson, Anne Arundel Workforce Development Corporation, email to the Central Maryland Transportation Alliance, 11/21/13

Challenge: The region's low-income workers face transportation barriers traveling to work or accessing affordable housing in fast-growing job centers. These barriers leave workers cut off from much of the region's economic opportunities.

TRANSPORTATION AND HOUSING BARRIERS

Transportation and housing barriers present challenges for residents who depend on public transportation to get to work. A quarter (25%) of job seekers surveyed indicated that they can't get to jobs accessing public transportation and 23% stated they face difficulties finding permanent housing. According to workforce development directors, most transportation problems are linked to the distance between where most low-skilled or low-income workers live (e.g. in Baltimore City) and where most new jobs are being created (outside the city). For parents, the transit travel times can be very long if they must first travel to childcare and then again access transit to go to work. According to the Baltimore Regional Talent Development Pipeline Study, 85% of all new jobs that will be created in the region between 2012 and 2020 are expected to be outside of Baltimore City, but growing job centers north of Baltimore City and along the Baltimore-Washington corridor are not well served by public

transportation. Housing advocates would further argue that a lack of affordable housing near the region's growing job centers effectively leaves workers cut off from access to those opportunities.

INCREASING ACCESS TO JOBS THROUGH BETTER TRANSPORTATION AND AFFORDABLE HOUSING IN GROWING JOB CENTERS

Many of the region's top job centers for these jobs are not transit accessible to workers in lower-income neighborhoods. Increasing access to a vehicle is one method for overcoming this barrier. More can be done to strengthen programs that provide low-income adults with access to a vehicle. In addition, the state can reevaluate policies that result in high costs for mandatory driver's education and high costs of insurance, particularly in urban areas. To improve connectivity to jobs, transit agencies and employers can collaborate to improve transit services, including adjustments to public transit services to increase connectivity between low-income neighborhoods and job centers and creation of added vanpool and shuttle services. Several case studies xxviii have shown how transit districts have taken a leading role in implementing industry-funded programs to transport workers to jobs. Programs can also access benefits offered through the Maryland Commuter Tax Credit program, which offers Maryland employers a credit for 50 percent of the eligible costs of providing commuter benefits (including costs of a company vanpool), up to a maximum of \$50 per month per participating employee. Transit-oriented development (TOD) policies can help ensure that long-term development in the region evolves by design. Encouraging job growth near existing transit stops and stations, both through zoning and outreach to employers and developers, can help reduce transportation barriers as the region grows. Local jurisdictions can integrate walk-friendly and bikefriendly design review in local land development review to support alternative transportation access to new housing and job centers. Implementing these types of TOD policies can increase connectivity of lower-income neighborhoods to job centers and also increase the availability of affordable housing in neighborhoods that are close to growing job centers.

"WE HAD ONE PERSON FROM OUR TRAINING CLASS WHO WORKED AT A RETAIL STORE IN ARUNDEL MILLS MALL. SHE NO LONGER WORKS THERE AS SHE WAS WORKING PART TIME AND IT WAS NOT COST EFFECTIVE FOR HER TO DRIVE THERE FOR THE HOURS SHE WAS WORKING."

- Lydia Woods, Humanim, email to the Central Maryland Transportation Alliance, 12/5/13

STRATEGIES AND ACTION PLANS

Strategy 3: Improve transportation access and connections between low-income neighborhoods and high-growth job centers as well as aligning affordable housing and jobs.

	ACTION PLAN
3.1	Strengthen programs that provide low-income adults with access to a vehicle.
3.2	Change policies that make driving difficult for low-income families by mitigating the cost of mandatory driver's education and high cost of insurance particularly in urban areas.
3.3	Consider adjustments to public transit services to increase connectivity of public transportation between low-income neighborhoods and job centers, including at off-peak times.
3.4	Encourage collaboration among MTA, BMC, BRTB, WIBs, and businesses to take an active coordinating role in implementing programs to transport workers to jobs.
3.5	Adopt land use and transit-oriented development policies to encourage new job centers and housing located and designed to support convenient transit, walking and bike access.
3.6	Implement strategies for better transportation to and from training centers.
3.7	Encourage MDOT and BRTB to make more extensive use of federal programs to support industry programs to transport people to jobs.
3.8	Increase availability of bike lanes, sidewalks, and other modes of transportation to ensure last-mile connectivity between public transit systems and employment centers.
3.9	Create awareness and increase knowledge for economic development professionals and industry leaders of the importance of transit access relevant to the importance of attracting a reliable workforce.

Measures that track progress toward improved transportation access and connections between low-income neighborhoods and high-growth job centers include:

- Average transit commute time by geographic area.
- Percentage of jobs in key sectors that are within a mile of a transit stop.
- Percentage of affordable housing within a mile of transit.
- Percentage of households that meet the recommended affordability standard.***
- Affordable housing index near transit.
- Accessibility of 39 occupations offering family supporting wages within a mile of transit.

Regular periodic tracking of these statistics can provide feedback on the effectiveness of TOD and other policies for connecting workers with jobs.

STRATEGY 4:

Undermine Structural Racism

Challenge: Despite federal legislation in 1965 that made discrimination illegal, a complex array of historical, cultural, educational, institutional, and interpersonal dynamics continue to produce cumulative and chronic barriers for people of color.

STRUCTURAL RACISM CONTINUES TO AFFECT PEOPLE OF COLOR

Historically, structural racism has had an impact on our region, and through time and conscious effort the region has made positive strides. However, today African Americans represent just over a quarter (28%) of the region's working age population and account for nearly half (49%) of all unemployed people. A survey of job seekers performed for this study found that practically all barriers to employment opportunity disproportionately affect Blacks. By 2020, it is estimated that 47 percent of jobs will require an Associates degree or higher, but today only 28 percent of African Americans have the level of education of an Associates degree or higher, underscoring the need for higher educational attainment among African Americans.^{xxx}

Because structural racism operates alongside other factors like individual choices, behaviors and circumstances, political and economic structures, environment, and exploitation that also shape a person's access to opportunity, they are difficult to isolate. Some examples, however, illustrate how structural racism operates in ways that directly affect people of color and undermines the progress that the region has made. A 2013 study xxxii by the ACLU found that policies resulting in targeted law enforcement in communities of color result in over-representation of African Americans in the criminal justice system, truncating their future employment opportunities. A 2012 study by the US Equal Employment Opportunity Commission**** found that unconscious biases and perceptions about African Americans continue to play a significant role in employment decisions in the federal sector. The same study found that African Americans lack adequate mentoring and networking opportunities for higher level and management positions and that insufficient training and development assignments perpetuate inequalities in skills and opportunities for African Americans. Other

"THE TERM STRUCTURAL RACISM REFERS TO A SYSTEM IN WHICH PUBLIC POLICIES, INSTITUTIONAL PRACTICES, CULTURAL REPRESENTATIONS AND OTHER NORMS WORK IN VARIOUS, OFTEN REINFORCING WAYS TO PERPETUATE RACIAL GROUP INEQUITY." "

— Structural Racism and Community Building, Aspen Institute, 2004

studies have found that hiring practices can reinforce racial inequalities; one study ^{xxxiii} found that when two individuals with equal credentials apply to a job opening, a white applicant with a criminal history has a higher chance of a call back than a black applicant without one. These examples of structural and institutional racism contribute to high unemployment and low career advancement outcomes for Blacks.

Structural and institutional racism creates obstacles beyond hiring and hinder equal advancement opportunities through unconscious biases and perceptions about African Americans and other people of color. Recent studies, such as a 2013 study of employment in the federal government, provide fresh evidence that African Americans are not considered, groomed, or selected for high-level positions because of stereotypical views or unconscious bias that those positions are considered non-traditional for African Americans.^{*****} Evidence from the Baltimore Region Opportunity Mapping Report shows that the roots of structural racism go deeper than the workplace - starting with disparities between predominately white and predominantly minority communities. Racial segregation and disparities in wealth between white and black people remain the legacy of unequal housing and lending policies that date back to the 1930s.^{xxxv} These policies created and perpetuated inequities that continue to exist today; the region's minority neighborhoods have comparatively low school performance, low educational attainment, greater health risks, and higher crime risk.^{xxxvi} In addition, social networks — that often fall along racial, gender, and class lines — restrict some of the employment opportunities that are available to people of color. Several studies have shown how social networks influence employment outcomes through referrals from friends and family. Social networks also shape awareness and perceptions of the types of careers that are available and can lead those who live in low-income communities to have limited ideas on the careers they can have.

ELIMINATING UNCONSCIOUS AND IMPLICIT BIASES AND PERCEPTIONS OF PEOPLE OF COLOR THAT SUPPORT STRUCTURAL RACISM IN THE WORKPLACE AND IN COMMUNITIES

There are at least four major methods of eliminating structural racism:

- 1. Increasing awareness
- 2. Improving HR practices
- 3. Implementing better policies
- 4. Strengthening under-resourced communities

Eliminating structural racism begins with creating a greater level of awareness of racial disparities that exist in the workplace. Implicit racial biases are often unconscious and therefore engagement with employers and HR managers can help to raise awareness of unperceived employment discrimination issues. Reporting of employment figures disaggregated by race or other factors can reveal racialized and disproportionate impacts, bringing the effects of unperceived biases into focus. Such unconscious biases may remain even when they are brought to our conscious understanding, but bringing them into conscious focus creates an opportunity to combat them and become more comfortable acknowledging their reality. There are opportunities to improve recruitment, hiring, and advancement practices by all employers, by encouraging stronger recruitment from historically African American professional networks and educational institutions, tracking racial information on applications and hire rates (to identify potential implicit biases), and implementing stronger HR practices that encourage companies to create fair and equal advancement opportunities. Larger employers such as the public sector, educational institutions, and hospitals are more likely to have well-developed human resources policies that reduce employment discrimination, but more can be done to give all businesses the resources to not only ensure equal opportunities, but to also reduce implicit racial biases.



FIGURE 15 MEDIAN ANGEL INVESTMENT FUNDING RECEIVED, BY RACE OF THE FOUNDER TEAM (MILLIONS) Source: Angel Investment Network



Policy advocacy approaches can also be used to increase access to opportunities for marginalized populations. Policies — including public policy, institutional policy, company policy — drive practices, resource allocations, and in many cases attitudes. For instance, poorly designed policies have resulted in over-policing of African American communities, which lead to severely truncated job opportunities for people of color because of contact/convictions in the criminal justice system.^{xxxvii} These and other policies should be reevaluated and changed. In addition, positive policies can encourage equity for all people in access to opportunity.

Lower income communities that are predominantly African American have fewer resources and social and economic capital. These challenges create negative outcomes that manifest as lower performing schools, higher poverty, higher crime, and limited opportunities, placing individuals at a disadvantage from the start. They are also evidenced in lower levels of economic opportunity such as limited access to capital for Black entrepreneurs (See Figure 15, previous page). Interventions will be needed to address both the causes of inequality and the outcomes. This includes confronting structural racism in neighborhoods and in housing by encouraging development policies that increase racial diversity in neighborhoods, increasing resources available to underperforming schools in lower income neighborhoods, and encouraging transit-oriented development that provides lower income neighborhoods with rapid and direct connection to and from growing job centers. By increasing access to support resources including post-incarceration job placement, affordable child care, affordable auto insurance for low-income families, mental health services and other resources, the Baltimore Region can counteract the effects of structural racism and provide individuals and families with better resources to overcome poverty and inequity.

STRATEGIES AND ACTION PLANS

Strategy 4: Eliminate policies, practices, and institutional cultures that promote and support structural racism and implicit biases against people of color. Work to change societal cultures that promote and support the same.

	ACTION PLAN
4.1	Foster a higher awareness of racial disparities in the workplace and racialization of employment outcomes through tactics like encouraging journalists to report figures that compare outcomes for Whites and people of color. Create ways for effective engagement with the private sector to raise awareness of employment discrimination issues.
4.2	Create opportunities to combat implicit racial biases that are expressed in a myriad of ways including stereotyping of what leaders look like based on race, educational level, where they live, and how they present – as opposed to accepted norms. Raise awareness of organization cultural issues that foster discrimination and/or support implicit biases and create cultures that reward inclusion at all organizational levels and decision-making capacities.
4.3	Improve recruitment, hiring, retention, and advancement practices at all employers by encouraging recruitment from historically African American professional networks, educational institutions, and other networks of color, tracking racial information on applications and hire rates (to identify potential implicit biases), and encouraging stronger HR practices and organizational cultures that lead to and reward fair and equal advancement opportunities.
4.4	Give businesses of all sizes and sectors resources to ensure equal opportunities/reduce implicit racial biases.
4.5	Increase resources in under-resourced neighborhoods. This includes increasing resources available to underperforming schools, encouraging transit-oriented development to connect lower income neighborhoods with growing job centers, and increasing access to support resources such as post-incarceration job placement, affordable child care, affordable auto insurance for low-income families, mental health services and other resources.
4.6	Policies – including public policy, institutional policy, company policy – drive practices, resource allocations, and in many cases attitudes. We act according to policy. Evaluate, and when necessary change public and institutional policies that produce unintentional racialized outcomes or disproportionally affect immigrant or other vulnerable populations. Report outcomes disaggregated by race to show race-based, class-based, or other disproportionate impacts. Implement policies that guarantee equity in access to opportunity.
4.7	Reduce over-policing of African American and other communities of color that severely truncate job opportunities for men of color because of contact/convictions in the criminal justice system.
4.8	Afford more business opportunities – networking that leads to capital—for businesses owned by people of color. Statistics show that these businesses hire more African American workers, opening up greater workforce opportunity.

To monitor progress toward undermining structural racism, all indicators should be reported through a racial equity lens (or cross tab) that compares outcomes for Whites, Blacks, and other racial groups. Other measures to track the effectiveness of these action plans include:

- The number of employers, hiring managers, or others implementing improved hiring and HR practices.
- A geographic index or composite measure of resources available to communities including transit access, growing job centers, and support services.
- The number of news articles covering structural racism in the Baltimore Region (a measure of awareness).
- Growth in the number of minority-owned businesses.

In addition to these statistics, illustrative examples can provide evidence of change. Examples of positive changes to policies, practices, institutional cultures, and societal cultures that have promoted or supported structural racism and implicit biases against people of color should be tracked and reported.

STRATEGY 5:

Help People with a Criminal Record

Challenge: About one in five job seekers in the Baltimore Region report that they have a criminal record that is a barrier to employment. A criminal record is a permanent barrier to employment, precluding workers from attaining stable employment that greatly contributes to desistance from future crime.

A PERMANENT BARRIER TO EMPLOYMENT OPPORTUNITY

A criminal record effectively acts as a permanent barrier to employment opportunity, keeping many Baltimore Region residents from obtaining employment or advancing in their careers, regardless of their efforts to desist from crime, improve their education and skills, or otherwise improve their lives. At the same time, stable employment is an important predictor of successful post-incarceration re-entry,^{xxxviii} and is critical to successful desistance from crime. Unfortunately, formerly incarcerated people who have served their time face an extra set of punishments following their release, which are imposed through statutes imposing restrictions on people convicted of crimes. These "collateral consequences" create ongoing barriers to jobs, housing, benefits and voting and a recent study show that about 80 percent of the statutes operate as a denial of employment opportunities.^{xxxii} Communities in which a large percentage of men are incarcerated face the future collateral consequence of systemically low household income. Although these statutes serve necessary public safety purposes, new studies^{xi} have shown that once a person has avoided repeat offences for a certain period of time, the chances of being arrested for a new crime are substantially reduced. After this "point of redemption," a prior arrest no longer distinguishes an ex-offender from a similar person in the general population in terms of the risk of future criminal arrests.^{xii}

Despite recent EEOC guidance prohibiting the practice, some companies have formal or informal practices that include blanket no-hire policies for people with a criminal background, regardless of the type of conviction, when the offence happened, or the person's track record of change. The Region's workforce development managers report that many employers perform an online case search on applicants' criminal history that can show misdemeanors or non-convictions that "look like trouble" and effectively disqualify applicants. While non-convictions can be expunged from their record, felony convictions are ineligible for removal and remain on a person's record forever.

In the Baltimore Region, a criminal record can more substantially restrict an individual's access to opportunity due to the need for a security clearance for some of the region's best mid-skilled jobs. For instance, a criminal background can be an insurmountable barrier for a worker seeking a career in the transportation and logistics sector because many workers must obtain a federal Transportation Worker Identification Credential (TWIC) in order to gain access to the Port of Baltimore, BWI Airport, and other secure areas. Most workers with a felony conviction are not eligible for a TWIC card, effectively excluding them from employment at many businesses in this sector. While employers like Johns Hopkins Hospital operate long-established programs to hire formerly incarcerated people, many employers in the healthcare sector and other industries don't hire workers with a criminal history out of fear of negligent hiring lawsuits.

It is also important to note that criminal records disproportionately affect Blacks, and the problem is more rooted in structural racism than it is behavior. Drug-related convictions are an entry point to the criminal justice system for many non-violent offenders and arrests for marijuana possession in Maryland increased dramatically by 34% between 2001 and 2010. While Blacks and Whites use marijuana at comparable rates, between 2001 and 2010, the number of Black arrests increased by 5,614 — but White arrests increased by only 371. Arrests of Blacks for marijuana possession occurred at higher rates than Whites in every county in Maryland, regardless of the percentage of the county that is Black.^{xii} Targeted law enforcement in lower-income and other communities of color ensure over-representation of African Americans in the criminal justice system, truncating their future employment opportunities. To directly address this barrier to opportunity, multiple actions are needed. Intervention and diversion programs are needed to reduce incarceration, especially for young and first-time offenders. For incarcerated people, effective education and training services are needed behind the fence; transition programs should be strengthened; and Career Pathways programs should be developed to help people mitigate the negative effects of a criminal record and begin sustainable careers. For ex-offenders who have records that are eligible for expungement, more financial resources and technical assistance should be made available to remove non-convictions. Policy changes are needed to reduce racialization of the criminal justice system, to reduce the impact of collateral consequences where possible, and to reduce barriers created by collateral consequences, especially for jobs in sectors such as construction, healthcare and transportation and logistics. Finally, stronger incentives are needed to encourage businesses to hire formerly incarcerated workers.

STRATEGIES AND ACTION PLANS

Strategy 5: Strengthen and expand workforce development pathways for people with a criminal background; reduce the number of individuals entering the criminal justice system by addressing the factors that lead to crime; and create policies that serve to eliminate hiring biases against ex-offenders.

	ACTION PLAN
5.1	Make expungement a viable option for more ex-offenders, reducing criminal records as a barrier to employment. Improve education for individuals and service providers on the impact that a criminal conviction has on employability and job opportunity as well as valid options for expungement of records, where possible. Provide assistance services and financial resources to help eligible individuals complete the expungement process. Explore policy reform that could increase the availability of expungement to reduce this major barrier to work. (Expungement offers a way for some non-convictions and convictions to be removed from a person's criminal record, but can not remove many offences).
5.2	Promote and strengthen early intervention programs that reduce incarceration through diversion programs, particularly for young and first-time offenders.
5.3	Create stronger incentives to encourage businesses to hire formerly incarcerated workers.
5.4	Create career pathways that help people with a criminal record progress into a family-supporting career, by gaining skills, experience and credentials that mitigate the negative effects of a criminal background and support career mobility. Ensure that career pathways clearly lead to specific careers that are relevant based on the reason for incarceration (e.g. theft convictions are a major barrier for warehouse jobs but less so for construction jobs). Ensure that service providers have a clear understanding of the viable pathways.
5.5	Reevaluate policies that exclude workers with a criminal record from entering careers in construction, transportation and logistics, healthcare, and other industries.
5.6	Develop and implement transition programs that lead to smoother transitions back into the community and provide more education and training services behind the fence.
5.7	Implement strategies to reduce racialization of the criminal justice system.

The following measures will be tracked to monitor progress toward increasing resources available to people with a criminal record:

- The number of pre-release job training programs.
- The number of participants enrolled in pre-release job readiness or training programs.
- The number of job placements and employment rate for people with criminal records.
- The number of ex-offenders involved in skills or career training.
- The total number of expungements.

STRATEGY 6:

Stronger Resources

Maryland's new EARN grant program offers funding for industry-led training partnerships and the program is a step in the right direction. The Baltimore Region also benefits from a tremendous level of expertise in the field of social development and reduction of poverty; some of the nation's largest and best equipped workforce development organizations are located in the Baltimore Region, and these organizations are well equipped to work with sectors to implement dual-client partnerships that serve the needs of both employers and the needs of low-income adults. The region also benefits from a large network of charitable workforce development organizations that provide services ranging from basic services to well-developed Career Pathways. Still, despite these strengths, limited resources for workforce development can keep the region from implementing effective strategies and achieving the goal of increased access to opportunity for all.

Challenge: While trends show that more residents of the Baltimore Region are falling into poverty, the resources that are available to help workers to overcome barriers to employment opportunity are declining.

LIMITED AND DECLINING FINANCIAL RESOURCES FOR WORKFORCE DEVELOPMENT

Workforce organizations face limited and declining resources and without a means of accessing resources, it will be difficult to reverse the trend of more and more Baltimore Region residents falling into poverty. In Baltimore City, funding from the federal Workforce Investment Act (WIA) pays for the majority of services provided through the city's Employment One Stop Career Centers. This funding has declined by 52% between FY 2002 and FY 2012, dropping from \$13.7 million to \$6.6 million.^{xiii} Going forward, the Maryland Department of Labor, Licensing, and Regulation's workforce development budget is projected to experience a 1.1% decline from FY 2013–FY 2015^{xiiv} and beyond the EARN program, there are no significantly large state funds available from for new or expanded workforce development programs. Some of the most effective support programs serving low-income people are provided by charitable workforce development organizations like My Sister's Place Women's Center and Christopher's Place Employment Academy, but the costs of these services can be high, making expansion of services difficult.

On July 22, 2014, the Workforce Innovation and Opportunity Act (WIOA) was signed into law, reauthorizing WIA for six years, from 2015 through 2020. WIOA opens the door to states' greater use of sector partnerships and career pathway models and will likely create new opportunities to use federal funding to support the recommendations of this plan.

DIFFICULTIES COMBINING RESOURCES

In addition, the tools and resources that are available for workforce development have conflicting policy requirements that make them difficult to leverage together. Workforce development managers report that differences in eligibility requirements between WIA, Temporary Assistance Needy Families (TANF), Pell Grants, and other funding streams make it difficult to leverage multiple resources to help an individual. Stringent program requirements mean that participants must spend a significant amount of "agency time" going between different agencies in order to obtain the documentation (i.e. proof of age, social security number, proof of citizenship or a right to work, registration for selective service, and other documentation that is needed to qualify for services). Participants in the TANF program are effectively discouraged from making much progress in their career because if they earn above a threshold, they will lose some benefits that cannot be replaced by income they earn. The WIA regulations also make it difficult for workforce development organizations to serve people with multiple or severe barriers to employment.

STRONG RETURNS FOR WORKFORCE DEVELOPMENT, EDUCATION, AND TRAINING

Workforce development and increased educational attainment and training have been shown to bring strong economic benefits to the region. According to the American Community Survey, average earnings of Baltimore Region residents who have a high school diploma or GED increase from an average of \$23,425 per year to an average of \$33,665 per year. ** Recipients of customized training funded through the region's Workforce Investment Boards can experience a wage gain of \$3.55 for every \$1 invested in their training and a study of Baltimore City's Workforce Systems at Work found that, from a taxpayer's perspective, taxpayer-funded workforce training investment pays for itself within two to three years. According to the Maryland Association for Adult Community and Continuing Education, every dollar invested in adult education yields a return of \$3.15 to the Maryland economy in increased earnings within 18 months. The state invests about \$12 million in prison education and the decreases in recidivism saves the state about \$24 million per year, a \$2 return for every \$1 invested.*^{Wi} These and other studies have shown that from a cost-effectiveness and return on investment perspective, publically funded training and workforce development is a good investment. This investment is necessary for the region to make significant progress in reducing poverty and increasing access to opportunity.

STRATEGIES AND ACTION PLANS

Strategy 6: Increase the level of resources available to industry and workforce development organizations, technical assistance to small businesses, and capacity to help workers with multiple barriers to employment.

	ACTION PLAN
6.1	Expand the Maryland EARN Grant program or similar programs to create stronger relationships between employers in growth sectors and workforce development service providers.
6.2	Increase the level of need-based resources available to fund training and education leading to industry-recognized credentials that have labor market value.
6.3	Change policies to allow workforce development organizations to more effectively leverage multiple resources available to help individuals overcome barriers by aligning program requirements.
6.4	Increase resources to programs and service providers that combine basic skills education (math and reading), technical job skills training, and wrap-around support services.
6.5	Strengthen and expand the resources available for small business development and growth with a focus on increasing capacity and capability for entrepreneurs.

Four performance indicators will be tracked to measure progress toward strengthening resources for workforce development:

- The total financial resources allocated toward organizations that are leading implementation of industry-led partnerships.
- The number of service providers implementing the Career Pathways strategy.
- The number of low-wage workers/job-seekers connected to an on-ramp to a Career Pathway training program.
- The number of stakeholders participating in regional collaboration efforts for workforce development.

KEY PERFORMANCE INDICATORS TO MEASURE AND TRACK PROGRESS

ACTION AREA	INDICATORS
	Number of Industry-Led Partnership (ILPs) in each geographic area and key sector Number of career pathways participants
1. INDUSTRY-LED PARTNERSHIPS	Number of job placements
FOR WORKFORCE	Number of companies making hires
DEVELOPMENT	Average wages
	Average length of continuous employment
2. STRONGER BASIC SKILLS,	Educational attainment of the population at all levels, across the spectrum (High School/ABE, Associates Degree, Skilled Trades Certificate, Bachelors, etc.)
ABE, ESL, AND POST-	Number of successful graduates throughout the region's education and training programs
SECONDARY EDUCATION	Number of organizations using the Job Readiness Toolkit
EDUCATION	Number of individuals completing job readiness training
	Average transit commute time by geographic area
3. BETTER JOB	Percentage of jobs in key sectors that are within a mile of a transit stop
JOB-ACCESSIBLE HOUSING	Percentage of affordable housing within a mile of transit Percentage of households that meet the recommended affordability standard*
noosina	Affordable housing index near transit
	Accessibility of 39 occupations offering family supporting wages within a mile of transit.
	A racial equity lens (cross tab) for all indicators in order to compare outcomes for Whites, Blacks, and other racial groups
	Number of employers, hiring managers, or others implementing improved hiring and HR practices
4. UNDERMINING STRUCTURAL	Geographic index or composite measure of resources available to communities including transit access, growing job centers, and support services
RACISM	Number of news articles covering structural racism in the Baltimore Region (measure of awareness) Growth in minority-owned businesses
	Examples of changes to policies, practices, institutional cultures, and societal cultures that promote and support structural racism and implicit biases against people of color.
5. BETTER	Number of pre-release job training programs. Number of participants enrolled in pre-release job readiness or training programs
RESOURCES FOR PEOPLE WITH	Number of job placements and employment rate for people with criminal records
CRIMINAL RECORDS	Number of ex-offenders involved in skills or career training
	Total number of expungements
	Total financial resources allocated toward organizations that are leading implementation of industry-led partnerships
6. STRONGER RESOURCES	Number of service providers implementing the Career Pathways strategy
RESUURCES	Number of low-wage workers/job-seekers connected to an on-ramp to a Career Pathway
	Number of stakeholders participating in regional collaboration efforts for workforce development

OPPORTUNITIES FOR LEADERSHIP

The Baltimore Region's poverty problems and barriers to employment opportunities are rooted in deep, structural issues that do not change easily. As the region's industry base continues to evolve, there are a growing number of economic opportunities, but hard work will be needed to provide the region's disadvantaged populations with access to these opportunities. To facilitate alignment of resources, increase coordination of efforts, and encourage enduring and focused leadership, the Workforce Development Committee of the Opportunity Collaborative has identified strategic opportunities for the region's diverse workforce development stakeholders to take up leadership positions to implement the strategies and action plans in this strategic plan.



STAKEHOLDERS AND POTENTIAL ROLES

TABLE 5 KEY WORKFORCE DEVELOPMENT STAKEHOLDERS IN THE BALTIMORE REGION

Government and Related Stakeholders

Key government stakeholders that play a direct role in workforce development include:

- The Baltimore Metropolitan Council (BMC)
- The Maryland Department of Labor and Licensing (DLLR)
- Workforce Investment Boards (WIBs) throughout the Baltimore Region
- The Department of Business and Economic Development (DBED) and the local economic development corporations (EDCs) throughout the region
- The Department of Human Services (DHS) and the county and city departments of social services (DSSs)
- Elected officials

In addition, other government entities such as the Maryland Department of Transportation (MDOT), the Maryland Transit Administration (MTA), the Maryland Department of Housing and Community Development, and other government organizations play enabling and supporting roles in workforce development.

Starting in 2015, the Baltimore Metropolitan Council (BMC) will take on a mandate to coordinate workforce development in the Baltimore Region. As the lead metropolitan planning council, the BMC brings expertise, capacity, and a depth of knowledge on related issues of transportation and housing development. The BMC's role may also encompass tracking of key performance indicators to provide ongoing feedback on progress toward the goals and action plans in this Strategic Plan.

Education and Training Stakeholders

The region's key stakeholders in education include K–12 school systems, apprenticeship training programs, colleges and universities throughout the region, and occupational training providers. Occupational training providers include several types of organizations that provide pre-employment occupational skills training. It includes jobs skills training organizations that provide occupation-specific skills (e.g. nurse training, biotechnican training, etc.) and also includes the Maryland private career schools.

Service Providers

Service providers include programs operated by governments, non-profit organizations and other groups that provide job readiness training and wrap-around support services that help low-skilled adults to enter and progress in jobs and careers. Key players include the One-Stop Career Centers, job training organizations, providers of adult basic education (ABE) or English as a second language (ESL) services, and human services providers.

Other Stakeholders

Other stakeholders in the workforce development system include:

- Business and professional organizations that provide career development and advancement support.
- Faith-based and community organizations that can provide a variety of support services, education and training services, job placement, and other services.
- Unions that provide a variety of educational, skills training, and other support services to workers.
- Policymakers and policy influencers which include advocacy groups.
- Philanthropic organizations that provide funding and technical assistance for workforce development.

IMPLEMENTATION LEADERSHIP - A CALL TO ACTION

Leadership for implementation of the plan will be coordinated by the Baltimore Metropolitan Council and will be supported through leadership provided by the Baltimore Region's Workforce Investment Boards, the Maryland Department of Labor, Licensing and Regulation (DLLR), The Central Maryland Transpiration Alliance (CMTA), the Citizen's Planning and Housing Association (CPHA), The Job Opportunities Task Force (JOTF), Associated Black Charities (ABC), the Baltimore Area Workforce Funders Network, and the Governors Workforce Investment Board (GWIB) (See Table 6).

ACTION AREA	STRATEGY	KEY LEADERSHIP
1. INDUSTRY-LED PARTNERSHIPS FOR WORKFORCE DEVELOPMENT	Implement industry-led sector strategies for workforce development and offer a broader menu of pathways into family supporting careers. Increase the competitiveness of industry sectors with effective training and credentialing that make use of stackable, industry-valued credentials that lead to careers that pay family-sustaining wages with benefits.	Workforce Investment Boards and Maryland DLLR EARN Program
2. STRONGER BASIC SKILLS, ABE, ESL, AND POST-SECONDARY EDUCATION	Increase the availability, awareness, and completion of Adult Basic Education (ABE), ESL, and GED preparation courses and continuance into skills training and higher education.	Department of Labor, Licensing and Regulation (DLLR)
3. BETTER JOB TRANSPORTATION AND JOB-ACCESSIBLE HOUSING	Improve transportation access and connections between low-income neighborhoods and high-growth job centers as well as aligning affordable housing and jobs.	Central Maryland Transportation Alliance (CMTA) and Citizen's Planning and Housing Association (CPHA)
4. UNDERMINING STRUCTURAL RACISM	Eliminate policies, practices, and institutional cultures that promote and support structural racism and implicit biases against people of color. Work to change societal cultures that promote and support the same.	Associated Black Charities (ABC)
5. BETTER RESOURCES FOR PEOPLE WITH CRIMINAL RECORDS	Strengthen and expand workforce development pathways for people with a criminal background; reduce the number of individuals entering the criminal justice system by addressing the factors that lead to crime; and create policies that serve to eliminate hiring biases against ex-offenders.	Job Opportunities Task Force (JOTF) and Associated Black Charities (ABC)
6. STRONGER RESOURCES	Increase the level of resources available to industry and workforce development organizations, technical assistance to small businesses, and capacity to help workers with multiple barriers to employment.	Baltimore Area Workforce Funders Network, JOTF and Governor's Workforce Investment Board (GWIB)

TABLE 6 KEY LEADERSHIP FOR PLAN IMPLEMENTATION

The Workforce Development Committee extends an invitation to all workforce development stakeholders across the Baltimore Region to determine how their organization can play a role in the plan's implementation. Most of the recommended action plans are broad, providing organizations with considerable latitude to choose detailed approaches that suit their resources, goals, and existing programs. By making a leadership commitment to implement a portion of the plan, organizations show their commitment to cooperation and the shared vision of a future Baltimore Region in which fair and equal opportunities are available to all. As a starting point, the committee has identified the types of organizations that are best suited to take a leadership role for each of the action plans identified in this plan (See Table 7, following pages). Stakeholders are encouraged to contact BMC to learn how they can become involved in the implementation of the plan.

1.1	Increase the number of industry-led partnerships for workforce development, especially in sectors offering career ladders into family-supporting jobs. Ensure that more people are trained in good programs that are aligned to industry needs.
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1.2	Prioritize programs that emphasize credentialing , in particular programs that provide stackable industry-valued credentials and lead to careers that pay family sustaining wages with benefits.
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1.3	Implement an effective "dual-customer" approach in industry-led partnerships that fully addresses (1) the HR needs of employers for recruitment, retention, skills acquisition, and talent development as well as (2) the needs of workers for skills training, career mobility, wrap-around support services, and other needs.
•••••	
1.4	Create a shared understanding among all workforce development stakeholders of the existing career pathways available to low-skilled adults including on-ramps and steps to progress into family-supporting careers. Ensure that the same understanding is shared by workforce development organizations, colleges and universities, employers, community groups, job seekers, and industry associations.
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1.5	Leverage the industry-led partnerships to attract more businesses to the Baltimore Region, including businesses that create mid-skilled jobs that pay a family-supporting wage.
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1.6	Implement economic development policies that favor businesses which offer career laddering and advancement opportunity and favor industries that offer high paying mid-skilled jobs. Encourage employers to implement career laddering that helps low-wage/low-skilled workers move into higher-level positions through mentorship and other effective approaches.
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2.1	Increase the number of ABE/ESL slots available by: (1) implementing policy change to effectively increase funding to high schools to implement GED programs by allowing them to count young adults enrolled in GED classes as part of their FTE or (2) increasing the level of funding available to existing ABE providers such as community colleges in order to increase the number of people who have access to ABE.
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2.2	Explore and evaluate alternative approaches to increase the number of ABE/ESL slots available (i.e. Washington D.C. has created adult education charter schools which serve students ages 16 and up and provide a combination of basic adult education to prepare for the GED while concurrently providing job skills training and support services that increase student success).
•••••	
2.3	Implement reforms to traditional developmental education and ABE/ESL programs so that they include accelerated cohort models, more contextualized learning opportunities, and hybrid instructional models that are aligned with or imbedded in the work of the industry partnerships. (Examples: BTI's BioStart program teaches basic skills in a Biotech lab setting with practical learning experiences; the ACE Program (MI-BEST) provides integrated basic skills courses alongside sector-targeted skills classes at community colleges.)

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2.4	Increase collaboration and funding to provide comprehensive academic and social student supports to low income students (e.g., tutoring, child care, transportation, access to public benefits, and subsidized jobs).
2.5	Monitor the outcomes of the new General Educational Development (GED) exams and take appropriate action to ensure that the new exam format, cost, and level of rigor is appropriate without creating new barriers for low skilled adults. This can include monitoring how the exam works and the results as well as alternatives that other states embrace (e.g. external diploma, certificate, GED equivalent, competency profiles).
2.6	Institutionalize the usage of the Opportunity Colllaborative's Job Readiness Toolkit (Essential Skills Standards)
-	alongside ABE and other training across the region and increase recognition of the qualification.
2.7	Increase successful transition from basic adult education and high school through college education or career training, ensuring that more residents achieve higher education leading to better paying jobs.
2.8	Support the efforts of the school system and community organizations to improve math and reading skills at the K-12 level. Ensure high academic achievement in the K-12 system.
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2.9	Consider and implement strategies to improve career outcomes at the K-12 level. This could include approaches such as (1) mentorship by business community at an early age (elementary school) to build awareness of jobs and career pathways to develop skills for those jobs; (2) apprenticeship programs starting in middle school; (3) after school "camps" that are skill/industry focused (Example: Digital Harbor Foundation after-school program; (4) new/reintroduced and expanded career and technology pathway programs that address specific high-growth industry needs; and (5) expanded job shadowing and internships for high school students.
2.10	Positively influence a solid alignment of the K-12 system with the goals and strategies of the workforce plan.
3.1	Strengthen programs that provide low-income adults with access to a vehicle.
3.2	Change policies that make driving difficult for low-income families by mitigating the cost of mandatory driver's education and high cost of insurance particularly in urban areas.
3.3	Consider adjustments to public transit services to increase connectivity of public transportation between low-income neighborhoods and job centers, including at off-peak times.
3.4	Encourage collaboration among MTA, BMC, BRTB, WIBs, and businesses to take an active coordinating role in implementing programs to transport workers to jobs.
	Adopt land use and transit-oriented development policies to encourage new job centers and housing located and
3.5	designed to support convenient transit, walking and bike access.
3.6	Implement strategies for better transportation to and from training centers.
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3.7	Encourage MDOT and BRTB to make more extensive use of federal programs to support industry programs to transport people to jobs.

TABLE 7 OPPORTUNITIES FOR STAKEHOLDERS TO TAKE LEADERSHIP (CONTINUED)

GOVERNMENT		ED. & TRAINING		INFLUENCERS	SERVICE PROVIDERS
DLLR DBED/EDCs WIBS BMC	ELECTED OFFICIALS DHR/DSSs	K12 APPRENTICE UNIV./COLLEGE	PCS/TRAINING POLICY	UNIONS PHILANTHROPY BUSINESS ORG. FAITH BASED COMMUNITY ORGS.	HUMAN SERVICES JOB TRAINING ABE/ESL ONE STOP EMPLOYERS
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3.8	Increase availability of bike lanes, sidewalks, and other modes of transportation to ensure last-mile connectivity between public transit systems and employment centers.
3.9	Create awareness and increase knowledge for economic development professionals and industry leaders of the importance of transit access relevant to the importance of attracting a reliable workforce.
4.1	Foster a higher awareness of racial disparities in the workplace and racialization of employment outcomes through tactics like encouraging journalists to report figures that compare outcomes for whites and people of color. Create ways for effective engagement with the private sector to raise awareness of employment discrimination issues.
4.2	Create opportunities to combat implicit racial biases that are expressed in a myriad of ways including stereotyping of what leaders look like based on race, educational level, where they live, and how they present – as opposed to accepted norms. Raise awareness of organization cultural issues that foster discrimination and/or support implicit biases and create cultures that reward inclusion at all organizational levels and decision-making capacities.
4.3	Improve recruitment, hiring, retention, and advancement practices at all employers by encouraging recruitment from historically African American professional networks, educational institutions, and other networks for people of color, tracking racial information on applications and hire rates (to identify potential implicit biases), and encouraging stronger HR practices and organizational cultures that lead to and reward fair and equal advancement opportunities.
4.4	Give businesses of all sizes and in all sectors the resources to ensure equal opportunities and reduce implicit racial biases.
4.5	Increase resources in under-resourced neighborhoods. This includes increasing resources available to underper- forming schools, encouraging transit-oriented development to connect lower income neighborhoods with growing job centers, and increasing access to support resources such as post-incarceration job placement, affordable child care, affordable auto insurance for low-income families, mental health services and other resources.
4.6	Policies – including public policy, institutional policy, company policy – drive practices, resource allocations, and in many cases attitudes. We act according to policy. Evaluate and when necessary change public and institutional policies that produce unintentional racialized outcomes or disproportionally affect immigrant or other vulnerable populations. Report outcomes disaggregated by race to show race-based, class-based, or other disproportionate impacts. Implement policies that guarantee equity in access to opportunity.
4.7	Reduce over-policing of African American and other communities of color that severely truncate job opportunities for men of color because of contact/convictions in the criminal justice system.
4.8	Afford more business opportunities – networking that leads to capital—for businesses owned by people of color. Statistics show that these businesses hire more African American workers, opening up greater workforce opportunity.
4.9	Make expungement a viable option for more ex-offenders, reducing criminal records as a barrier to employment.
TABLE	7 OPPORTUNITIES FOR STAKEHOLDERS TO TAKE LEADERSHIP (CONTINUED)

GOVERNMENT	ED. & TRAINING	INFLUENCERS	SERVICE PROVIDERS
DLLR DBED/EDCs WIBS BMC	ELECTED OFFICIALS DHR/DSSs K12 APPRENTICE UNIV./COLLEGE	PCS/TRAINING POLICY UNIONS PHILANTHROPY BUSINESS ORG. FAITH BASED COMMUNITY ORGS.	HUMAN SERVICES JOB TRAINING ABE/ESL ONE STOP EMPLOYERS
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5.1	Improve education for individuals and service providers on the impact that a criminal conviction has on employability and job opportunity as well as valid options for expungement of records, where possible. Provide assistance services and financial resources to help eligible individuals complete the expungement process. Explore policy reform that could increase the availability of expungement to reduce this major barrier to work. (Expungement offers a way for some non-convictions and convictions to be removed from a person's criminal record, but can not remove many offences).
5.2	Promote and strengthen early intervention programs that reduce incarceration through diversion programs, particularly for young and first-time offenders.
5.3	Create stronger incentives to encourage businesses to hire formerly incarcerated workers.
5.4	Create career pathways that help people with a criminal record progress into a family-supporting career, by gaining skills, experience and credentials that mitigate the negative effects of a criminal background and support career mobility. Ensure that career pathways clearly lead to specific careers that are relevant, based on the reason for incarceration (e.g. theft convictions are a major barrier for warehouse jobs but less so for construction jobs). Ensure that service providers have a clear understanding of the viable pathways.
5.5	Reevaluate policies that exclude workers with a criminal record from entering careers in construction, transportation and logistics, healthcare, and other industries.
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5.6	Develop and implement transition programs that lead to smoother transitions back into the community and provide more education and training services behind the fence.
5.7	Implement strategies to reduce racialization of the criminal justice system.
6.1	Expand the Maryland EARN Grant program or similar programs to create stronger relationships between employers in growth sectors and workforce development service providers.
6.2	Increase the level of need-based resources available to fund training and education leading to industry-recognized credentials that have labor market value.
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6.3	Change policies to allow workforce development organizations to more effectively leverage multiple resources available to help individuals overcome barriers by aligning program requirements.
6.4	Increase resources to programs and service providers that combine basic skills education (math and reading), technical job skills training, and wrap-around support services.

TABLE 7 OPPORTUNITIES FOR STAKEHOLDERS TO TAKE LEADERSHIP (CONTINUED)

GOVERNMENT	ED. & TRAINING	INFLUENCERS	SERVICE PROVIDERS
DLLR DBED/EDCs WIBS BMC	ELECTED OFFICIALS DHR/DSSs K12 APPRENTICE UNIV./COLLEGE	PCS/TRAINING POLICY UNIONS PHILANTHROPY BUSINESS ORG. FAITH BASED COMMUNITY ORGS.	HUMAN SERVICES JOB TRAINING ABE/ESL ONE STOP EMPLOYERS
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BALTIMORE REGIONAL WORKFORCE VISION

People in the Baltimore Region will have more opportunities to attain family supporting careers and experience fewer barriers to employment opportunity. As a result of a higher-skilled workforce, the region will experience increased economic competitiveness and create a better quality of life for all people.

END NOTES

- i American Community Survey 2011, 5-Year Estimates
- ¹¹ The Ascent of America's High Growth Companies: Insights from Examining 30 Years of Inc. 500 Firm Data, Kauffman Foundation (Motoyama and Danley, 2012)
- Current Population Statistics 2012 for Baltimore City, Baltimore County, Anne Arundel County, Harford County, Howard County, and Carroll County, US Census Bureau
- ^{iv} Distribution and Logistics in Greater Baltimore, Economic Alliance of Greater Baltimore. Last Accessed July 2014 at http://www.ccgov.org/uploads/ EconomicDevelopment/DistributionImpactReport.pdf
- Maryland has the highest median household income in the United States. Statistical Abstract of the United States, US Census Bureau.
- ^{vi} Port of Baltimore Foreign Commerce Statistical Report 2013. Last Accessed July, 2014 at http://www.mpa.maryland.gov/_media/client/cargo/cargo_
- statistics/2013FCSR.pdf
- vii Airports Council International, Airport Traffic Report 2013
- viii See Port of Baltimore Seeks Boost from Panama Canal Expansion, NPR 5-6-2013. Last Accessed October 2014 at http://www.kpbs.org/news/2013/may/06/port-ofbaltimore-seeks-boost-from-panama-canal/
- ^{ix} These institutions include Mercy Health, St. Agnes HealthCare, Kennedy Krieger Institute, Veterans Health Administration, FutureCare, Anne Arundel Health System, University of Maryland Baltimore Washington Medical Center, GBMC HealthCare, MedStar Franklin Square Medical Center, University of Maryland St. Joseph Medical Center, Sheppard Pratt Health System, LifeBridge Health, HCR ManorCare, Carroll Hospital Center, Lorien Health Systems, and Howard County General Hospital.
- * The region is home to federal offices of the Federal Reserve Bank 5th Federal Reserve District, the General Services Administration, the National Labor Relations Board, the Office of Personnel Management, US Department of Agriculture, US Commerce Department, the National Institute of Health, the Food and Drug Administration, the US Department of Homeland Security, the US Department of Housing and Urban Affairs, US Department of the Interior, US Department of Justice, US Department of Labor, US Department of Treasury, and other agencies.
- xⁱ National Science Foundation, Science and Engineering Indicators 2014 (appendix table 4-11, U.S. research and development expenditures, by state, performing sector, and source of funding, 2010; accessed March 4, 2014), http://www.nsf.gov/statistics/seind14/index.cfm/appendix/tables.htm
- xiii National Science Foundation, Science and Engineering Indicators 2014 (appendix table 4-11, U.S. research and development expenditures, by state, performing sector, and source of funding, 2010; accessed March 4, 2014), http://www.nsf.gov/statistics/seind14/index.cfm/appendix/tables.htm
- xiii Source: PricewaterhouseCoopers MoneyTree Survey Report
- xiv Cybersecurity Profile, Economic Alliance of Greater Baltimore
- ∞ Gaming Profile, Economic Alliance of Greater Baltimore
- xvi STP@Johns Hopkins http://www.scienceparkjohnshopkins.net
- ***i Baltimore's Inner Harbor: Economic Impact, Importance, and Opportunities for Investment (Waterfront Partnership of Baltimore, 2013). Last Accessed July 2014 at http://waterfrontpartnership.org/pdf/Economic-Impact-Study.pdf
- xwiii Downtown Baltimore: It's Impact on the City Economy (Downtown Partnership, 2010). Last Accessed July 2014 at http://www.godowntownbaltimore.com/ Publications/Econ_Impact_new.pdf
- xix Putting Baltimore's People First (2004)
- x Assessing the Gaps (Abell Foundation). Last Accessed July, 2014 at http://www.abell.org/pubsitems/cd_assessing_the_gap.pdf
- xxi See Living Wage Calculator, MIT's Living Wage Project. The living wage for a single adult with one child living in Baltimore city is \$22.88 (Glasmeier, 2013), last accessed at http://livingwage.mit.edu/counties/24510
- xii Discussions with regional healthcare employers, however, revealed that some of the top mid-skilled jobs in the sector such as registered nurses (RNs) are being replaced with demand for higher skilled workers with a Bachelors of Science in Nursing (BSN).

- x See Job Training that Works, Public/Private Ventures (2009). Last Accessed September, 2013 at http://www.insightcced.org/uploads/nnsp/job-training-that-works.pdf
- xxiv See Career Pathways in the Transportation and Logistics Sector in the Baltimore Region, 2014
- xxv See Baltimore Region Talent Development Pipeline Study (Opportunity Collaborative, 2013)
- xxvi American Community Survey
- xxvii See Barriers to Employment Opportunity in the Baltimore Region, Survey of Job Seekers
 xxvii Success Stories of Employer-Sponsored Transportation Programs. Last Accessed December 2013 at
- http://www.ctaa.org/webmodules/webarticles/articlefiles/SuccessStoriesEmpTranspPrograms.pdf
- xxix See regional transportation and housing plans
- *** America's Growth Model
- xxxi See The Maryland War on Marijuana in Black and White, ACLU
- xxxii See EEOC African American Workgroup Report (2012), Last Accessed December 2013 at http://www.eeoc.gov/federal/reports/aawg.cfm
- xxxiii Source: The Mark of a Criminal Record, American Journal of Sociology (Pager, Volume 108 Number 5 (March 2003): pg. 937). Note: Figures are based on surveys in the Midwest but results have been reproduced in subsequent studies in other states.
- xxxx See EEOC African American Workgroup Report (2012), Last Accessed December 2013 at http://www.eeoc.gov/federal/reports/aawg.cfm
- **** The National Housing Act of 1938 tied property value and eligibility for loans to race. As a result, between 1934 and 1962, less than two percent of government-subsidized housing went to non-white people. See The "Morphing" Properties of Whiteness (Duster, Troy); "Where Race Lives", Race: The Power of an Illusion, PBS, 2003

xxxxi See Opportunity Mapping for the Baltimore Regional Plan for Sustainable Development for detailed maps on access to opportunity and see Race Policy and Power: Dismantling Structural Racism, Grassroots Policy Project for a more complete discussion of geography, social conditions and race.

- xxxvii See The Maryland War on Marijuana in Black and White, ACLU
- xxxxiii "Ex-Offender Employment Programs and Recidivism: A Meta-Analysis," (Visher, et al), Journal of Experimental Criminology 1 (2005): 295–316.
- ***** "Adult Collateral Consequences Project" Exit Notice, (July 2011), American Bar Association
- Blumstein, Alfred, and Kiminori Nakamura, "'Redemption' in an Era of Widespread Criminal Background Checks", NIJ Journal 263 (June 2009): 10–17
 See The New Scarlet Letter?: Negotiating the U.S. Labor Market with a Criminal Record (Raphael, 2014). Last Accessed October, 2014 at http://www.upjohn.org/
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- xlii See The Maryland War on Marijuana in Black and White, ACLU
- xiii See Investing in Baltimore's Workforce: Leveraging Opportunity and Moving to Scale, March 2012, Job Opportunities Task Force, Baltimore Integration Partnership. Last Accessed December 2013 at http://www.jotf.org/Portals/0/jotf/publications/Issue%20Brief%20March%202012%20final%20for%20web(2).pdf
- xiv See Budget Projection at http://mgaleg.maryland.gov/pubs/budgetfiscal/2015fy-budget-docs-operating-P00-DLLR-Workforce-Development.pdf
- xlv American Community Survey, 2007–2011 5-year estimates
- ^{xwi} Career Development Services Within Maryland Correctional Educational Facilities (Bailey). Last Accessed July 2014 at http://www.ncda.org/aws/NCDA/pt/sd/news_article/5229/blank/blank/true

Opportunity Collaborative For a Greater Baltimore Region.

CONSORTIUM MEMBERS ·

City of Annapolis • Anne Arundel County • Annie E. Casey Foundation • Associated Black Charities • Baltimore City • Baltimore County • Baltimore Integration Partnership • Baltimore Metropolitan Council • Baltimore Neighborhood Collaborative • Baltimore Regional Transportation Board • Citizens Planning & Housing Association, Inc. • Baltimore Regional Initiative Developing Genuine Equality (BRIDGE) • Central Maryland Transportation Alliance • Enterprise Community Partners • Greater Baltimore Committee • Innovative Housing Institute • Harford County • Howard County • Maryland Department of Housing and Community Development • Maryland Department of Planning • Maryland Department of Transportation • Maryland Sustainable Growth Commission • Morgan State University • University of Maryland National Center for Smart Growth • 1,000 Friends of Maryland

