Dear members of the Council,

As Chairperson of the Youth Apprenticeship Advisory Committee (YAAC), it is my pleasure to present the inaugural 2017 Youth Apprenticeship Advisory Committee Annual Report. This report provides an outline of how far YAAC has come in its short tenure and a roadmap for the way forward.

During YAAC’s first meeting, held on September 14, 2017, committee members had the chance to meet one another in-person and have a frank discussion about what the priorities of YAAC should be in its first year. Committee members determined it is critical for the District of Columbia Public School (DCPS) system and DC public charter schools to become more active partners in the youth apprenticeship system and the development of a school-to-work pipeline. In an effort to better understand how YAAC can advance youth apprenticeships in the District, committee members voted to organize a series of visits to four career and technical education (CTE) high schools located throughout the District; IDEA Public Charter School, McKinley Technology High School, Phelps Architecture, Construction, and Engineering (ACE) High School, and Paul Laurence Dunbar High School.

The YAAC is interested in how the proven models implemented by these schools may be adopted in a comprehensive school-to-work initiative. The YAAC is wholly committed to its mission of improving the District’s youth apprenticeship system and ensuring that District youth succeed in a fast-changing economy and a competitive world.

Regards,

Bill Dean

Bill Dean,
Chairperson, Youth Apprenticeship Advisory Committee
Greetings,

I am excited to report on the initial activities of the District’s youth apprenticeship efforts. The Department of Employment Services (DOES) is leading a variety of initiatives in support of Mayor Bowser’s vision for preparing District residents for sustainable high paying careers, highlighted by the expansion of apprenticeship programs and comprehensive workforce strategies. To achieve the Mayor’s vision, DOES has leveraged the insights and advice of the District’s Youth Apprenticeship Advisory Committee (YAAC) to ensure that youth apprenticeship strategies take into account industry experience, best practices from successful youth apprenticeship systems, and intentionally connecting the myriad of opportunities that pre and registered apprenticeship programs present for the District and our residents.

The District has made great progress during the Bowser Administration to increase access to the apprenticeship model. The number of District apprentices has doubled, and the total number of youth apprentices through District apprenticeship sponsors has increased to 1,298. Additionally, the number of registered apprenticeship sponsors ballooned to over 300, highlighted by new sponsors, who have expanded apprenticeship opportunities into high-growth non-traditional industries which include: Information Technology, Infrastructure, and Automotive. Just as encouraging, DOES has successfully engaged national partners such as the US Department of Labor, the Council of Chief State School Officers (CCSSO), and sister states within the Mid-Atlantic region (most recently the State of Maryland). These achievements and progress provide a roadmap for continued success in FY18.

The inaugural 2017 YAAC Annual Report includes our initial findings which identify: (1) ways to implement high school youth apprenticeship programs in the District of Columbia; (2) the means through which employers and organizations can obtain grants, tax credits, or other subsidies to support the establishment and operation of high school youth apprenticeship programs; and (3) the goal for apprentice opportunities provided to District youth over the next three years.

Elevating youth apprenticeship, particularly for District residents that face the most barriers to economic opportunities, requires the support of a variety of key stakeholders. Through a collaborative approach, partners will be equipped to provide access to a proven and vital vehicle in apprenticeship, which ensures the District remains a hub for diverse opportunities with equitable pathways to the middle-class. The continued support of Mayor Bowser and her focus on elevating the apprenticeship model has been essential to the work of DOES and the YAAC in ensuring the District’s youth apprenticeship programs are positioned to provide access to these immense opportunities. The projected accomplishments for FY18 will further solidify the District’s position as a national leader in developing and implementing apprenticeship programs as a part of our world-class workforce system.

I look forward to the work ahead.

Odie Donald II,
Director, D.C. Department of Employment Services
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Executive Summary

Youth apprenticeships are a driving force in ensuring that youth are properly developed and prepared for in-demand career pathways. Apprenticeships offer youth the opportunity to “learn and earn” and an opportunity for industry employers to engage youth with hands-on training programs, allowing them to cultivate their future workforce.

Youth apprenticeship is a learning system that prepares students for work by giving them a combination of classroom instruction and paid on-the-job learning. In this education model, students obtain a set of well-defined occupational abilities by learning concepts in the classroom and applications in a work setting. In contrast to registered apprenticeship programs for adults which offer little structural flexibility, youth apprenticeship programs allow greater latitude in the areas of on-the-job learning and related classroom instruction. Affording increased flexibility for program structuring enhances the opportunity to create tailor-made apprenticeship opportunities which account for the needs of the student, employer, educational institution, and parent.

The Youth Apprenticeship Committee (YAAC) first convened in September 2017. Pursuant to DC Code § 32–1412.01, the primary immediate objective of the YAAC is to conduct a systematic review of relevant data and evaluate the effectiveness of youth apprenticeship both domestically and abroad. Based upon this review process, the YAAC will continuously identify best practices and strategies to develop, improve, and build the capacity of youth apprenticeship programs throughout high schools in Washington, D.C.

1 http://www.funderstanding.com/educators/youth-apprenticeship/
Authorization Statement

D.C. Official Code § 32-1412.01 requires the Youth Apprenticeship Advisory Committee ("Committee") to submit a report to the Council of the District of Columbia of its findings and recommendations on or before December 1st of each year. The Committee submits this report in compliance with the Act.
Overview of the Responsibilities of the Youth Apprenticeship Advisory Committee

Pursuant to the Youth Apprenticeship Advisory Committee Amendment Act of 2015, the Committee is responsible for reviewing relevant data and evaluating the effectiveness of youth apprenticeship programs in the District of Columbia, states and municipalities, and other countries. It is also charged with reviewing and identifying ways to implement high school youth apprenticeship programs in the District of Columbia. The Committee is to examine the resources available to employers and organizations by which they can obtain grants, tax credits, or other subsidies to support the establishment and operation of high school youth apprenticeship programs. The Committee is also charged with reporting on the recommended number of youth apprenticeship opportunities the District needs over the next three years.
Organization and Appointment of Committee Members

The Act established an 11-member Youth Apprenticeship Advisory Committee to identify ways to implement high school youth apprenticeship programs and the means through which employers and organizations can support them. Committee members are appointed by the Mayor to serve a three-year term and are selected because of their specific expertise or professional experience as required under the Act. Selections are based on the following qualifications: two individuals from the DC Apprenticeship Council, a representative from a business with an apprenticeship program, a representative from the University of the District of Columbia – Community College, a representative from Office of the State Superintendent of Education, an individual who holds a doctorate with a specialty in labor economics, a representative from a non-profit organization, a representative from a local business, a representative from a local business trade association, and a representative from the Workforce Investment Council. Currently, the YAAC has filled all of the aforementioned positions.

William Dean, Chairman
CEO, M.C. Dean

M.C. Dean is the nation’s expert provider of electronic systems integration and electrical and telecommunications systems engineering, specialty construction, and operations and maintenance. With a staff of more than 3,500, the firm has a reputation for excellence and expertise resultant from its large contingent of engineers and technicians, many of whom are recognized industry experts. M.C. Dean has a global presence, having performed work on five continents and over 40 countries from its 25 offices in North America, Europe, and the Middle East. M.C. Dean has also been a registered apprenticeship sponsor in Washington D.C. for more than 30 years. Mr. Dean was appointed to the Committee on May 29, 2017.

Burt Barnow, Ph.D
Professor of Public Service, George Washington University

Dr. Barnow has over 30 years of experience as an economist and manager of research projects in the fields of workforce investment, program evaluation, performance analysis, labor economics, welfare, poverty, child support, and fatherhood. He has a B.S. degree in economics from the Massachusetts Institute of Technology and M.S. and Ph.D. degrees in economics from the University of Wisconsin at Madison. Dr. Barnow was appointed to the Committee on May 29, 2017. Dr. Barnow is currently an awardee of the prestigious Distinguished Fulbright Award in Teaching Program, and will be returning to the District in December of 2017.

Elizabeth DeBarros
Senior Advisor to the District of Columbia Building Industry Association (DCBIA)

Liz DeBarros advances the economic and civic impact of the real estate development industry and its leaders in Washington, D.C. through the production of content-rich programming, organizational rebranding, networking, and results-driven advocacy. Ms. DeBarros began her career as a professional counselor increasing college retention and graduation rates of Federal TRIO Program students and served as an AmeriCorps volunteer. Ms. DeBarros earned a Master of Arts degree from Temple University and a Bachelor of Arts degree from Rhode Island College. Ms. DeBarros was appointed to the Committee on May 29, 2017.
Vitro Hilton  
**Union organizer**  
A lifelong resident of the District of Columbia, Vitro Hilton is a proud graduate of the DC Public School System. Starting as an apprentice for Local 669 in 1987, Mr. Hilton worked his way to journeyman and foreman, where he trained and mentored apprentices. Now an organizer, Mr. Hilton works to recruit new union members including the workers of tomorrow. Mr. Hilton was appointed to the Committee on May 29, 2017.

Frederick Howell  
**Chairperson, DC Apprenticeship Council**  
Mr. Howell was appointed to the Committee on May 29, 2017. He attended DC Teachers College as it transitioned into the University of the District of Columbia, receiving a BS degree. He then attended George Washington University, receiving a dual MA degree. Mr. Howell taught printing full-time in DC Public Schools and later went on to become a Professor and Director of the Computer Publishing/Printing Management program at Montgomery College, Rockville campus. He currently serves as the Chairperson for the DC Apprenticeship Council.

Dr. Madye Henson  
**Chief Executive Officer, Covenant House Washington (CHW)**  
Dr. Madye Henson currently serves as Chief Executive Officer of Covenant House Washington (CHW), a leading nonprofit providing workforce training, education, housing, and support to homeless and disconnected youth. Previously, Dr. Henson served as Deputy Superintendent for Alexandria City Public Schools, President and CEO of Greater DC Cares, and Vice President of Community Impact with United Way Worldwide, and held other leadership roles with several major corporations. Dr. Henson has a Doctorate of Management and a MBA from Webster University and a BS in Business from University of Missouri-Columbia. She is a member of Leadership Greater Washington, a 2016 SmartCEO Brava Awardee, and is featured in Extra Mile America by Shawn Anderson. Dr. Henson was appointed by the Mayor to serve on this committee in September 2017 and is pending a District Council resolution.

Kendra Smith  
**Performance Accountability Coordinator, Office of the State Superintendent of Education (OSSE)**  
Kendra M. Smith has 15 years of progressive experience in human service, workforce development, and career related educational programing. She has served as the Interim State Director for the State Office of Career and Technical Education (SOCTE) at the Office of the State Superintendent of Education. Ms. Smith currently serves as a Performance Accountability Coordinator at SOCTE, providing leadership in the development, implementation and continuous improvement of high-quality, rigorous, career and technical education programs offered in the District of Columbia. She holds a B.S. Degree in Economics from Hampton University and a Masters of Divinity Degree with an emphasis on Urban Ministry from Wesley Theological Seminary. Ms. Smith was appointed to serve on this committee in October 2017 and is pending a District Council resolution.
Committee Members

Douglas Davis  
**Assistant Site Director, University of the District of Columbia Community College (UDC-CC)**  
Douglas Davis is an Assistant Site Director for the Workforce Development division at the University of the District of Columbia - Community College. With a degree from the UDC School of Business, Mr. Davis has keen insight into the university system and how it works within the District. In addition, Mr. Davis has served as a GED instructor for District residents for more than five years. Mr. Davis was appointed to serve on this committee in October 2017 and is pending a District Council resolution.

Violet Carter  
**Electrician, Local Union 26**  
Violet Carter is currently a member of Local Union 26—International Brotherhood of Electrical Workers and also a journey worker Electrician for Local Union 26. Ms. Carter is a graduate of the University of the District of Columbia’s Construction Engineering program and has also earned a Master’s Degree in Social Work from Howard University. Ms. Carter was appointed to the Committee on May 29, 2017.

Eric Jones  
**Associate Director of Government Affairs, Associated Builders and Contractors (ABC) of Metro Washington**  
ABC of Metro Washington is the pre-eminent advocate for fair and open competition and the merit shop philosophy, and the premiere construction association in the metropolitan Washington, D.C. area. Within his role Mr. Jones is responsible for representing the chapter and its nearly 600 members before the executive and legislative branches of the DC Government. In addition, Mr. Jones also represents the chapter before community groups, citizen/civic associations and as their representative in various trade associations as well as on the board of several organizations. Mr. Jones was appointed to the Committee on May 29, 2017.

Benton Murphy  
**Senior Community Investment Officer, Greater Washington Community Foundation**  
Benton Murphy joined the Greater Washington Community Foundation in January 2004 through the close connection with the Nonprofit Roundtable of Greater Washington, bringing with him years of experience in the advocacy and nonprofit sectors. Murphy currently staffs the Greater Washington Workforce Development Collaborative, focused on improving workers’ career prospects and earnings by increasing the number of adults in our region with a postsecondary credential. Mr. Murphy holds a Master’s degree in Public Administration from the George Washington University. Mr. Murphy was appointed to the Committee on May 29, 2017.
YAAC Observations

The District of Columbia has a strong infrastructure for pre-and registered apprenticeship programs. As we launch youth apprenticeships, key stakeholders have organized site visits at IDEA Public Charter School, McKinley Technology High School, Phelps Architecture, Construction, and Engineering (ACE) High School, and Paul Laurence Dunbar High School, conducted between September 2017 and November 2017. As a result of the site visits, the YAAC has made the following observations:

1. During FY18, DOES will study existing Career and Technical Education (CTE) programs to build on existing best practices in order to take full advantage of potential youth apprenticeship opportunities.

2. The composition of many strong youth apprenticeship models often include strong collaboration and inclusion of four groups: students, parents, education administrators, and businesses/industry. The District’s focus is on incorporating these four essential groups into its future review and planning efforts related to future programming.

3. Information Technology is one of the District’s six high demand industries. Due to projected growth in the industry, there is an opportunity to develop school-to-work youth apprenticeship models with both IT apprenticeship sponsors and local high schools (e.g., McKinley Technology High School).

4. The District has been a trailblazer in connecting public sector apprenticeship programs to District residents. The DC Department of Public Works was the first District government agency to have a registered apprenticeship program and there are currently opportunities to expand public sector apprenticeships in the areas of Information Technology and Building Inspector.

5. Youth apprenticeship programming has been implemented successfully in other American jurisdictions and abroad, and the District is poised to expand on these best practices. The District is currently developing partnerships with Sweden, Germany, and the State of Maryland to share best practices. These partnerships will be instrumental in guiding policy and identifying youth apprenticeship opportunities that will create a pathway to the middle class.

6. Leveraging data related to District youth is a key component to developing and implementing successful youth apprenticeship models. In FY18 DOES, the YAAC, and key stakeholders plan to collaborate to identify and advance opportunities based on current and projected labor supply and demand.

7. There already exists a quality infrastructure of youth apprenticeship programs in the District. Phelps ACE High School, for example, is equipped to provide technical training onsite in the areas of Sheet Metal, Electrical Engineering, Heating, Ventilation, Air Conditioning and Refrigeration, Carpentry, Architecture, and Cisco Networking, with state-of-the-art classrooms and equipment with the capacity to serve up to 500 students. Enrollment for the 2017-2018 school year is currently 260 students. The YAAC, in partnership with DOES, will explore these opportunities in FY18.
Description of Current State of Youth Apprenticeship Programs

The Department of Employment Services and the YAAC have a unique opportunity to engage the District of Columbia Public School System (DCPS) as well as District of Columbia public charter schools into the youth apprenticeship system, which will improve the long term employment outlook of District youth in our rapidly changing 21st century work environment. Currently 1,298 youth (ages 16-24) are engaged in an apprenticeship registered in Washington, D.C. The charts that follow break out the demographics of these roughly 1,300 youth apprentices.

Registered Apprentices by Age

Youth Apprentices by Age

Youth Apprentices by Ethnicity

Youth Apprentices by Gender

There are approximately 8000 apprentices with sponsors registered with the D.C. workforce system. Roughly 1 in 6 of those apprentices is a youth between the ages of 16 and 24.

Among the approximately 1300 youth apprentices registered in DC, 1 in 3 are aged 16-21.

Approximately 1 in 5 youth apprentices registered with D.C. are Black/African-American.

The overwhelming majority of youth apprentices registered with D.C. are men.
Existing Youth Career and Technical Education (CTE) Models in the District of Columbia

Apprenticeships are invaluable work-based learning opportunities that provide youth with both academic and workplace skills that lead to careers and often postsecondary credit and credentials. Businesses, workforce professionals, educators, and others look to pre-apprenticeship and apprenticeship positions as an effective way to start high school students and other youth on a career pathway that leads to family-sustaining wages and opportunities for continued advancement.2

Several high schools in the District of Columbia are well positioned to augment their current programs to align with youth apprenticeship programming best practices. With established real-world occupational skills training programs currently in place, these programs are well-suited to build a fruitful pipeline of talented youth into youth apprenticeship opportunities with local employers. These schools include:

IDEA Public Charter School
The academic program at IDEA is designed to challenge, motivate, and strengthen the intellect of all of our students, whether they are pursuing a path to college, the workforce, or the military. IDEA believes that a well-rounded student is a better student, and that the foundations for success taught in our JROTC program benefit every student both inside and outside the classroom. The hands-on education in IDEA’s technology labs, using state-of-the-art equipment, not only stretches students’ minds and expands their creativity, but also helps them prepare for a variety of opportunities in engineering, architecture, design, and other careers.3

McKinley Technology High School
McKinley Technology High School (MTHS) is part of the McKinley Technology Educational Campus, which also houses McKinley Middle School. MTHS is the only STEM application school in the District of Columbia Public School (DCPS) system. Five career and technical education (CTE) tracks of study are offered to McKinley students: Information Technology and Networking, Engineering, Computer Science, Digital Media, and Biotechnology. MTHS is a National Academy Foundation (NAF) Academies school. The first NAF class graduated in June 2017. McKinley has a robust information technology program with multiple partnerships within the IT industry, and is ideally situated to prepare students for their secondary to post-secondary to employment transitions.

Phelps Architecture, Construction, and Engineering High School
Phelps is the first public high school in the country to offer both college preparatory and career and technical education exclusively dedicated to the design professions and construction trades. The school is the first Silver Leadership in Energy & Environmental Design (LEED) School certified in Washington, D.C. Courses are taught using multiple intelligences, occupational and social preparation, integrated core academics, cooperative learning, and team teaching in order to create a multi-dimensional real world academic environment focused on student achievement. Students are provided with CTE programs in architecture, construction, information technology, and engineering fields that emphasize the higher levels of mathematics, science, critical thinking, literacy and problem solving skills needed in the workplace and higher education. The Phelps Career and Technical Education department includes the following pathways: Architecture; Carpentry; CISCO Networking; Electrical; HVAC/R.4

Paul Laurence Dunbar High School
The mission of Paul Laurence Dunbar High School is to support the development of future engineers with a rigorous curriculum, engaging classroom instruction, a coordinated set of relevant activities, individualized academic and behavioral intervention, and a consistent focus on career readiness through work-based learning, exposure to industry professionals, mentoring and opportunities for internships.5 Paul Laurence Dunbar has partnered with the D.C. Department of Consumer and Regulatory Affairs (DCRA) to offer pre-apprenticeship opportunities for high school juniors and seniors. The intention of the program is to create a pipeline of District residents to become DCRA building inspectors by offering participants classroom instruction focused on code enforcement paired with work experience shadowing trained inspectors in the field. Students receive their International Code Council (ICC) Certificate in addition to their high school diploma. Dunbar was selected by DCRA as a partner due to the continued success of its engineering program.

2 https://apprenticeshipusa.workforcegps.org/resources/2017/02/02/10/56/Apprenticeship-Youth
3 http://www.ideapcs.org/apps/pages/academics
4 http://phelpshsdc.org/apps/pages/index.jsp?uREC_ID=249067&type=d
5 http://www.dunbarhsdc.org/drew-engineering-academy.html

YAAC | Youth Apprenticeship Advisory Committee 9
Career and Technical Education (CTE) Programs in the District

In addition to IDEA Public Charter School, McKinley Technology High School, Phelps Architecture, Construction and Engineering High School and Paul Laurence Dunbar High School, there is immense opportunity to expand the youth apprenticeship model to CTE programs in the District. The chart below depicts CTE programs throughout the District and shows opportunities for the expansion of youth apprenticeship.

**District High School CTE Programming - 2017**

<table>
<thead>
<tr>
<th>CTE Program</th>
<th>DCPS</th>
<th>PCS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agriculture, Food &amp; Natural Resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Urban Agriculture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Architecture &amp; Design</td>
<td>X</td>
<td>X X</td>
</tr>
<tr>
<td>3 Carpentry</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>4 Civil Engineering</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>5 Electrical</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>6 HVAC</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>7 Plumbing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Welding/Sheet Metal</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Arts, A/V Technology &amp; Communications</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Digital Media</td>
<td>X</td>
<td>X X</td>
</tr>
<tr>
<td>10 Mass Media (Film/Video)</td>
<td>X</td>
<td>X X</td>
</tr>
<tr>
<td>11 Entrepreneurship</td>
<td>X</td>
<td>X X</td>
</tr>
<tr>
<td>12 Finance</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td><strong>Education &amp; Training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Early Childhood Education</td>
<td></td>
<td>X X X X X</td>
</tr>
<tr>
<td>14 Biomedical Sciences</td>
<td>X</td>
<td>X X</td>
</tr>
<tr>
<td><strong>Hospitality &amp; Tourism</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Culinary Arts</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>16 Hospitality Management</td>
<td>X</td>
<td>X X</td>
</tr>
<tr>
<td><strong>Information Technology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Computer Science</td>
<td>X</td>
<td>X X</td>
</tr>
<tr>
<td>18 Computer Systems A+</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>19 Database Design</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>20 Networking/IT</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>21 Web Design</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Law, Public Safety, Corrections &amp; Security</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 Public Safety</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Science, Technology, Engineering &amp; Mathematics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 Aerospace Science</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>24 Biotechnology</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>25 Digital Electronics</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>26 Electro-Mechanical Engineering</td>
<td></td>
<td>X X X X X</td>
</tr>
<tr>
<td>27 Engineering (PLTW)</td>
<td>X X X X</td>
<td>X X X X X X</td>
</tr>
<tr>
<td>28 Robotics</td>
<td></td>
<td>X X X X X X</td>
</tr>
<tr>
<td><strong>Transportation, Distribution &amp; Logistics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 Automotive Technology</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
National Youth Apprenticeship Models | MARYLAND

Maryland’s new Youth Apprenticeship pilot program is a result of a partnership between the Maryland Department of Labor, Licensing, and Regulation; Department of Commerce; and the Maryland Department of Education. The program affords business the opportunity to train, influence, and shape youth into high-performing employees through hands-on training provided to juniors and seniors. The youth apprenticeship program focuses on high-skill, high-growth STEM industries. These industries include healthcare, information technology, advanced manufacturing, construction and design, and biotechnology.

Program Details

Two school systems (or counties), Frederick County & Washington County, awarded funding to operate the pilot STEM-focused youth apprenticeship program. Each county superintendent from a participating school system may select up to 60 students to participate in the program. A student selected to participate in the program:

- may start the program in the summer or fall of the student’s junior or senior year in high school;
- must complete at least 450 hours of supervised work-based training;
- must receive at least one year of classroom instruction relating to the student’s eligible career track in the manufacturing industry or the science, technology, engineering, and math (STEM) industries;
- must receive credit toward a high school diploma or a postsecondary credential, or both, for the work-based training and classroom instruction completed under the program; and
- must complete the program before August 31 following the student’s graduation.

Approximately twenty (20) participating employers/sponsors support the following occupations that are offered to youth apprentices:

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>OCCUPATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing, Engineering and Technology</td>
<td>Machine Operator&lt;br&gt;Mechanical Engineer&lt;br&gt;Print Operator&lt;br&gt;Cabinet Maker&lt;br&gt;CNC Machinist (CAD/CAM)&lt;br&gt;Manufacturing Technician</td>
</tr>
<tr>
<td>Business Management</td>
<td>Data Entry&lt;br&gt;Computer Support Specialist&lt;br&gt;Business System Analyst</td>
</tr>
<tr>
<td>Construction and Development</td>
<td>Interior Design&lt;br&gt;Project Management&lt;br&gt;Upholstery&lt;br&gt;Custom Furniture Manufacturing</td>
</tr>
<tr>
<td>Construction Management</td>
<td>Estimator</td>
</tr>
<tr>
<td>Healthcare</td>
<td>Patient Access Registrar&lt;br&gt;Bio Med Technician&lt;br&gt;Pre-Access Financial Counselor&lt;br&gt;Diet Coordinator&lt;br&gt;Catering Associate&lt;br&gt;Care Management Associate&lt;br&gt;Patient Care Companion</td>
</tr>
</tbody>
</table>
Foreign Youth Apprenticeship Models | Germany

The YAAC met with representatives from the German Apprenticeship Office on November 14, 201. The YAAC was able to conduct an in-depth assessment of the German Youth Apprenticeship Program and its best practices. Renowned as one of the most successful youth apprenticeship models, the German youth apprenticeship program plays an integral part in Germany’s high youth employment rate, with approximately 60 percent of German youth in the nation’s vocational education and training (VET) program. In December 2016, the unemployment rate for 15-24-year olds in Germany was 6.7 percent, compared to 9.6 percent in the U.S. as of July 2017.

Program Details

The German youth apprenticeship model features a dual education system, enacted by the Vocational Training Act of 1969. The German system hinges on a tight-knit alliance between the German government, the German education system, and German industry. These entities work collaboratively to devise a combination of academic theory and practical work experience for more than 330 occupational standards that are modified each year based upon the changing landscape of technology, working environments, and customer needs. While many factors have contributed to the success of the German model—not least of which being the decades-long effort to build up capacity and continuously improve—there are a few factors worth emphasizing as the YAAC looks to the future:

- The VET model is highly respected by employers, as well as German youth, parents, educators, and unions, and employers heavily invest in training their apprentices;
- In addition to financial investment, German employers are fully invested in the development of standardized occupational curriculum in collaboration with the government and union partners;
- German employers embrace the longer-term and societal benefits of apprenticeships, versus a shorter-term return on investment (ROI);
- VET programming is not seen as “an alternative” or for “at-risk” youth or other specific populations, but for all German youth.

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1 http://www.dunbarhsdc.org/eleanor-holmes-norton-academy-for-business--policy.html
2 Brandon Butler: Youth Apprenticeship 101
3 https://www.ft.com/content/1a82e8e0-04cf-11e7-aa5b-6bb07f5c8e129
4 https://www.bls.gov/news.release/youth.nr0.htm
The District of Columbia has been highlighted as a recent leader in the administration of apprenticeship programs, and continues to be actively engaged with national and regional partners, including the U.S. Department of Labor (USDOL), the Council of Chief State School Officers (CCSSO), the Maryland Department of Labor, Licensing and Regulation (DLLR), the University of the District of Columbia (UDC) and many others.

To build from that success, the Bowser Administration, realizing the vast potential of apprenticeships, has launched the Apprenticeship DC initiative to promote both pre-apprenticeship and registered apprenticeship (RA) models as a workforce development tool throughout the District. Apprenticeship DC serves as the Statewide Apprenticeship Partner to business, industry, and District jobseekers.

Apprenticeship DC is the District’s vehicle through which businesses, employers and organizations can obtain grants, tax credits, or other subsidies to support interested businesses in developing and implementing customized apprenticeship offerings that meet industry specific hiring and training needs, including the establishment and operation of youth apprenticeship programs.

To date, Apprenticeship DC has funded three new apprenticeship and pre-apprenticeship programs, providing grants to local businesses and community based organizations that target three of the District’s high demand industries: Information Technology, Construction, and Infrastructure. These grants will help the District carry out the mission of preparing more residents for the workforce through specialized training.

In addition to general registered apprenticeship and pre-apprenticeship programming through Apprenticeship DC, the District is currently developing a Youth Apprenticeship Program (YAP), expected to launch in FY18.
Looking Forward: Recommendations

The focus of FY18 is to evaluate the number of current apprenticeship opportunities and available relevant data to project the number of youth apprenticeship opportunities that should exist in the District over the next three years.

To do so, the following recommendations will guide the work ahead:

1. Explore opportunities to connect post-secondary opportunities to CTE programs in District high schools, and within current and future registered apprenticeships.

2. Work to develop a stronger connection between registered apprenticeship sponsors and the District’s CTE high schools in an effort to create school-to-work apprenticeship program initiatives.

3. Expand registered apprenticeships in non-construction industries such as information technology and healthcare.

4. Promote the apprenticeship system and the viable career paths that apprenticeship programs and school-to-work initiatives offer, to middle school through high school students (including students, parents and educators).
In closing, the District of Columbia is poised to be the national leader in workforce development, particularly in the area of apprenticeship. Fully developing the youth apprenticeship system is a vital component to a thriving apprenticeship system and will lead to a stronger workforce system in the District.