



Phase II. Maryland Cyber Workforce Solutions—*Overarching Narrative*

**U.S. Department of Commerce
U.S. Economic Development Administration
FY 2021 American Rescue Plan Act
Build Back Better Regional Challenge
Notice of Funding Opportunity**

Funding Opportunity No. EDA-HDQ-ARPBBS-2021-2006976

Submitted to:

U.S. Department of Commerce
U.S. Economic Development Administration
1401 Constitution Avenue NW
Suite 71014
Washington, DC 20230

Submitted by:

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March 15, 2022

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March 15, 2022

U.S. Department of Commerce
U.S. Economic Development Administration
1401 Constitution Avenue NW, Suite 71014
Washington, DC 20230

**Subject: Maryland Cyber Workforce Solutions for Build Back Better Regional Challenge (BBBRC)
Notice of Funding Opportunity (NOFO)**

Dear Sir or Madam,

Howard County Economic Development Authority (HCEDA) is pleased to submit the overarching narrative for our region's BBBRC Phase 2 grant proposal. Maryland is the nation's cybersecurity capital, and the **Maryland Cyber Workforce Solutions (Solutions)** region is at its center. The region is rich with cybersecurity organizations of all sizes and focuses. Demand for cybersecurity talent in Maryland is high, supply is low, and the cybersecurity field has 23,215 job openings. Therefore, our targeted growth cluster is cybersecurity, a rapidly growing field that affects all industries and national defense. Our vision leverages industry demands and aligns the assets of the cybersecurity community to drive economic prosperity and employment opportunities for regional residents, employers, entrepreneurs, and jobseekers. **Solutions** aligns our proposed offering to three U.S. Economic Development Administration (EDA) priorities: equity, workforce development, and technology-based economic development.

Our overarching concept incorporates five interrelated and interdependent component project proposals: (1) providing governance of the overall project, (2) removing barriers to expand entry into the cybersecurity industry and publicizing opportunities to build a robust pipeline to fill cybersecurity job openings, (3) applying a broad array of work-based learning approaches, (4) providing experiential learning through state-of-the-art cyber ranges, and (5) identifying emerging employer cybersecurity workforce demands, funding and deploying solutions, and independently evaluating their impact and outcomes.

HCEDA is the **Solutions** lead. Participating jurisdictions include Anne Arundel County, Baltimore City, Baltimore County, Carroll County, Charles County, Harford County, Howard County, Frederick County, Montgomery County, and Prince George's County. The balance of Maryland jurisdictions will join over time. **Solutions** is driven by a governance committee of regional leaders. Project implementation will be overseen by the governance committee, HCEDA, and the project management team. Performance metrics that measure **Solutions'** outcomes and impact on Maryland's employers, jobseekers, and employees include growth in diversity, equity, inclusion, employment, retention, advancement, wages, wage gains, and Gross Domestic Product.

Thank you in advance for your time and consideration of our **Solutions'** proposal.

Sincerely,

Lawrence Twele
Chief Executive Officer

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1 Overarching Narrative

1.1 Synopsis

Regional Growth Cluster

Maryland is the nation’s cybersecurity capital, and the Maryland Cyber Workforce Solutions (**Solutions**) region is at its center. The region is rich with cybersecurity organizations of all sizes and focuses. Demand for talent is high, supply is low, and the cybersecurity field has more than 23,215 job openings. Therefore, our *targeted regional growth cluster* is cybersecurity, a rapidly growing field that affects all industries. Our *vision* leverages industry demands and aligns the cybersecurity community’s assets to drive economic prosperity and employment opportunities for residents, employers, entrepreneurs, jobseekers, and employees. **Solutions** aligns to three U.S. Economic Development Administration (EDA) priorities: equity, workforce development, and technology-based economic development. Participating Maryland jurisdictions include Baltimore City and the following counties: Anne Arundel, Baltimore, Carroll, Charles, Harford, Howard, Frederick, Montgomery, and Prince George’s. The balance of the state will join over time. **Solutions** is driven by a governance body of regional leaders with input from coalition members and additional partners. Performance metrics that measure **Solutions’** outcomes and impact on Maryland’s employers, jobseekers, and employees include growth in diversity, equity, inclusion, employment, retention, advancement, wages, wage gains, and Gross Domestic Product. Howard County Economic Development Authority (HCEDA) is the eligible grant recipient leading **Solutions**.

Coalition Members

Exhibit 1 describes Coalition membership and additional partners that comprise **Solutions** as of the proposal’s due date.

Exhibit 1: Solutions Coalition Membership and Additional Partnerships

Coalition Members by Eligibility Category	Total	%
District Organization	0	0%
Indian Tribe or a consortium of Indian Tribes	0	0%
State, county, city, or other political subdivision of a State, including a special purpose unit of a State or local government engaged in economic or infrastructure development activities, or a consortium of political subdivisions	35	35%
Institution of higher education or a consortium of institutions of higher education	21	21%
Public or private non-profit organization acting in cooperation with officials of a political subdivision of a State.	4	0%
Additional Partners by Category		
Employers	19	19%
Nonprofit / Community Based Organizations	17	17%
Philanthropists	2	2%
Proprietary organizations such as specialty training, media and communications expertise	2	2%
Total	100	100%

Component Projects

Solutions incorporates five interrelated component projects: (1) providing governance of the project, (2) removing barriers to expand entry into the cybersecurity industry and publicizing opportunities to build a robust pipeline to meet employer demand, (3) applying an array of work-based learning capabilities, (4) providing experiential learning through state-of-the-art cyber ranges, and (5) identifying emerging employer occupational demands, deploying solutions, and evaluating results. When successful, the five interrelated component projects will address employer cybersecurity workforce demands and create a more diverse, equitable, and inclusive cybersecurity workforce.

Local Comprehensive Economic Development Strategy (CEDS)

In conjunction with the Maryland Department of Commerce, the Maryland Economic Development Commission (MEDC) is responsible for creating Maryland’s *comprehensive economic development*



strategy to grow, attract, and retain businesses and jobs. MEDC’s strategic plan cites **cybersecurity** as a targeted industry cluster. Relevant for our project, MEDC’s plan describes the **need to foster, energize, and promote robust cybersecurity education, training, and workforce development solutions**. The 2019 addendum to the state’s plan cites the need for Maryland’s economic development strategy to advance “**prosperity with a purpose**” and use “the tools of economic development to create and support prosperity, job creation and business growth in Maryland, the ultimate goal is to empower the people who work in the state to build better lives for themselves and their families.” Maryland’s economic development strategy reinforces **Solutions’** goals of applying employer-driven, community-based, outcomes-focused workforce solutions, which create a more diverse, equitable, and inclusive cybersecurity workforce.

Complementary Initiatives

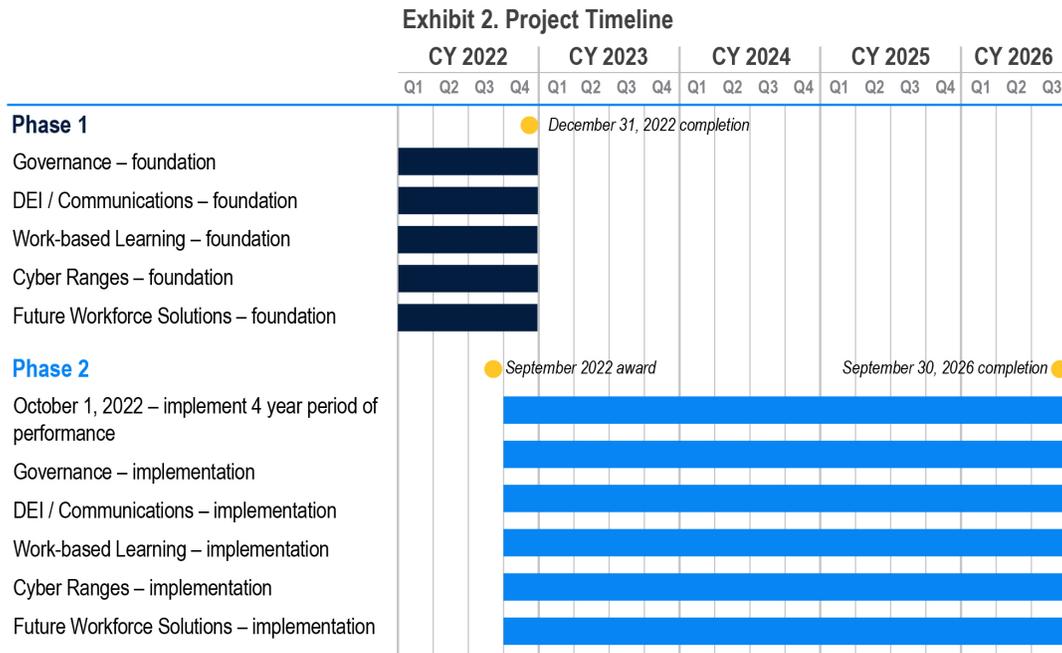
Solutions is a program managed and overseen by HCEDA. Over the project’s 4-year, grant-funded period of performance, HCEDA will establish a public private partnership (P3) subsidiary so **Solutions** can be scaled up and replicated beyond the initial region. Our vision is to transition **Solutions** across the entire state of Maryland—from the Appalachian Mountains of western Maryland to the urban landscape of Baltimore City to the rural farms of the Eastern Shore, the entire Mid-Atlantic region of Maryland, Virginia, Washington, DC, and ultimately, communities across the nation. Achieving our vision will ensure the economic benefits of the project are shared with all communities, specifically underserved communities.

Metrics

Solutions’ metrics over the period of performance include four components: (1) meeting employers’ cybersecurity workforce demands; (2) meeting employers’ demands by leveraging greater diversity, equity, and inclusion in the cybersecurity workforce; (3) increasing participants’ employment, employment retention, employment advancement, wages, and wage gains; and (4) increasing the region’s Gross Domestic Product.

Timeline

The timeline of **Solutions’** implementation is described in **Exhibit 2**.



1.2 Description of Project’s Location and Region

As required in the Notice of Funding Opportunity (NOFO), the **Solutions** region includes Anne Arundel County (Federal Information Processing Standards [FIPS] 24003), Baltimore City (FIPS 24510), Baltimore County (FIPS 24005), Carroll County (FIPS 24011), Charles County (FIPS 24017), Harford County (FIPS 24025), Howard County (FIPS 24027), Frederick County (FIPS 24021), Montgomery County (FIPS 24031), and Prince George’s County (FIPS 24033). Identification of congressional districts is required in the NOFO, and our region includes all eight of Maryland’s congressional districts (MD-All).

Exhibit 3 demonstrates that the region is rich with cybersecurity organizations and assets of all sizes and focuses. Demand for cybersecurity talent in Maryland is high, supply is low, and the cybersecurity field has more than 23,215 job openings.

Exhibit 3: Estimated Cybersecurity Workforce for the Solutions Region

Cybersecurity Workforce	Total
Estimated Cybersecurity Employment 2021	41,792
Projected Cybersecurity Employment 2031	54,391
Unique Job Openings (Postings) from January 2021 to January 2022	23,215
Cybersecurity Projected Additional Average Annual Openings (2021–2031)	4,681
Cybersecurity Program Completions 2020	3,547
Total Computer Science Completions (including cybersecurity) 2020	8,831

1.3 Overview of Expected Participation from Private Sector Entities

As of the proposal submission date, there are 18 private and one public sector employer engaged with **Solutions**: AT&T Public Sector, Atlantic Data Forensics, Baltimore Gas & Electric, BTS Solutions, CareFirst, Catalyte, Cybrary, Edwards Performance Solutions, Ellin & Tucker, ICF Incorporated, L.L.C., IntelliGenesis, Interclypse, LifeBridge Health, M&T Bank, STEER, TeamWorx Security, Tenable, Under Armour, and U.S. Army Capabilities Command.

Exhibit 4 is a summary of employer hiring and training commitments as of the date of submission. Between April and September 2022, **Solutions** will aggressively market our DEI capabilities (Component Project 2), array of work-based learning (Component Project 3), cyber ranges (Component Project 4), and future employer-driven workforce solutions (Component Project 5) to secure additional employer commitments.

Exhibit 4: Initial Employer Commitments

Initial Employer Commitments	New Hires	Upgrade Workforce	Total
Towson University	0	30	30
AT&T Public Sector	60	25	85
Baltimore Cyber Range, L.L.C.	20	2	22
Interclypse / Excerceo	3	0	3
TeamWorx Security	40	31	71
STEER	60	10	70
techfrederick	0	200	200
Total	183	298	481

Philanthropic commitments as of the date of submission include \$4 million from Gula Tech Adventures and \$500,000 from the Howard Hughes Corporation.

1.4 Plan to Ensure the Regional Growth Cluster Will Be Sustainable

Solutions is a program managed and overseen by HCEDA. Over the project’s 4-year, grant-funded period of performance, HCEDA will establish a public private partnership (P3) subsidiary so **Solutions** can be scaled up and replicated beyond the initial region. Our vision is to transition **Solutions** across the entire state of Maryland—from the Appalachian Mountains of western Maryland to the urban landscape of Baltimore City to the rural farms of the Eastern Shore, the entire Mid-Atlantic region of Maryland, Virginia, Washington, DC, and ultimately, communities across the nation. Achieving our vision will ensure the economic benefits of the project are shared with all communities, specifically underserved communities.

Impactful governance, when combined with successful component operational elements, accomplishes five goals: (1) establishes independent third-party evidence that demonstrates removing barriers to employment serves employers and creates a more diverse, equitable, and inclusive cybersecurity workforce; (2) publicizes opportunities to employers, jobseekers, and training providers; (3) leverages robust work-



based learning, which establishes a pipeline of new talent and simultaneously reduces employers' financial barriers to hire, train, retain, and advance diverse, equitable, and inclusive cybersecurity talent; (4) deploys cyber ranges that provide individuals with experiential learning opportunities and provide employers with a mechanism to verify an individual's cybersecurity knowledge, skills, and abilities; and (5) develops, implements, and evaluates state-of-the-art employer-driven cybersecurity workforce solutions. As **Solutions** demonstrates success and the subsidiary is well established, HCEA will purposefully transition the governance of **Solutions** to this new entity, which can then scale up and replicate **Solutions** across the state, Mid-Atlantic region, and nation.

Post-award, the P3 subsidiary will generate self-sustaining revenue by providing public, private, and nonprofit entities technical assistance and training so they can apply the **Solutions** model to other industries and regions across the nation. Services include strategic planning, industry and regional asset mapping, labor market information and industry specific projections, strategic communications and community engagement, workforce intermediary services, development of new employer-driven occupational solutions, research and evaluation, reporting, continuous improvement, and leveraging a wide array of formerly siloed public, private, and philanthropic resources to enhance impact and create meaningful outcomes.

1.5 Plan to Engage Community-Based Organizations (CBOs) and/or Labor Unions and to Incorporate Strong Labor Standards and Economic Benefits for Local Residents

CBO Engagement. **Solutions'** Component Project 2 specifically engages CBOs. Our team will use a comprehensive, multipronged approach to expanding the pipeline of eligible candidates by engaging in a strategic communications and outreach campaign that reaches both historically underserved populations and employers to dramatically shift perspective on who has the aptitude and qualifications to occupy these essential jobs. A significant component to expanding the talent pipeline will be to systematically analyze and remove barriers to a diverse, equitable, and inclusive candidate pool that has been limited by misperceptions about the necessary qualifications for jobs in cybersecurity. **Solutions** will actively engage and listen to CBOs that serve the people who have been historically most impacted by disadvantages that limit viable candidates from seeking family supporting wages and benefits. Finally, **Solutions** will inform employers on how to better align job specifications, job design, and employment practices to occupationally relevant criteria that will result in a more diverse, equitable, and inclusive cybersecurity workforce.

Economic Benefits. Maryland has a cybersecurity workforce of over 41,792 and more than 23,215 cybersecurity job openings. Demand is high, supply is low, and geographic concentration is extremely high. Cybersecurity job titles in demand are cybersecurity manager, cybersecurity analyst, systems engineer, software developer, network engineer, cybersecurity consultant, systems administrator, cybersecurity specialist, and penetration and vulnerability tester. The 2020 wages for information technology and cybersecurity in the Towson, Baltimore and Columbia, and Maryland Metropolitan Statistical Areas were \$98,894 at the median and \$156,345 at 90%. Our economic benefit is clear: **Solutions** increases the region's talent supply to meet these high-wage and high-demand cybersecurity opportunities. As noted in the NOFO, project labor agreements (PLAs) and community benefits agreements (CBAs), which are standard for large construction projects, are not applicable.

1.6 Plan to Ensure Benefits of the Cluster are Shared Equitably Across Affected Communities, including Efforts to Reach Historically Excluded Populations

Equity. According to the Diversity Index Score prepared for the 2021 Cyberstates report produced by CompTIA, Black and African American workers (20% technology vs. 27% overall), Hispanic and Latino



workers (4% technology vs. 8% overall), and women workers (28% technology vs. 50% overall) are all underrepresented when comparing the technology industry in Maryland to the state's overall industries.

Achieving the full benefits of **Solutions** hinges on cultivating opportunities for a diverse workforce and nontraditional talent. Thus, diversity, equity, and inclusion (DEI) are cornerstones to the success of the component projects, particularly for capacity building for the regional cybersecurity cluster. Given this fact, **Solutions** will outline a succinct equity plan for engaging communities within the region, both urban and rural areas, including typically underrepresented and historically disadvantaged groups, such as racial minorities, women, and other diverse demographic groups. Not only does our team strongly believe DEI is the right thing to do, but we also know from experience that engagement and collaboration with these communities will be essential to identifying future talent and promoting sustainable growth of the regional cluster. Our plan will be multifaceted and hinge on a robust partnership model. The essential facets of this equity plan include **Project Leadership**, **Strategic Partnerships**, and **Continuous Monitoring**.

Project Leadership. DEI is one of **Solutions'** greatest strengths and the very foundation of the work we do. In fact, our team has deep roots in partnering with organizations on complex social issues, including education access, cybersecurity development, healthcare disparities, welfare needs, workforce development for disadvantaged and underrepresented groups, justice issues, and socioeconomic inequities. **Solutions** is proud to be composed of people who care deeply about improving lives and building a more prosperous and resilient world for all. Thus, our equity plan begins with our team of interdisciplinary professionals, who are committed to enhancing diversity, equity, and inclusion.

Strategic Partnerships. As **Solutions** works to engage diverse communities, forming strategic partnerships will be key to disseminating important messages about the component projects and their intended outcomes. As we outline strategies for partnership, **Solutions** applies an equity-focused lens whereby we acknowledge the inequities in systems and institutions and work with organizations to enhance their capacity to address these inequities.

Continuous Monitoring. Strategies to assess equity can vary based on organizational maturity, capacity, and needs. Our approach to assessing progress in the implementation of this equity plan and outreach to communities includes the use of a customized Equity Impact Assessment (EIA) tool. Project staff, coalition members, and partners will all be trained on the Equity Impact Framework and the EIA tool, which will support a consistent approach to reflect on policies before they are enacted, as well as the implementation of practices to support **Solutions**.

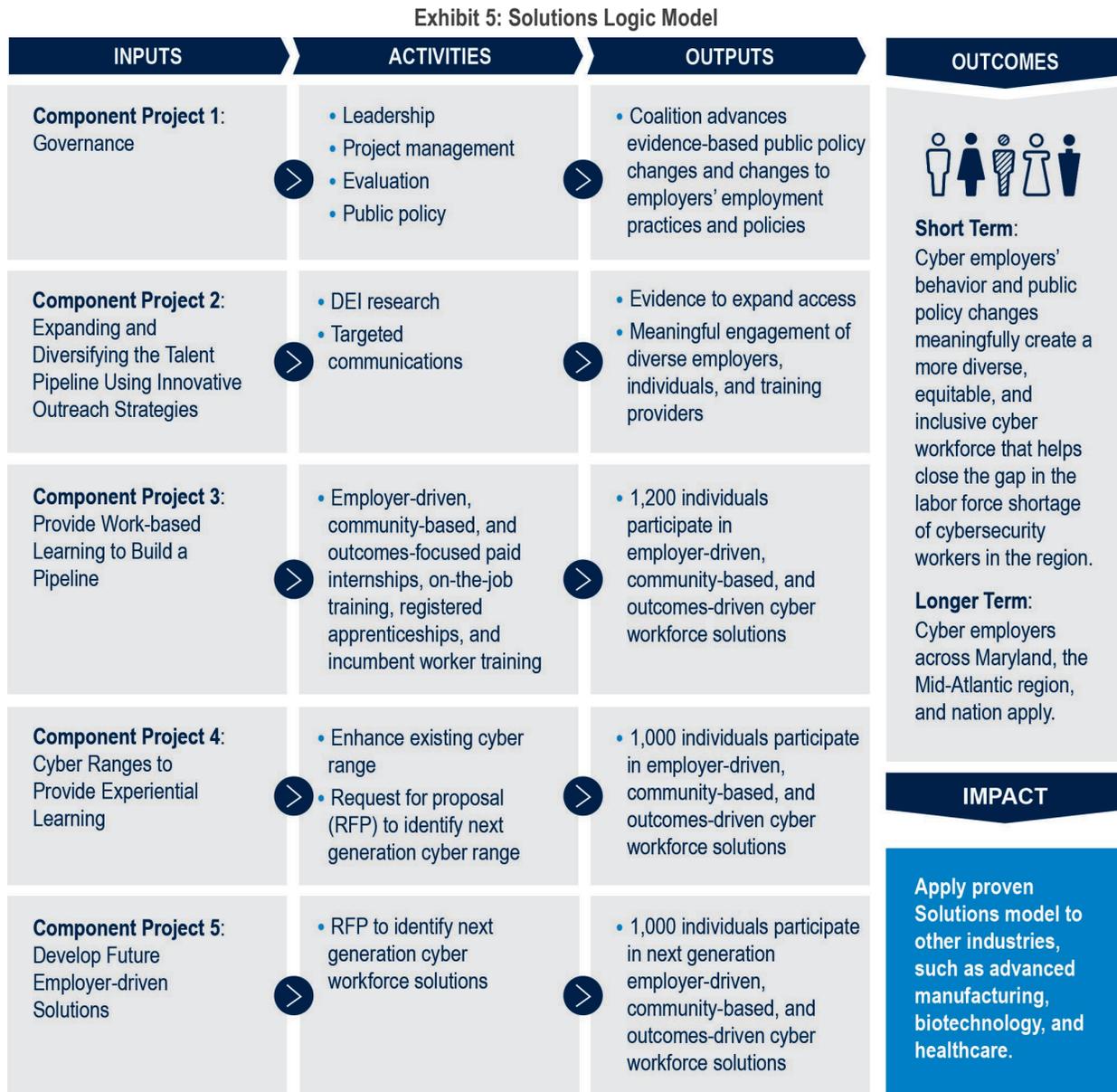
1.7 Overview of Expected Outcomes and Complementary Work Planned by the Coalition

Outcomes. **Solutions** projects Component Project 3 to have 1,200 individuals participating in employer-driven, community-based, and outcomes-focused cybersecurity work-based learning, Component Project 4 to have 1,000 individuals utilizing cyber ranges, and Component Project 5 to have 1,000 individuals benefiting from next generation, state-of-the-art cybersecurity workforce solutions.

Complementary Work. The Jacob France Institute (JFI) at the University of Baltimore will serve as the independent, third-party evaluator to the **Solutions'** governance committee. JFI is Maryland's government repository for state administrative data on employment, workforce development, higher education, community colleges, career and technical education, and secondary education. All funded **Solutions** projects will be required to capture input and outcome performance data. JFI will measure **Solutions'** impact over time on participant employment, employment retention, quarterly income, and growth in income. Analysis will enable the governance committee to determine which approaches were effective and those that were not effective. Findings will drive continuous improvement and build a body of evidence to



advance cybersecurity workforce diversity, equity, and inclusion. Input and outcome data will be broken out by demographic characteristics, such as race and gender, to monitor diversity, equity, and inclusion impact. To measure the impact on the region, **Solutions** will use employment and wage data to measure the economic impact, such as growth in Gross Domestic Product; number of direct, indirect, and induced jobs created; and growth in personal income. The logic model in **Exhibit 5** details the five component projects, inputs, activities, outputs, outcomes, and impact.



1.8 Overview of the Work Conducted Between the Phase 1 Award and the Phase 2 Application Submittal

Since the Phase 1 award and in preparation for the Phase 2 application submittal, HCEDA has completed the following tasks:

- Onboarded the RECO



- Held an onsite visit on January 15, 2022 with the Deputy Secretary of the U.S. Department of Commerce, federal EDA leadership, Maryland’s U.S. Senators and congressional representative, Howard County executive, and leadership from regional employers, CBOs, institutions of higher education, Historically Black Colleges and Universities, philanthropists, and civic leaders
- Procured ICF International, L.L.C. (ICF) as the Project Management Office (PMO)
- Developed a Qualtrics-based, online community survey to communicate information about the Build Back Better Regional Challenge (BBBRC) to the community and solicit community input on proposed component solutions
- Released the online survey from January 31 to February 9
- Collected survey information, analyzed data, and used findings to develop the Phase 2 proposal
- Crafted an initial strategic communications and community engagement plan
- Secured the website domain of <https://workforcecyber.com/>
- Launched the splash page and frequently asked questions (FAQ) on the website

We are working on the following tasks:

- Conducting substantial outreach and engagement meetings with employers, appointed and elected officials, CBOs, institutions of higher education, philanthropists, and individuals across the entire region
- Formalizing Coalition membership with letters of support and letters of commitment
- Actively participating in all U.S. Department of Commerce, EDA technical assistance, and EDA training
- Holding weekly meetings with the Federal Project Officer
- Systematically developing and refining the **Solutions** Phase 2 technical and business proposals
- Proactively preparing for Phase 2 grant submission on or before the due date of March 15, 2022

Detailed List of any Changes to the Vision or Proposal Since the Phase 1 Concept Proposal was Submitted, Including any New Commitments or Investments Secured (Even if Referenced in Other Parts of the Application)

Since the Phase 1 Concept Proposal was submitted, the governance component project was added to the Phase 2 Proposal. The Coalition also combined our component DEI and community engagement projects to increase their collective impact and outcomes.

Since the Phase 1 Concept Proposal submission, the Coalition has grown to 100 organizations. Letters of commitment and support are found in **Appendix A** and **Appendix B**, respectively.

New commitments and investments secured are described in **Exhibit 6**. **Exhibit 7** provides a detailed summary of the 100 Coalition members and partners to date.

Exhibit 6: Summary of New Commitments and Investments Secured

Entity	Component Project 2	Component Project 3	Component Project 4	Component Project 5	Total Commitment	Contribution Type
Maryland Department of Labor		\$6,000,000			\$6,000,000	State Funds/EARN
Per Scholas		\$2,850,000		\$2,850,000	\$5,700,000	In Kind
Gula Tech Adventures	\$2,000,000	\$1,000,000	\$1,000,000		\$4,000,000	Philanthropic
Carroll Community College				\$3,000,000	\$3,000,000	In Kind
SANS Institute				\$2,596,864	\$2,596,864	State Funds/EARN
UMBC Technology Center				\$2,000,000	\$2,000,000	In Kind
Baltimore Cyber Range, L.L.C.			\$800,000		\$800,000	In Kind
CompTIA				\$524,000	\$524,000	In Kind



Entity	Component Project 2	Component Project 3	Component Project 4	Component Project 5	Total Commitment	Contribution Type
Interclypse	\$128,520	\$128,520	\$128,520	\$128,520	\$514,080	In Kind
The Howard Hughes Corporation			\$500,000		\$500,000	Philanthropic
Harford County Government			\$408,306		\$408,306	In Kind/Cyber Range Space
Byte Back		\$400,000			\$400,000	State Funds/EARN
Greater Washington Partnership	\$25,000	\$25,000	\$25,000	\$25,000	\$257,342	In Kind
Maryland Department of Commerce		\$200,000			\$200,000	State Funds/PWQ
SecurEd				\$150,000	\$150,000	In Kind
Susquehanna Workforce Network		\$ 50,000			\$150,000	In Kind
STEER Tech	\$25,000	\$25,000	\$25,000	\$25,000	\$100,000	In Kind
Maryland Economic Development Corporation (MEDCO)	\$20,000	\$20,000	\$20,000	\$20,000	\$80,000	In Kind
Maryland Manufacturing Extension Partnership (MEP)	\$12,500	\$12,500	\$12,500	\$12,500	\$50,000	In Kind
	\$2,211,020	\$10,811,020	\$2,919,326	\$11,331,884	\$27,430,592	

Exhibit 7. Summary of Coalition Members and Partners

Partner Name	Current, former, or future partner	Public, Private, Non-profit	National, State, Regional, and/or Local Level	Brief Description	Envisioned Roles and Responsibilities	Effectiveness of Past Collaboration Efforts
Local Government (All 24 local governments represented)						
Maryland Association of Counties (MACO)	Current	Public	Statewide	Statewide Association of all 23 Counties	Advocacy, Employment	Effective
Baltimore City Government	Current	Public	Local	Municipal Government	Advocacy, Employment	Effective
Local Economic Development Entities (5)						
Anne Arundel Economic Development Authority	Current	Public	Local	Economic Development	Marketing	Effective
Carroll County Economic Development	Current	Public	Local	Economic Development	Marketing	Effective
Charles County Economic Development Department	Current	Public	Local	Economic Development	Marketing	Effective
Frederick County Office of Economic Development	Current	Public	Local	Economic Development	Marketing	Effective
Howard County Economic Development Authority	Current	Public	Local	Economic Development	BBBRC grant recipient, Overall Responsibility	Effective
Associations (7)						
Army Alliance	Future	Non-Profit	Regional	Association	Advocacy	Effective
Cybersecurity Association of Maryland, Inc.	Current	Non-Profit	State	Association	Advocacy	Effective
Economic Alliance of Greater Baltimore	Current	Non-Profit	Regional	Association	Advocacy	Effective
Greater Baltimore Committee	Current	Non-Profit	State	Association	Advocacy	Effective
Greater Washington Partnership	Current	Non-Profit	Metro Region	Association	Marketing, Advocacy, Leveraged Resources	Effective
Howard County Chamber of Commerce	Current	Non-Profit	State	Association	Marketing	Effective
Maryland Technology Council	Current	Non-Profit	State	Association	Advocacy, DEI	Effective
Employers (19)						
AT&T Public Sector and FirstNet	Current	Private	Local	Employer	Employment	Effective
Atlantic Data Forensics	Current	Private	State	Employer	Employment	Effective
Baltimore Gas & Electric	Current	Private	State	Employer	Employment	Effective
BTS Software Solutions	Current	Private	National/	Employer	Employment	Effective
CareFirst	Future	Private	National	Employer	Employment	Developing
Catalyte	Current	Private	State	Employer, Workforce	Employment	Effective
Cybrary	Current	Private	National	Employer, Training	Employment	Effective
Edwards Performance Solutions	Current	Private	State	Employer	Employment	Effective
Ellin & Tucker	Current	Private	State	Employer	Employment	Effective



Partner Name	Current, former, or future partner	Public, Private, Non-profit	National, State, Regional, and/or Local Level	Brief Description	Envisioned Roles and Responsibilities	Effectiveness of Past Collaboration Efforts
ICF International, L.L.C.	Current	Private	National	Employer	PMO, DEI, CYAI, LEAD4IT	Effective
IntelliGenesis	Current	Private	National	Employer	Employment, Leveraged Resources	Effective
Interclype / Exerceo	Current	Private	State	Employer	Employment	Effective
LifeBridge Health	Future	Private	State	Employer	Employment	Developing
M&T Bank	Future	Private	State	Employer	Employment	Developing
STEER	Current	Private	State	Employer	Employment, Leveraged Resources	Effective
TeamWorx Security	Current	Private	State	Employer	Employment,	Effective
Tenable	Current	Private	State	Employer	Employment	Effective
Under Armour	Current	Private	Global	Employer	Employment	Effective
U.S. Army Capabilities Command	Current	Public	Global	Employer	Cyber Range, Employment	Effective
Proprietary Institutions (2)						
Baltimore Cyber Range, L.L.C.	Future	Private	State	Cyber Range	Leveraged Resources, Support Subgrant Recipient	Effective
U.S. Cybersecurity Magazine	Current	Private	National	Marketing	Marketing	Developing
Nonprofit / CBOs (10)						
Byte Back	Current	Non-Profit	Regional	Workforce Development	Leveraged Resources, Potential Subgrantee	Effective
CompTIA Career Tech Academy	Future	Non-Profit	National	Workforce Development	Potential Subgrantee	Effective
MAGIC, Inc.	Current	Non-Profit	Regional	Workforce Development	Potential Subgrantee, DEI, Internships	Effective
Maryland MEP, LLC	Current	Non-Profit	State	State Manufacturing	Marketing, Leveraged Resources	Effective
NPower	Current	Non-Profit	National	Workforce Development	Potential Subgrantee, DEI	Effective
Per Scholas	Current	Non-Profit	National	Workforce Development	Potential Subgrantee, DEI, Leveraged Resources	Effective
SANS Institute	Current	Non-Profit	National	World class training	Potential Subgrantee, Leveraged Resources	Effective
SecurEd, Inc.	Current	Non-Profit	State	Workforce Development	Employment, Leveraged Resources	Effective
TechFrederick	Current	Non-Profit	Regional	Workforce Development	Potential Subgrantee, IWT	Effective
UMBC Training Centers	Current	Non-Profit	State	Training	Leveraged Resources, Potential Subgrantee	Effective
Institutions of Higher Education (21)						
Capitol Technology University	Current	Non-Profit	State/National	Higher Education	Potential Subgrantee	Effective
Carroll Community College	Current	Public	Regional	Higher Education	Leveraged Resources, Potential Subgrantee	Effective
College of Southern Maryland	Current	Public	Regional	Higher Education	Potential Subgrantee	Effective
Harford Community College	Current	Public	Regional	Higher Education	Potential Subgrantee	Effective
Howard Community College	Current	Public	Regional	Higher Education	Potential Subgrantee	Effective
Johns Hopkins Technology Ventures	Current	Private	State	Higher Education	Potential Subgrantee	Effective
Towson University	Current	Public	State	Higher Education	WBL, Leveraged Resources	Effective
University of Baltimore, Jacob France Institute	Future	Public	National	Longitudinal Evaluation	Evaluator	Effective
University of Maryland Global Campus / UMUC Ventures	Current	Public	State	Worldwide Adult Learning	Potential Subgrantee, Funds	Effective
University of Maryland System*	Current	Public	State	Statewide	Potential Subgrantee, Advocacy	Effective
Philanthropy (2)						
GulaTech Adventures	Current	Private	National	Philanthropist	Leadership, DEI, Leveraged Resources	Effective
The Howard Hughes Corporation	Future	Private	Regional	Philanthropist	Leveraged Resources for Cyber Range	Effective



Partner Name	Current, former, or future partner	Public, Private, Non-profit	National, State, Regional, and/or Local Level	Brief Description	Envisioned Roles and Responsibilities	Effectiveness of Past Collaboration Efforts
Local Workforce Development Boards (4)						
Howard County Workforce Development	Current	Public	Regional	Workforce Board	Jobseekers, Employers	Effective
WorkSource Montgomery	Current	Non-Profit	Regional	Workforce Board	Jobseekers, Employers	Effective
Susquehanna Workforce Network	Current	Non-Profit	Regional	Workforce Board	Jobseekers, Employers, Leveraged Resources	Effective
Tri-County Council for Southern Maryland	Current	Public	Regional	Workforce Board	Jobseekers, Employers	Effective
State Government (6)						
Governor's Office	Current	Public	State	Chief Elected Official	Economic Development, Higher Education, Workforce Development	Effective
Maryland Department of Commerce	Current	Public	State	State Economic Development	Leveraged Resources	Effective
Maryland Department of Labor	Current	Public	State	State Workforce Agency	Workforce SME, Leveraged Resources	Effective
Maryland Economic Development Corporation	Current	Public / Private	State	State Economic Development	Advisory, DEI, Leveraged Resources	Effective
Maryland Higher Education Commission	Current	Public	State	Coordination	Higher Education, Cyber Scholarships	Effective
Maryland Technology Development Corporation	Current	Private	State	State Venture Capital	Marketing	Effective

**University System of Maryland (USM) represents the following 12 institutions: Bowie State University (HBCU), Coppin State University (HBCU), Frostburg State University, Salisbury University, Towson University, University of Baltimore, University Maryland, Baltimore, University of Maryland Baltimore County, University of Maryland Center for Environmental Science, University of Maryland College Park, University of Maryland Eastern Shore (HBCU), and University of Maryland Global Campus. USM represents the following 3 regional centers: Universities at Shady Grove, USM at Hagerstown, and USM at Southern Maryland.*

