

September 30, 2014

Where the jobs are: The new blue collar

*More than 2.5 million good-paying jobs will be created in the next few years.
Will workers know how to get them?*

By: MaryJo Webster, USA TODAY

Joseph Poole will make more than \$100,000 in wages and overtime by the end of the year.

The 21-year-old works in what looks like NASA's mission control, monitoring the manufacturing process at Chevron Phillips petrochemical plant in Houston. Poole didn't get the job with the engineering degree he originally considered. Instead, Poole landed it with a two-year course at a local community college.

"The potential to make just as much money as an engineer, but for half the cost of the education, was here," Poole says. "Just seeing firsthand how things are made is something I really enjoy doing."

By 2017, an estimated 2.5 million new, middle-skill jobs like Poole's are expected to be added to the workforce, accounting for nearly 40% of all job growth, according to a USA TODAY analysis of local data from Economic Modeling Specialists Intl. and CareerBuilder.

Not all pay as much as Poole's, but all pay at least \$13 an hour; many pay much more. These jobs require some training but far less school than a bachelor's degree. Technology has given many a makeover, leaving them worlds away from their assembly-line predecessors and challenging the notion that good blue-collar jobs are dead and that the only path to a good career is a four-year degree.

"There's a new middle. It's tougher, and takes more skill," says Anthony Carnevale, director of the Georgetown University Center on Education and the Workforce.

USA TODAY looked at jobs data in 125 of the nation's largest metros, finding that prospects look good.

- Houston is expected to add more than 100,000 middle-skill jobs by 2017, with 40% paying \$20 per hour or more. Several other Texas metros — Dallas, McAllen, Austin, Killeen and San Antonio — are among those expecting the fastest growth in middle-skill jobs.
- Atlanta needs construction workers, lighting experts and others to work in its fast-growing film industry. Skill is required, but not necessarily film experience for the 77,000 film workers (average pay \$84,000) and support personnel in 2012, who turned out movies such as *The Fast and the Furious* and *The Hunger Games* franchises, according to the Motion Picture Association of America.

- In Augusta, Ga., Salt Lake City, Knoxville, Tenn., and Vallejo, Calif., livable-wage, middle-skill jobs will be the primary driver for overall job growth, accounting for nearly half of all new jobs.
- In most metro areas, some of the best-paying middle-skill jobs include radiation therapists, elevator installers and repairers, and dental hygienists, all with a median wage of more than \$70,000.
- In such places as Texas and North Dakota where the gas and oil industries are booming, petroleum workers are needed. But so are the electricians, pipefitters, carpenters and others who build the infrastructure.

Manufacturers are hiring again

U.S. MANUFACTURING COMPANIES HAVE SHED THOUSANDS OF WORKERS SINCE JOBS PEAKED IN THE LATE '70S, BUT TOTAL EMPLOYMENT HAS PICKED UP AGAIN. TOTAL EMPLOYMENT BY YEAR (IN MILLIONS):

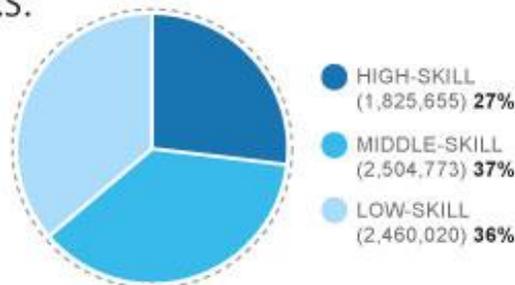


1 – Preliminary figure for August.
Source Bureau of Labor Statistics

New jobs in the U.S.

MIDDLE-SKILL JOBS, REQUIRING SOME POST-SECONDARY EDUCATION BUT LESS THAN A BACHELOR'S DEGREE, ARE EXPECTED TO MAKE UP THE LARGEST SHARE OF NEW JOBS.

**NEW JOBS CREATED
2013 TO 2017:**



Sources Economic Modeling Specialists Intl., CareerBuilder
FRANK POMPA, USA TODAY

"This country is facing a shortage of that kind of talent. So the demand is there, big time," says Peter Cella, CEO of Chevron Phillips Chemical. Chevron and competitor ExxonMobil Chemical are both building giant plants that will triple the output of plastics from Houston. "What we need to work on is the supply."

The loss of blue-collar jobs — accelerated by the recent recession — has resulted in the "hollowing out of the middle," which has left behind either low-paying jobs or higher-paying jobs that require significant skills say some economists. But some economists say the middle is not gone; rather, it's growing.

"We have not become a barbell economy," says Paul Osterman, an economist and professor at the MIT Sloan School. "There will be tremendous demand for these jobs [when the Baby Boom generation retires.](#)" Currently, Boomers make up about 20% of the workforce.

Although manufacturing jobs have declined 35% since 1980, according to the U.S. Bureau of Labor Statistics, there's actually been a resurgence in recent years as American companies have found that moving jobs offshore was not a good approach for production that requires highly skilled labor.

"There's a lot of re-shoring," says Andrew Crapuchettes, CEO of Economic Modeling Specialists Intl. "They're coming back, but they are coming back different. More technician jobs, which pay more. There may be fewer jobs, but they are better jobs."

But that means more training, given that nearly 80% of the new blue-collar jobs require some, typically less than a year, according to [Carnevale's research](#). Some companies can provide it, but many require prospective workers to find their own classes.

Even in red-hot Houston, you'll need training.

"If you have no skills, you're not necessarily going to pop down here and find a job," says Cally Graves, senior industry liaison for the Gulf Coast Workforce Board in Houston. "You need to get some training or education ... otherwise, you'll end up in the same old situation you were in back home."

At E.J. Ajax, a precision manufacturing company near Minneapolis, training eats up 5% of the company's payroll, just to ensure a pipeline of workers is available to move up as employees retire.

"The global competition doesn't keep me up at night," says Erick Ajax, co-owner and grandson of the founder. "I know we can go toe-to-toe with any company in the world. But having people that have the right skill set ... that wakes me up at 3 o'clock in the morning."

Society's push to get all young people into four-year colleges — what William Symonds calls the "one road to heaven" approach — contributes to a shortage of skilled workers.

"People degrade or demean jobs that don't require a four-year degree. ...That's not what they want their kids to do," says Symonds, who is launching the Global Pathways Institute at Arizona State University to study this issue and urge policymakers to help students find the best "pathway" to success.

At the same time, high schools have dropped vocational and technical education programs over the past 30 years, eliminating a key way young people are introduced to these careers.

"Over the last 40 or 50 years, we've portrayed work differently and we reward some forms of education far more passionately than others," says Mike Rowe, host of *Somebody's Gotta Do It* and *Dirty Jobs*. After working blue-collar jobs across the country for his show, Rowe started a foundation, mikeroweWORKS, to address the image problem.

"Higher education is in one column and everything else is called alternative. And those kinds of pursuits are reserved for people who are somehow deficient or somehow not cut out for the desirable path."

"What's aspirational about 'middle skill'? It's going to take a generation to get people to really challenge the stereotypes. "

Rowe worries there are too many young people going to four-year colleges, racking up huge amounts of debt and ultimately ending up unemployed, when they could've taken a less-expensive path and ended up with a good-paying job.

MIKE ROWE, 'SOMEBODY'S GOTTA DO IT' AND 'DIRTY JOBS' HOST

Rowe also points out that language matters.

"What's aspirational about 'middle skill'?" says Rowe. "It's going to take a generation to get people to really challenge the stereotypes that come along with skilled-labor type jobs."

Change won't happen without students getting better information about career planning, says Andy Van Kleunen, executive director of the [National Skills Coalition](#).

"They need to know what the real employment prospects are going to be, including financial," Van Kleunen says. "What will school cost you? What will the pay be?"

Community and technical colleges are trying to fill the gap by enrolling young adults who either drop out of a four-year college or can't find a job after graduation.

Instructors at Lee College, near Houston, say they are seeing an increasing number of students apply for the school's petrochemical-related programs after initially pursuing a bachelor's degree in petroleum or chemical engineering.

"These are 'gold collar' jobs," says Charles Thomas, the head of the school's process technology division. "Technicians in our program start out with \$62,000 base salary plus overtime."

Laci Patty, 30, a physics teacher, was frustrated by the emphasis on standardized testing and other changes in education. When a Lee College instructor came to her class to recruit students for the program, they ended up recruiting her. She started night classes earlier this year.

"There's actually a chance for advancement and more money," says Patty, who will graduate next summer.



Laci Patty, a physics teacher in the Houston area, is taking night classes to change careers and work in the petrochemical industry.
(Photo: KHOU-TV, Houston for USA TODAY)