



## **2009-2010 Career Guide**

### ***Promising Careers that Don't Require Four Years of College***



***Jacquie,  
Massage Therapist***

***Lizandro,  
IT Technician***

***Jonathan,  
Auto Technician***

***Flor,  
Medical Assistant***

***Maya,  
Cosmetologist***

## Using This Guide

This guide has been prepared to provide information on a number of careers for consideration but is not an all-inclusive list. There are other promising careers and often specialized versions of the careers listed which can also be explored. In particular, the local community colleges offer many associate (2-year) degrees in job-specific fields and their counselors and admissions representatives can offer more information and advice for students exploring career options.

If a school is included in this guide, it has been visited by New Futures, and the program has been reviewed to ensure that it will provide a quality educational experience. If there is a notation such as “financial aid applicable” this indicates that the school and program have been approved to receive federal financial aid, so Pell grants and other types of federal aid can be used to offset costs. If the notation reads “financial aid not applicable,” this indicates that either the program is not long enough to qualify for federal financial aid or the school has not gone through the process to be certified to receive federal aid.

If you are considering a school which has not been reviewed by New Futures, check to see if it is accredited and licensed, and inquire about the outcome of its graduates, in terms of passing licensing exams and/or job placement. Also inquire if financial aid such as Pell grants can be used at the school, which can be helpful in reducing the cost of attending school, but is not available for all schools and programs. Students should be wary of schools that seem to be pressuring them to sign up and enroll in loan programs.

Salary information for various careers has many variables depending on regions of the country, particular type of office, level of experience, etc., so it has not been included in this guide. However, specific salary information for individual careers can be found in the Department of Labor’s Occupational Outlook Handbook – [www.bls.gov/oco](http://www.bls.gov/oco) (see the “earnings” section at the bottom of the job description page and the link there for the latest wage data). This web site is also an excellent resource for more information about specific jobs. Salary.com is another source for wage data which seems to be recognized for being an accurate resource.

School prices and program information included here is from fall 2009 and is subject to change. Students should check with schools for the latest rates and class schedules. This guide will be updated annually. It should be noted that college cost estimates are priced out on a full-time attendance basis; part-time attendance will usually cost more, due to college administrative fees that must be paid each semester attended.

If a student is interested in obtaining additional academic or computer training prior to beginning his or her post-secondary education, see the last page of this booklet for useful information on free or low cost programs available in the area.

As mentioned above, New Futures has visited all of the schools listed in this guide. If a partner organization would like more information about our impressions of a specific school and its programs, contact Debbie Carty.

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*Note regarding special situations: Programs with internships or formal licensing requirements usually require that students have the necessary paperwork to study or work in the US. Certain positions, such as a pharmacy technician or a home health aid may require the student to have a negative background check. Students with special situations regarding documentation or criminal records should inquire at the school about the specific requirements for the program they are interested in.*

## Choosing an Educational Program

There are many post-secondary education options that can help you to find a promising career. This guide focuses on those careers that allow you to get into the field with less than a 4-year bachelor's degree and often at considerable less personal expense. There are several reasons for considering one of these shorter term educational options. Some of them include:

- You have a special interest or talent that can be further developed through specialized training at schools dedicated to the field (culinary arts, cosmetology, massage therapy, etc.).
- You don't have time to go to school full-time for 4 years or part-time for 8-10 years before increasing your earning potential.
- You wish to get started in your field of choice and then pursue additional levels of education or certification later or gradually over time as you are working in the field.
- Not knowing what your personal life and schedule may look like a few years down the road, you'd like to complete an educational program in the near term to make sure you are able to finish what you have begun and obtain a credential with value in the workplace (as opposed to having some coursework completed in an unfinished degree program).

If the program you are interested in is available at both a community college and a specialized school, you may wish to look at some of the defining characteristics of each type of school to see which will best fit your individual needs:

Topic	Community Colleges (certificate and degree programs)	Specialized Schools (certificate and degree programs)
Tuition Costs	Generally less expensive if you attend your local area school	Generally more expensive
Ability to use federal and state financial aid	Available for use (may not apply to very short non-credit programs)	May or may not be available; depends on the school
Credits can transfer later toward advanced degree	Yes (when planning future transfer, work with school counselor to ensure maximum transfer)	In limited cases, depending on school's type of accreditation
Multiple scheduling options	Yes – students schedule each class they need to take.	Usually one or a few options to choose pre-planned schedules.
Class schedule set-up	Students schedule individual courses; may not be in one chunk of time per day.	Generally in chunks of time, such as Mon.-Fri., 9-2 or Mon.-Thurs., 7-9.
Testing and placement	Must take Accuplacer or similar test, and may need to start with remedial coursework in math or English depending on test results.	Some have entrance exams but they may not be as difficult as the college testing.
Coursework	Some general education courses (math, English) may be required in addition to career-specific courses (less so for certificate programs).	Focus is generally on career-specific courses.
Sureness of career choice	Allows for flexibility to change fields during the early parts of the program.	Generally career-specific with little ability to change fields after beginning program.
Location	May be a school campus near where you live.	Some have a single location; some have a few locations.
Program length	With semester plans and some general requirements, programs can sometimes take a bit longer to complete.	Concentrated career-oriented coursework often allows program completion in less time.
Self-motivation and discipline	Students must be motivated to be in class, on time, and complete assignments when due.	Instructors make sure students are in attendance, on time, and staying on top of coursework.
Group of peers progressing in program together	No – students take individual classes according to their own schedules.	Yes – group generally works together in planned sequence towards completion.
Job placement	College career center may provide general advice and guidance.	Often have job placement assistance and connections in the field.
Completion rates	Due to students needing to be self-motivated and managing their own progress, a good number do not persist to completion.	The recommended schools generally have fairly good completion rates; they try to motivate students to stay on track and many assist with tutoring or extra support if needed.

## Table of Contents

	Page
<b>CAREER INFORMATION:</b>	
<b>Medical / Health Fields:</b>	
Nursing Assistant	1
Medical Assistant	2
Licensed Practical Nurse (LPN)	3
Registered Nurse (RN)	4
Medical Office Administrator	5
Medical Coder	6
Radiology Technician	6
Respiratory Therapist	8
Dental Assistant	9
Dental Hygienist	9
Pharmacy Technician	10
Physical Therapy Assistant	11
<b>Massage Therapy</b>	<b>11</b>
<b>Personal Care Fields:</b>	
Cosmetology	13
Esthiology	14
Barbering	14
<b>Culinary and Pastry Arts</b>	<b>15</b>
<b>Early Childhood Education:</b>	
Childcare Workers & Preschool Teachers	17
<b>Paralegal</b>	<b>18</b>
<b>Computer Support:</b>	
Help Desk Technician and other specialties	19
<b>Mechanics / Technicians:</b>	
Automotive Technicians	21
Aviation Mechanics	23
<b>Building Trades:</b>	
Heating, Ventilation and Air Conditioning Technicians	24
Building and Construction Trades	25
<b>Heavy Equipment Operators / Commercial Drivers</b>	<b>26</b>
<b>Other Careers</b>	<b>27</b>
<b>PREPARATORY ASSISTANCE INFORMATION</b>	<b>27</b>

## MEDICAL / HEALTH FIELDS:

*Since there are many types of nursing and medical positions, interested candidates should speak with representatives at the local vocational schools or community colleges to determine which program is best for them. Several of the common professions are listed here so the prospective student can learn more about them and understand the difference between them.*

### NURSING ASSISTANT

*This is a very entry level position but is sometimes helpful to give students a start in the medical field from which they can continue to pursue their education and gain more medical skills (which is sometimes paid for by employers, due to the shortage of skilled medical personnel).*

- **Description:** Nursing Assistants, also known as nursing aides, certified nursing assistants, geriatric aides, unlicensed assistive personnel, orderlies, or hospital attendants provide hands-on care and perform routine tasks under the supervision of nursing and medical staff. Specific tasks vary, with aides handling many aspects of a patient's care. They often help patients to eat, dress, and bathe. They also answer calls for help, deliver messages, serve meals, make beds, and tidy up rooms. Aides sometimes are responsible for taking a patient's temperature, pulse rate, respiration rate, or blood pressure. They also may help provide care to patients by helping them get into and out of bed and walk, escorting them to operating and examining rooms, or providing skin care.
- **Education:** Training for this position is offered in vocational schools and some community colleges. Training generally takes 1-2 months.
- **Certifications:** For certain types of positions, competency exams/evaluations must be completed.
- **Job Environment:** Most full-time aides work about 40 hours per week, but because patients need care 24 hours a day, some aides work evenings, nights, weekends, and holidays. In 2006, 23 percent of aides worked part time. Work can be physically demanding, as much time is spent standing, walking, and lifting patients. Many of the job positions are in nursing home settings.
- **Job Outlook:** Employment of nursing aides is expected to grow faster than the average for all occupations through 2016, in response to the long-term care needs of an increasing elderly population.
- **Income:** This is a very entry-level job, which does not pay as well as the more extensively trained nursing and medical positions (such as a Medical Assistant or Licensed Practical Nurse).
- **Further Career Growth:** There is not a lot of career growth within the nursing aid field, so many aides go on to obtain additional training and pursue more advanced medical positions.
- **Local Schools:**
  - Capital Health Institute, 7826 Eastern Ave., NW, Suite 515, Washington, DC 20012 (Metro and short bus ride), 202-722-8830, [www.capitalhealthinstitute.com](http://www.capitalhealthinstitute.com), program is 1 month long with day (M-F, 8-3) or evening (M-F, 4-10) classes or 2 months long on the weekends (Sa-Su, 8:00-4:00), program cost is \$1,100 plus board exam fee.
  - Carlos Rosario International Public Charter School, 1100 Harvard St, NW, Washington, DC 20009 (metro accessible), 202-797-4700, [www.carlosrosario.org/studentinfo/courses](http://www.carlosrosario.org/studentinfo/courses) (see workforce training programs), program is 16 weeks, free to DC residents but must meet requirements which include legal status, passing criminal background check, interview, ESL test (7 or higher level), proficiency test, then enter lottery for a spot (most who complete the full application process get a spot). Classes are held from 8:45-11:30 AM. (Registration is in November for the spring session, in April for the fall session; registration is an 8-step process which must be followed to be considered for acceptance.)
  - Montgomery College, 7977 Georgia Ave. Silver Spring, MD 20901 (metro accessible), 240-567-5188, [www.montgomerycollege.edu/wdce/healthsciencesinstitute.html](http://www.montgomerycollege.edu/wdce/healthsciencesinstitute.html), 3 month program, generally 3 times per week in the evenings (various schedules), with a 2 ½ week clinical phase of 6-9 sessions (day or evening), some classes offered at alternative locations in the county. Cost to county residents is \$1,580; cost to non-county residents is \$2,280.
  - Prince Georges Community College, 310 Largo Road, Largo, MD 20774 (metro and short bus ride), 301-322-0866, [www.pgcc.edu](http://www.pgcc.edu), 2 classes with various schedules day or evening 2-3 times per week, taking a total of about 2 ½ months to complete, cost is about \$1,120.

- UDC Community College Workforce Development Program, 202-274-6999, [www.ccdcdwp.org](http://www.ccdcdwp.org), free to DC residents, 6 weeks in duration, currently offered evenings (offered in locations in wards 5-8).
- VMT Education Center, 4201 Connecticut Avenue, NW, Suite 200, Washington, DC 20008 (metro accessible), 202-282-3100, [www.vmtltc.com/ec](http://www.vmtltc.com/ec), 3 week program – days (M-F, 8-4 with 7-3 clinical rotation), \$1,000 plus \$117 state board exam fee; not eligible for financial aid.

## MEDICAL ASSISTANT

- **Description:** Medical Assistants assist physicians and medical group practices with a number of clinical tasks including administering medications, vital sign measurement, assisting with surgical procedures, performing electrocardiographs, phlebotomy, assisting with physical examinations, patient education, and basic medical office procedures.
- **Education:** Medical assisting programs are offered in post-secondary vocational schools and community colleges. Programs usually last just under one year and result in a certificate or diploma.
- **Certifications:** There are three types of certifications which can be obtained by taking an exam for those with high school diplomas or GEDs and medical assistant training:
  - RMA - Registered Medical Assistant (American Medical Technologists)
  - CMA - Certified Medical Assistant (American Association of Medical Assistants)
  - RPT - Registered Phlebotomy Technician (International Academy of Phlebotomy Sciences or the American Medical Technologists)
- **Job Environment:** Sixty percent of medical assisting positions are found in physicians' offices, 15% in hospitals (including inpatient and outpatient facilities), and 25% in nursing homes, offices of other health practitioners, and other health care facilities. Most full-time medical assistants work a regular 40-hour week. However, many medical assistants work part time, evenings, or weekends.
- **Job Outlook:** Employment of medical assistants is expected to grow 35 percent from 2006 to 2016, much faster than the average for all occupations.
- **Income:** Medical Assistants earn substantially more than a Nursing Assistant but not as much as a Licensed Practical Nurse (LPN).
- **Further Career Growth:** It can be advantageous to combine medical assistance experience with medical billing and coding training in order to fill multiple roles in a medical office.
- **Local Schools:**
  - ACT College, 1100 Wilson Blvd., M780, Arlington, VA 22209 (Metro accessible), 703-527-6660, [www.actcollege.edu](http://www.actcollege.edu); program length is 10 months in the daytime (M-F, 9:15-3:15) or 12 months in the evenings (M-Th, 6:00-9:30), cost is \$14,170, financial aid does apply. Note: Students may continue in school for an additional 6 months taking general education requirements to obtain an Associate of Applied Studies (AAS) degree.
  - Andromeda Transcultural Health, 1400 Decatur Street NW, Washington, DC 20011, (202) 291-4707, [www.andromedatransculturalhealth.org](http://www.andromedatransculturalhealth.org), free program for selected applicants with small fee for books and equipment - \$50 or \$60/month (must be DC resident to apply); program length is 1 year and begins in January (must apply well in advance). Classes Tuesdays & Thursdays, 9:00-1:00 (work with student's schedules to allow them to work while going to school). [Worth \$12,000 - \$14,000 in value.] Note: Not eligible to sit for licensing exam upon completion, which is not required for this field but is available and could expand job options.
  - SANZ School, 529 14<sup>th</sup> Street, NW (National Press Building), lobby level, Washington, DC 20045 (new address), also have course offerings at 8455 Colesville Road, Silver Spring, MD 20910 (Metro accessible), or Falls Church (Metro plus bus), 866-275-1118, [www.sanz.edu/programs.html](http://www.sanz.edu/programs.html); program length 7 ½ months mornings (M-F, 8:30-1:30) or 8 ½ months afternoons (M-F, 1:30-5:30) or 9 months evenings (M-Th, 5:30-9:30), cost is \$12,800 (includes books, scrubs, lab coat, etc.), financial aid does apply. Note: Students can take a longer 15 month program to obtain an Associate of Occupational Studies degree in Medical Assisting for a total of \$25,550.

- UDC Workforce Development, evening programs at various locations in wards 5-8, [www.ccdcwdp.org](http://www.ccdcwdp.org), 202-274-6999, set of 3 sequential 12-week classes prepares student for Medical Assistant work (Medical Terms/Anatomy, Medical Assistant 1 & 2), free to DC residents. Note: At this time, graduates of this program are not eligible to sit for a licensing exam, which is not required for this field but is available and could expand job options (they are working on obtaining this certification in the future).

## LICENSED PRACTICAL NURSE

- **Description:** Licensed practical nurses (LPNs), or licensed vocational nurses (LVNs), care for people who are sick, injured, convalescent, or disabled under the direction of physicians and registered nurses. LPNs care for patients in many ways, often providing basic bedside care. Many LPNs measure and record patients' vital signs such as height, weight, temperature, blood pressure, pulse, and respiration. They also prepare and give injections and enemas, monitor catheters, dress wounds, and give alcohol rubs and massages. Experienced LPNs may supervise nursing assistants and aides.
- **Education:** Training programs last from 1 to 1 ½ years and are offered at vocational schools and some community colleges.
- **Certification:** LPNs must pass a licensing examination, known as the NCLEX-PN, after completing a state-approved practical nursing program.
- **Job Environment:** Most licensed practical nurses in hospitals and nursing care facilities work a 40-hour week, but because patients need round-the-clock care, some work nights, weekends, and holidays. They often stand for long periods and help patients move in bed, stand, or walk.
- **Job Outlook:** Employment of LPNs is projected to grow faster than average. Overall job prospects are expected to be very good, but job outlook varies by industry. The best job opportunities will occur in nursing care facilities and home health care services, while applicants for jobs in hospitals may face competition. Local hospitals seem to be moving to use RNs instead of LPNs.
- **Income:** An LPN can perform some of the same duties as a Medical Assistant but has additional clinical training and skills, and consequently earns a higher income than a Medical Assistant.
- **Further Career Growth:** LPNs can often continue their education to become an RN (Registered Nurse). Many schools have specific LPN to RN programs.
- **Local Schools:**
  - Capital Health Institute, 7826 Eastern Ave., NW, Suite 515, Washington, DC 20012 (Metro plus short bus ride), 202-722-8830, [www.capitalhealthinstitute.com](http://www.capitalhealthinstitute.com), program is 12 months with a daytime (M-F, 8:00-2:00) or evening (M-F, 4:00-10:00) schedule, cost is \$9,500. Financial aid is not applicable.
  - Comprehensive Health Academy, 1106 Bladensburg Road, NE, Washington, DC 20002, 202-388-5500, [www.comprehensiveacademy.com](http://www.comprehensiveacademy.com), 12 month program during the day (M-F, 8:00-2:00), cost is \$9,500 plus books, uniform, equipment, not eligible for financial aid but may be in 2010 (have applied). Note: Have very good licensing exam pass rates.
  - Prince Georges Community College, 301 Largo Road, Upper Marlboro, MD, 301-322-0150, [www.academic.pgcc.edu/nursing/Prog&Overview.htm](http://www.academic.pgcc.edu/nursing/Prog&Overview.htm) or [www.pgcc.edu](http://www.pgcc.edu), program is a 46 credit college program -- this is a program with limited spaces and student must first take general education courses and then apply to the program for acceptance; costs about \$6,026 in-county and \$13,340 out of state (could be reduced somewhat with DC-TAG).
  - Radians College, 1125 Vermont Ave., NW, Suite 200, Washington, DC 20005, 202-291-9020, [www.radianscollege.com](http://www.radianscollege.com), program is 16 months, day classes only (M-Th, 8-2), could possibly add evening classes some time in the future, cost is \$10,594; financial aid not currently available but may be in the future (have applied). Note: Have very good licensing exam pass rates.
  - UDC Community College\*, 4200 Connecticut Ave NW, Washington, DC 20008 (\*this class is taught at 410 8<sup>th</sup> Street NW in the Hospitality Charter High School), 202-274-5800, [www.udc.edu/cc.bak/academic\\_programs](http://www.udc.edu/cc.bak/academic_programs), program length is 1 year if taken days (M-F, 8:30-2) or 15 months in the evenings (M-F, 5-9); cost is \$6,900.

- VMT Education Center, 4201 Connecticut Avenue, NW, Suite 200, Washington, DC 20008 (Metro accessible), 202-282-3100, [www.vmtltc.com/ec](http://www.vmtltc.com/ec), 12 month program offered days (M-F, 8:00-2:00; clinical portion 7:00-3:00) or evenings (M-F, 4:00-10:00, clinical portion 3:00-11:00), \$9,819 plus board exam fees, books, and uniforms. Not eligible for financial aid.

## REGISTERED NURSE (RN)

- **Description:** Registered nurses (RNs), regardless of specialty or work setting, treat patients, educate patients and the public about various medical conditions, and provide advice and emotional support to patients' family members. RNs record patients' medical histories and symptoms, help perform diagnostic tests and analyze results, operate medical machinery, administer treatment and medications, and help with patient follow-up and rehabilitation.
- **Education:** RNs can have either an associate's degree (2-3 years) or a bachelor's degree (4 years). *Note: Those pursuing nursing programs at colleges usually have to take general education classes first and then apply to the nursing program. Spots in the nursing program can be very competitive to get, since demand outstrips spaces in the programs. Because of these pre-requisites, the associate's program can take 2 ½ to 3 years to complete. When researching a specific schools program, students should inquire in detail about the requirements for and opportunities available in the program.*
- **Certification:** Students must graduate from an approved nursing program and pass a national licensing examination, known as the NCLEX-RN, in order to obtain a nursing license. Note: The same nursing exam is taken by students with associate and bachelor's degrees.
- **Job Environment:** RNs may spend considerable time walking, bending, stretching, and standing. Patients in hospitals and nursing care facilities require 24-hour care; consequently, nurses in these institutions may work nights, weekends, and holidays. RNs also may be on call—available to work on short notice. Nurses who work in doctor's offices, schools, and other settings that do not provide 24-hour care are more likely to work regular business hours. About 21 percent of RNs worked part time in 2006
- **Job Outlook:** Overall job opportunities for registered nurses are expected to be excellent. Employment of RNs is expected to grow much faster than the average for all occupations through 2016 and, because the occupation is very large, many new jobs will result.
- **Income:** Registered Nurses earn higher pay than LPNs.
- **Further Career Growth:** RNs with associate's degrees may wish to pursue bachelor's degrees. Often, they can find an entry-level position and then take advantage of their employer's tuition reimbursement benefits to work toward a BSN (Bachelor of Science in Nursing) by completing an RN-to-BSN program.
- **Local Schools:**
  - Montgomery College, Takoma Park/Silver Spring Campus, 7977 Georgia Ave., Silver Spring (Metro accessible) as well as other campuses (nursing courses are in Silver Spring; general education courses may be found at multiple MC campuses), 240-567-5000, [www.montgomerycollege.edu/curricula/descriptions/cdnurse.htm](http://www.montgomerycollege.edu/curricula/descriptions/cdnurse.htm) or [montgomerycollege.edu](http://montgomerycollege.edu), program recommends students take 18 credits of general education requirements with a GPA of at least 2.5 (two semesters of coursework), take an academic skills test, and then apply for acceptance to the nursing program. Cost would be about \$10,228 for Montgomery County residents or those with DC-TAG (it would be about \$26,609 for non-residents without DC-TAG).
  - Northern Virginia Community College (NOVA), Medical Education Campus, 6699 Springfield Center Drive, Springfield, VA 22150-1913 (shuttle from Metro station), [www.nvcc.edu](http://www.nvcc.edu). [www.nvcc.edu/curcatalog/program](http://www.nvcc.edu/curcatalog/program) or [www.nvcc.edu](http://www.nvcc.edu). Students must take 4 classes and achieve at least a 2.75 GPA, pass the entrance exam, and then apply for the nursing program (not guaranteed but most who meet requirements get in). Program would take about 2 ½ - 3 years to complete and cost about \$6,884 in-state or with DC-TAG, or about \$19,684 for non-residents without DC-TAG.

- Prince Georges Community College, 301 Largo Road, Upper Marlboro, MD, 301-322-0150, [www.academic.pgcc.edu/nursing/Prog&Overview.htm](http://www.academic.pgcc.edu/nursing/Prog&Overview.htm) or [www.pgcc.edu](http://www.pgcc.edu), associate's degree program is 70 credits and would take about 2 ½ years to complete; students must begin with general education prerequisite courses and then apply to nursing program (very competitive; average GPA getting in is 3.8 or higher), cost would be about \$9,170 in-county and \$20,300 out-of-state (DC-TAG can help reduce fees somewhat).
- Radians College, 1125 Vermont Ave., NW, Suite 200, Washington, DC 20005, 202-291-9020, [www.radianscollege.com](http://www.radianscollege.com), 2 year, 4 month (28 month) program, cost is \$40,555 and no financial aid applies (but may in the future). First year of program is in Takoma Park, MD (housed at Washington Adventist University, 7600 Flower Avenue, Takoma Park, Maryland 20912) and meets 2 days/week (M&W or Tu&Th, 8:00-4:30) for the first year and up to 4 days/week during the second year (at the DC location on Vermont Ave.).
- UDC Community College, 4200 Connecticut Ave NW, Washington, DC 20008, 202-274-5800, [www.udc.edu/cc.bak/academic\\_programs](http://www.udc.edu/cc.bak/academic_programs), program would take about 3 years to complete and would cost around \$8,300. Students must begin with 31 credits of general education and science requirements, pass with at least a 2.5 GPA, and then apply to the nursing program and pass the entrance exam; about 50% of applicants are accepted into the program.

## MEDICAL OFFICE ADMINISTRATOR

- **Description:** Sometimes called Medical Office Specialists, Medical Office Administrators update and file patients' medical records, fill out insurance forms, and arrange for hospital admissions and laboratory services. They also perform tasks less specific to medical settings, such as answering telephones, greeting patients, handling correspondence, scheduling appointments, and handling billing and bookkeeping.
- **Education:** Medical Office Administrator programs are offered in post-secondary vocational schools. Programs usually take less than 1 year (about 30 weeks) and result in a diploma.
- **Certifications:** Certification is not required, but graduates may opt to sit for the Certified Medical Administrative Specialist examination offered through American Medical Technologists (CMAS).
- **Job Environment:** Medical Office Administrators will find work as either medical receptionists or medical office assistants in hospitals, private practices, clinics, or other healthcare delivery service providers.
- **Job Outlook:** There is constant demand for skilled medical administrative personnel and it is expected to remain constant until at least 2010 and then may increase.
- **Income:** Wages vary due to responsibilities of the position but are generally higher than a Nursing Assistant but slightly lower than a Medical Assistant.
- **Further Career Growth:** Medical Office Administrators may advance to office manager or qualify for a variety of administrative support occupations. In addition, Medical Office Administrators with clinical skills can often obtain broader positions which utilize both skill sets.
- **Local Schools:**
  - ACT College, 1100 Wilson Blvd., M780, Arlington, VA 22209 (Metro accessible), 703-527-6660, [www.actcollege.edu](http://www.actcollege.edu); program length is 7 months in the daytime (M-F, 9:15-3:15) or 10 months in the evening (M-Th, 6:00-9:30 PM); cost is \$10,622, financial aid is applicable. Note: Students may continue in school for an additional 6 months taking general education requirements to obtain an Associate of Applied Studies (AAS) degree.
  - SANZ, 529 14<sup>th</sup> Street, NW (National Press Building), lobby level, Washington, DC 20045 (new address), 866-275-1118, [www.sanz.edu/programs.html](http://www.sanz.edu/programs.html), program length 7 ½ months during the day (M-F, 8:30-1:30), cost is \$12,800, financial aid is applicable. (Also available in Falls Church.)

*Note: PGCC offers a shorter certificate program for a Medical Office Assistant, which is a less extensive program. The UDC Workforce Development Program also offers a set of programs in this*

*general field entitled Medical Office Assistant 1 and 2 which are 12 weeks each in the evenings (free to DC residents.)*

## **MEDICAL CODER**

- **Description:** Medical coders, also referred to as health information coders, coder/abstractors, coding specialists, or medical records/health information technicians specialize in coding patients' medical information for insurance purposes.
- **Education:** Medical coder programs are offered in post-secondary vocational schools and community colleges. Programs typically take about from  $\frac{3}{4}$  to 1  $\frac{1}{2}$  years.
- **Certifications:** Candidates with a high school diploma or equivalent plus medical coding training can take an exam to become certified as a Certified Coding Associate (CCA) through the American Health Information Management Association. Certifications are also offered through the American Academy of Professional Coders: CPC<sup>®</sup> (Certified Professional Coder). Advanced levels of certification can also be obtained with more training and experience.
- **Job Environment:** Medical coders work in the claims, billing and collections department of a medical office, clinic, medical insurance department, company, or hospital. This is one of the few health-related occupations in which there is little or no direct contact with patients. Medical coders usually work a 40-hour week. Some overtime may be required. In hospitals—where health information departments often are open 24 hours a day, 7 days a week—technicians may work day, evening, and night shifts.
- **Job Outlook:** Employment of medical records and health information technicians is expected to increase by 18 percent through 2016—faster than the average for all occupations—because of rapid growth in the number of medical tests, treatments, and procedures that will be increasingly scrutinized by health insurance companies, regulators, courts, and consumers. Also, technicians will be needed to enter patient information into computer databases to comply with Federal legislation mandating the use of electronic medical records.
- **Further Career Growth:** Those completing additional coursework and obtaining an associate's degree can obtain advanced certification levels and increased pay. Candidates may also want to obtain medical assistant skills in the future so they can fulfill multiple roles in a medical office.
- **Local Schools:**
  - Montgomery College, Takoma Park/Silver Spring campus, 7977 Georgia Ave., Silver Spring (Metro accessible) with some courses available on other campuses, 240-567-5000, [www.montgomerycollege.edu](http://www.montgomerycollege.edu), program length is about 3 semesters of college credit courses (1  $\frac{1}{2}$  years); cost would be about \$4,900 for Montgomery County residents or those with DC TAG or \$13,127 for non-residents without DC-TAG.
  - Prince Georges Community College, 310 Largo Road, Largo, MD 20774, 301-322-0866, [www.pgcc.edu](http://www.pgcc.edu), program is set up as 39 college credits (10 courses) so it would take about 1  $\frac{1}{2}$  years – this is a program with limited spaces and student must first take general education courses and then apply to the program for acceptance; would cost about \$5,109 in-county or \$11,310 out of state (DC-TAG could help reduce fees).
  - SANZ, 529 14<sup>th</sup> Street, NW (National Press Building), lobby level, Washington, DC 20045 (new address) or Falls Church (Metro plus bus), 866-275-1118, [www.sanz.edu/programs.html](http://www.sanz.edu/programs.html), program length 8  $\frac{1}{2}$  months evenings (M-Th, 5:30-9:30), financial aid does apply. Prerequisites include proficiency with basic computer operations (Word, Excel, etc.). Also available in Silver Spring (Metro accessible). The cost is \$8,990.
  - UDC Workforce Development Program, 202-274-6999, [www.ccdcwdp.org](http://www.ccdcwdp.org). A series of courses is currently being put together to train an individual for a medical billing and coding position. Some, but not all, of these courses are available at this time. Interested students should contact the school to get the latest information. Free to DC residents, offered in various locations in wards 5-8.

## **RADIOLOGY TECHNICIAN**

- **Description:** Radiologic technologists, also referred to as radiographers, produce x-ray films (radiographs) of parts of the human body for use in diagnosing medical problems. They prepare

patients for radiologic examinations by explaining the procedure, removing jewelry and other articles through which x rays cannot pass, and positioning patients so that the parts of the body can be appropriately radiographed.

- **Education:** The most common training for this position is the associate's degree. There are two years of coursework specific to this field, but the student must sometimes first take some general education requirements and be admitted to the program, so the program could take up to 3 years.
- **Certifications:** The American Registry of Radiologic Technologists (ARRT) offers certification for radiologic technologists. To be eligible for certification, technologists generally must graduate from an accredited program and pass an examination.
- **Job Environment:** Physical stamina is important in this occupation because technologists are on their feet for long periods and may lift or turn disabled patients. Technologists work at diagnostic machines but also may perform some procedures at patients' bedsides. Some travel to patients in large vans equipped with sophisticated diagnostic equipment. Most full-time radiologic technologists work about 40 hours a week. They may, however, have evening, weekend, or on-call hours. Opportunities for part-time and shift work also are available.
- **Job Outlook:** Employment of radiologic technologists is expected to increase by about 15 percent from 2006 to 2016, faster than the average for all occupations. As the population grows and ages, there will be an increasing demand for diagnostic imaging. Although hospitals will remain the principal employer of radiologic technologists, a number of new jobs will be found in offices of physicians and diagnostic imaging centers. Health facilities such as these are expected to grow through 2016, because of the shift toward outpatient care, encouraged by third-party payers and made possible by technological advances that permit more procedures to be performed outside the hospital.
- **Further Career Growth:** With experience and additional training, staff technologists may become specialists, performing CT scanning, MR, and angiography, a procedure during which blood vessels are x-rayed to find clots. Technologists also may advance, with additional education and certification, to become a radiologist assistant.
- **Local Schools:**
  - ACT College, 1100 Wilson Blvd., M780, Arlington, VA 22209 (Metro accessible), 703-527-6660; [www.actcollege.edu](http://www.actcollege.edu); program length is 20 months and is a daytime program (M-F, 9:15-3:15), cost is \$28,413. Financial aid applies.
  - Holy Cross Hospital School of Radiologic Technology, 1500 Forest Glen Road, Silver Spring, MD 20910 (Metro accessible), 301-754-7889, [www.holycrosshealth.org/svc\\_radiologicschl.aspx](http://www.holycrosshealth.org/svc_radiologicschl.aspx); very competitive to get in and requires 6-7 college level prerequisites before starting; cost is only \$3,050 for 22 month full-time program. Eleven students taken per year, starting in July (apply prior to February). [Not for everyone, but a great option for high achieving students.] Note: Washington Adventist Hospital in Takoma Park, MD has a similar program.
  - Montgomery College, Takoma/Silver Spring campus, 7977 Georgia Ave., Silver Spring, MD (Metro accessible) with some courses at other campuses, 240-567-5000, [www.montgomerycollege.edu](http://www.montgomerycollege.edu). Program is a 2 year program with one year of prerequisites which should be taken before applying to the radiology program. Students need to obtain at least a 2.5 GPA and score well on an academic skills test to obtain a spot in the program. Total time to complete would be about 3 years. Cost for in-county students (or those with DC-TAG) would be about \$10,000; cost for non-residents without DC-TAG would be about \$26,000).
  - Northern Virginia Community College, Medical Education Campus, 6699 Springfield Center Drive, Springfield, Virginia 22150, 703-822-6500, (shuttle bus from Metro), [www.nvcc.edu/curcatalog/programs/#alliedhealth](http://www.nvcc.edu/curcatalog/programs/#alliedhealth). Students must begin with 4 pre-requisite courses and an entrance exam, and then apply to the program, which is 2 years long, so the total length would be about 2 ½ years. It is somewhat competitive, but those passing the entrance exam and achieving a 2.75 or higher on the prerequisite classes are generally accepted. Cost for Virginia students or those with DC TAG would be about \$6,882 and non-residents without DC TAG would pay about \$19,683.

- Prince Georges Community College, 310 Largo Road, Largo, MD 20774, 301-322-0866, [www.pgcc.edu](http://www.pgcc.edu), program is set up as an associate's degree program with 68 credits (which would take about 2 ½ years) - this is a program with limited spaces and student must first take general education courses and then apply to the program for acceptance. Cost would be about \$8,908 in-county and about \$19,720 out of state (could be reduced somewhat with DC-TAG).
- UDC Community College, 4200 Connecticut Ave NW, Washington DC 20008, 202-274-5800 (Metro accessible), [www.udc.edu/cc/academic\\_programs](http://www.udc.edu/cc/academic_programs), students must first take 23 credits of general education courses, maintain a 2.5 GPA, and then apply to the program (about 50% of applicants are accepted). It would take around 3 years to complete and cost around \$8,600.

## RESPIRATORY THERAPIST

- **Description:** Respiratory Therapists evaluate, treat, and care for patients with breathing or other cardiopulmonary disorders and treat patients along the age and health-care continuums – from premature infants to the aged in critical care, acute care, rehabilitation, and home care settings. Practicing under the direction of a physician, respiratory therapists assume responsibility for respiratory care therapeutic treatments and diagnostic procedures.
- **Education:** This position generally requires at least an associate's degree. There are two years of coursework specific to this field, but the student must first take some general education requirements and be admitted to the program (similar to the set-up for a 2-year nursing degree), so the entire educational process could take 3 years.
- **Certifications:** Candidates completing the program are eligible for both the entry-level licensure/ CRT examination (required by the District of Columbia, Maryland and Virginia) and the advanced practice RRT examinations, both offered by the National Board for Respiratory Care (NBRC).
- **Job Environment:** Respiratory therapists generally work between 35 and 40 hours a week. Because hospitals operate around the clock, therapists may work evenings, nights, or weekends. About 79 percent of jobs were in hospitals, mainly in departments of respiratory care, anesthesiology, or pulmonary medicine. Most of the remaining jobs were in offices of physicians or other health practitioners, consumer-goods rental firms that supply respiratory equipment for home use, nursing care facilities, and home health care services.
- **Job Outlook:** Job opportunities are expected to be very good. Employment of respiratory therapists is expected to grow 19 percent from 2006 to 2016, faster than the average for all occupations.
- **Further Career Growth:** Respiratory therapists advance in clinical practice by moving from general care to the care of critically ill patients who have significant problems in other organ systems, such as the heart or kidneys. Respiratory therapists can continue their educations to obtain a bachelor's degree, and from there may advance to supervisory or managerial positions in a respiratory therapy department.
- **Local Schools:**
  - Northern Virginia Community College, Medical Education Campus, 6699 Springfield Center Drive, Springfield, Virginia 22150, 703-822-6500, (shuttle bus from Metro), [www.nvcc.edu/curcatalog/programs/#alliedhealth](http://www.nvcc.edu/curcatalog/programs/#alliedhealth). Students must begin with 5 pre-requisite courses and an entrance exam, and then apply to the program, which is 2 years long, so the total length would be about 2 ½ years. It is somewhat competitive, but those passing the entrance exam and achieving a 2.75 or higher on the prerequisite classes are generally accepted. Cost for Virginia students or those with DC TAG would be about \$6,881 and non-residents without DC TAG would pay about \$19,682.
  - Prince Georges Community College, 310 Largo Road, Largo, MD 20774, 301-322-0866, [www.pgcc.edu](http://www.pgcc.edu), associate's degree program with 69 credits (about 2 ½ years full-time) - this is a program with limited spaces and student must first take general education courses and then apply to the program for acceptance, costs about \$9,039 in-county or \$20,010 out of state (DC-TAG could reduce this somewhat).

- UDC Community College, 4200 Connecticut Ave NW, Washington DC 20008, 202-274-5800. [www.udc.edu/cc](http://www.udc.edu/cc), program length is about 3 years, cost would be about \$8,600. Must take 23 credits in general education and science with 2.5 GPA and then apply; acceptance rates have ranged from 83% - 100% in the past few years.

## DENTAL ASSISTANT

- **Description:** Dental assistants work closely with, and under the supervision of, dentists. Dental assistants sterilize and disinfect instruments and equipment, prepare and lay out the instruments and materials required to treat each patient, and obtain patients' dental records. Assistants make patients as comfortable as possible in the dental chair and prepare them for treatment. During dental procedures, assistants work alongside the dentist to provide assistance. They hand instruments and materials to dentists and keep patients' mouths dry and clear by using suction or other devices.
- **Education:** Some assistants learn their skills on the job, although an increasing number are trained in dental-assisting programs offered by community and junior colleges, trade schools, or technical institutes. Programs include classroom, laboratory, and preclinical instruction in dental-assisting skills and related theory. In addition, students gain practical experience in dental schools, clinics, or dental offices. Most programs take 1 year or less to complete and lead to a certificate or diploma. Two-year programs offered in community and junior colleges lead to an associate degree.
- **Certification:** Certification requirements vary by state. Dental Assistants in DC do not need to pass a certification exam, but they do in MD. In order to perform additional duties such as x-rays or to do orthodontics work, additional certification is required.
- **Job Environment:** Almost all jobs for dental assistants were in offices of dentists. A small number of jobs were in the Federal, State, and local governments or in offices of physicians. About 35 percent of dental assistants work part time.
- **Job Outlook:** Employment is expected to grow 29 percent from 2006 to 2016, which is much faster than the average for all occupations. In fact, dental assistants are expected to be among the fastest growing occupations over the 2006-16 projection period.
- **Further Career Growth:** Without further education, advancement opportunities are limited. Some dental assistants become office managers, dental-assisting instructors, dental product sales representatives, or insurance claims processors for dental insurance companies. Others go back to school to become dental hygienists.
- **Local Schools:**
  - ACT College, 1100 Wilson Blvd., M780, Arlington, VA 22209 (Metro accessible), 703-527-6660, [www.actcollege.edu](http://www.actcollege.edu); program length is 10 months in the daytime (M-F, 9:15-3:15) or 12 months in the evening (M-Th, 6:00-9:30); cost is \$14,170. Financial aid applies. Note: Students may continue in school for an additional 6 months taking general education requirements to obtain an Associate of Applied Studies (AAS) degree.

## DENTAL HYGIENIST

- **Description:** Dental hygienists remove soft and hard deposits from teeth, teach patients how to practice good oral hygiene, and provide other preventive dental care. They examine patients' teeth and gums, recording the presence of diseases or abnormalities.
- **Education:** Most dental hygiene programs grant an associate degree and take about 2 ½ years to complete.
- **Certification:** Dental hygienists must be licensed by the State in which they practice. Nearly all States require candidates to graduate from an accredited dental hygiene school and pass both a written and clinical examination.
- **Job Environment:** Dental hygienists work in clean, well-lighted offices. Dental hygienists should work well with others because they work closely with dentists and dental assistants as well as dealing directly with patients. Hygienists also need good manual dexterity, because they use dental instruments within a patient's mouth, with little room for error. Flexible scheduling is a distinctive feature of this job. Full-time, part-time, evening, and weekend schedules are widely available. Dentists

frequently hire hygienists to work only 2 or 3 days a week, so hygienists may hold jobs in more than one dental office. More than half of all dental hygienists worked part time—less than 35 hours a week.

- **Job Outlook:** Dental hygienists rank among the fastest growing occupations, and job prospects are expected to remain excellent. Employment of dental hygienists is expected to grow 30 percent through 2016, much faster than the average for all occupations.
- **Local Schools:**
  - Northern Virginia Community College, Medical Education Campus, 6699 Springfield Center Drive, Springfield, Virginia 22150, 703-822-6500, (shuttle bus from metro), [www.nvcc.edu/curcatalog/programs/#alliedhealth](http://www.nvcc.edu/curcatalog/programs/#alliedhealth). Students must take 4 prerequisite courses, pass the entrance exam, and then apply for a spot in the program which is quite competitive (more than the nursing programs). The length of the program would be about 3 years, beginning part time for the prerequisites and then moving to full time for the 2 year portion. Cost for Virginia residents or those with DC TAG would be about \$6,880 and for non-residents without DC TAG it would be about \$19,408.

## PHARMACY TECHNICIAN

- **Description:** Pharmacy technicians help licensed Pharmacists provide medication and other health care products to patients. Technicians usually perform routine tasks to help prepare prescribed medication, such as counting tablets and labeling bottles. They also perform administrative duties, such as answering phones, stocking shelves, and operating cash registers.
- **Education:** Some pharmacy technicians are trained on-the-job, but employers favor applicants who have formal training, certification, or previous experience. Most training programs take just under one year to complete. Candidates should be prepared for a curriculum with a lot of math.
- **Certification:** Two organizations, the Pharmacy Technician Certification Board and the Institute for the Certification of Pharmacy Technicians, administer national certification examinations. Certification is voluntary in most states, but is required by some states and employers. To be eligible for either exam, candidates must have a high school diploma or GED, no felony convictions of any kind within 5 years of applying, and no drug or pharmacy related felony convictions at any point.
- **Job Environment:** Pharmacy technicians work in clean, organized, well-lighted, and well-ventilated areas. Most of their workday is spent on their feet. They may be required to lift heavy boxes or to use stepladders to retrieve supplies from high shelves. Technicians work the same hours that Pharmacists work. These may include evenings, nights, weekends, and holidays, particularly in facilities that are open 24 hours a day such as hospitals and some retail pharmacies. As their seniority increases, technicians often acquire increased control over the hours they work. There are many opportunities for part-time work in both retail and hospital settings.
- **Job Outlook:** Employment of pharmacy technicians is expected to increase by 32 percent from 2006 to 2016, which is much faster than the average for all occupations. The increased number of middle-aged and elderly people—who use more prescription drugs than younger people—will spur demand for technicians throughout the projection period. In addition, as scientific advances bring treatments for an increasing number of conditions, more pharmacy technicians will be needed to fill a growing number of prescriptions.
- **Further Career Growth:** In large pharmacies and health-systems, pharmacy technicians with significant training, experience and certification can be promoted to supervisory positions, mentoring and training pharmacy technicians with less experience. Some may advance into specialty positions such as chemo therapy technician and nuclear pharmacy technician.
- **Local Schools:**
  - ACT College, 1100 Wilson Blvd., M780, Arlington, VA 22209 (Metro accessible), 703-527-6660, [actcollege.edu](http://actcollege.edu); program length is 10 months in the daytime (M-F, 9:15-3:15) or 12 months in the evening (M-Th, 6:00-9:30); cost is \$12,970; financial aid applies. Note: Students may continue in school for an additional 6 months taking general education requirements to obtain an Associate of Applied Studies (AAS) degree.

- VMT Education Center, 4201 Connecticut Avenue, NW, Suite 200, Washington, DC 20008 (metro accessible), 202-282-3100, [www.vmtlrc.com/ec](http://www.vmtlrc.com/ec), program is 7 months (daytime); cost is \$6090 plus books, uniform and certification exam fee. Not eligible for financial aid.

## PHYSICAL THERAPIST ASSISTANT

- **Description:** Physical therapist assistants help physical therapists to provide treatment that improves patient mobility, relieves pain, and prevents or lessens physical disabilities of patients. Under the direction of a physical therapist, physical therapist assistants perform a variety of tasks. This might involve exercises, massages, electrical stimulation, paraffin baths, hot and cold packs, traction, and ultrasound. Physical therapist assistants record the patient's responses to treatment and report the outcome of each treatment to the physical therapist.
- **Education:** Most physical therapist assistants earn an associate degree from an accredited physical therapist assistant program, which generally takes about 2 ½ - 3 years.
- **Certification:** Most states require licensure based on program completion and a certification exam.
- **Job Environment:** Physical therapist assistants need a moderate degree of strength because of the physical exertion required in assisting patients with their treatment. In some cases, assistants need to lift patients. Frequent kneeling, stooping, and standing for long periods also are part of the job.
- **Job Outlook:** Employment of physical therapist assistants and aides is expected to grow by 29 percent over the 2006-16 decade, much faster than the average for all occupations.
- **Further Career Growth:** Some physical therapist assistants advance by specializing in a clinical area. They gain expertise in treating a certain type of patient, such as geriatric or pediatric, or a type of ailment, such as sports injuries. Many physical therapist assistants advance to administration positions. These positions might include organizing all the assistants in a large physical therapy organization or acting as the director for a specific department such as sports medicine. Other assistants go on to teach in an accredited physical therapist assistant academic program, lead health risk reduction classes for the elderly, or organize community activities related to fitness and risk reduction.
- **Local Schools:**
  - Montgomery College, various campuses, 240-567-5000, [www.montgomerycollege.edu](http://www.montgomerycollege.edu). This is an associate degree program with prerequisites; students must take general education requirements, an academic skills test, and then apply to the program. General education requirements would take about a year, and the program itself is 2 years. Cost for in-county residents or those with DC-TAG would be about \$13,000; for non-residents it would be about \$36,000.
  - Northern Virginia Community College, Medical Education Campus, 6699 Springfield Center Drive, Springfield, Virginia 22150, 703-822-6500, (metro plus shuttle bus), [www.nvcc.edu/curcatalog/programs/#alliedhealth](http://www.nvcc.edu/curcatalog/programs/#alliedhealth). Students must begin with 2 pre-requisite courses and then apply to the program, which is 2 years long, so the total length would be about 2 ½ years. Cost for Virginia students or those with DC TAG would be about \$6,785 and non-residents without DC TAG would pay about \$19,409.

## MASSAGE THERAPY

- **Description:** Massage Therapists manipulate the soft tissue muscles of the body in order to improve circulation and remove waste products from the muscles. Clients may seek massage for medical benefit or for relaxation purposes, and there is a wide range of massage treatment available to meet these distinct needs.
- **Education:** Massage therapy training programs are generally approved by a state board, and may also be accredited by an independent accrediting agency. In States that regulate massage therapy, graduation from an approved school or training program is usually required in order to practice. Training generally takes from 1 to 1 ½ years to complete.
- **Certification:** DC, MD and VA require a certification/licensing exam.
- **Job Environment:** Massage therapists work in an array of settings both private and public: private offices, studios, hospitals, nursing homes, fitness centers, sports medicine facilities, airports, and

shopping malls, for example. Some massage therapists also travel to clients' homes or offices to provide a massage. Because massage is physically demanding, massage therapists can succumb to injury if the proper technique is not used. Repetitive motion problems and fatigue from standing for extended periods of time are most common. This risk can be limited by use of good technique, proper spacing between sessions, exercise, and in many cases by the therapists themselves receiving a massage on a regular basis. Because of the physical nature of the work and time needed in between sessions, massage therapists typically give massages less than 40 hours per week.

- **Job Outlook:** Employment for massage therapists is expected to increase 20 percent from 2006 to 2016, faster than average for all occupations. However, new massage therapists should expect to work only part-time in spas, hotels, hospitals, physical therapy centers, and other businesses until they can build a client base of their own.
- **Further Career Growth:** Because of the nature of massage therapy, opportunities for advancement are limited. However, with increased experience and an expanding client base, there are opportunities for therapists to increase client fees and, therefore, income. In addition, those who are well organized and have an entrepreneurial spirit may go into business for themselves. Self-employed massage therapists with a large client base have the highest earnings.
- **Local Schools:**
  - Heritage Institute, 8255 Shopper's Square, Manassas, VA 20111, (703) 334-2501, [www.heritage-education.com/campus\\_manassa.htm](http://www.heritage-education.com/campus_manassa.htm), program length is 15 months, classes offered mornings (M-F, 8:30-12:30), afternoons (M-F, 1:00-5:00) or evenings (M-F, 5:30-9:30). Cost is \$20,450. Financial aid can be used. Pretty far out in Virginia and rather expensive; would probably only be convenient to students living nearby.
  - National Massage Therapy Institute (NMTI), 803 W Broad St., Falls Church, VA 22046 (Metro plus short bus ride), 800-264-9835, [www.studymassage.com](http://www.studymassage.com), program length is 7 ½ months day (M-Th, 9:15-2:30) or evening program (M-Th, 5:15-10:30) or 13 months every-other-weekend (Fri. 5:15-10:30, Sat. 9:00-6:00, & Sun. 9:00-6:00); cost is \$11,275. Financial aid can be used.
  - Potomac Massage Training Institute (PMTI), 5028 Wisconsin Ave NW Ste. LL, Washington, DC 20016, 202-686-7046, [www.pmti.org](http://www.pmti.org), program length is 18 months with classes one day/week or 2 mornings/week or 2 evenings per week plus one weekend per month and other workshop and clinic time scheduled by the student; cost is \$8,190 plus books, table, sheets, oil, etc. for a total of about \$10,000. Financial aid is not applicable.
  - VMT Education Center, 4201 Connecticut Avenue, NW, Suite 200, Washington, DC 20008 (metro accessible), 202-282-3100, [www.vmttc.com/ec](http://www.vmttc.com/ec), program length is 7 months in the evenings (M-F, 4:00-10:00), cost is \$5,590 plus books, uniform, CPR certification and board exam fees. Financial aid not applicable.

*Note: Northern Virginia Community College has additional medical programs. Because they are taught on their Springfield campus which is not readily accessible to most of our students, they have not been included here if there are several other local options. However, students with access to Springfield, VA should look into additional programs on NOVA's Medical Education campus there.*

## PERSONAL CARE FIELDS

*There are many training institutes in and around the city which offer programs in cosmetology, barbering, esthology/spa, natural hair (braiding, etc.), etc. In addition to ensuring that schools are licensed and accredited and that their graduates fare well on licensing exams and job placement, students may want to consider what type of salon they ultimately want to work at and train accordingly. All institutes train on all textures of hair, but the student may get more hands-on experience with a certain type of hair due to the clientele of the training facility.*

*Also note that most training/licensing done in the DC area is transferrable between DC, MD and VA. In other words, a student training and sitting for the licensing exam in MD can become certified to work in DC. Check with the school regarding a specific program and whether it is transferable if this is a requirement.*

## COSMETOLOGY

- **Description:** Hairdressers, hairstylists, and cosmetologists offer a wide range of beauty services, such as shampooing, cutting, coloring, and styling of hair. They may advise clients on how to care for their hair at home. In addition, cosmetologists may be trained to give manicures, pedicures, and scalp and facial treatments; provide makeup analysis; and clean and style wigs and hairpieces.
- **Education:** Most states require that cosmetologists complete a program in a state-licensed barber or cosmetology school. Programs in hairstyling, skin care, and other personal appearance services can be found at private post-secondary vocational schools.
- **Certification:** All states require cosmetologists and other personal appearance workers to be licensed, with the exceptions of shampooers and makeup artists. Qualifications for a license vary by state, but generally a person must have a high school diploma or GED, be at least 16 years old, and have graduated from a state-licensed barber or cosmetology school. Students take a state licensing examination, which consists of a written test and, in some cases, a practical test of styling skills or an oral examination.
- **Job Environment:** Most full-time cosmetologists, and other personal appearance workers put in a 40-hour week, but longer hours are common, especially among self-employed workers. Work schedules may include evenings and weekends, the times when beauty salons are busiest. In 2006, about 31 percent of cosmetologists worked part time, and 16 percent of cosmetologists had variable schedules. Barbers, cosmetologists, and other personal appearance workers usually work in clean, pleasant surroundings with good lighting and ventilation. Good health and stamina are important, because these workers are on their feet for most of their shift.
- **Job Outlook:** Employment trends are expected to vary among the different occupational specialties. Employment of hairdressers, hairstylists, and cosmetologists should increase by 12 percent because many now cut and style both men's and women's hair and because the demand for hair treatment by teens and aging baby boomers is expected to remain steady or even grow. Opportunities for entry level workers should be favorable, while job candidates at high-end establishments will face keen competition.
- **Income:** While earnings for entry-level workers may be low, earnings can be considerably higher for those with experience. A number of factors, such as the size and location of the salon, determine the total income of personal appearance workers. They may receive commissions based on the price of the service, or a salary based on the number of hours worked, and many receive commissions on the products they sell. In addition, some salons pay bonuses to employees who bring in new business. For many personal appearance workers the ability to attract and hold regular clients are key factors in determining earnings.
- **Further Career Growth:** Advancement usually takes the form of higher earnings as cosmetologists gain experience and build a steady clientele. Some cosmetologists manage salons, lease booth space in salons, or open their own salons after several years of experience.
- **Local Schools:**
  - American Beauty Academy, 11006 Veirs Mill Road, Wheaton, MD 20902, (Metro accessible), 301-949-3000, [www.americanbeautyacademy.org/wheaton.html](http://www.americanbeautyacademy.org/wheaton.html), program takes about 12-14 months in the day (M-F, 8:30-3:00) or about 18 months in the evening (T, W, F, 5:00-9:00 & Sat. 8:30-5:00), cost is \$16,600. Financial aid applicable.
  - Aveda Institute, 713 7th Street NW, Washington, DC 20001 202-824-1641, [www.avedainstitutedc.com](http://www.avedainstitutedc.com), program takes about one year (Tu-F, approximately 8:45-4:00 & Sat. 8:15-5:00) and costs \$18,000 plus kit fee (may have financial aid in 2010). Promising for those interested in pursuing high-end salons/spas.
  - Bennett Career Institute, 700 Monroe St., NE, Washington, DC 20001 (metro accessible), 202-526-1400, [www.bennettcareerinstitute.org](http://www.bennettcareerinstitute.org), program is 12 months full-time day (Tu-Sat, 9:00-3:30) or part-time day (Tu-Sat, 9:00-1:00) or evening (W, Th, F 5:00-9:00 & Sat. 8:00-4:00), cost is \$12,000 (includes everything but smock) [Day care available on-site.]
  - French Institute, 4000 Albemarle St., NW, Suite 404, Washington, DC 20016, 202-362-8667, [www.thefrenchinstitute.com](http://www.thefrenchinstitute.com), program is 7-9 months (M-F, 10:30 – 2:30 or evenings 5-9; some flexibility in scheduling), cost is \$12,100 (includes everything) [Small groups with personal attention from Ms. French.]

- Hair Academy, 8435 Annapolis Road, New Carrollton, MD 20784 (metro accessible), 301-459-2509, [www.hairacademy.md.com](http://www.hairacademy.md.com), daytime program length is 9 ½ months @ 40 hrs./wk (M-F, 8:30-5:00), 12 months @ 30 hrs/wk (M-F, 8:30-3:00), 15 months @ 25 hrs/wk (M-F, 8:30-2:00) or 18 months @ 20 hrs/wk (M-F, 8:30-12:30), evening part-time program is 18 months @ 20 hrs/wk (T,W,F, 5:00-9:00 & Sat. 8:30-5:00), cost is \$16,190 including books and equipment. Financial aid is applicable.
- Hair Expressions Academy (Paul Mitchell School), 12450 Park Lawn Drive, Rockville, MD 20852 (Metro accessible), 301-984-0566, [www.hairex.com](http://www.hairex.com), program length is 11-12 months days 30 hours/week (T-F, 9-5 and 2 Saturdays/month) or 15-16 months evenings, 26 hours/week (Tu-Th, 5:30-9:30 & Sat. 9-5). Cost is \$16,500, including very extensive kit, supplies, and books. Financial aid is applicable. Promising for those wishing to pursue high-end salons.
- Montgomery Beauty School, 8736 Arliss St., Silver Spring, MD 20901 (metro to Silver Spring and short bus ride), 301-588-3570, [www.montgomerybeautyschool.com](http://www.montgomerybeautyschool.com), have multiple day and evening programs: 9 ½ months @ 40 hrs/wk (M-F, 8:30-5), 12 months @ 30 hrs/wk (M-F, 8:30-3:00), 15 months @ 25 hrs/wk (M-F, 8:30-2:00), 18 months @ 20 hrs/wk (M-F, 8:30-12:30) or afternoon/evenings 12 months @ 30 hrs/wk (Tu,W,F 1:00-9:00 & Sat. 8:30-5:00), 15 months @ 25 hrs/wk (Tu,W,F 2:30-9:00) or 18 months @ 20 hrs/wk (Tu,W,F 5:00-9:00 & Sat 8:30-5:00), cost is \$16,190, financial aid applicable.
- UDC Workforce Development Program, [www.ccdcwdp.org](http://www.ccdcwdp.org), 202-274-6999, Will soon be offering Cosmetology classes at 4600 Livingston Road, SE (PR Harris Education Center). Cost will be about \$5,500 for DC residents. Program length is approximately 18 months, and classes will be in the afternoon/evening timeframe. (Contact the above number for current information.)

## ESTHIOLOGY (Skin Care)

- **Description:** Estheticians provide skin care and spa treatments including facial treatments, facial massage, brow and lash tinting, waxing, hair removal, and skin care and make-up services.
- **Education:** Esthetics training programs are offered at some cosmetology schools.
- **Certification:** Estheticians must pass have proper training and pass a licensing exam to be certified to work.
- **Job Environment:** Estheticians find employment in spas, dermatologist offices, plastic surgeon's offices or full-service salons.
- **Job Outlook:** Data is not available for this specific field, but jobs are reported to be available due to the increasing interest in spa services and skin care.
- **Local Schools:**
  - Aveda Institute, 713 7th Street NW, Washington, DC 20001, 202-824-1641, [www.avedainstitutedc.com](http://www.avedainstitutedc.com), program is 4 ½ months days (Tu-F, 8:45-5:00 & Sat. 8:15-5:00) or 9 months evenings (M-F, 5:30-9:30), cost is \$7,200.
  - French Institute, 4000 Albemarle St., NW, Suite 404, Washington, DC 20016, 202-362-8667, [www.thefrenchinstitute.com](http://www.thefrenchinstitute.com), program is 4-5 months, it is offered days (M-F, 10:30-2:30) or evenings (5:00-9:00) with some flexibility in scheduling, cost is \$8,700.
  - Hair Expressions (Paul Mitchell School), 12450 Park Lawn Drive, Rockville, MD 20852 (metro accessible), 301-984-0566, [www.hairex.com](http://www.hairex.com), program length is 7 months in the evening (T, W, Th, 5:30-9:30 and Sat.9-5), cost is \$9,800. Financial aid not available for this program at this time.

## BARBERING

- **Description:** Barbers cut, trim, shampoo, and style hair mostly for male clients but can also attend to female clients (although they usually don't receive as much training in chemical treatments, etc.). They also may fit hairpieces and offer scalp treatments and facial shaving.
- **Education:** Most states require that barbers complete a program in a state-licensed barber or cosmetology school.

- **Certification:** All states require barbers to be licensed. Qualifications for a license vary by state, but generally a person must have a high school diploma or GED, be at least 16 years old, and have graduated from a state-licensed barber or cosmetology school. Students take a state licensing examination, which consists of a written test and, in some cases, a practical test of styling skills or an oral examination.
- **Job Environment:** Most full-time barbers put in a 40-hour week, but longer hours are common, especially among self-employed workers. Work schedules may include evenings and weekends, the times when salons and barbershops are busiest. In 2006, about 19 percent of barbers worked part time, and 11 percent of barbers had variable schedules. Barbers, cosmetologists, and other personal appearance workers usually work in clean, pleasant surroundings with good lighting and ventilation. Good health and stamina are important, because these workers are on their feet for most of their shift.
- **Job Outlook:** Employment trends are expected to vary among the different occupational specialties. Employment of hairdressers, hairstylists, and cosmetologists should increase by 12 percent because many now cut and style both men's and women's hair and because the demand for hair treatment by teens and aging baby boomers is expected to remain steady or even grow. As a result, fewer people are expected to go to barber shops and employment of barbers is expected to see relatively little change in employment. Opportunities for entry level workers may be favorable, while job candidates at high-end establishments will face keen competition.
- **Income:** While earnings for entry-level workers may start low, earnings can be considerably higher for those with experience. A number of factors, such as the size and location of the salon, determine the total income of personal appearance workers. They may receive commissions based on the price of the service, or a salary based on the number of hours worked, and many receive commissions on the products they sell. In addition, some salons pay bonuses to employees who bring in new business. For many personal appearance workers the ability to attract and hold regular clients are key factors in determining earnings.
- **Further Career Growth:** Advancement usually takes the form of higher earnings as barbers gain experience and build a steady clientele. Some barbers manage salons, lease booth space in shops or salons, or open their own shops after several years of experience.
- **Local Schools:**
  - American Beauty Academy, 11006 Veirs Mill Road, Wheaton, MD 20902, (Metro accessible), 301-949-3000, [www.americanbeautyacademy.org/wheaton.html](http://www.americanbeautyacademy.org/wheaton.html), program takes about 10 months in the day (M-F, 8:30-3:00) or about 15 months in the evening (T, W, F, 5:00-9:00 & Sat. 8:30-5:00), cost is \$15,400. Financial aid applicable.
  - Bennett Career Institute, 700 Monroe St., NE, Washington, DC 20001 (metro accessible), 202-526-1400, [www.bennettcareerinstitute.org](http://www.bennettcareerinstitute.org), program is 12 months full-time day (Tu-Sat, 9:00-3:30) or part-time day (Tu-Sat, 9:00-1:00) or evening (W, Th, F 5:00-9:00 & Sat. 8:00-4:00), cost is \$10,000 (includes everything but smock); financial aid applicable. [Day care available on-site.]
  - UDC Workforce Development Program, [www.cdcwdp.org](http://www.cdcwdp.org), 202-274-6999, may offer a barbering program in the spring. Cost would be about \$5,500 for DC residents. Interested students should contact the school for more information.

## CULINARY AND PASTRY ARTS

- **Description:** Chefs and cooks measure, mix, and cook ingredients according to recipes, using a variety of equipment, including pots, pans, cutlery, ovens, broilers, grills, slicers, grinders, and blenders. Chefs and head cooks also are responsible for directing the work of other kitchen workers, estimating food requirements, and ordering food supplies. Larger restaurants and food services establishments tend to have varied menus and larger kitchen staffs. Staffs often include several chefs and cooks, sometimes called assistant or line cooks. Each chef or cook works an assigned station that is equipped with the types of stoves, grills, pans, and ingredients needed for the foods prepared at that station. Job titles often reflect the principal ingredient prepared or the type of cooking performed—vegetable cook, fry cook, or grill cook, for example. These cooks also may direct or work with other food preparation workers. Executive chefs and head cooks coordinate the work of the kitchen staff and

direct the preparation of meals. Pastry chefs, who usually pursue pastry-specific training, prepare breads, pastries, and other baked goods and desserts.

- **Education:** Certificate programs can be found at culinary institutes or vocational schools with special culinary programs. Some colleges offer 2 or 4 year degree programs as well.
- **Certification:** The American Culinary Federation certifies pastry professionals, personal chefs, and culinary educators in addition to various levels of chefs. Certification standards are based primarily on experience and formal training, but are not required. Graduation from a well-respected culinary school and experience in well regarded restaurants generally carries more weight than certification.
- **Job Environment:** Many restaurant and institutional kitchens have modern equipment, convenient work areas, and air conditioning, but kitchens in older and smaller eating places are often not as well designed. Kitchen staffs invariably work in small quarters against hot stoves and ovens. They are under constant pressure to prepare meals quickly, while ensuring quality is maintained and safety and sanitation guidelines are observed. Because the pace can be hectic during peak dining times, workers must be able to communicate clearly so that food orders are completed correctly. Work hours in restaurants may include early mornings, late evenings, holidays, and weekends. Work schedules of chefs, cooks and other kitchen workers in factory and school cafeterias may be more regular. In 2006, about 29 percent of chefs worked part-time schedules. Work schedules in fine-dining restaurants, however, tend to be longer because of the time required to prepare ingredients in advance. Many executive chefs regularly work 12-hour days because they oversee the delivery of foodstuffs early in the day, plan the menu, and prepare those menu items that take the most skill. Pastry chefs and bakers often work morning hours.
- **Job Outlook:** Employment of chefs and cooks is expected to increase by 11 percent over the 2006-16 decade, which is about as fast as the average for all occupations. Growth will be spurred by increases in population, household income, and demand for convenience that will lead to more people dining out and taking vacations that include hotel stays and restaurant visits. In addition, employment of chefs and cooks who prepare meals-to-go, such as those who work in the prepared foods sections of grocery or specialty food stores, should grow faster than average as these stores compete with restaurants for people's food dollars. Also, there is a growing consumer desire for convenient, healthier, made-from-scratch meals. The number of higher-skilled chefs and cooks working in full-service restaurants—those that offer table service and more varied menus—is expected to increase about as fast as the average for all occupations. Much of this increase will come from job growth in more casual dining settings, rather than in up-scale full-service restaurants. Dining trends suggest that an increasing number of meals are eaten away from home, which creates growth in family dining restaurants, but greater limits on expense-account meals is expected to generate slower growth for up-scale restaurants.
- **Income:** Because there are many types of work options, salaries for jobs in this field can vary greatly.
- **Further Career Growth:** Advancement opportunities for chefs and cooks depend on their training, work experience, and ability to perform more responsible and sophisticated tasks. Chefs and cooks who demonstrate an eagerness to learn new cooking skills and to accept greater responsibility may also move up and be asked to train or supervise lesser skilled kitchen staff. Others may move to larger or more prestigious kitchens and restaurants. Some chefs and cooks go into business as caterers or personal chefs or open their own restaurant. Others become instructors in culinary training programs. A number of cooks and chefs advance to executive chef positions or food service management positions, particularly in hotels, clubs, or larger, more elegant restaurants.
- **Local Schools:**
  - Carlos Rosario International Public Charter School, 1100 Harvard St, NW, Washington, DC 20009, 202-797-4700, [www.carlosrosario.org/studentinfo/courses](http://www.carlosrosario.org/studentinfo/courses) (see workforce training programs), program is 10 months days (M-F, 8:45-11:30) or evenings (M-Th, 6:00-10:00), free to DC residents but must meet requirements which include ESL test (6 or higher level), proficiency test, interview, then enter lottery for a spot (most students who complete the 8-step admissions process generally are accepted). Receive certificate in culinary arts; students can go to work in the field or go to Culinary Arts School to get more extensive training.

- L'Academie de Cuisine, 16006 Industrial Drive, Gaithersburg, MD 20877 (can take Metro to Shady Grove Stop then Ride-On bus to school), 301-670-8670, [www.lacademie.com](http://www.lacademie.com); Culinary Arts and Pastry Arts programs, nationally-recognized culinary arts program is one year and costs \$28,430 (includes uniforms, books, and equipment); pastry arts program is one year and costs \$23,500 (includes uniform, books, and equipment). Schedule is Phase I: M-Th, 7:00-2:30; Phase II: Tu-F, 8:00-3:30; and Phase III (second half of the year): a paid externship at a restaurant with class at the school one day/week. Training is geared to fine dining. Financial aid applies.
- Prince Georges Community College Hospitality & Tourism Institute, 310 Largo Road, Largo, MD 20774, 301-322-0866, [www.pgcc.edu/businesses/wdi/hti](http://www.pgcc.edu/businesses/wdi/hti), offer various certificate and degree programs in culinary arts and food & beverage related fields.

*Note: There are many free workforce development programs in the city that offer entry level food handling training; these are not as extensive as the programs listed above.*

## EARLY CHILDHOOD EDUCATION

### CHILDCARE WORKERS AND PRESCHOOL TEACHERS

- **Description:** Most child care workers perform a combination of basic care and teaching duties, but the majority of their time is spent on care giving activities. Workers whose primary responsibility is teaching are classified as preschool teachers. However, many basic care activities also are opportunities for children to learn. For example, a worker who shows a child how to tie a shoelace teaches the child while also providing for that child's basic needs.
- **Education:** The training and qualifications required of child care workers vary widely. These requirements range from a high school diploma, a national Child Development Associate (CDA) credential, to community college courses or a college degree in child development or early childhood education. State requirements are generally higher for workers at child care centers than for family child care providers. Child care workers with private firms and publicly funded programs have more demanding training and education requirements. Some employers may prefer workers who have taken postsecondary courses in child development and early childhood education or who have work experience in a child care setting. Other employers require their own specialized training. An increasing number of employers and pre-school programs require an associate degree in early childhood education.
- **Certification:** The certification requirements for various positions vary. One entry level certification that is recognized by some employers is the Child Development Associate (CDA) certificate.
- **Job Environment:** Child care workers in child care centers or family child care homes greet young children as they arrive, help them with their jackets, and select an activity of interest. When caring for infants, they feed and change them. To ensure a well-balanced program, child care workers prepare daily and long-term schedules of activities. Each day's activities balance individual and group play, as well as quiet and active time. Children are given some freedom to participate in activities in which they are interested. As children age, child care workers may provide more guided learning opportunities, particularly in the areas of math and reading. Preschool teachers capitalize on children's play to further language and vocabulary development (using storytelling, rhyming games, and acting games), improve social skills (having the children work together to build a neighborhood in a sandbox), and introduce scientific and mathematical concepts (showing the children how to balance and count blocks when building a bridge or how to mix colors when painting). A less structured approach, including small-group lessons, one-on-one instruction, and learning through creative activities such as art, dance, and music, is adopted to teach preschool children.
- **Job Outlook:** Employment of child care workers is projected to increase by 18 percent between 2006 and 2016, which is faster than the average for all occupations. The proportion of children being cared for exclusively by parents or other relatives is likely to continue to decline, spurring demand for additional child care workers. Concern about the safety and supervision of school-aged children during non-school hours also should increase demand for before- and after-school programs and the child

care workers who staff them. The growth in demand for child care workers will be moderated, however, by an increasing emphasis on early childhood education programs, which hire mostly preschool workers (which usually have an associate's degree) instead of child care workers. While only a few states currently provide targeted or universal preschool programs, many more are considering or starting such programs. A rise in enrollment in private preschools is likely as the value of formal education before kindergarten becomes more widely accepted. Since the majority of workers in these programs are classified as preschool teachers, this growth in preschool enrollment will mean less growth among child care workers.

- **Further Career Growth:** Those with a certificate may wish to get additional schooling to obtain an associate's degree, and those with an associate's degree may want to pursue a bachelor's degree which would allow them to teach elementary school children as well.
- **Local Schools:**
  - **Certificate Programs:**
    - Prince Georges Community College, 310 Largo Road, Largo, MD 20774, 301-322-0866, [www.pgcc.edu](http://www.pgcc.edu), "Mastery in Early Childhood Education" certificate, program is 30 credits (about 1 year), cost is \$3,930 for in-county and \$8,700 for out-of-state (DC-TAG could reduce costs somewhat). Note: Although this is a certificate program, you get college credit which could be applied to a higher level degree with more schooling.
    - UDC Workforce Development Program, 4200 Connecticut Ave NW, Washington, DC 20008, 202-274-6999, [www.cdcwdp.org](http://www.cdcwdp.org) – Child Development Associate program, free to DC residents, various locations in wards 5-8, program length is 6 months.
  - **Associate Degree Programs:**
    - Prince Georges Community College, 310 Largo Road, Largo, MD 20774, 301-322-0866, [www.pgcc.edu](http://www.pgcc.edu), Early Childhood Education Degree is 63 credits (about 2 years) and costs \$8,253 for in-county and \$18,270 for out of state (DC-TAG could reduce costs somewhat).
    - UDC Community College, Associate of Arts in Education degree, 4200 Connecticut Ave NW, Washington, DC 20008, 202-274-5800, [www.udc.edu/cc](http://www.udc.edu/cc), Associate in Arts Degree in Education, 2 years, cost is \$6,000.

## PARALEGAL

- **Description:** Lawyers often delegate many of their tasks to paralegals. In fact, paralegals—also called legal assistants—are continuing to assume a growing range of tasks in legal offices. One of a paralegal's most important tasks is helping lawyers prepare for closings, hearings, trials, and corporate meetings. Paralegals might investigate the facts of cases and ensure that all relevant information is considered. They also identify appropriate laws, judicial decisions, legal articles, and other materials that are relevant to assigned cases. After they analyze and organize the information, paralegals may prepare written reports that attorneys use in determining how cases should be handled. They may also assist attorneys with other duties, as needed. Paralegals also organize and track files of all important case documents and make them available and easily accessible to attorneys.
- **Education:** There are several ways to become a paralegal. The most common is through a community college paralegal program that leads to an associate degree. Another common method of entry, often for those who already have a college degree, is earning a certificate in paralegal studies. A small number of schools offer a bachelor's and master's degree in paralegal studies. Students should be able to type at least 30 words per minute in order to be able to complete assignments in a reasonable timeframe. Students should also be responsible self-starters, as they will need to successfully complete independent projects.
- **Certification:** Although most employers do not require certification, earning a voluntary certification from a professional society may offer advantages in the labor market.
- **Job Environment:** Paralegals most often work in law offices handling many routine assignments, particularly when they are inexperienced. As they gain experience, paralegals usually assume more varied tasks with additional responsibility. Paralegals do most of their work in offices, using computers, and sometimes in law libraries. Occasionally, they travel to gather information and perform other duties.

- **Job Outlook:** Employment of paralegals and legal assistants is projected to grow 22 percent between 2006 and 2016, much faster than the average for all occupations. Employers are trying to reduce costs and increase the availability and efficiency of legal services by hiring paralegals to perform tasks once done by lawyers. Paralegals are performing a wider variety of duties, making them more useful to businesses. Private law firms will continue to be the largest employers of paralegals, but a growing array of other organizations, such as corporate legal departments, insurance companies, real estate and title insurance firms, and banks also hire paralegals. Paralegals who can also speak Spanish are in particular demand.
- **Further Career Growth:** Paralegals can continue to gain experience on the job and particularly in special areas of law, expanding their capabilities. They could obtain additional schooling to get higher level degrees and increase their earning power.
- **Local Schools:**
  - Paralegal Certificate:
    - Montgomery College, Takoma Park or Gaithersburg campus, [www.montgomerycollege.edu](http://www.montgomerycollege.edu), 240-567-5000, offer a Legal Analysis Letter of Recognition for 9 credits (would take 9 months/2 semesters); cost would be about \$3,272 for in-county residents or those with DC-TAG, \$8,514 for non-residents.
    - Paralegal Institute, 5101 Wisconsin Ave, NW, Suite 210, Washington, D.C. 20016 (metro accessible), 202-955-4562, [paralegal-institute.com](http://paralegal-institute.com), program length is about 8 weeks, daytime – 2 days/week for 3 weeks (Tu, Th, 9:00-12:30), 2 weeks for independent study project and 3 weeks for internship (40 hrs/wk), or 14 weeks evenings – 1 day per week for 8 weeks (M, 5:30-9:00), 3 weeks for independent study project, 3 weeks for internship (40 hrs/wk); cost is \$3,500 plus \$250 for books. This is a certificate program and provides for an entry level job. Students should be able to type 30 words per minute. Note: Students should be aware that homework time should be planned for in addition to class hours noted.
    - Prince Georges Community College, 310 Largo Road, Largo, MD 20774, 301-322-0866, [www.pgcc.edu](http://www.pgcc.edu), offer Paralegal certificate through 33 credit program (11 courses); takes about 1 year at \$4,323 for in-county and \$9,570 out of state (DC-TAG could reduce cost somewhat).
  - Associate Degree in Paralegal Studies:
    - Montgomery College, Takoma Park or Gaithersburg campus (some general classes available in Rockville), [www.montgomerycollege.edu](http://www.montgomerycollege.edu), 240-567-5000, program length is 2 years, cost would be about \$8,456 for in-county residents or those with DC-TAG or \$21,996 for non-residents.
    - Northern Virginia Community College Alexandria Campus, 3001 North Beauregard Street, Alexandria, VA 22311, 703-845-6200, [www.nvcc.edu](http://www.nvcc.edu), 2 year program, cost would be about \$6,212 for in-state residents or those with DC-TAG, \$17,769 for non-residents.
    - Prince Georges Community College, 310 Largo Road, Largo, MD 20774, 301-322-0866, [www.pgcc.edu](http://www.pgcc.edu), have an associate degree program for 63 credits (2 years) costing about \$8,253 in-county and \$18,270 out of state (DC-TAG could reduce cost somewhat).
    - UDC Community College, UDC Community College, 4200 Connecticut Ave NW, Washington DC 20008, 202-274-5800 (metro accessible), [www.udc.edu/cc/academic\\_programs](http://www.udc.edu/cc/academic_programs), program length is 2 years (full-time), cost would be \$6,000 plus books.

## COMPUTER SUPPORT

- **Description:** Computer support specialists provide technical assistance, support, and advice to customers and other users. This occupational group includes technical support specialists and help-desk technicians. These troubleshooters interpret problems and provide technical support for hardware, software, and systems. They answer telephone calls, analyze problems by using automated diagnostic programs, and resolve recurring difficulties. Support specialists work either within a company that uses computer systems or directly for a computer hardware or software vendor. Increasingly, these specialists work for help-desk or support services firms, for which they provide computer support to clients on a contract basis. Network and computer systems administrators design,

install, and support an organization's computer systems. They are responsible for local-area networks (LAN), wide-area networks (WAN), network segments, and Internet and intranet systems. They work in a variety of environments, including professional offices, small businesses, government organizations, and large corporations. They maintain network hardware and software, analyze problems, and monitor networks to ensure their availability to system users. These workers gather data to identify customer needs and then use the information to identify, interpret, and evaluate system and network requirements. Administrators also may plan, coordinate, and implement network security measures.

- **Education:** Due to the wide range of skills required, there are many paths of entry to a job as a computer support specialist or systems administrator. Training requirements for computer support specialist positions vary, and range from technical certifications to associate's or bachelor's degrees. A number of companies are becoming more flexible about requiring a college degree for support positions. However, certification and practical experience are essential. Certification training programs, offered by a variety of vendors and product makers, allow individuals to qualify for entry-level positions.
- **Certification:** There are various technical areas with associated certifications. A+ and Network+ certifications (sometimes supplemented with Microsoft training) prepare an individual for a Helpdesk Support position troubleshooting and repairing workstations and networks. The more software-specific Microsoft Certified Systems Administration (MCSA) and Systems Engineer (MCSE) certifications are being replaced by MCITP - Server Administrator. There are other types of training and certification available depending on the interests of the individual (focused on networks, security, or other aspects of computing).
- **Job Environment:** Computer support specialists and systems administrators normally work in well-lit, comfortable offices or computer laboratories. They usually work about 40 hours a week, but if their employer requires computer support over extended hours, they may be "on call" for rotating evening or weekend work. Overtime may be necessary when unexpected technical problems arise.
- **Job Outlook:** Employment of computer support specialists and systems administrators is expected to increase by 18 percent from 2006 to 2016, which is much faster than the average for all occupations. Employment of network and computer systems administrators is expected to increase by 27 percent from 2006 to 2016, which is much faster than the average for all occupations. While some employers desire a college degree, those who have strong computer skills but do not have a college degree should continue to qualify for some entry-level positions.
- **Income:** Jobs in these fields are generally well paid, and wages can increase substantially as individuals obtain additional certifications and expertise.
- **Further Career Growth:** Employers will continue to seek computer specialists who possess strong fundamental computer skills combined with good interpersonal and communication skills. Those who begin at an entry level may be able to obtain additional experience and certifications and thus advance to more technical and higher paying positions. Candidates may also be interested in pursuing an associate's or bachelor's degree, which would open up many opportunities when combined with their on-the-job experience.
- **Local Schools:**
  - Academy of Computer Education (ACE), 7833 Walker Drive, Suite 520C, Greenbelt, Maryland 20770 (Metro + short bus ride), 301-220-2802 or 45195 Research PI, Suite 120, Ashburn, VA 20147, 571-209-9234, [www.trainace.com](http://www.trainace.com); numerous certificate training programs, A+/Network+ program runs 2 ½ weeks daytime (M-F, 8:30-5:00) or 3 months part-time evenings (Tues./Thurs. 6:00-10:00 or Mon./Wed. 6:00-10:00) or 2 ½ months Saturdays (8:30-5:00), cost is \$2,495 (plus exam fees).
  - ASM Education Center, 11200 Rockville Pike, Suite 220, Rockville, MD 20852 (Metro accessible), 301-984-7400, [www.asmed.com](http://www.asmed.com); numerous training programs. Sample prices: A+/Network+ runs 3 weeks in the evenings (M, W, F, 6-10) and costs - \$2,890 (plus exam fees)

- Carlos Rosario International Public Charter School, 1100 Harvard St, NW, Washington, DC 20009, 202-797-4700, [www.carlosrosario.org/studentinfo/courses](http://www.carlosrosario.org/studentinfo/courses) (see workforce training programs), program is about 1 year, free to DC residents but must meet requirements which include interview, ESL test (7 or higher level), proficiency test, then enter lottery for a spot (most who complete the 8-step application process are accepted). Training is for A+ and MCP certifications. A+ course is offered mornings (M-F, 8:45-11:30 and every other Saturday 9:00 AM -12:00 Noon) or evenings (M-Th, 6:00-10:00 and every other Saturday 9:00 AM-12:00 Noon). MCP certification course is offered mornings (M-F, 8:45-11:30) or evenings (M-Th, 6:00-10:00). Class schedules may vary by semester.
- Montgomery College Gudelsky Institute for Technical Education, 51 Mannakee Street, Rockville, Maryland 20850 (Metro accessible with short ride-on bus ride), 301-251-7905, [www.montgomerycollege.edu/Departments/giterv/index.htm](http://www.montgomerycollege.edu/Departments/giterv/index.htm); offers courses in A+ computer repair and Microsoft Certified Professional (MCP) training. Sample prices: A+ and MCP training (3 courses taking about 23 weeks) is \$3,539 in-county or \$5,489 out of county. Now starting to offer Network+ and Security+.
- New Horizons Computer Learning Centers, 1331 F Street, N.W., Suite 420, Washington, D.C. 20004 (metro accessible) and 2010 Corporate Ridge, Suite 200, McLean, VA 22101 (Metro and short bus ride), 703-749-4030, [www.newhorizons.com](http://www.newhorizons.com); numerous training programs, DC site only has daytime classes; evening classes (as well as daytime classes) are available in Virginia. Sample prices: A+/Network+ costs \$3,598 (plus exam fees).
- Prince Georges Community College, 310 Largo Road, Largo, MD 20774 (Metro and short bus ride), 301-322-0866, [www.pgcc.edu](http://www.pgcc.edu), various computer programs (certificate and associate degrees), A+/Network+ requires 13 credits of coursework, which would cost \$1,680 in-county or \$3,747 out of state (DC TAG can be used to reduce costs if DC resident and taking 6 or more credits at a time).
- UDC Workforce Development Program\*, 4200 Connecticut Ave NW, Washington, DC 20008, 202-274-6999, [www.ccdcwdp.org](http://www.ccdcwdp.org), free set of 2 classes geared toward A+ computer repair (called Fundamentals of Computer Architecture 1 & 2), approximately 6 months), offered evenings, \*at various locations in Wards 5-8.

*There are many schools offering training in different aspects of computer support for different types of certificates. Students should ask for examination pass rates for their students and compare costs to determine the best program for them. Individuals interested in a career in this area are also advised to speak with the experts at one of the training institutes or someone in the field to see what job positions and training would work best for them.*

## **MECHANICS / TECHNICIANS**

### **AUTOMOTIVE TECHNICIAN**

- **Description:** Automotive service technicians inspect, maintain, and repair automobiles and light trucks that run on gasoline, electricity, or alternative fuels such as ethanol. Automotive service technicians' and mechanics' responsibilities have evolved from simple mechanical repairs to high-level technology-related work. The increasing sophistication of automobiles requires workers who can use computerized shop equipment and work with electronic components while maintaining their skills with traditional hand tools. As a result, automotive service workers are now usually called technicians rather than mechanics.
- **Education:** Postsecondary automotive technician training programs usually provide intensive career preparation through a combination of classroom instruction and hands-on practice. Schools update their curriculums frequently to reflect changing technology and equipment. Some trade and technical school programs provide concentrated training for 6 months to a year, depending on how many hours the student attends each week, and award certificates. Community college programs usually award certificates or an associate degree. Some students earn repair certificates in a particular skill and leave to begin their careers. Associate degree programs, however, usually take 2 years to complete and

include classes in English, basic mathematics, computers, and other subjects, as well as automotive repair.

- **Certification:** ASE certification has become a standard credential for automotive service technicians. While not mandatory for work in automotive service, certification is common for all non entry-level technicians in large, urban areas. Certification is available in 1 or more of 8 different areas of automotive service, such as electrical systems, engine repair, brake systems, suspension and steering, and heating and air-conditioning. For certification in each area, technicians must have experience and pass the examination. Completion of an automotive training program in high school, vocational or trade school, or community or junior college may be substituted for 1 year of experience. For ASE certification as a Master Automobile Technician, technicians must be certified in all eight areas.
- **Job Environment:** While most automotive service technicians work a standard 40 hour week, 30 percent worked longer hours. Some may work evenings and weekends to satisfy customer service needs. Generally, service technicians work indoors in well-ventilated and -lighted repair shops. However, some shops are drafty and noisy. Although many problems can be fixed with simple computerized adjustments, technicians frequently work with dirty and greasy parts, and in awkward positions, and may be required to lift heavy parts and tools.
- **Job Outlook:** Job opportunities in this occupation are expected to be very good for those who complete post-secondary automotive training programs and who earn ASE certification. Some employers currently report difficulty in finding workers with the right skills. People with good diagnostic and problem-solving abilities, and training in basic electronics and computer courses are expected to have the best opportunities.
- **Income:** Income in this area can be very good for an experienced technician.
- **Further Career Growth:** By becoming skilled in multiple auto repair services, technicians can increase their value to their employer and their pay. Experienced technicians who have administrative ability sometimes advance to shop supervisor or service manager. Those with sufficient funds many times open independent automotive repair shops. Technicians who work well with customers may become automotive repair service estimators.
- **Local Schools:**
  - Excel Institute, 2851 V Street, N.E., Washington, DC 20018, 202-387-1550, [www.theexcelinstitute.org](http://www.theexcelinstitute.org), program length runs about 1 year minimum (with summers off) to longer timeframes if student pursues multiple areas of certification, full scholarships provided by Excel to enrolled students (New Futures can help with cost of tools, transportation, and uniforms). Program hours are M-F within the 9:00-3:00 range with some flexibility. Note: In the future, some programs may come with fees.
  - Montgomery College Gudelsky Institute for Technical Education, 51 Mannakee Street Rockville, Maryland 20850 (Metro accessible with short ride-on bus ride), 301-251-7905, [www.montgomerycollege.edu/Departments/giterv/index.htm](http://www.montgomerycollege.edu/Departments/giterv/index.htm); programs offer training in specific areas of service which prepares the student for various ASE certification exams. Also available is an associate degree which prepares the student for the whole set of exams required to become an ASE Master Automobile Technician. Courses can be taken for credit or as non-credit courses. Cost of the full associate degree program would be about \$9,275 for in-county residents or those with DC TAG; it would be about \$24,126 for non-residents without DC TAG. A single certificate program would range from about \$1,909 to \$3,409 for in-county or those with DC TAG.
  - Northern Virginia Community College Alexandria Campus, 3001 North Beauregard Street, Alexandria, VA 22311, 703-845-6200, [www.nvcc.edu](http://www.nvcc.edu), various automotive technology courses in specialty areas including diesel technology and collision repair. Also offer an associate's degree in automotive technology or automotive technology-emissions specialization. Cost of the full associate degree program would be about \$6,595 for in-state residents or those with DC TAG; it would be about \$18,863 for non-residents without DC TAG. A single certificate program would range from about \$1,816 to \$3,059 for in-state residents or those with DC TAG.

- Prince Georges Community College, 310 Largo Road, Largo, MD 20774, 301-322-0866, www.pgcc.edu, non-credit certificate programs in basic theory and several specific areas. Costs range from \$185 to \$490 for individual program areas.

## AVIATION MECHANIC

- **Description:** To keep aircraft in peak operating condition, aircraft and avionics equipment mechanics and service technicians perform scheduled maintenance, make repairs, and complete inspections required by the Federal Aviation Administration (FAA).
- **Education:** Many aviation mechanics learn their jobs in 1 of about the 170 schools certified by the FAA. About one-third of these schools award 2-year and 4-year degrees in avionics, aviation technology, or aviation maintenance management. FAA standards established by law require that certified mechanic schools offer students a minimum of 1,900 class hours. Coursework in schools normally lasts from 18 to 24 months and provides training with the tools and equipment used on the job.
- **Certification:** The FAA requires at least 18 months of work experience for an airframe or powerplant certificate, although completion of a program at an FAA-certified mechanic school can be substituted for the work experience requirement. Mechanics and technicians also must pass an exam for certification and take at least 16 hours of training every 24 months to keep their certificate current. Many mechanics take training courses offered by manufacturers or employers, usually through outside contractors.
- **Job Environment:** Aircraft mechanics must do careful and thorough work that requires a high degree of mechanical aptitude. Employers seek applicants who are self-motivated, hard working, enthusiastic, and able to diagnose and solve complex mechanical problems. Additionally, employers prefer mechanics who can perform a variety of tasks. Agility is important for the reaching and climbing necessary to do the job. Because they may work on the tops of wings and fuselages on large jet planes, aircraft mechanics must not be afraid of heights. Advances in computer technology, aircraft systems, and the materials used to manufacture airplanes have made mechanics' jobs more highly technical. Aircraft mechanics must possess the skills necessary to troubleshoot and diagnose complex aircraft systems. They also must continually update their skills with knowledge of new technology and advances in aircraft technology
- **Job Outlook:** Job opportunities should be favorable for people who have completed an aircraft mechanic training program, but keen competition is likely for jobs at major airlines. Job opportunities will continue to be the best at small commuter and regional airlines, at FAA repair stations, and in general aviation.
- **Income:** Income in this area can be quite good for an experienced technician.
- **Further Career Growth:** As aircraft mechanics gain experience, they may advance to lead mechanic (or crew chief), inspector, lead inspector, or shop supervisor positions. Opportunities are best for those who have an aircraft inspector's authorization. To obtain an inspector's authorization, a mechanic must have held an airframe and powerplant mechanic certificate for at least 3 years, with 24 months of hands-on experience.
- **Local Schools:**
  - UDC Community College\*, 4200 Connecticut Ave NW, Washington, DC 20008 (\*the 9 courses of specific technical training are at Reagan Washington National Airport), 202-274-5800, www.udc.edu/cc/academic\_programs, program length is 2 years and total cost is \$6,000 plus books.

*Note: UDC also offers a certificate program in this field that is made up of 8 classes than can later be applied toward an associate degree in the field.*

## BUILDING TRADES

*Note: In many of the building trades, having formal coursework will allow a student to get into the field at an entry or apprenticeship level. Once hired, the student continues to learn on the job until he/she reaches the required level of experience necessary to become a licensed tradesman in the field.*

### HEATING, VENTILATION, AND AIR CONDITIONING TECHNICIAN

- **Description:** Heating and air-conditioning systems consist of many mechanical, electrical, and electronic components, such as motors, compressors, pumps, fans, ducts, pipes, thermostats, and switches. Technicians must be able to maintain, diagnose, and correct problems throughout the entire system. To do this, they adjust system controls to recommended settings and test the performance of the system using special tools and test equipment. Technicians often specialize in either installation or maintenance and repair, although they are trained to do both.
- **Education:** Post-secondary technical and trade schools and some community colleges offer 6-month to 2-year programs in heating, air-conditioning, and related fields. Students study theory of temperature control, equipment design and construction, and electronics. They also learn the basics of installation, maintenance, and repair. After completing these programs, new technicians generally need between an additional 6 months and 2 years of field experience before they are considered proficient. Some training can also be done through apprenticeships, where workers learn on-the-job while being paid.
- **Certification:** Completion of the various training programs culminates with certification exams. Heating and air-conditioning mechanics and installers are required to be licensed by some States and localities. (Check with the training institute for more details on specific classes and related job positions.)
- **Job Environment:** Heating, air-conditioning, and refrigeration mechanics and installers work in homes, retail establishments, hospitals, office buildings, and factories—anywhere there is climate-control equipment that needs to be installed, repaired, or serviced. They may be assigned to specific job sites at the beginning of each day or may be dispatched to a variety of locations if they are making service calls. Technicians may work outside in cold or hot weather or in buildings that are uncomfortable because the air-conditioning or heating equipment is broken. In addition, technicians might work in awkward or cramped positions and sometimes are required to work in high places. The majority of mechanics and installers work at least a 40-hour week. During peak seasons, they often work overtime or irregular hours. Maintenance workers, including those who provide maintenance services under contract, often work evening or weekend shifts and are on call. Most employers try to provide a full workweek year-round by scheduling both installation and maintenance work, and many manufacturers and contractors now provide or even require year-round service contracts. In most shops that service both heating and air-conditioning equipment, employment is stable throughout the year.
- **Job Outlook:** Job prospects for heating, air-conditioning, and refrigeration mechanics and installers are expected to be excellent, particularly for those who have completed training from an accredited technical school or a formal apprenticeship. A growing number of retirements of highly skilled technicians are expected to generate many job openings. Many contractors have reported problems finding enough workers to meet the demand for service and installation of HVACR systems. Technicians who specialize in installation work may experience periods of unemployment when the level of new construction activity declines, but maintenance and repair work usually remains relatively stable. People and businesses depend on their climate-control or refrigeration systems and must keep them in good working order, regardless of economic conditions.
- **Income:** Income in this area can be quite good for an experienced technician.
- **Further Career Growth:** Throughout the learning process, technicians may have to take a number of tests that measure their skills. For those with relevant coursework and less than 1 year of experience, the industry has developed a series of exams to test basic competency in residential heating and cooling and light commercial heating and cooling. These are referred to as “Entry-level” certification exams and are commonly conducted at post-secondary technical and trade schools. HVAC technicians who have at least 1 year of experience performing installations and 2 years of experience performing

maintenance and repair can take a number of different tests to certify their competency in working with specific types of equipment, such as oil-burning furnaces. These tests are offered through the Refrigeration Service Engineers Society, HVAC Excellence, Carbon Monoxide Safety Association, Air-Conditioning and Refrigeration Safety Coalition, and North American Technician Excellence, Inc., among others. Employers increasingly recommend taking and passing these tests and obtaining certification; doing so may increase advancement opportunities. Advancement usually takes the form of higher wages. Some technicians, however, may advance to positions as supervisor or service manager. Others may move into sales and marketing. Still others may become building superintendents, cost estimators, system test and balance specialists, or, with the necessary certification, teachers.

- **Local Schools:**

- Montgomery College Gudelsky Institute for Technical Education, 51 Mannakee Street Rockville, Maryland 20850 (Metro accessible with short ride-on bus ride), 301-251-7905, [www.montgomerycollege.edu/Departments/giterv/index.htm](http://www.montgomerycollege.edu/Departments/giterv/index.htm); offers HVAC certificate or HVAC letter of recognition (which will get an individual into the workforce where they will train further). The letter of recognition program is a series of 3 semester-long classes and would cost about \$1,373 for in-county residents or those with DC TAG, or about \$3,547 for non-residents without DC TAG. The certificate program consists of 6 classes and would cost around \$2,864 for in-county residents or those with DC TAG, or about \$7,450 for non-residents without DC TAG.
- National Association of Power Engineers, 5707 Seminary Road, Suite 200, Falls Church, VA 22041, 703-845-7055, [www.napedc1.org](http://www.napedc1.org) (most training is in Falls Church, but some courses are offered in Greenbelt, Gaithersburg, and DC). Classes are in the evenings. Students can take various classes related to building maintenance fields (electricity, AC and refrigeration, heat pumps, boilers, etc.). Sample price – Basic Electricity course is 9 weeks and costs \$428. Students planning on taking several courses can join the Association and received discounted training. Note: Many of these graduates pursuing building maintenance positions.
- UDC Workforce Development Program, held at Cardoza Senior High School, 13<sup>th</sup> & Clifton Streets, NW, Washington, DC 20009, (202) 274-6999, [www.ccdcwdp.org](http://www.ccdcwdp.org), pre-apprenticeship program, runs from Sept. to May (M-Th, 4-8 PM), free to DC residents.

## BUILDING AND CONSTRUCTION TRADES

- **Description:** There are various trades a student can pursue, including carpentry, electrical wiring, and residential remodeling and repair. As mentioned at the beginning of this section on Building Trades, obtaining some formal training can help a student obtain an apprenticeship with a labor union or association, where he/she can get free training while being paid to learn the skill in depth on-the-job.
- **Education:** Many of these trades are learned in apprenticeship programs on the job. The training is free and the individual is paid while learning on-the-job. However, getting an apprenticeship can sometimes be difficult. Having some formal training and connections with the various unions, associations, and hiring companies can help, so some formal education at a well-respected institute is a good approach.
- **Certification:** Becoming licensed in a particular field comes later, after substantial on-the-job experience.
- **Job Environment:** Job environment varies by trade and job type; work can be in new construction or repair, indoor or outdoor, in business settings or in private homes. Many jobs do require an early morning start time each day.
- **Job Outlook:** Many openings are expected over the next decade as a large number of skilled tradespeople retire. Since it can be quite difficult to get a skilled employee in these areas, and since it takes a long time to train someone, companies are often willing to keep and even add employees during slow times so they are prepared during future peak periods.
- **Income:** Income in the building trades can be quite good for an experienced tradesperson.
- **Further Career Growth:** Experienced tradespeople can advance to jobs as supervisors. In construction, they also may become project managers or construction superintendents. Supervisors and contractors should be able to identify and estimate costs and prices and the time and materials

needed to complete a job. It is of great benefit to be able to communicate in both English and Spanish in order to relay instructions and safety precautions to workers with limited understanding of English since Spanish-speaking workers make up a large part of the construction workforce in many areas.

- **Local Schools:**

- Montgomery College Gudelsky Institute for Technical Education, 51 Mannakee Street, Rockville, Maryland 20850 (Metro accessible with short ride-on bus ride), 301-251-7905, [www.montgomerycollege.edu/Departments/giterv/index.htm](http://www.montgomerycollege.edu/Departments/giterv/index.htm); offers certificates and letters of recognition in building trades such as electrical wiring, carpentry, HVAC, and residential remodeling as well as an associate's degree in Building Trades Technology (with different specialty areas). Note: Many of these graduates pursue further on-the-job training in a specific building trade.
- UDC Workforce Development Program, held at Cardoza Senior High School, 13<sup>th</sup> & Clifton Streets, NW, Washington, DC 20009, (202) 274-6999, [www.ccdcwp.org](http://www.ccdcwp.org), pre-apprenticeship programs in plumbing or electrical, runs from Sept. to May (M-Th, 4-8 PM), free to DC residents.

*Note: Northern Virginia Community College also offers a Construction Management Technology associate's degree and a Construction Supervision certificate at their Alexandria location (3001 North Beauregard Street, Alexandria, VA 22311, 703-845-6200, [www.nvcc.edu](http://www.nvcc.edu)).*

## HEAVY EQUIPMENT OPERATORS / COMMERCIAL DRIVERS

- **Description:** Construction equipment operators use machinery to move construction materials, earth, and other heavy materials at construction sites and mines. They operate equipment that clears and grades land to prepare it for construction of roads, buildings, and bridges. They use machines to dig trenches to lay or repair sewer and other pipelines and hoist heavy construction materials. They may even work offshore constructing oil rigs. Construction equipment operators also operate machinery that spreads asphalt and concrete on roads and other structures. These workers also set up and inspect the equipment, make adjustments, and perform some maintenance and minor repairs. Construction equipment operators control equipment by moving levers, foot pedals, operating switches, or joysticks.
- **Education:** Some individuals obtain training on the job or through a union apprenticeship program, although these industries can be hard to break into. Private vocational schools offer instruction in the operation of certain types of construction equipment. Completion of such programs can help a person get a job.
- **Certification:** Construction equipment operators often obtain a commercial driver's license so that they can haul their equipment to the various job sites. While attending vocational school, operators are able to qualify for or attain various certifications. These certifications prove to potential employers that an operator is able to handle specific types of equipment.
- **Job Environment:** Construction equipment operators work outdoors, in nearly every type of climate and weather condition, although in many areas of the country, some types of construction operations must be suspended in winter. Bulldozers, scrapers, and especially tampers and piledrivers are noisy and shake or jolt the operator. Construction equipment operators are cold in the winter and hot in the summer and often get dirty, greasy, muddy, or dusty. Some operators work in remote locations on large construction projects, such as highways and dams, or in factory or mining operations. Operators may have irregular hours because work on some construction projects continues around the clock or must be performed late at night or early in the morning.
- **Job Outlook:** Job opportunities for construction equipment operators are expected to be very good. Some potential workers may choose not to enter training programs because they prefer work that has more comfortable working conditions and is less seasonal in nature. This reluctance makes it easier for willing workers to get operator jobs. In addition, many job openings will arise from job growth and from the need to replace experienced construction equipment operators who retire or leave the job for other reasons. Construction equipment operators who can use a large variety of equipment will have the best prospects. Employment of construction equipment operators, like that of many other construction workers, is sensitive to the fluctuations in the economy. Workers in these trades may experience

periods of unemployment when the overall level of construction falls. On the other hand, shortages of these workers may occur in some areas during peak periods of building activity.

- **Further Career Growth:** Construction equipment operators can advance to become supervisors. Some operators choose to teach in training facilities to pass on their knowledge.
- **Local Schools:**
  - Heavy Equipment Training Academy, 2412 Minnesota Avenue SE Suite 303, Washington, DC 20020, 202.678.8880, [hetadc.com](http://hetadc.com), key program is 16 weeks, including a 4 week internship, cost is \$8,000 plus \$225 for license fees (can also take specific courses for driving certain types of equipment including buses and tractor trailers). Equipment training done at 633 Howard Road, SE, Washington, DC.

## **OTHER CAREERS:**

The local community colleges have many more programs available with certificate and associate degree programs which could also be explored. In terms of associate programs, look for ones with an AAS designation, which means they are preparing the student for a career rather than just for transfer to a 4-year program. Examples of a few other areas of study include:

- Accounting
- Computer Publishing and Printing
- Construction Management
- Health Information Management
- Interior Design
- Police Science
- Visual Communication/Graphic Design
- Web Design, Development and Programming

Check you local community college's catalog for many more associate degree and certificate programs.

## **PREPARATORY ASSISTANCE:**

If a student is interested in improving his or her skill in reading, writing, math, or computers prior to taking school entrance exams or beginning their schooling, there are several free or low cost preparatory programs in the city. Enhancing math and English skills prior to enrolling in college may help the student avoid costly and time consuming remedial courses on campus. Also, computer skills are very useful and may be prerequisites for some programs (Medical Coder, Paralegal). Programs available include:

**Academy of Hope's Pathways to Success** programs – These programs are about 6 weeks in length and are offered during the daytime or evening. They include academics, college or job readiness skills, and computer training. For more information call (202)-269-6623 or email [Jessie@aohdc.org](mailto:Jessie@aohdc.org). Cost is \$30 or volunteer hours.

**UDC Workforce Development Accuplacer Preparation** class – Accuplacer is the entrance exam many colleges use for determining if a student needs to take remedial classes before beginning college level classes in English and math. This preparation class is 2 ½ months in the evenings at various locations in the city. For more information, call (202) 274-6999 or go to [www.ccdcwdp.org](http://www.ccdcwdp.org). Class is free to DC residents.

**Byte Back Computer Training** classes – Byte Back offers beginning computer courses and Microsoft Office training courses at 3 locations in the city. They also have an online typing tutorial that can help a student to improve their typing skills (may be needed for paralegal training). All classes are free. For more information, call 202-529-3395, email [info@byteback.org](mailto:info@byteback.org), or go to their website at [www.byteback.org](http://www.byteback.org) (see Class Information link and Typing Tutor link on the left). Note: If a student successfully completes their 12-week Microsoft Office training program, they receive a **free refurbished computer!**