



U.S. BUREAU OF LABOR STATISTICS

Career Outlook

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Beyond construction trades: Apprenticeships in a variety of careers

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There's often more than one way to learn how to do a job. If you like learning by doing, an occupation with an apprenticeship might be for you.

Apprenticeships are an arrangement in which a worker receives hands-on job training, technical instruction, and a paycheck—all while learning to do a job. Apprentices work for a sponsor, such as an individual employer or a business-union partnership, who pays their wages and provides job training. Formal apprenticeship programs usually last about 4 years but may be completed in less than 1 year or take as long as 6 years, depending on the occupation. At the end of a registered program, apprentices get a nationally recognized certificate of completion as proof of their skills.

The U.S. Department of Labor's [Office of Apprenticeship](#) (OA), the Employment and Training Administration program that oversees registered apprenticeships, counted almost 600,000 active apprentices in nearly 27,000 registered apprenticeship programs in 2022. Many apprenticeships are in construction trades, which may be among the best-known opportunities for this method of career entry. But other apprenticeships are in occupations related to helping others, installing and fixing things, producing things, and more. This article looks at 30 occupations not in construction trades that OA identified as having the largest number of active, registered apprentices in 2022. In addition to providing the number of apprentices in each of these occupations, the article highlights employment, projections, and wage data from the U.S. Bureau of Labor Statistics (BLS).

BLS projections and wage data are for the occupations as a whole and not just for apprentices. Compare projected employment growth rates with 5 percent, the average rate projected for all occupations from 2021 to 2031; and wages with \$45,760, the median annual wage for all workers in 2021. Many apprenticeship program agreements stipulate a starting wage for apprentices that is at least 50 to 70 percent of the journey-level wage.

Helping others

If you want to help people, then an apprenticeship in one of the [healthcare](#), [protective service](#), or [education](#) occupations shown in table 1 might be a good choice. As table 1 shows, there were 4,033 active [nursing assistant](#) apprentices in 2022. Nursing assistant apprenticeships vary from a few months to about a year, depending on the program, and may lead to a clinical nursing assistant (CNA) credential. These apprentices typically are supervised by healthcare staff to help patients with basic care and daily living tasks.

Table 1. Apprenticeships, employment, outlook, and wages in selected occupations related to helping people



Occupation	Active apprentices, 2022	Employment, 2021	Employment change, projected 2021–31 (numeric)	Employment change, projected 2021–31 (percent)	Occupational openings, projected 2021–31 annual average	Median annual wage, 2021
Nursing assistants	4,033	1,343,700	62,700	5	212,700	\$30,310
Correctional officers and jailers	3,124	402,200	-41,600	-10	31,200	47,920
Firefighters	2,306	326,100	13,900	4	28,000	50,700
Registered nurses	2,281	3,130,600	195,400	6	203,200	77,600
Pharmacy technicians	2,167	447,300	22,400	5	43,500	36,740
Childcare workers	1,701	949,000	61,600	7	170,100	27,490
Teaching assistants, except postsecondary	903	1,235,100	62,100	5	153,700	29,360
Medical assistants	780	743,500	117,800	16	123,000	37,190

Note: Employment, projections, and wage data are for occupations as a whole, not apprentices. Wage data exclude self-employed workers.

Source: U.S. Department of Labor, Employment and Training Administration Office of Apprenticeship (apprentices) and U.S. Bureau of Labor Statistics Office of Occupational Statistics and Employment Projections (other data).

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Of the occupations shown in table 1, nursing assistants is projected to have the most openings from 2021 to 2031, averaging 212,700 each year of the decade. Employment of [medical assistants](#) is projected to increase 16 percent over the decade, the fastest growing of occupations in table 1. Another healthcare occupation, [registered nurses](#), had the highest median annual wage (\$77,600) of those occupations in table 1.

Installing and fixing things

You might like to work with your hands and fix things, in which case an apprenticeship in an [installation or maintenance](#) occupation might be of interest. [Electrical power-line installers and repairers](#) had 15,249 active apprentices in fiscal year 2022, the most of any occupation in this article. Apprenticeships for electrical power-line installers and repairers vary from 3 to 4 years, depending on the program. These

apprentices are typically supervised by an experienced craftsperson as they assist with installing overhead and underground power lines.

Table 2. Apprenticeships, employment, outlook, and wages in selected occupations related to installing and fixing things



Occupation	Active apprentices, 2022	Employment, 2021	Employment change, projected 2021–31 (numeric)	Employment change, projected 2021–31 (percent)	Occupational openings, projected 2021–31 annual average	Median annual wage, 2021
Electrical power-line installers and repairers	15,249	126,600	4,000	3	11,100	\$78,310
Heating, air conditioning, and refrigeration mechanics and installers	8,535	394,100	20,200	5	40,100	48,630
Telecommunications equipment installers and repairers, except line installers	4,810	178,000	14,400	8	22,500	60,370
Industrial machinery mechanics	3,095	384,800	63,100	16	42,500	59,840
Maintenance and repair workers, general	1,464	1,539,100	76,300	5	160,100	43,180
Electrical and electronics repairers, commercial and industrial equipment	992	52,800	1,200	2	5,000	61,730
Automotive service technicians and mechanics	966	733,200	10,600	1	73,300	46,880
Electrical and electronics repairers, powerhouse, substation, and relay	963	22,800	-1,100	-5	1,900	93,420

Note: Employment, projections, and wage data are for occupations as a whole, not apprentices. Wage data exclude self-employed workers.

Source: U.S. Department of Labor, Employment and Training Administration Office of Apprenticeship (apprentices) and U.S. Bureau of Labor Statistics Office of Occupational Statistics and Employment Projections (other data).

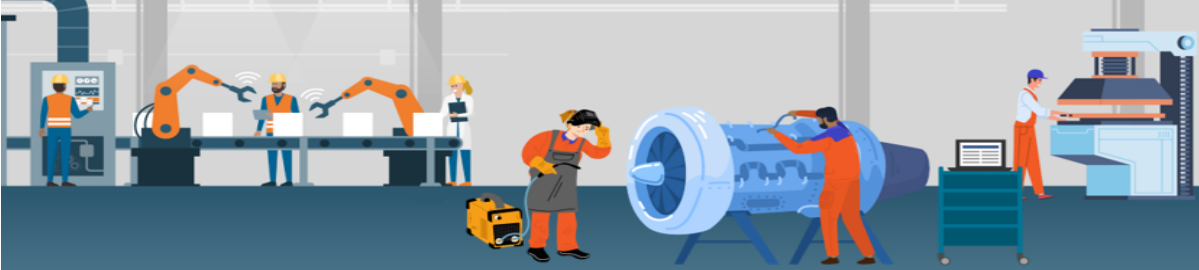
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[General maintenance and repair workers](#) is projected to have 160,100 openings each year, on average, over the decade; that's the largest number among the occupations shown in table 2. Employment of [industrial machinery mechanics](#) is projected to be the fastest growing from 2021 to 2031 of occupations in table 2, at 16 percent. [Electrical and electronics repairers, powerhouse, substation, and relay](#) is the highest paid occupation in this category, with a median annual wage of \$93,420 in 2021.

Producing things

If you want to create or develop something, then apprenticing in a [production](#) or [engineering](#) job might be for you. [Machinists](#) accounted for the most active apprentices among occupations in table 3, with 1,884 active apprentices in fiscal year 2022. These apprenticeships typically last 4 to 5 years, depending on the program. Machinist apprentices are supervised by an experienced craftsperson as they learn to operate and maintain different types of equipment to make parts for ships, aircraft, spacecraft, and other manufactured products.

Table 3. Apprenticeships, employment, outlook, and wages in selected occupations related to producing things



Occupation	Active apprentices, 2022	Employment, 2021	Employment change, projected 2021–31 (numeric)	Employment change, projected 2021–31 (percent)	Occupational openings, projected 2021–31 annual average	Median annual wage, 2021
Machinists	1,884	342,600	8,100	2	37,500	\$47,730
Tool and die makers	1,401	65,100	-4,200	-6	6,500	57,000
Electro-mechanical and mechatronics technologists and technicians	1,343	12,100	-400	-4	1,100	60,360
Welders, cutters, solderers, and brazers	1,315	428,000	6,900	2	47,600	47,010
Chemical equipment operators and tenders	1,024	110,300	-5,500	-5	10,600	48,090
Aircraft structure, surfaces, rigging, and systems assemblers	964	34,300	-6,600	-19	2,900	49,480
Industrial engineering technologists and technicians	903	64,200	2,100	3	6,600	60,220

Note: Employment, projections, and wage data are for occupations as a whole, not apprentices. Wage data exclude self-employed workers.

Source: U.S. Department of Labor, Employment and Training Administration Office of Apprenticeship (apprentices) and U.S. Bureau of Labor Statistics Office of Occupational Statistics and Employment Projections (other data).


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With 47,600 openings each year, on average, [welders, cutters, solderers, and brazers](#) is projected to have the most openings from 2021 to 2031 of the occupations in table 3, despite employment growth that is expected to be slower than average. Both of table 3's technologist and technician occupations—[electro-mechanical and mechatronics](#) and [industrial engineering](#)—had a median annual wage above \$60,000 in 2021.

Other occupations

There are opportunities for apprenticeships in other occupations that you might not be aware of. For example, table 4 shows that there were 9,944 actively apprenticing [heavy and tractor-trailer truck drivers](#) in fiscal year 2022. Apprenticeships for truck drivers last about a year, although some are as long as 3 years. These apprentices typically are supervised by a lead driver as they learn to safely operate trucks and the equipment used to load and unload trailers.

Table 4. Apprenticeships, employment, outlook, and wages in other selected occupations



Occupation	Active apprentices, 2022	Employment, 2021	Employment change, projected 2021–31 (numeric)	Employment change, projected 2021–31 (percent)	Occupational openings, projected 2021–31 annual average	Median annual wage, 2021
Heavy and tractor-trailer truck drivers	9,944	2,094,700	90,900	4	259,900	\$48,310
Maids and housekeeping cleaners	2,066	1,237,400	116,400	9	193,500	28,780
Food service managers	1,820	329,100	32,300	10	45,000	59,440
Barbers, hairdressers, hairstylists and cosmetologists	1,751	608,900	65,000	11	93,800	29,680
Cooks	1,652	2,648,700	419,300	16	480,600	29,120
Software developers	1,219	1,425,900	370,600	26	143,400	120,730

Note: Employment, projections, and wage data are for occupations as a whole, not apprentices. Wage data exclude self-employed workers.

Source: U.S. Department of Labor, Employment and Training Administration Office of Apprenticeship (apprentices) and U.S. Bureau of Labor Statistics Office of Occupational Statistics and Employment Projections (other data).

[View Chart Data](#)

[Cooks](#) is projected to have 480,600 openings each year, on average, from 2021 to 2031—the most of any occupation in this article. Of the occupations in table 4, [software developers](#) is projected to have the fastest employment growth (26 percent) over the decade and had the highest median annual wage (\$120,000) in 2021.

More information

As noted elsewhere in this article, [construction occupations](#) also are a source of many apprenticeships. Learn about those occupations, as well as ones highlighted in this article and hundreds of others, in the [Occupational Outlook Handbook \(OOH\)](#). The *OOH* has information about what workers do, along with the occupation's employment, wages, job outlook, and more.

Visit [Apprenticeship.gov](https://www.apprenticeship.gov) for more information about apprenticeship opportunities.