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## Skills pay bills: Trade jobs expected to remain relevant

BY RUSS ZIMMER • SPECIAL TO THE NEWS-MESSENGER • JANUARY 17, 2011

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When it comes to the good-paying, prevalent jobs in the 21st century, think "Back to the Future" -- the first movie, not the sequel.

True, the federal government predicts the field with the fastest growth rate in the United States through 2018 will be biomedical engineering, an occupation that includes the futuristic title "organ designer." But for every one of these engineering positions, there will be 49 new jobs for registered nurses.

Nurses, carpenters, plumbers, electricians and many other so-called middle-skill jobs may not sound futuristic enough to be major players in the economy of 2020, but these types of jobs will continue to employ nearly one in two Americans, according to government projections.

While at least small growth is expected in these fields, the real need for labor will be to replace massive retirement losses.

Middle-skill jobs, also known as skilled trades, are defined as occupations where the standard entry level of training involves something above a high school diploma but below a bachelor's degree. This could be a certificate earned at a vocational school, or an associate's degree at a community or technical college.

Applying the definition of middle-skill labor -- as defined in the 2009 Brookings Institute report "The Future of Middle-Skill Jobs" -- to U.S. Bureau of Labor Statistics 2018 occupation projections shows the share of middle-skill jobs as a portion



number Jobs average Wage Education or Title Created per hour (2007) Training Level

- 1 Registered nurses 25,590 \$27.56 Associate degree
- 2 Executive secretaries and administrative assistants 6,080 \$18.67 Work experience
- 3 Sales representatives, services, all other 3,160 \$23.47 Work experience
- 4 Sales rep., wholesale/mfg, ex. tech./sci. prod. 3,030 \$30.12 Work experience
- 5 Police and sheriff's patrol officers 1,940 \$22.55 Long-term OJT

More new Ohio jobholders were asking "Do you want fries with that?" from 1999 to 2009, according to federal employment data. State-level projections, the most recent of which were released in 2008, expected gains to be made in the service sector and not to be inviting to entry-level applicants with no training past high school. One important thing to remember: The majority of job openings arise from the need to replace workers, mostly from retirements, which isn't reflected in the graphic below. The state estimates three out of four openings are replacement hires.

NUMBER JOBS AVERAGE WAGE EDUCATION OR TITLE CREATED PER HOUR (2009) TRAINING LEVEL

- 1 Combined food preparation and serving workers, 49,680 \$7.86 Short-term OJT including fast food
- 2 Home health aides 35,720 \$9.78 Short-term OJT
- 3 Medical secretaries 22,170 \$13.72 Moderate-term OJT

of overall employment is shrinking, but still enormous.

While the ranks of high-skill, and to a lesser extent low-skill, jobs are projected to grow, those occupations in between are still estimated to represent a 47 percent share of all employment (down from 54.5 percent in 1986).

As researchers Harry Holzer and Robert Lerman point out in the Brookings report, middle-skill positions will continue to be prevalent enough and reasonably easily attainable, with some education or training, for workers currently in low-skill, low-pay jobs.

## AGING WORK FORCE

Replacement needs -- retirements mainly -- are already the single greatest contributor of job openings. They are about to sweep through the entire labor force, with concentrations in occupations that tend to have older workers.

Data gathered from the 2000 U.S. Census shows that nearly one in four workers in installation, maintenance and repair occupations were between the ages of 45 and 54. Other middle-skill dominated professions, including construction and extraction, production and transportation had 20 percent or more of workers in that age range.

That was 11 years ago, meaning the oldest of those workers will turn 65 this year.

Retirement of the baby boomer generation is projected to open room for replacements not only in management positions, but in a number of middle-skill areas.

A closer look at the occupations expecting the most turnover in the near term shows that 32 of the top 40 require at least a year of on-the-job training or formal schooling beyond high school, according to the Ohio Department of Development's report, "Ohio's Graying Labor Force."

Consultant David DeLong, author of the 2004 book "Lost Knowledge: Confronting the Threat of an Aging Workforce," advises businesses on how to best mitigate the impending loss of retiring workers' skills and wisdom.

He said the mass exodus of retirees in the next decade or so is a danger to businesses because of the loss of institutional knowledge and expertise. But he said it also represents an opening for those remaining in or entering the work force.

"You just have to have the skills that the marketplace values," DeLong said. "Those people are going to have an incredible number of opportunities in the future because there is going to be such a demand for them."

There's already a shortage of residential electricians, according to Bill Hamilton, director of the International Brotherhood of Electrical Workers, Local 1105, which covers the east-central portion of the state.

When the housing market comes back, Hamilton expects green energy -- hooking up solar or wind sources to new homes, for example -- to be a major coup for electricians.

In the meantime, Hamilton said, he expects energy efficiency renovations and consulting to drive labor.

"Look at the number of older homes, especially with new construction down," he said. "If people are doing anything now, they are remodeling."

Employers are expecting a higher level of skill to ensure production doesn't drop off when their experienced workers retire.

A company that is facing a massive turnover isn't going to want to bring in a bunch of fresh faces who require extensive training, said Dan Reynolds, director of work force and talent for the Ohio Department of Development.

Reynolds recently visited a factory where the average age of workers on the floor was 57. That may be an

extreme example, but many employers in key industries face major replacement needs in the next 20 years, he said.

"Those businesses are not going to budge from those skill demands, and workers are going to have to educate themselves," Reynolds said.

## HEALTH CARE

Janet Quaintance, work force development administrator for the Sandusky County Department of Job and Family Services, said she has seen an influx of local people pursuing degrees in health care, including nursing.

Marianna Snavely, director of education at Memorial Hospital, said she switched her major from agriculture to nursing while attending The Ohio State University in the late 1990s, in part because of job availability in the field. She said her professors told her back then there would be a need for nurses to replace retiring boomers in the coming years.

She graduated from the university in 2000 as a registered nurse.

"It's definitely rewarding to take care of patients, to see them get better," she said.

One of the bonuses of nursing is the diversity available in jobs, she said. When nurses become burned out, they can switch into another area.

Snavely, for example, has worked in surgery and obstetrics and gynecology departments. In her current position, she offers continuing education, training and orientation for Memorial Hospital nurses.

"There's so much flexibility," she said. "You never get tired of the profession because it's always changing as health care changes. It's a service industry.

"That part, I think, is what drives people to go into health care."

There is also flexibility in schooling to become a nurse. People can take a four-year degree, opt for a two-year degree or get a specialized degree in areas like nurse practitioner, she said.

"I think there's always going to be a need for (nurses)," she said. "Health care is changing constantly, so there's a need to grow. I'm amazed at the advances they have and things they can do because of technology advances."

## MANUFACTURING

More and more, manufacturing will insist its workers bring skills to the plant, rather than acquire them after they are hired.

Without question, the recession hindered output across the economy. However, the years of reductions and layoffs before December 2007 didn't halt production gains, according to data from the U.S. Bureau of Economic Analysis. From 1997 to 2007, in the middle of a consistent deflection and elimination of manufacturing jobs, not only did annual output increase, but productivity per employee in that industry also doubled the rate of the rest of the work force.

How could factories produce more with less? Technology, argues Stephen Mangum, an economics professor at The Ohio State University, was a more forceful driver of layoffs and plant closings than outsourcing. Those jobs that remain or are added in that sector are going to require being able to operate or service that technology.

"Manufacturing is going to be a leaner part of the economy," he said.

"It's also certainly going to be a part of the economy that will require higher education and training than it has."