First Quarter 2018 Volume 1, Issue 1

CAREER QUARTERLY

Career Information, Job Seeking Advice, Labor Market Data, and More!



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Virginia's Economy at a Glance ••••••••••••••••••

Data Series	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019
Labor Force Data						
Civilian Labor Force(1)	(<u>2</u>)4,337.2	(<u>2</u>)4,338.7	(<u>2</u>)4,339.0	4,346.0	4,354.9	(<u>P</u>)4,360.3
Employment(1)	(<u>2</u>)4,216.5	(<u>2</u>)4,217.6	(<u>2</u>)4,217.5	4,223.5	4,230.4	(<u>P</u>)4,233.6
Unemployment(1)	(<u>2</u>)120.7	(<u>2</u>)121.1	(<u>2</u>)121.5	122.5	124.6	(<u>P</u>)126.7
Unemployment Rate(3)	(<u>2</u>)2.8	(<u>2</u>)2.8	(<u>2</u>)2.8	2.8	2.9	(<u>P</u>)2.9
Nonfarm Wage and Salary Employment						
Total Nonfarm(4)	4,000.1	4,009.2	4,008.6	4,029.0	4,025.6	(<u>P</u>)4,033.6
12-month % change	0.8	1.0	0.8	1.0	0.8	(<u>P</u>)0.9
Mining and Logging(4)	7.9	7.8	7.8	7.9	7.9	(<u>P</u>)7.9
12-month % change	0.0	0.0	0.0	1.3	0.0	(<u>P</u>)-1.3
Construction(4)	197.5	197.2	197.5	198.7	199.0	(<u>P</u>)198.5
12-month % change	1.3	1.4	0.8	0.9	0.4	(<u>P</u>)0.3
Manufacturing(4)	241.0	242.9	244.0	245.1	246.2	(<u>P</u>)245.7
12-month % change	2.2	3.0	3.3	3.5	3.5	(<u>P</u>)3.1
Trade, Transportation, and Utilities(4)	657.4	658.7	658.7	659.4	658.4	(<u>P</u>)658.8
12-month % change	-0.6	-0.4	-0.3	-0.3	-0.6	(<u>P</u>)-0.5
Information(4)	65.7	65.7	64.8	65.3	64.6	(<u>P</u>)65.0
12-month % change	-2.7	-3.9	-4.7	-4.0	-5.1	(<u>P</u>)-4.4
Financial Activities(4)	207.4	207.6	205.2	207.6	206.7	(<u>P</u>)205.5
12-month % change	0.5	0.6	-0.8	0.4	-0.3	(<u>P</u>)-1.0
Professional & Business Services(4)	749.4	751.9	750.5	757.0	754.9	(<u>P</u>)759.9
12-month % change	2.0	2.0	1.7	2.0	1.4	(<u>P</u>)1.8
Education & Health Services(4)	542.3	543.4	543.5	543.9	544.6	(<u>P</u>)547.4
12-month % change	1.3	1.8	1.2	1.0	1.1	(<u>P</u>)1.4
Leisure & Hospitality(4)	406.8	407.5	410.8	417.1	417.4	(<u>P</u>)418.5
12-month % change	-0.1	0.3	1.0	2.0	2.4	(<u>P</u>)2.6
Other Services(4)	201.2	201.1	201.8	203.1	202.3	(<u>P</u>)202.0
12-month % change	0.2	0.2	0.4	0.9	0.5	(<u>P</u>)0.4
Government(4)	723.5	725.4	724.0	723.9	723.6	(<u>P</u>)724.4
12-month % change	0.9	1.0	0.8	0.5	0.5	(<u>P</u>)0.5

Footnotes Data extracted on: April 24, 2019

(1) Number of persons, in thousands, seasonally adjusted.

- (2) Reflects revised population controls, model reestimation, and new seasonal adjustment.
- (3) In percent, seasonally adjusted.
- (4) Number of jobs, in thousands, seasonally adjusted.
- (P) Preliminary

Source: https://www.bls.gov/eag/eag.va.htm

Career Planning

High-Wage Occupations by Typical Entry-Level Education, 2017

Elka Torpey | January 2019

Overall, wages are higher in occupations typically requiring a degree for entry than in occupations typically requiring less education. But that's not always the case.

The U.S. Bureau of Labor Statistics (BLS) assigns occupations to education categories on the basis of what is typically required to enter those occupations. As chart 1 shows, the median annual wage in occupations that typically require a degree at the entry level was higher than \$37,690, the median wage for all occupations in 2017. (A median wage is the point at which half of workers

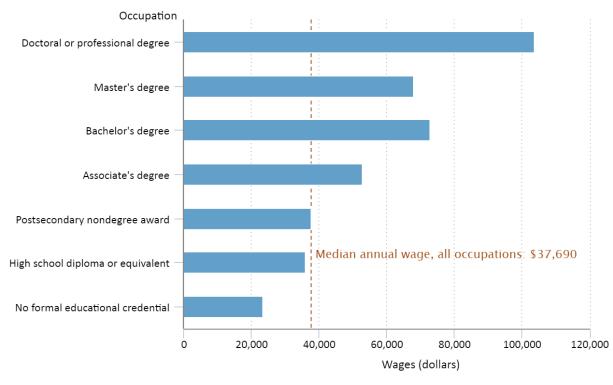


Chart 1. Median annual wage by typical entry-level education, 2017

Source: U.S. Bureau of Labor Statistics, Office of Occupational and Employment Projections

The top-paying occupations that typically don't require a degree for entry also exceeded \$37,690, even though the overall median annual wage for occupations in these categories paid less than that. The tables that follow show some of the variation among high-wage occupations in different education categories. For example, the best-paying occupations in which the typical entry-level education is a high school diploma had a median wage topping that of some of the highest paying associate's degree-level occupations in 2017.

For each occupation listed, the tables also show the experience typically required at the entry level; on-the-job training typically required to attain competency; and annual openings, on average, projected from 2016 to 2026.

Doctoral or professional degree

The highest paying education category is occupations that typically require a doctoral or professional degree for entry. The BLS Occupational Employment Statistics program does not publish wages for occupations that have a median annual wage greater than or equal to \$208,000. Therefore, table 1 shows mean, rather than median, wages.

The occupation of **family and general practitioners** is projected to have 5,600 openings each year, on average, from 2016 to 2026, the most of the highest paying occupations that typically require a doctoral or professional degree for entry.

Table 1. Highest paying occupations that typically require a doctoral or professional degree for entry, 2017

Occupation	Mean annual wage, 2017 [1]	Work experience in a related occupation	On-the-job training	Occupational openings, projected 2016–26 annual average
Anesthesiologists	\$265,990	None	Internship/ residency	1,400
Surgeons	251,890	None	Internship/ residency	1,900
Oral and maxillofacial surgeons	242,740	None	Internship/ residency	300
Obstetricians and gynecologists	235,240	None	Internship/ residency	900
Orthodontists	229,380	None	Internship/ residency	300
Psychiatrists	216,090	None	Internship/ residency	1,100
Family and general practitioners	208,560	None	Internship/ residency	5,600

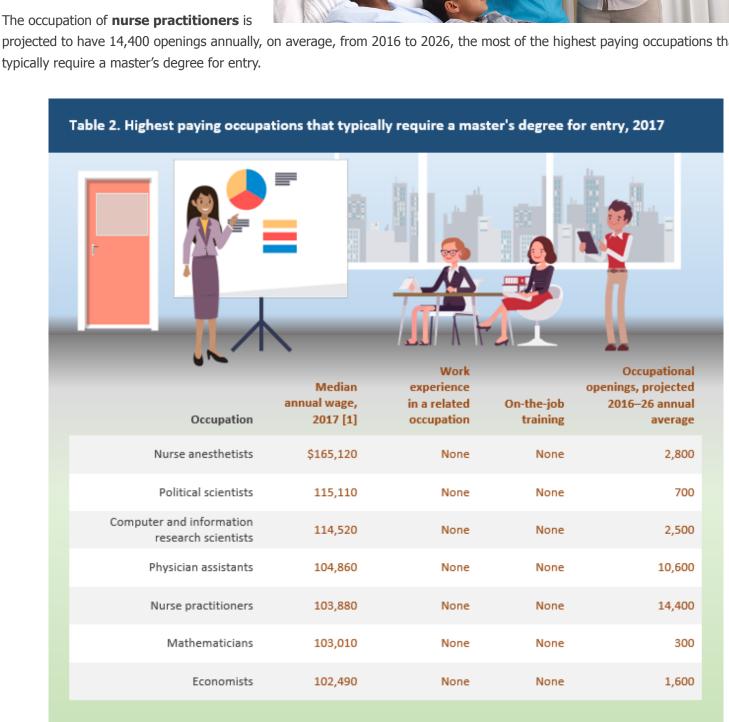
^[1] Data exclude wages of self-employed workers. The Occupational Employment Statistics program does not publish wages for occupations with a median annual wage that is greater than or equal to \$208,000. Occupations in this category include most doctoral and professional degree-level occupations. Therefore, mean wages are shown.

Source: U.S. Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections.

Master's degree

All of the occupations listed in table 2 pay more than \$100,000 per year at the median. This is the only educational category in which all of the highest wage occupations typically don't have requirements for experience or on-the-job training.

The occupation of **nurse practitioners** is projected to have 14,400 openings annually, on average, from 2016 to 2026, the most of the highest paying occupations that



^[1] Data exclude wages of self-employed workers.

Source: U.S. Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections.

Bachelor's degree

The bachelor's-level occupations shown in table 3 paid more than six of the seven highest paying master's-level occupations—and chief executives tops even the highest paying master's-level occupation, nurse anesthetists. However, all but petroleum engineers typically require work experience in a related occupation for entry.

The occupation of **financial managers** is projected to have 56,900 openings each year, on average, from 2016 to 2026—the most of all the highest paying occupations shown in each education category.

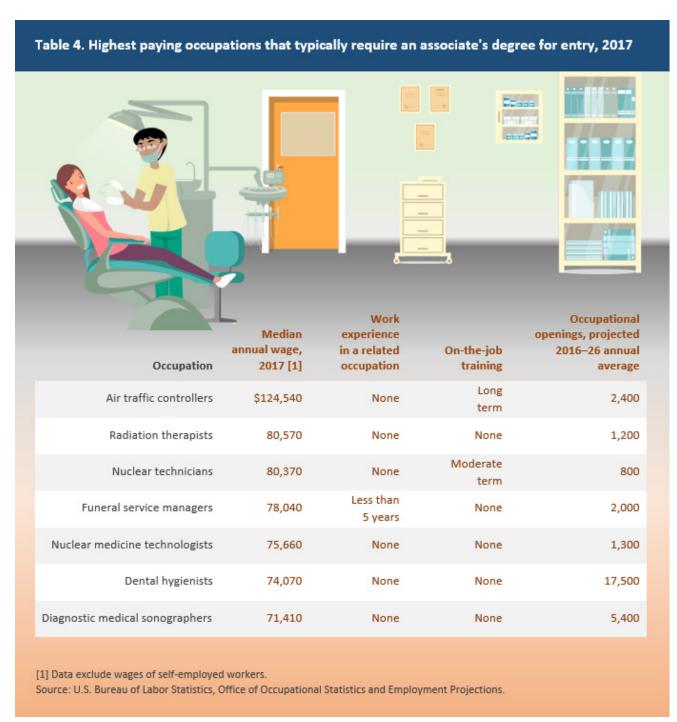
Table 3. Highest paying occupa To	Public STATE MANUAL STATE STAT	ally require a back		GATE 16
Occupation	Median annual wage, 2017 [1]	Work experience in a related occupation	On-the-job training	Occupational openings, projected 2016–26 annual average
Chief executives	\$183,270	5 years or more	None	20,000
Computer and information systems managers	139,220	5 years or more	None	32,500
Architectural and engineering managers	137,720	5 years or more	None	13,600
Airline pilots, copilots, and flight engineers	137,330	Less than 5 years	Moderate term	8,100
Petroleum engineers	132,280	None	None	2,800
Marketing managers	132,230	5 years or more	None	21,300
Financial managers	125,080	5 years or more	None	56,900
[1] Data exclude wages of self-employed v Source: U.S. Bureau of Labor Statistics, Of		Statistics and Employm	nent Projections.	

Associate's degree

The highest paying occupation in table 4 is air traffic controllers, which had a wage that was more than triple the median wage for all workers. In this occupation, workers typically need long-term on-the-job training to become competent in their job tasks.

The occupation of **dental hygienists** is projected to have 17,500 openings each year, on average, from 2016 to 2026, more than any of the other highest paying occupations that typically require an associate's degree for entry.





Postsecondary nondegree award

Repair occupations are among the highest paying postsecondary nondegree award occupations shown in table 5. Aircraft mechanics and service technicians is the only occupation in the table that typically doesn't have requirements for work experience or on-the-job training in addition to completing an academic program.

And the 10,900 openings projected each year, on average, from 2016 to 2026 for **aircraft mechanics and service technicians** is another way this occupation stands apart from the other highest paying occupations that typically require a postsecondary nondegree award for entry.



High school diploma or equivalent

Wages for the top-paying high school-level occupations were more than double the median for all occupations. Each of the occupations listed in table 6 typically requires either work experience in a related occupation or on-the-job training—or both experience and training.

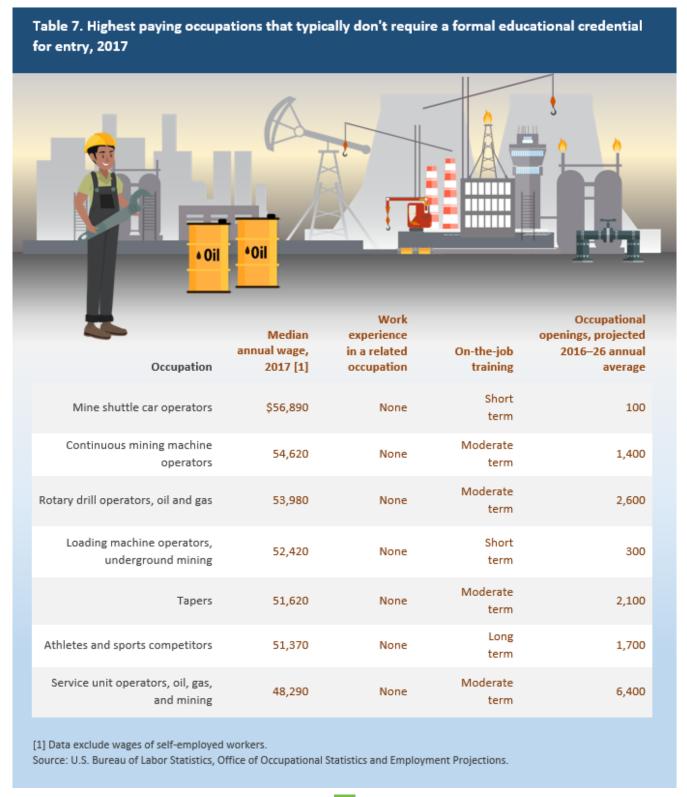
The occupation of transportation, storage, and distribution managers is projected to have 9,700 openings annually, on average, from 2016 to 2026, the most of the highest paying occupations that typically require a high school diploma or equivalent for entry.



No formal educational credential

As table 7 shows, mine shuttle car operators had the highest median annual wage of the occupations that typically don't require a formal educational credential for entry. On-the-job training is typically required for competency in all of the occupations shown.

The occupation of **service unit operators in oil, gas, and mining** is projected to have 6,400 openings each year, on average, from 2016 to 2026, the most of the highest paying occupations that typically don't require a formal educational credential for entry.



For more information

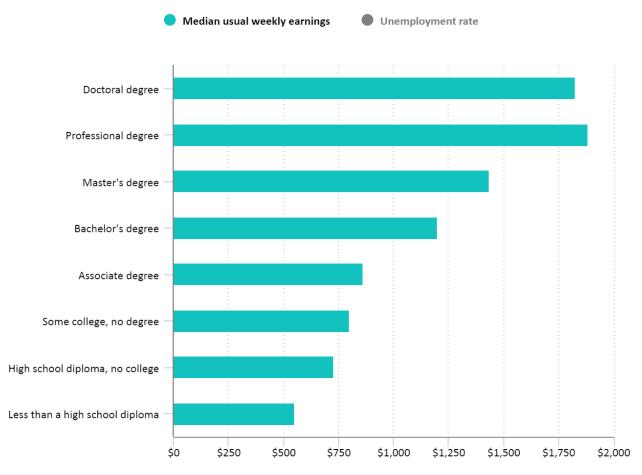
A complete list of occupational wages, as well as typical entry-level education requirements and projected openings, is available from the BLS Employment Projections program. Additional wage data are available from the Occupational Employment Statistics program.

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Source: Elka Torpey, "High-wage occupations by typical entry-level education, 2017," Career Outlook, U.S. Bureau of Labor Statistics, January 2019. https://www.bls.gov/careeroutlook/2019/article/high-wage-occupations.htm

Education Pays

Median weekly earnings and unemployment rate by educational attainment, 2018



Source: U.S. Bureau of Labor Statistics, Current Population Survey

As that chart shows, the higher the level of education, the lower the unemployment rate. Compare unemployment by education level in 2018 with the overall unemployment rate of 3.2 percent.

Data in the chart indicate how weekly earnings and rates of unemployment vary by educational attainment for workers ages 25 and older at a broad level. Individual experiences differ, however, depending on factors such as your field of degree and your occupation.

Source: Elka Torpey, "Education pays," Career Outlook, U.S. Bureau of Labor Statistics, February 2019.

Careers by the Numbers

Top-paying occupations for women: Which have the fastest employment growth?

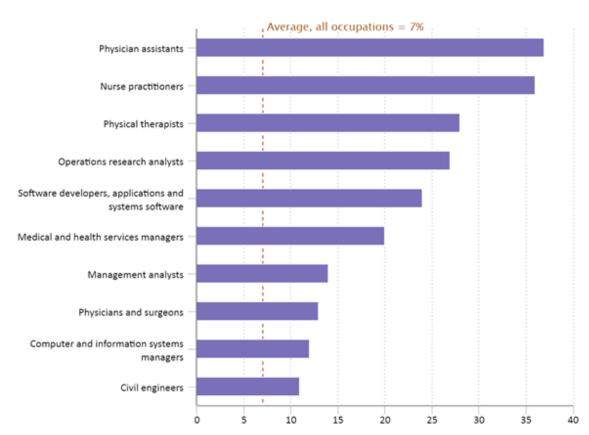
Elka Torpey | March 2019

Women earn more in certain occupations than in others. And some of the top-paying occupations for women are expected to have fast employment growth for workers of both sexes.

The chart shows selected occupations that, according to the U.S. Bureau of Labor Statistics (BLS), had high median weekly earnings for women in 2018 and faster-than-average projected employment growth for women and men combined from 2016 to 2026. Employment of physician assistants and nurse practitioners is projected to grow more than 5 times faster than the average for all occupations.

In half of the occupations shown, women's 2018 median weekly earnings were at least twice the \$789 median for women overall. Nurse Percent employment growth for both sexes, projected 2016–26, in selected top-paying occupations for women, 2018

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Source: U.S. Bureau of Labor Statistics, Office of Occupational and Employment Projections (projected growth) & Current Population Survey (earning, shares)

practitioners had the highest median weekly earnings for women (\$1,891) of all the occupations in the chart.

In 2018, most nurse practitioners (85 percent), medical and health services managers (74 percent), physician assistants (68 percent), and physical therapists (67 percent) were women. Less than one-quarter of software developers (20 percent) and civil engineers (15 percent) were women.

Workers typically need at least a bachelor's degree to enter any of the occupations listed in the chart. (See the complete set of occupational projections, including typical education required for entry, on the BLS Employment Projections site. Learn more about women's employment and earnings from the BLS Current Population Survey.)

Source: Elka Torpey, "Top-paying occupations for women: Which have the fastest employment growth?," Career Outlook, U.S. Bureau of Labor Statistics, March 2019.



Dental Hygienists

What Dental Hygienists Do

Dental hygienists wear safety glasses, surgical masks, and gloves to protect themselves and their patients from diseases.

Dental hygienists clean teeth, examine patients for signs of oral diseases such as gingivitis, and provide other preventive dental care. They also educate patients on ways to improve and maintain good oral health.

Duties

Dental hygienists typically do the following:

- Remove tartar, stains, and plaque from teeth
- ▶ Apply sealants and fluorides to help protect teeth
- ▶ Take and develop dental x rays
- ▶ Assess patients' oral health and report findings to dentists
- ▶ Document patient care and treatment plans
- ▶ Educate patients about oral hygiene techniques, such as how to brush and floss correctly

Dental hygienists use many types of tools to do their job. They clean and polish teeth with hand, power, and ultrasonic tools. In some cases, they use lasers. Hygienists remove stains with an air-polishing device, which sprays a combination of air, water, and baking soda. They polish teeth with a powered tool that works like an automatic toothbrush. Hygienists use x-ray machines to take pictures to check for

Work Environment

Dental hygienists discuss diet and other topics that affect a patient's dental health.

Dental hygienists held about 207,900 jobs in 2016. The largest employers of dental hygienists were as follows:

Offices of dentists	95%
Government	1%
Offices of physicians	1%

Dental hygienists wear safety glasses, surgical masks, and gloves to protect themselves and patients from infectious diseases. When taking x rays, they follow strict procedures to protect themselves and patients from radiation.

Work Schedules

About half of dental hygienists worked part time in 2016. Dentists often hire hygienists to work only a few days a week, so some hygienists work for more than one dentist.

Some states allow hygienists with additional training, sometimes called dental therapists, to work with an expanded scope of practice.

Dental hygienists help patients develop and maintain good oral health. For example, they may explain the relationship between diet and oral health. They may also give advice to patients on how to select toothbrushes and other oral care devices.

The tasks hygienists may perform, and the extent to which they must be supervised by a dentist, vary by state and by the setting in which the dental hygienist works. For example, some states allow hygienists to diagnose certain health problems independently of a dentist.

How to Become a Dental Hygienist

Dental hygienists remove tartar and plaque from teeth.

Dental hygienists typically need an associate's degree in dental hygiene. Programs typically take 3 years to complete. All states require dental hygienists to be licensed; requirements vary by state.

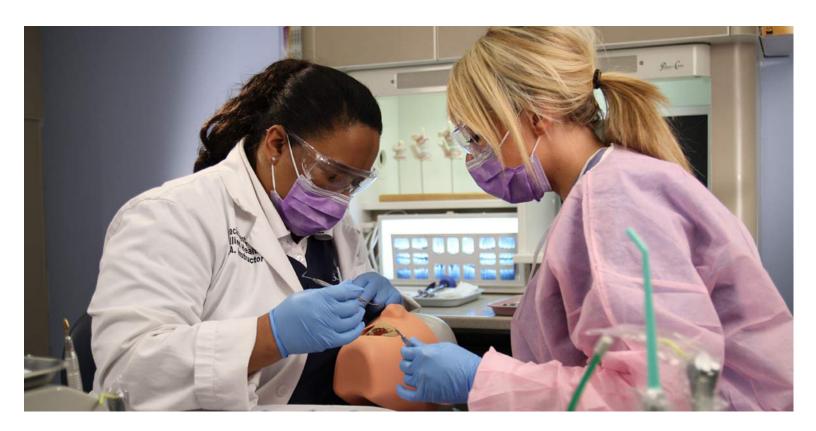
Education

Dental hygienists typically need an associate's degree in dental hygiene. Bachelor's and master's degree programs in dental hygiene also are available, but are less common. A bachelor's or master's degree usually is required for research, teaching, or clinical practice in public or school health programs.

Dental hygiene programs are commonly found in community colleges, technical schools, and universities. In 2017, the Commission on Dental Accreditation, part of the American Dental Association, accredited more than 300 dental hygiene programs.

Programs typically take 3 years to complete, and offer laboratory, clinical, and classroom instruction. Areas of study include physiology, nutrition, radiography, pathology, medical ethics, anatomy, patient management, and periodontics, which is the study of gum disease.

High school students interested in becoming dental hygienists should take courses in biology, chemistry, and math. Most dental hygiene programs also require applicants to complete prerequisites, which often include college-level courses. Specific requirements vary by school.



Important Qualities

Critical thinking. Dental hygienists must use critical thinking skills in order to assess and evaluate patients.

Communication skills. Dental hygienists must accurately communicate with dentists and patients about oral health status, oral hygiene care plans, and, as needed, lifestyle counseling.

Detail oriented. Dental hygienists must follow specific rules and protocols to help dentists diagnose and treat a patient. Depending on the state in which they work and/or the treatment provided, dental hygienists may work without the direct supervision of a dentist.

Dexterity. Dental hygienists must be good at working with their hands. They generally work in tight quarters on a small part of the body, requiring fine motor skills using very precise tools and instruments.

Interpersonal skills. Dental hygienists must work closely with dentists and patients. Some patients are in extreme pain or have fears about undergoing dental treatment, and the hygienist must be sensitive to their emotions.

Problem-solving skills. Dental hygienists develop and implement oral hygiene care plans to maintain or improve patients' oral health.

Licenses, Certifications, and Registrations

Every state requires dental hygienists to be licensed; requirements vary by state. In most states, a degree from an accredited dental hygiene program and passing grades on written and clinical examinations are required for licensure. To maintain licensure, hygienists must complete continuing education requirements. For specific requirements, contact your state's Board of Dental Examiners.

Many jobs also require cardiopulmonary resuscitation (CPR) certification.

Pay

Note: All Occupations includes all occupations in the U.S. Economy. Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics

The median annual wage for dental hygienists was \$74,820 in May 2018. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$51,930, and the highest 10 percent earned more than \$101,820.

In May 2018, the median annual wages for dental hygienists in the top industries in which they worked were as follows:

Offices of dentists	\$75,090
Offices of physicians	71,630
Government	60,630

Benefits, such as vacation, sick leave, and retirement contributions vary by employer and may be available only to full-time workers.

About half of dental hygienists worked part time in 2016. Dentists often hire hygienists to work only a few days a week, so some hygienists work for more than one dentist.

Job Prospects

Although the demand for dental services is growing, the number of new graduates from dental hygiene programs also has

increased, resulting in more competition for jobs. Candidates can expect very strong competition for most full-time hygienist positions. Job seekers with previous work experience should have the best job opportunities.

There are areas in the United States, typically rural areas, where patients need dental care but have little access to it.

Job prospects will be especially good for dental hygienists who are willing to work in these areas.



Occupational Title	SOC Code	Fmployment, 2016	mployment, 2016 Projected Employment,	Change,	2016-26
	ai Title SOC Code Employment, 2016		2026	Percent	Numeric
Dental hygienists 29-2021 207,900		248,900	20	40,900	

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections program

Job Growth Projections and Wages for Dental Hygienist in Virginia

Projections 2016-2026

Ch- h-	Employme			Projected Annual Job
State	2016	2026	Percent Change	Openings*
Virginia	4,990	6,230	25%	450

Wages

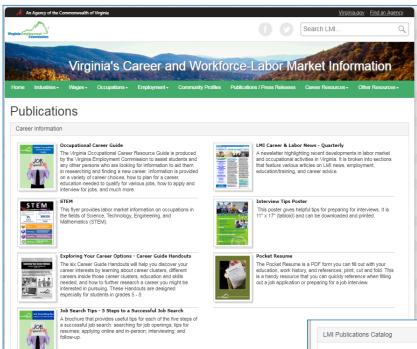
Location	Pay Period	2017			
Location	Pay Periou	Low	Median	High	
United States	Hourly	\$24.61	\$35.61	\$48.72	
	Yearly	\$51,180	\$74,070	\$101,330	
Virginia	Hourly	\$24.56	\$39.62	\$52.88	
	Yearly	\$51,090	\$82,400	\$110,000	
Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Division	Hourly	\$38.52	\$45.97	\$61.04	
	Yearly	\$80,130	\$95,610	\$126,950	
Harrisonburg, VA MSA	Hourly	\$16.23	\$40.71	\$48.86	
	Yearly	\$33,770	\$84,680	\$101,630	
Winchester, VA-WV MSA	Hourly	\$22.11	\$37.45	\$48.45	
	Yearly	\$46,000	\$77,900	\$100,780	
Richmond, VA MSA	Hourly	\$20.43	\$35.96	\$47.76	
	Yearly	\$42,490	\$74,800	\$99,330	
Roanoke, VA MSA	Hourly	\$28.33	\$35.82	\$46.85	
	Yearly	\$58,930	\$74,510	\$97,450	
Lynchburg, VA MSA	Hourly	\$20.79	\$35.45	\$46.15	
	Yearly	\$43,240	\$73,750	\$96,000	
Virginia Beach-Norfolk-Newport News, VA-NC MSA	Hourly	\$20.32	\$34.48	\$45.06	
	Yearly	\$42,260	\$71,720	\$93,730	
Blacksburg-Christiansburg-Radford, VA MSA	Hourly	\$16.90	\$32.75	\$65.55	
	Yearly	\$35,150	\$68,120	\$136,340	
Charlottesville, VA MSA	Hourly	\$25.61	\$30.26	\$47.27	
	Yearly	\$53,270	\$62,950	\$98,320	
Bristol, VA MSA	Hourly	N/A	N/A	N/A	
	Yearly	N/A	N/A	N/A	
Danville, VA MSA	Hourly	N/A	N/A	N/A	
	Yearly	N/A	N/A	N/A	
Staunton-Waynesboro, VA MSA	Hourly	N/A	N/A	N/A	
	Yearly	N/A	N/A	N/A	

Sources: https://www.bls.gov/ooh/healthcare/dental-hygienists.htm#tab-1; https://www.careeronestop.org/Toolkit/Careers/Occupations/occupation-profile.aspx?keyword=Dental%20Hygienists&onetcode=29202100&location=VIRGINIA

Career and Labor Market Information Publications • • • • • • • • • •

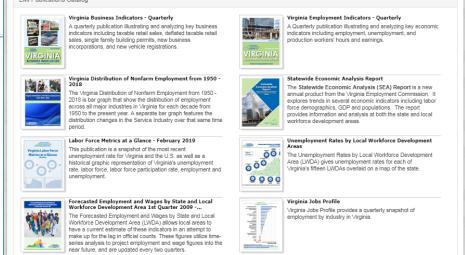
Explore Career possibilities on our Career and Labor Market Information Website at:

https://virginiawlmi.com/publications



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These products provide labor market information, job tips, career planning, and more.



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