

# More than Rocket Scientists Put a Man on the Moon

## High-Wage, High-Demand Jobs with Two Years of Training or Less

How many workers did it take to put a man on the moon? Okay, I admit I don't know. But I do know that the stupendous achievement involved many more folks than the scientists who envisioned and engineered the lunar module and the rockets that delivered that payload to the moon's surface. From the construction workers who built the launch pads and blockhouse, to the accounting and procurement staff who ordered the materials and handled the payrolls, to the crew who maintained the elaborate electronics used to track the mission, this task involved a web of people and occupations that stretched far and wide—both geographically and in terms of the industries and occupations involved.

High-tech occupations, and those requiring bachelor's or advanced degrees, are increasingly common in today's workplace. But many occupations with less extensive training

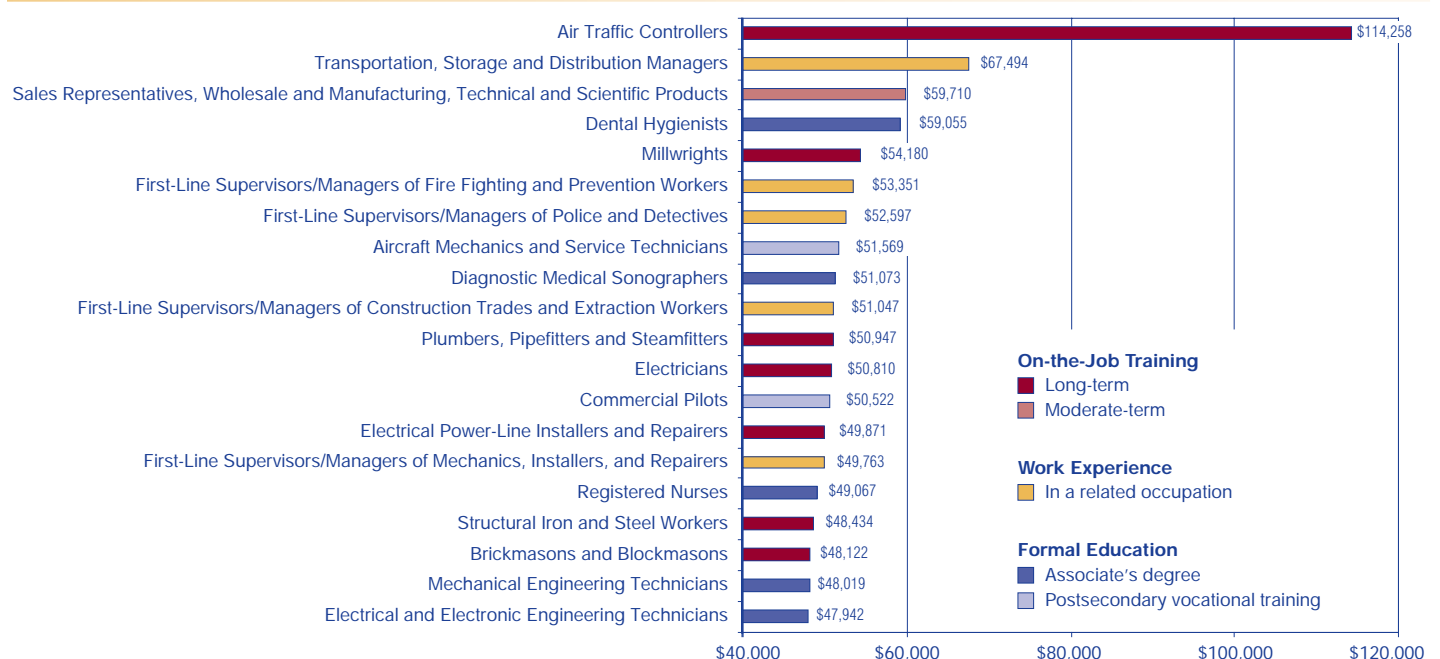
requirements, perhaps better suited to the new entrant or dislocated worker, also offer competitive salaries (see **Figure 1**). These occupations play key roles in keeping our economy ticking along and supporting the long-term visions of business and industry.

The Department of Workforce Development's Research and Analysis group has identified occupations with a "high wage" (i.e. above the state median wage) and those that are "high demand" (i.e. non-replacement growth of at least 100 projected jobs over 10 years). Fifty of these occupations have been identified as the "Hoosier Hot 50," based on indexing using a combination of wages and growth; however, that leaves about 180 other occupations for consideration. The list includes many common "shortage" occupations frequently in the news—e.g. welders and nurses—but many others of which we hear less.

**Table 1** is a partial list of the 112 high-wage, high-demand jobs that generally require two years or less of full-time academic training or experience (although some may require an apprenticeship lasting up to four years). The complete list is available online at [www.incontext.indiana.edu](http://www.incontext.indiana.edu). Growth and replacement needs over a 10-year period for each occupation are summarized, along with annual wages (from the 2005 Occupational Employment Statistics survey) and typical experience/training required for the job.

Later this spring, the Research and Analysis group will make more information available on Hoosiers by the Numbers ([www.hoosierdata.in.gov](http://www.hoosierdata.in.gov)), allowing users to create customized lists of occupations based on wages, training/experience, occupational "family" or the industries using the largest proportion of workers in each occupation. Additional information

FIGURE 1: TOP 20 HIGHEST PAYING JOBS WITH TWO YEARS REQUIRED TRAINING OR LESS, BASED ON 2005 MEDIAN WAGES



Source: Department of Workforce Development

**TABLE 1: HIGH-WAGE, HIGH-DEMAND JOBS THAT REQUIRE TWO YEARS EXPERIENCE OR LESS WITH PROJECTED EMPLOYMENT GROWTH OF AT LEAST 800 JOBS, 2004 TO 2014**

Occupational Title		2004 Employment	2014 Projection	Total Growth	Percent Change	Replacements <sup>1</sup>	Total Openings	2005 Annual Median Wage <sup>2</sup>
<b>Total, All Occupations</b>		<b>3,056,560</b>	<b>3,359,170</b>	<b>302,600</b>	<b>10</b>	<b>742,160</b>	<b>1,082,830</b>	<b>\$27,742</b>
Long-Term On-the-Job Training	Maintenance and Repair Workers, General	36,640	40,380	3,740	10	7,040	10,780	\$31,894
	Carpenters	28,440	31,110	2,670	9	4,630	7,300	\$34,550
	Plumbers, Pipefitters, and Steamfitters	12,930	14,650	1,720	13	2,970	4,700	\$50,947
	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	6,290	7,770	1,480	24	840	2,320	\$35,547
	Electricians	17,560	18,950	1,390	8	3,470	4,860	\$50,810
	Fire Fighters	6,780	8,140	1,360	20	1,970	3,330	\$37,175
	Police and Sheriff's Patrol Officers	11,040	12,210	1,170	11	2,860	4,030	\$40,917
	Cement Masons and Concrete Finishers	4,860	5,690	830	17	980	1,810	\$33,088
Moderate-Term On-the-Job Training	Truck Drivers, Heavy and Tractor-Trailer	58,660	65,540	6,870	12	9,580	16,450	\$36,406
	Customer Service Representatives	34,450	40,610	6,160	18	5,120	11,280	\$27,939
	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	30,450	33,430	2,980	10	7,990	10,980	\$46,884
	Executive Secretaries and Administrative Assistants	25,360	27,720	2,370	9	4,860	7,220	\$31,629
	Dental Assistants	4,880	6,860	1,980	41	1,370	3,350	\$29,354
	Operating Engineers and Other Construction Equipment Operators	9,610	11,020	1,410	15	2,470	3,880	\$40,363
	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	8,620	9,750	1,130	13	2,260	3,400	\$59,710
	Painters, Construction and Maintenance	9,560	10,610	1,050	11	1,460	2,510	\$30,245
	Roofers	4,770	5,690	920	19	1,110	2,030	\$29,766
	Construction Laborers	20,340	21,210	870	4	2,710	3,580	\$32,400
	Sheet Metal Workers	6,360	7,180	820	13	1,530	2,350	\$40,354
*	Industrial Truck and Tractor Operators	22,220	23,530	1,310	6	4,210	5,510	\$28,254
Work Experience in a Related Occupation	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	15,520	18,180	2,660	17	2,640	5,300	\$51,047
	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	13,800	15,200	1,400	10	3,460	4,860	\$49,763
	First-Line Supervisors/Managers of Office and Administrative Support Workers	25,090	26,180	1,100	4	5,380	6,480	\$40,098
	First-Line Supervisors/Managers of Production and Operating Workers	26,820	27,910	1,090	4	5,620	6,720	\$44,417
	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	4,900	5,880	980	20	1,160	2,140	\$29,321
	First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle Operators	6,690	7,580	880	13	1,570	2,460	\$46,014
Associate's Degree	Registered Nurses	51,900	67,300	15,400	30	10,860	26,260	\$49,067
	Dental Hygienists	4,030	5,690	1,660	41	340	2,000	\$59,055
	Computer Support Specialists	7,800	9,180	1,380	18	960	2,340	\$34,267
	Radiologic Technologists and Technicians	4,280	5,370	1,090	26	800	1,890	\$43,197
	Paralegals and Legal Assistants	2,940	3,870	930	32	240	1,170	\$35,160
	Medical and Clinical Laboratory Technicians	3,740	4,670	930	25	1,010	1,940	\$31,311
Postsecondary Vocational Training	Licensed Practical and Licensed Vocational Nurses	18,820	21,760	2,940	16	4,100	7,050	\$33,913
	Automotive Service Technicians and Mechanics	17,150	19,410	2,260	13	4,560	6,820	\$32,526
	Bus and Truck Mechanics and Diesel Engine Specialists	7,070	8,240	1,160	16	1,820	2,980	\$35,523
	Welders, Cutters, Solderers, and Brazers	14,190	15,240	1,050	7	4,010	5,060	\$31,656
	Real Estate Sales Agents	7,100	7,950	840	12	1,410	2,250	\$29,338
	Legal Secretaries	4,330	5,140	820	19	830	1,640	\$29,941

\*Short-term on-the-job training

1. Replacements are "net replacement" openings. Net replacement openings estimate the difference between the movement of experienced workers who change jobs to enter other occupations, retire or leave the workforce for other reasons and the movement of experienced workers filling the openings. The openings that remain unfilled by experienced workers are net replacement openings available to new workforce entrants.

2. 2005 Annual Wage is the state median wage for the occupation from the Occupational Employment Statistics program.

Source: Department of Workforce Development

on occupational projections and employment and wages by occupation is currently available on Hoosiers by the Numbers; meanwhile, more data on

specific occupations (tasks, knowledge, skills and abilities required, training and education requirements, etc.) is available online at [www.onetcenter.org](http://www.onetcenter.org).

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