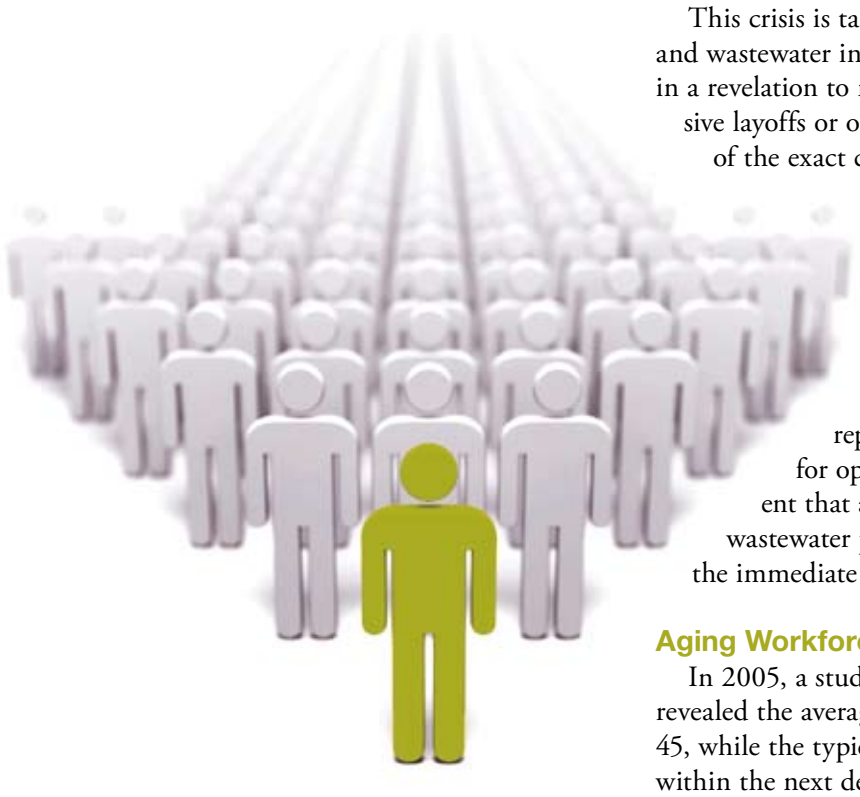
state of workforce affairs

By Joseph Gutenson

When one takes a look at current news headlines, typically he or she is bombarded with sensational reports detailing global economic crisis or a form of natural disaster afflicting a region of the world. What people are not informed of is a crisis that surreptitiously is beginning to take effect in an industry all Americans depend on to maintain their day-to-day lifestyles.



Responding to current challenges for an adequately staffed future

This crisis is taking place within drinking water and wastewater industries across the country and, in a revelation to most, is not the product of massive layoffs or other forms of job reduction, but of the exact converse. According to Greg Kail, director of public affairs for the American Water Works Assn. (AWWA), 40% of the water/wastewater workforce is set to retire in the next 10 years. Combine this with an ever-decreasing pool of qualified replacements and an increasing need for operators, and it becomes apparent that a nationwide shortage of water and wastewater professionals is set to transpire in the immediate future.

Aging Workforce

In 2005, a study was compiled by AWWA that revealed the average age of a water utility worker was 45, while the typical retirement age was 56. Thus, within the next decade, a large portion of this workforce will be leaving the industry. This out-flux will not only drain the numbers within the group but also the experience these professionals have accumulated over the years, leaving the industry with little hope that those who will be replacing the retiring employees will be of the same caliber.

Decreasing Replacements

In most current job markets, there are more applicants than positions; however, the converse is occurring with water and wastewater positions. Many utilities are fighting a losing battle as they see a decrease in those wishing to pursue a career in the industry while more currently filled positions begin to open up. According to Teresa M. Boepple-Swider, professional certification section chief of the New York State Department of Health, open positions in her area have gone unfilled for months at a time. This decline is due to an increase in those who are pursuing four-year college degrees and the continued social stigma that deems these positions “dead-end” jobs.

This problem is even more prevalent in rural areas, where operators often face lower wages, fewer benefits and more responsibilities. In fact, one account from Crandon, a small town in Wisconsin, revealed that the duties of its city’s operator included digging graves. Further, the facilities face less competition for labor, as there are fewer gas and electrical utilities with employees of similar backgrounds and experience. Predicaments such as these cause many small-town operators to seek employment with large utilities, further depleting the pool of qualified candidates.

Increasing Need

Even as the workforce continues to dwindle, demand has continued to increase rapidly. According to the U.S. Bureau of Labor Statistics, the number of jobs for water and liquid waste treatment plant and system operators is expected to increase nationally by 20%—from a 2008 number of 113,400 positions to 135,900 in 2018, a rate much faster than the average for all occupations. The product of both an increasing population and suburban environment, amplified demand for water and wastewater services results in more treatment facilities and the need for more operators to control their functions. In fact, according to AWWA and the U.S. Department of Labor, water and sewage systems are expected to be the only utilities that will see job growth.

The Response

Approaching this matter is a difficult process, but steps are being taken to develop a workforce that will address it. One such effort, formed in 2008 with funding from the National Science Foundation (NSF), is the Water Training Institute (WTI), established by the Center for Water Resource Studies (CWRS) at Western Kentucky University (WKU). This program combines an academic and hands-on approach to training, which leads to an associate of science degree in water resource management.

By consulting with current industry professionals via the WTI Curriculum Committee, developers of the coursework have been able to provide students with instructional material that is relevant to the water and wastewater industry. Further, opening dialogue between the academic institution and industry has led to development of the WTI Utility Network UNet, which assists students in finding internships with utilities that will allow them to participate in the hands-on training necessary for becoming a proficient operator.

Developers of the WTI program also hope to address another linchpin in this workforce dilemma.

The breadth of academic coursework is delivered to students via the Web, allowing course content to reach students in distant rural areas where training opportunities may not be readily available. This content currently is being further refined into a modular system that divides the original three-credit-hour course into smaller modules of varying credit value so that students (e.g., nontraditional students who may not be able to take a full course load due to financial or time constraints) have the opportunity to take part in the program.

Although this program is still in its infancy, it is expected to graduate its first class in December 2011. Several students are now in pursuit of the water resource management degree, and nationwide interest from a variety of students, utilities and educators has emerged. WTI applied for additional funding from NSF to expand its original design of serving the Kentucky and Tennessee region to a national institute, in cooperation with a variety of academic institutions, utilities and technical assistance centers across the U.S.

While refinement of the program continues, the WTI remains firmly devoted to addressing the labor shortage set to occur within the water and wastewater industry. While professionals continue to provide their communities with a safe, reliable source of water, CWRS and WKU work to ensure that the future can expect the same thing. WWD

Joseph Gutenson is environmental support specialist with the Center for Water Resource Studies at Western Kentucky University. Gutenson can be reached at joseph.gutenson@wku.edu or 877.984.0999.

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