



PRESENTS: SKILLS REQUIRED

- Supervisory and/or project management
- Effective oral and written communication
- Budget preparation and implementation
- Customer service oriented
- Team builder

WORK CHALLENGES

Public works professionals must find ways to effectively use often-limited resources to provide the highest possible levels of service to enhance the quality of life in their communities.

JOB OPPORTUNITIES

Public works employs a wide range of occupations including: water and wastewater, storm water management, transportation and street maintenance, solid waste services, fleet and facilities, municipal engineering, utilities and right-of-way, and administration. Essentially, any municipal function that sustains infrastructure and improves quality of life is probably related. Specific jobs in each area range from strategic planning, budgeting, and administration to technicians who are responsible for multiple levels of hands-on operations and maintenance.

According to the 2002 Census of Governments, the United States has 19,429 municipal governments, which are defined as "political subdivisions wherein a municipal corporation has been established to provide general local government for a specific population concentration in a defined area." Approximately 62% of the U.S. population lives within the jurisdiction of one of those municipal governments, which are most often known as cities, boroughs, towns or villages. Although economic factors have slowed hiring within the public works arena, the industry is cautiously optimistic that President Obama's economic stimulus package will create thousands of new jobs in many areas of public works. An increased need for people with keen business management and organizational skills can be predicted at senior levels. Also expected is the need for engineers and technicians familiar with the latest and most effective technical information.

GET DOWN to BUSINESS DISCOVER

CAREERS IN PUBLIC WORKS

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Rewarding careers in public works

Would you enjoy a career that is not only challenging, but makes a difference in a lot of peoples' lives? Then you might want to consider a career in public works. Public works employees provide important services to make their community a healthy and safe place to live, work, and play.

Public works is the heartbeat of any city. Through its various government agencies, public works maintains and builds the infrastructure, which is the basic framework of society, and includes such things as buildings, roads, water systems, solid waste handling and administration. It is through these agencies that the city operates efficiently and smoothly.

Listening to the news you may hear the phrase "public works" used quite often. President Barack Obama has said he hopes to stimulate the nation's economy in part by infusing communities with money for repairing roads, schools, and various other projects in cities across the nation.

This is a course of action that worked well when our nation was in the throes of the Great Depression. In 1935, President Franklin Delano Roosevelt established the Works Progress Administration that created millions of jobs for workers. During that era, 75 percent of those jobs involved construction of buildings, roads, dams, parks, bridges, libraries, utilities, airports, sanitary sewers, and city halls. Today, the field of public works, aside from building new structures, also maintains and fixes the structures that already exist.

Careers in public works include jobs in various engineering fields, construction, traffic

and transportation, parks and recreation, water and wastewater, facilities and grounds, solid waste, public relations, city management, utilities and right-of-way, technology, roadway and pavement maintenance, emergency management, and snow and ice control.

You will want to plan your educational journey

to coincide with the classes, skills, and backgrounds necessary to be a prime candidate for work in the field of your choice. The ability to stay calm under pressure, communicate effectively, work without constant supervision, multi-task and solve problems are skills you will want to study and master. Some

types of the hands-on work, such as surveying and construction, also will require that you be physically fit to handle the labor demands of the job.

If a career in public works sounds

interesting, contact your local public works department, and see if there are any volunteer or internship opportunities that you might be able to take advantage of during summers. Hands-on experience can lead to a better understanding of the career choice and help build your skills and training foundation in the working world. It could also lead to a paying, full-time job with benefits once your educational requirements are fulfilled.

Another option would be to contact the American Public Works Association (APWA) at www.apwa.net, or call 1-800-848-2792, to find out more about the field of public works. APWA promotes professional excellence, competency, credibility and understanding of public works. It is the recognized leader in public works education, advocacy, and quality of life improvement.



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Emergency Management

Emergency management is among the first to respond to emergencies such as waterline breaks, tornadoes, earthquakes and ice storms. This area of public works also prepares communities before emergencies and disasters so that services can be restored as soon as possible and effects are minimized.

Career Opportunities
Emergency Operations Manager
Debris Removal Manager
Emergency Preparedness Coordinator

Engineering Technology

Engineering technology workers use geometry, calculus, trigonometry, physics and chemistry to design buildings, water and sewer systems, roads and bridges.

Career Opportunities
Structural Engineer
Civil Engineer
CAD Drafting Technician
Geographic Information Systems Specialist

Solid Waste Management

Solid waste management is an area of public works that supervises the hauling, processing and disposing of recyclables, yard waste and garbage.

Career Opportunities
Environmental Inspector
Recycling Facility Manager
Solid Waste Collector

Water Treatment and Collection

Water is treated and distributed as safe drinking water and then collected as wastewater to be processed by a sewage treatment plan. Stormwater is managed to minimize pollution and flooding hazards.

Career Opportunities
Water Treatment Plant Operator
Deputy Director of Waste Water Utilities
Stormwater Engineer

Fleet Services

This area of public works is responsible for the repair and maintenance of the cars, light and heavy trucks and all other public works' vehicles and equipment.

Career Opportunities
Heavy Equipment Operator
Maintenance Operations Supervisor
Automotive Mechanic
Fleet Maintenance Supervisor

Snow and Ice Removal

When cold winter weather brings snow and ice storms, public works employees must be on-call with snow plows and road treatment products to keep the roads clear for safe travel.

Career Opportunities
Seasonal Maintenance Worker
Equipment Operator
Street Maintenance Supervisor

Construction Management

Construction management involves supervision of all phases and elements of construction of public buildings and other public places like parks, libraries, government offices, recreation centers and water plants.

Career Opportunities
Civil Engineers
Construction Laborers
Construction Inspector

Parks and Grounds

Parks and grounds deals with public parks, recreational areas, green space and public open spaces.

Career Opportunities
City Parks Worker
Conservation Scientist or Forester
Landscape Engineer

People in PUBLIC WORKS Careers

The career opportunities that exist in the field of public works are vast. There is something available for people with a wide array of interests and skills. A solid educational background, complete with four years of English, math, science, and social studies, is a key that can open the door of opportunity for any high school graduate. Public works has jobs starting with the only educational requirement being that of a high school diploma, on-the-job training or apprenticeships, vocational/technical degrees, associate degrees, undergraduate degrees, and graduate level degrees. Public works departments employ individuals to help provide important services to the community. Their primary goal is to make communities healthy and safe places to live, work, and play.

Traffic and Transportation

Traffic and transportation in public works deals with streets, highways, road signs and traffic signals, the tools which are necessary to provide a safe means of travel. This is the focus of the agencies in this area of public works.

Career Opportunities
Traffic Control Engineer
Street Maintenance Worker
Traffic Engineer Technician

Facilities

Facilities is the area of public works concerned with keeping public buildings open for business. There are many people who work in a variety of jobs in government offices, power plants, water treatment facilities and other public buildings.

Career Opportunities
Building Maintenance Technician
Facilities Maintenance Supervisor
Buildings and Safety Engineer

Management

Every area of public works employs managers to supervise and oversee projects and day-to-day operations. Leaders and laborers work together to make public works successful.

Career Opportunities
Public Works Director
Communications Director
Outreach and Education Coordinator
Information Systems Technician

Utility and Public Right-of-Way

Employees in this area of public works locate, place and maintain services within public right-of-way areas. Power lines, water lines and roads all require public right-of-way.

Career Opportunities
Public Works Utility Manager
Utility Operator
Utilities Director



Tammy Bennett
Assistant Public Works Director
City of Lawrence, Kan.

real-life CAREERS

After obtaining a political science degree from the University of Kansas, Tammy Bennett planned to enter the field of local government management. She didn't envision a career in public works; however, she soon realized that she was attracted to public works and the people who do that work. "These are the people who don't necessarily care about public attention. ... They are good people who go out and do important work that makes a difference in our city," she said. After completing an internship at the City of Lenexa, Bennett went to work for the City of Lawrence, where she

is currently assistant public works director. She has 16 years of public works experience. She has a master's in public administration. Bennett administers a 190-employee department with an annual budget of more than \$25 million. The department is responsible for facilities, parking garages, street and stormwater maintenance, engineering services, fleet management and solid waste. Bennett's responsibilities vary on a day-to-day basis. She has operational responsibility for fleet and solid waste management. She is responsible for human resource functions, including assistance in selection, retention, compensation and evaluation. She also oversees special projects, such as working with the Mayor's Climate Protection Task Force and working as the Americans with Disabilities Act coordinator. She also manages the department's web site, serves on numerous committees and plays a key role in emergency preparedness. She said the most satisfying part of her job is knowing that the services provided make a difference in the community. "We recently had a sales tax election requesting additional funding for infrastructure," she said. "The issue passed with greater than 70 percent of the vote. That expresses a lot of confidence in the ability of the city and the department to provide the services people want." Students interested in a career in public works can pursue a degree in public administration or work up through one of the specialized fields such as engineering, design and construction fields, geology or geography. "There is no one path," she said.

A college-preparatory curriculum is best in high school, she said, and a college degree is recommended. Math and sciences will help tremendously for someone interested in pursuing the field through engineering or some of the technical support positions such as registered land surveyor, engineering technician or GIS specialist. She strongly encouraged business writing skills for anyone pursuing a management career. Bennett said that students interested in public works should contact their local government and ask to shadow a public works leader for a day. "Look at the services and the variety of work they get to do," she said. "Get a summer job with your local public works department. Public works professionals will go out of their way to help bring along young talent in the field."

Students unsure of what career to pursue should keep an open mind. "You have to be open to things you might never even think you want to do," she said. "I had a boss who once said, 'I am going to make a public works director out of you one day.' I thought he was a little crazy. But he loved his job, loved his profession, loved his career. And in the course of teaching about the nuts and bolts of the department, he channeled my commitment to public service into a passion for public works. I just had to be open enough to learn from him."

RESOURCES

how to find out more

ABOUT CAREERS IN PUBLIC WORKS

American Public Works Association

2345 Grand Blvd., Suite 700
Kansas City, MO 64108
www.apwa.net
816-472-6100
1-800-848-2792

NATIONAL WAGES

Average Earnings

Position	10%	90%
Public Works Director	\$50,000	\$150,000
Civil Engineer	\$46,420	\$109,100
Construction Manager	\$44,630	\$142,210
Street Maintenance Worker	\$25,000	\$50,000
Water Quality Control Officer	\$35,000	\$55,000

Sources: Bureau of Labor Statistics,
Occupational Employment Statistics Survey
and American Public Works Association

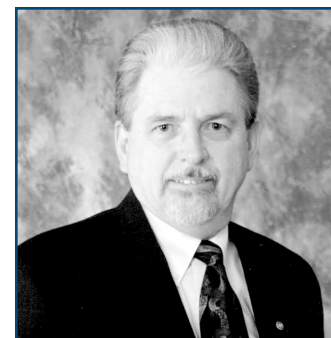
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has been sponsored by:



Chuck Owsley

Public Works Director
City of Lee's Summit, Mo.

real-life CAREERS



A summer job resulted in a 30-year career for Chuck Owsley, former city engineer for Kansas City.

Owsley, a civil engineering graduate of the University of Missouri-Columbia, spent one summer during college working for Kansas City. The city offered him a full-time position, and he ended up working there 30 years.

He climbed his way up through the ranks to become the city engineer. Following his retirement from that job, he accepted a position as director of public works for Lee's Summit, Mo. He has been in that position for 11 years.

Owsley oversees four city divisions: engineering, operations, solid waste and the Lee's Summit Municipal Airport. Engineering is responsible for planning, designing and constructing public infrastructure projects, reviewing private development infrastructure plans and traffic engineering. Operations handles daily public infrastructure maintenance. Solid waste oversees a sanitary landfill, two recycling centers, a yard waste facility and a household hazardous waste facility. The airport, a general aviation reliever airport for Kansas City International Airport, has two runways with 172 based aircraft.

Owsley, a member of the city's senior management team, reports to the city manager. "No two days are ever alike, he said. "That's what I like best about it. It's a new day every day. Something different always happens."

Moving a project from conception to completion and working with citizens and elected officials during that process is what he enjoys best about public works, he said.

"Challenges arise when citizens and elected officials disagree or won't listen to their professional staff," he said. "Occasionally they have their minds made up, and it can be difficult to get them to listen and understand all the options."

Owsley recommends that students interested in the engineering part of public works take as many math and science courses as possible while in high school.

"And I can't stress this enough: Take all of the communication courses possible," he said. "Communication skills are the key to success. You need to be able to communicate both written and orally. Listening is another key skill."

He also recommends taking courses in political science and government. "You need to understand how governments work," he said.

While some public works directors obtain degrees in public administration, Owsley said that he was glad he has an engineering background. "I think having a technical background and knowing how things work can be extremely beneficial in a public works career," he said.

If higher education is not an interest, there are career opportunities in public works in the construction trades. Public works operations employees work in many of the skilled trades: electricity, heavy equipment operation, road construction and repair, and water and sewer main construction and repair.

If students enjoy people, public works is a good career option, Owsley said. One way to learn more is to seek out summer jobs working in city public works departments. "We've had an engineering student work in our department for the last two summers," he said. "It's a great way to see in advance what it's all about."

Students unsure what career path to follow should obtain a broad education and be open to opportunities and options, he said. "Don't be afraid to try things. Expose yourself to as many things as possible. Then, when you select something, be sure it's something you really enjoy. People keep asking me when I'm going to retire. To me, retirement is doing something you love and I love what I'm doing, so I have no need to retire."