The construction industry is predicted to add approximately 1 million new jobs by 2012 – making it among the economy’s top 10 largest sources of job growth, according to the U.S. Department of Labor, Bureau of Labor Statistics.
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The construction industry is booming. Despite a recent cooling down in residential building, construction spending remains strong. With total employment in the United States expected to reach 165.3 million by 2012, construction-related occupations are expected to see a proportionate increase in new jobs. For electricians, the U.S. Bureau of Labor Statistics (BLS) predicts a 15.1 percent change in the number of jobs by 2012. For carpenters, an expected 122,000 new jobs, and for construction managers, 47,000. The industry also has a large number of self-employed workers. Overall, the employment outlook is healthy for those who are interested in the construction trades.

Selected Opportunities in Construction

While there are numerous job opportunities in construction, this guidebook will highlight only a selected few. Those who are interested in this industry are urged to conduct additional research through the following organizations and websites:

- U.S. Department of Labor (www.dol.gov);

Construction Career Organizations

The following organizations may be useful in identifying careers in the construction trades:

- D.C. Office of Apprenticeship Information and Training
  609 H Street, N.E., Room 406
  Washington, D.C. 20002
  (202) 698-5099

- Associated General Contractors of America
  2300 Wilson Blvd.
  Suite 400
  Arlington, VA 22201

- The National Association of Home Builders
  1201 15th Street, NW
  Washington, D.C. 20005
  www.nahb.org

- The National Heavy & Highway Alliance
  901 16th Street NW
  Washington, DC, 20006
  www.heavyhighway.org

- Independent Electric Contractors
  PO Box 147
  Odenton, Maryland 21115
  (301) 621-9545

- Youthbuild USA
  588 12th Street
  Somerville, MA 02177
  www.youthbuild.org

- YouthBuild Local Offices
  NAFFCCA YouthBuild
  5505 Fifth Street, NW
  Suite 500
  Washington, DC 20011
  (202) 291-1603

- LTV YouthBuild
  Latin American Youth Center
  3014 1st Street, NW
  Washington, DC 20009-4773
  (202) 588-0601

- Sasha Bruce YouthBuild
  Administrative Office
  2604 Martin Luther King Avenue, SE
  Washington, DC 20032
  (202) 675-0755

- ARCH Training Center, YouthBuild
  1227 Good Hope Road SE
  Washington, DC 20020-6907
  (202) 889-5000

- Job Corps
  Job Corps
  www.jobcorps.gov

- Youthbuild USA
  Youthbuild USA
  www.youthbuild.org

- NAFFCCA YouthBuild
  NAFFCCA YouthBuild
  www.naffcca.org

Education and Training

The following organizations provide the most comprehensive training. A high school diploma or GED certificate is required, even for workers with considerable experience. Employers look for workers who have studied building inspection, construction technology, drafting, and math. Community colleges offer certificates or associate's degree programs in building inspection technology. Courses in blueprint reading, geometry, and English are useful. * Average D.C. hourly wage: $23.30.

Education and Training

- On-the-Job Risks. Construction inspectors must wear hardhats and adhere to safety requirements while at a construction site. A high school diploma or GED certificate is required, even for workers with considerable experience. Employers look for workers who have studied building inspection, construction technology, drafting, and math. Community colleges offer certificates or associate's degree programs in building inspection technology. Courses in blueprint reading, geometry, and English are useful. * Average D.C. hourly wage: $23.30.

Sheet Metal Workers

- make, install, and maintain heating, ventilation, and air-conditioning duct systems, roof's, siding, rain gutters, and downspouts.

- Workers work a 40-hour week. They stand for long periods and lift heavy materials and finished pieces.

- On-the-Job Risks. Workers work around high-speed machines and are subject to cuts from sharp metal, burns from soldering and welding, and falls from ladder and scaffolding.

- They must wear safety glasses and avoid jewelry or loose fitting clothing that could easily get caught in machines.

- Education and Training. Formal apprenticeships or on-the-job training plus a minimum of 144 hours of related classroom instruction provide the most comprehensive training. A high school diploma or GED certificate is required. Courses in general mathematics, drafting, blueprint reading, computers and physics are excellent preparation. * Average D.C. hourly wage: $24.32.
Construction industry provides excellent career opportunities

The construction industry offers financially rewarding opportunities, many of which require a solid education with workers showing proficiency in math or physics, and fluency in a second language. Listed below are several design and construction job opportunities with their starting salaries. (The estimated starting salary ranges are typical of a metropolitan area such as Washington, D.C.)

**Did You Know?**

- The most common occupation in the construction trade is **carpentry**, according to the Department of Labor, Bureau of Labor Statistics.

- In May 2005, there were 773,229 **carpenters in construction**, earning an average annual salary of $39,270.

- **About one-third of all carpenters are self-employed.**

- It is increasingly important for construction workers, particularly those in managerial positions, to be bi-lingual.

**Architect** - plans and designs structures of all types—bridges, sports stadiums, power plants, office buildings—assembling and analyzing appropriate materials to make a structure safe, attractive, and durable. **Entry-level salary ranges:** $40,000 to $40,000.

**Project Manager** - supervises subcontractors, material inventories, labor schedules, and cost performance using computer-aided project planning tools, global positioning systems, and cutting edge technologies to manage large construction projects. **Entry-level salary ranges:** $45,000 to $55,000.

**Landscape Architect** - plans the location of buildings, roads, and waterways and the arrangement of trees and flowers so that the outdoor areas surrounding buildings, industrial plants, shopping centers, recreation areas, and housing divisions are attractive, functional, and preserve the historic and natural environment. **Entry-level salary ranges:** $30,000 to $40,000.

**Computer-Aided Design Draftsman** - transforms makeshift engineering and architectural sketches into finished computerized drawings and databases. **Entry-level salary ranges:** $25,000 to $35,000.

**Surveyor** - establishes boundaries for the job site before construction begins and measures and records distances and elevations throughout a project to precisely place new structures. **Entry-level salary ranges:** $30,000 to $35,000.

**Civil Engineer** - designs and supervises the construction and renovation of major manmade projects to include airports, buildings, bridges, roads, railroads, and electric power plants. Uses state-of-the-art computer programs to evaluate new materials and execute innovative structural designs to meet building code safety requirements. **Entry-level salary ranges:** $30,000 to $50,000.

**Electrical Engineer** - plans, installs, and tests electrical service and wire systems used to provide heat, light, power, air conditioning and refrigeration in homes, office buildings, factories, hospitals, and schools. **Entry-level salary ranges:** from: $40,000 to $50,000.

**Interior Space Planner/Designer** - plans and designs the interior spaces of office buildings and industrial plants. Develops layouts and fixtures to ensure office spaces are functionally efficient, attractive, and cost-effective. **Entry-level salary ranges:** from: $40,000 to $50,000.

**Safety Director** - manages job site safety by inspection, corrects safety hazards, manages worker’s compensation and insurance claims, and ensures compliance with government regulations. **Entry-level salary ranges** from: $40,000 to $50,000.

**Apprenticeships**

Apprenticeships are excellent ways to enter into high-paying careers in the trades. Apprenticeships allow entry-level workers to gain customized training, while being compensated. As their skill level develops, their salaries increase. A first year apprentice salary usually begins at 40% to 50% of a journey worker’s hourly pay rate.

Apprentices work under the supervision of seasoned craft-workers. Additionally, they are required to attend related/supplemental classes so that they gain a thorough understanding of the theoretical and practical aspects of their desired trade area. Apprenticeship training is provided by Apprenticeship Sponsors, which can be a single employer, an association of employers and trade unions in both private and public sectors in various industries.

The length of apprenticeship training can be from one (1) to five (5) years, depending on the trade or craft. All completers of apprenticeship training receive nationally recognized certificates.

Apprenticeable occupations exist in many industries, including construction, allied health, automobile, information technology, aerospace, retail, farming and many others. The most available registered apprenticeship programs in the District of Columbia are in the construction industry, i.e. electricians, plumbers, carpenters, iron workers, steamfitters, and sheet metal workers, to name a few. Other available trade positions outside the construction industry include pharmacy technician, photo-lab technician, automobile technician, cosmetology, stationary engineer, childcare development specialist and elevator/escalator repairer.

All apprenticeship programs have eligibility requirements. For most apprenticeship programs, applicants must be at least 18 years old, have a high school diploma or GED, be physically able to perform the duties of the trade, and be drug free.

Pre-apprenticeship programs are available to District of Columbia residents during periods of the year through the Department of Employment Services’ Office of Apprenticeship. These pre-apprenticeship programs, provided in partnership with apprenticeship sponsors, allow eligible participants to develop the necessary skills for their respective trade, while earning a stipend. Upon completion of the pre-apprenticeship training, individuals are guaranteed acceptance as registered apprentices. For more information, call (202) 698-5099.
<table>
<thead>
<tr>
<th>Occupation</th>
<th>Skills / Training Needed</th>
<th>Mean Annual Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Line Supervisors / Managers of Construction Trades and Extraction Workers</td>
<td>High School diploma or less; on-the-job training</td>
<td>$64,810</td>
</tr>
<tr>
<td>Electricians</td>
<td>Some college; formal apprenticeship training</td>
<td>$53,950</td>
</tr>
<tr>
<td>Plumbers, Pipefitters, Steamfitters</td>
<td>Some college; formal apprenticeship training</td>
<td>$48,330</td>
</tr>
<tr>
<td>Carpenters</td>
<td>High-school diploma; on-the-job training</td>
<td>$42,670</td>
</tr>
<tr>
<td>Operating Engineers and Other Construction Equipment Operators</td>
<td>High-school diploma; some college; apprenticeship training</td>
<td>$41,430</td>
</tr>
<tr>
<td>Industrial Truck and Tractor Operators</td>
<td>High-school diploma; on-the-job training</td>
<td>$27,590</td>
</tr>
<tr>
<td>Construction Laborers</td>
<td>High-school diploma; on-the-job training</td>
<td>$25,770</td>
</tr>
<tr>
<td>Laborers and Freight, Stock, and Material Movers, Handymen</td>
<td>High-school diploma; on-the-job training</td>
<td>$25,500</td>
</tr>
<tr>
<td>Painters, Construction, and Maintenance</td>
<td>High-school diploma; on-the-job training</td>
<td>$38,480</td>
</tr>
<tr>
<td>Welders, Cutters, Solderers, and Brazers</td>
<td>High-school diploma; on-the-job training</td>
<td>$51,390</td>
</tr>
</tbody>
</table>

A Career in Construction

Elementary School
Middle School
High School
Vocational Center
Technical/Community College
Apprenticeship (2-5 Years)

Craft/Technology Training
Apprenticeship
Director/Estimator and more
Craft
Foreman
Project Manager
Senior Manager
CEO/Company Owner

Construction Manager, Contractor, Architect, Engineer

College/University

Source: The National Center for Construction Education and Research (NCCER) www.nccer.org

ACTIVE REGISTERED APPRENTICES

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprentices</td>
<td>1,108</td>
<td>2,041</td>
<td>2,371</td>
<td>3,183</td>
<td>3,521</td>
<td>3,711</td>
<td>4,300</td>
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<tr>
<td>Minorities</td>
<td>581</td>
<td>1,165</td>
<td>1,364</td>
<td>1,570</td>
<td>1,773</td>
<td>1,908</td>
<td>2,341</td>
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<tr>
<td>Females</td>
<td>56</td>
<td>122</td>
<td>134</td>
<td>146</td>
<td>145</td>
<td>154</td>
<td>194</td>
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<tr>
<td>District Residents</td>
<td>212</td>
<td>512</td>
<td>602</td>
<td>902</td>
<td>705</td>
<td>804</td>
<td>943</td>
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REGISTERED APPRENTICES IN MAJOR PROGRAMS

<table>
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<tr>
<th>Fiscal Year</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrician</td>
<td>107</td>
<td>359</td>
<td>454</td>
<td>583</td>
<td>707</td>
<td>733</td>
<td>883</td>
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<tr>
<td>Carpenter</td>
<td>205</td>
<td>205</td>
<td>213</td>
<td>241</td>
<td>240</td>
<td>320</td>
<td>401</td>
</tr>
<tr>
<td>Steamfitter</td>
<td>109</td>
<td>193</td>
<td>271</td>
<td>360</td>
<td>426</td>
<td>458</td>
<td>529</td>
</tr>
<tr>
<td>Sheet Metal</td>
<td>117</td>
<td>137</td>
<td>205</td>
<td>258</td>
<td>271</td>
<td>318</td>
<td>297</td>
</tr>
<tr>
<td>Plumber</td>
<td>154</td>
<td>139</td>
<td>181</td>
<td>224</td>
<td>286</td>
<td>327</td>
<td>524</td>
</tr>
<tr>
<td>Iron Worker</td>
<td>121</td>
<td>172</td>
<td>186</td>
<td>175</td>
<td>146</td>
<td>170</td>
<td>164</td>
</tr>
</tbody>
</table>

ENROLLMENT IN PRE-APPRENTICESHIPS

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>80</td>
<td>92</td>
<td>157</td>
<td>178</td>
<td>70</td>
<td>110</td>
<td></td>
</tr>
</tbody>
</table>

*Fiscal years are from October 1 to September 30.

DOES One-Stop Career Centers

The Perfect Resource for Your Employment Needs

Job Seekers interested in the Construction trades are encouraged to utilize any of the District’s One-Stop Career Centers strategically located throughout the District of Columbia. Whether you are seeking information on up-coming job fairs, professional mentoring, or simply an access to a personal computer to help you with your career search, the District’s One-Stop Career Centers have the offerings to help you get on your way.

Our Services

To Job Seekers
- America’s Job Bank
- Assessment Services
- Career Information
- Case Management Services
- D.C. Networks
- Dislocated Workers Services
- Job Search Workshops
- Labor Market Information
- One-Stop Career Center Orientation
- Personal Computer Access
- Resource Center
- Senior Employment Services
- Training Information
- Unemployment Insurance Services
- Veterans Employment Services

To Employers
- America’s Talent Bank
- D.C. Networks
- Internet Access
- Interviewing Facilities
- Job Fairs
- Job Listings
- Labor Market Information
- Recruitment Assistance
- Tax Credit Information

One-Stop Career Center Locations

**Full Service Centers**
- Franklin Street One-Stop Career Center
  1500 Franklin Street, N.E.
  Washington, D.C. 20001
  Hours: 8:30 am - 4:30 pm
- Naylor Road One-Stop Career Center
  2626 Naylor Road, S.E.
  Washington, D.C. 20020
  Hours: 8:30 am - 4:30 pm

**Satellite Offices**
- A. Philip Randolph Worker Center/One-Stop Career Center
  6210 North Capitol Street, N.W.
  Washington, D.C. 20011
  Hours: 8:30 am - 4:30 pm
- Business Improvement District (BID)
  954 G Street, N.W.
  Washington, D.C. 20001
  Hours: 8:30 am - 4:30 pm

**U.S. Assistance Center, Veteran Affairs Regional Office**
- 1722 I Street, N.W., 3rd Floor, Rm. 335
  Washington, D.C. 20421
  Hours: 8:30 am - 4:30 pm (Veterans Only)

**U.S. Assistance Center, Veteran Affairs Regional Office**
- 1704 Euclid Street, N.W.
  Washington, D.C. 20009
  Hours: 8:30 am - 4:30 pm

**U.S. Assistance Center, Veteran Affairs Regional Office**
- 4049 South Capitol Street, S.W.
  Washington, D.C. 20032
  Hours: 8:30 am - 4:30 pm

*Unemployment compensation benefits can only be filed at these centers. Visit www.dcnetworks.org or call 202-724-7000 or 1-877-319-7346*
Notice of Non-Discrimination

In accordance with the D.C. Human Rights Act of 1977, as amended, D.C. Official Code Section 2-1401.01 et seq., (Act) the District of Columbia does not discriminate on the basis of actual or perceived: race, color, religion, national origin, sex, age, marital status, personal appearance, sexual orientation, familial status, family responsibilities, matriculation, political affiliation, disability, source of income, or place of residence or business. Sexual harassment is a form of sex discrimination which is prohibited by the Act. In addition, harassment based on any of the above protected categories is prohibited by the Act. Discrimination in violation of the Act will not be tolerated. Violators will be subject to disciplinary action.

The Department of Employment Services is an Equal Opportunity Employer/Provider. Auxiliary aids and services are available upon request to persons with disabilities.