



# CLOSING THE WORKFORCE SKILLS GAP: Apprenticeship Programs in the U.S. and the Fifth District



**47%** IN FEBRUARY 2018, 47% OF SMALL BUSINESSES REPORTED THAT THEY COULD FIND FEW OR NO QUALIFIED APPLICANTS TO FILL JOB OPENINGS.

Part of the reason is that job seekers require new training to fill in-demand positions. To improve training opportunities for workers, some government, foundation, and workforce leaders are seeking to expand apprenticeship programs.

## REGISTERED APPRENTICESHIP PROGRAMS...

- Last 1-6 years
- Train participants in real-life career skills
- Present apprentices with learning opportunities from employers
- Allow apprentices to "learn and earn"
- Give apprentices work assignments to practice skills

On average, apprentices start work at 50% of market-level wages and rise to 90% after completing 2,000 on-the-job training hours.

## WHAT ARE THE COMPONENTS OF A REGISTERED APPRENTICESHIP PROGRAM?

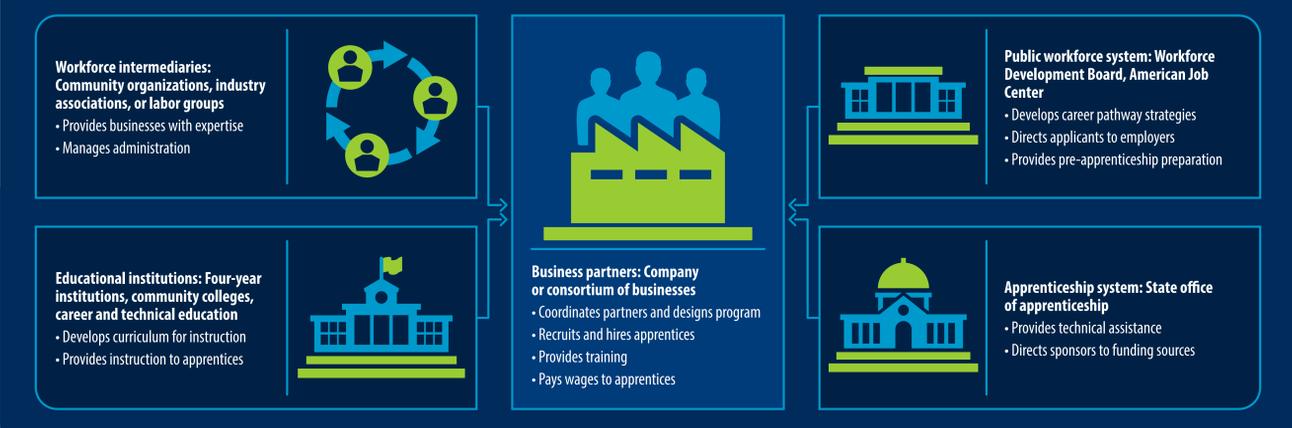
- Business involvement:** Employers register, design curricula, and recruit participants
- Structured on-the-job learning:** Apprentices work on-site with an experienced mentor for at least one year
- Related technical instruction:** Apprentices receive technical education at community colleges, technical schools, or apprenticeship training schools
- Rewards for skill gains:** Apprentices receive higher wages as they gain skills
- Nationally recognized occupational credential:** On completion, apprentices receive a DOL credential that is portable (recognized by industry's employers) and stackable (apprentice can build on its foundation in other programs)



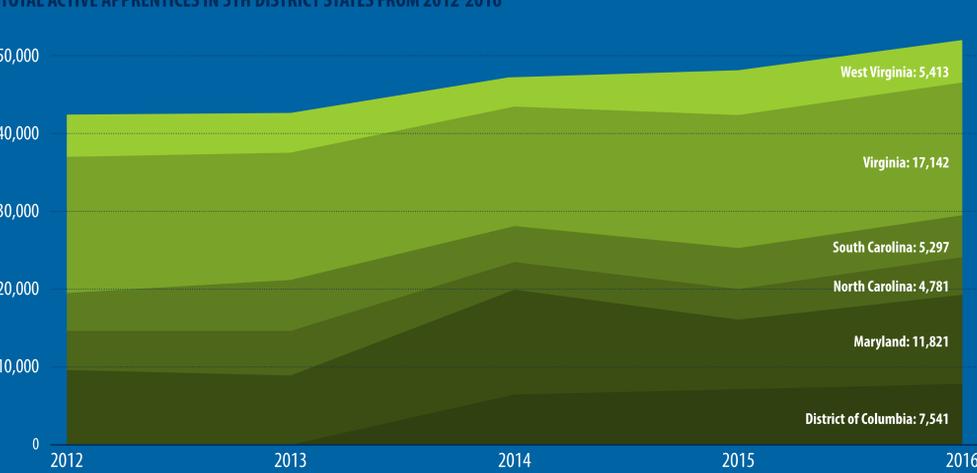
## WHAT ARE THE POTENTIAL BENEFITS AND DOWNSIDES OF APPRENTICESHIP PROGRAMS?

	FOR APPRENTICES	FOR EMPLOYERS	FOR ECONOMY
<b>Potential Benefits</b>	<p><b>Improved employment opportunities:</b> 91% of apprentices find employment after completing program</p> <p><b>Liveable wages:</b> Average starting wage: \$15/hr; average salary: over \$60,000</p> <p><b>Accrued lifetime benefit:</b> On average, program completers earn \$302,000 more than similar non-participants over time</p>	<p><b>Increased productivity and reduced costs over time:</b> For every dollar spent on an apprenticeship program, employers get back an estimated \$1.47</p>	<p><b>Increased economic growth:</b> Every \$1 spent on apprentice training may produce as much as \$3 in GDP growth</p> <p><b>Increased tax revenue:</b> The government receives almost \$20,000 in tax revenue for every registered apprentice's career, or \$27.68 per government dollar invested</p>
<b>Potential Downsides</b>	<p><b>Benefits decrease with age:</b> Vocational training in countries with apprenticeship programs may be less beneficial for middle-aged workers than general education alone</p>	<p><b>Potentially high upfront cost:</b> Total cost ranges from \$25,000 to as much as \$250,000 per apprentice</p> <p><b>Delayed return on investment:</b> In the first year, workers receive more in wages than they produce</p> <p><b>High attrition rate:</b> 59% percent of apprentices cancel their enrollment before graduating</p>	<p><b>Short-term measure:</b> May not provide for long-term growth in productivity</p> <p><b>Has not been a solution for all workers:</b> Over 90% of apprentices are male and most programs train for male-dominated fields</p>

## WHO IS TYPICALLY INVOLVED IN ESTABLISHING A REGISTERED APPRENTICESHIP PROGRAM?



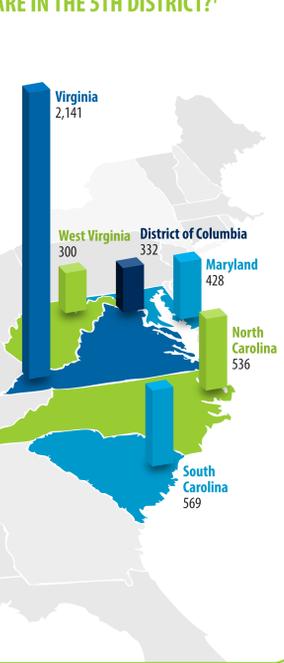
## HOW MANY FEDERALLY REGISTERED APPRENTICES ARE IN THE 5TH DISTRICT?¹



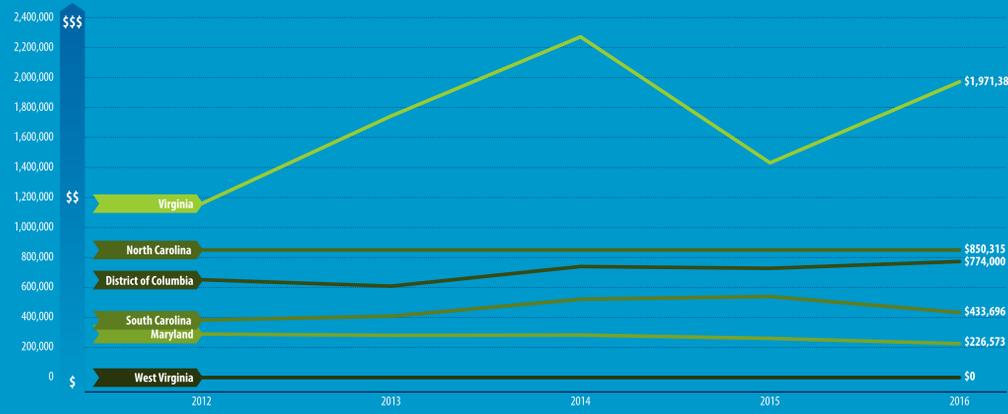
## OCCUPATIONS WITH THE HIGHEST APPRENTICE ENROLLMENT²

<b>Electrician</b>	Active Apprentices: <b>41,489</b>	Median Hourly Wage: <b>\$25.35</b>
<b>Plumbers, Pipefitters, and Steamfitters</b>	Active Apprentices: <b>23,094</b>	Median Hourly Wage: <b>\$24.18</b>
<b>Carpenters</b>	Active Apprentices: <b>20,159</b>	Median Hourly Wage: <b>\$20.96</b>
<b>Construction Laborers</b>	Active Apprentices: <b>14,089</b>	Median Hourly Wage: <b>\$16.07</b>
<b>Heavy and Tractor-Trailer Truck Drivers</b>	Active Apprentices: <b>7,890</b>	Median Hourly Wage: <b>\$19.87</b>

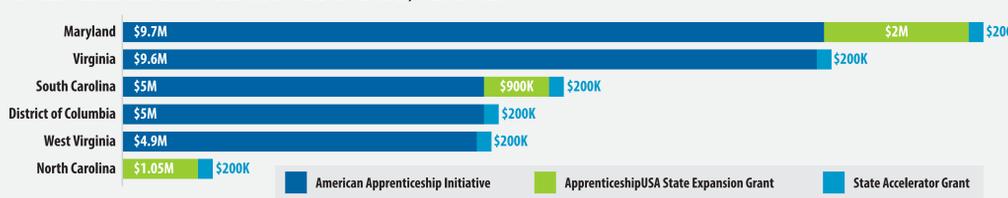
## HOW MANY ACTIVE PROGRAMS ARE IN THE 5TH DISTRICT?¹



## HOW ARE STATES IN THE 5TH DISTRICT SUPPORTING LOCAL APPRENTICESHIP PROGRAMS?³



## HOW HAS THE FEDERAL GOVERNMENT SUPPORTED REGISTERED APPRENTICESHIPS IN THE 5TH DISTRICT?⁴



## WHAT OTHER RECENT INITIATIVES ARE PROMOTING APPRENTICESHIPS IN THE 5TH DISTRICT?⁵

- Federal** In June 2017, President Trump signed Executive Order 13801, which will redirect \$200M from existing federal job training programs to fund new apprenticeship grants.
- District of Columbia** In Sept 2017, Mayor Bowser launched Apprenticeship DC, which will expand the city's apprenticeship grant programs in growing local industries.
- Maryland** In April 2017 the state legislature passed the Providing Our Workers Education and Readiness (POWER) Apprenticeship Act, which required contractors for public work projects to use apprentices.
- North Carolina** North Carolina's 2017 budget moved the state's Apprenticeship NC program to the North Carolina Community College system, encouraging closer coordination between industries and local schools.
- South Carolina** In Oct 2016, the SC Technical College System used a \$900,000 federal grant to fund the SC Apprenticeship Initiative Expansion, which promotes innovative apprenticeship models in the state.
- Virginia** In Oct 2015, Governor McAuliffe signed Executive Order 49, which instructed greater inter-agency collaboration and increased state funding to support new apprenticeship programs.
- West Virginia** The WV Department of Education implemented random drug testing in all Career and Technical Education programs as part of the Simulated Workplace Initiative.

### Data Definitions

Active Apprentices: Apprentices who are registered (RE), suspended (SU), or reinstated (RI).  
 Active Programs: Apprenticeship programs that are registered (RE), suspended (SU), or reinstated (RI).  
 New Apprentices: Apprentices who began their program during the fiscal year.  
 American Apprenticeship Initiative: Grants to local employers and workforce intermediaries to expand apprenticeships in high-growth sectors and connect apprenticeships with education and career advancement.  
 State Expansion Grant: Grants administered to states to expand apprenticeship programs and increase capacity.  
 State Accelerator Grant: \$200,000 grants provided to 51 states and territories, plus the District of Columbia, to expand and integrate apprenticeship programs.

### Apprenticeship Enrollment Data Sources

US DOL's Office of Apprenticeship uses a combination of individual records and aggregate state reports to calculate national totals as depicted on this webpage. The Registered Apprenticeship Information Management Data System (RAPIDS) captures individual record data from 25 Office of Apprenticeship (OA) states and eight of the 25 State Apprenticeship Agency (SAA) states. For SAA states that manage their data outside of RAPIDS, information is provided in the aggregate to US DOL on a quarterly basis.

### Footnote Sources

- ¹Registered Apprenticeship National Results, U.S. Department of Labor Employment and Training Administration (2016).
- ²Registered Apprenticeship National Results, U.S. Department of Labor Employment and Training Administration (2016).
- ³District of Columbia Agency Budget Chapters, FY2012-FY2016; Chris Maclaren, Director of Apprenticeship and Training, Maryland Office of Workforce Development; Ryan McCarty, Executive Assistant, Apprenticeship NC; Kelly Steinhilber, VP of Communications, SC Technical College System; Jane Daffron, FOIA Coordinator, Virginia Department of Labor and Industry; Kenneth Milnes, WV State Director, US DOL Office of Apprenticeship.
- ⁴ApprenticeshipUSA Investments, U.S. Department of Labor Employment and Training, (2016).
- ⁵Executive Order No. 13,801 (2017); Executive Office of the Mayor, "Mayor Bowser Launches Apprenticeship DC," DC.gov (Sept 2017); Delegate McCray, et al., "Providing Our Workers Education and Readiness (POWER) - Apprenticeship Act," Department of Legislative Services (2017); N.C. House of Representatives Appropriations Committee on Education Report on the Base and Expansion Budget, Senate Bill 257 (2017); \$900,000 Federal Grant Awarded to SC Technical College System to Expand Apprenticeship in South Carolina, SC Technical College System (Oct 2016); Office of the Governor, "Governor McAuliffe Signs Executive Order on Advancing Apprenticeships in Virginia," Virginia.gov (Oct 2015); West Virginia Department of Education, "Simulated Workplace: Developing Tomorrow's Workforce Today."

### General Sources

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- William Dunkelberg and Holly Wade, "NFIB Small Business Economic Trends," National Federation of Independent Businesses (Feb 2018).



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