



Developing critical & analytical skills

Donal Hartman, who has taught a public works specialty for more than 10 years at Norwich University in Northfield, Vt., says that public works is attracting new leaders who need a variety of new skills to succeed in top positions.

"In public works, a lot of folks are engineers, and have mostly engineering training," he says. "They're not exposed to management leadership training in their core studies. They are required to learn on the job."

In graduate programs in public administration, public works leaders are exposed to these critical responsibilities.

"They learn best practices in management and leadership," he says. "The field is inundated with information. They learn to deal with challenges."

Norwich and the University of Nebraska-Omaha, where Hartman also teaches, are among the few institutions of higher education that offer a specialty in their masters of public administration programs that focuses on the special requirements for careers in public works.

Those graduate degrees go well beyond the basics of public utilities, water resources, waste management, transportation, facilities and structures, and parks and grounds. In addition, they probe overarching issues, such as sustainability, information management, economic development and planning. Other masters-level courses focus on local, state, regional and national master public works planning, contract administration and project management.

Increasingly, Hartman says, higher level public works education introduces students to the principles and strategies of sustainability as it applies to public works services in the community. This might entail:

- the connections between the environment and mankind;
- how air and water pollution affect public health;
- the impact to the economy when water and transportation policies

are not well thought out;

- the importance of using long-term economic models in public policy decision making;
- the attributes of a sustainable work culture;
- how to build community support for a sustainable program.

"This is hugely important, because we no longer live in a world where resources are unlimited," Hartman says.

The idea behind the masters program for public works leaders is to learn how to use information critically, he says. "We try to shape critical and analytical skills," he says. "To learn that you don't know what you don't know."

In recent years, the public works profession has changed from a pure service delivery environment to a more complex, management challenge that requires direct dealing with the public, financial management in an austere environment and moving in political circles at the local, state and federal levels. "You can't just run the trains on schedule," he says. "You have to know whether there are better trains available, whether there's a shorter route, one that's more efficient."

Leadership skills are also a necessary component of this training. "A leader is only as good as his people," he says.