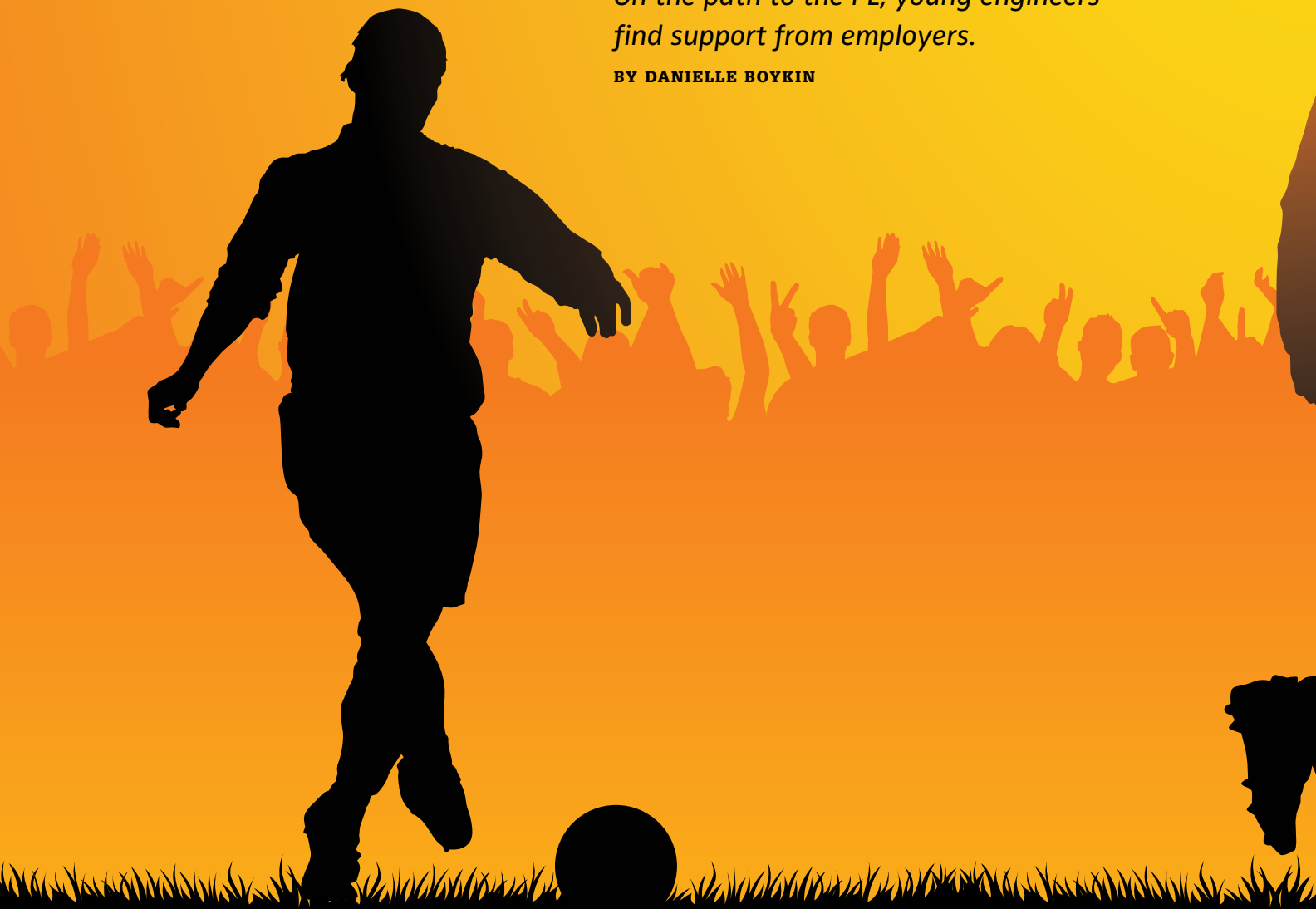


A Goal and An Assist

On the path to the PE, young engineers find support from employers.

BY DANIELLE BOYKIN



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When Ashley Castillo, E.I.T., attended the New Jersey Institute of Technology to pursue a civil engineering degree, it was impressed upon her and classmates that professional licensure should be a top career goal. As she prepares to take the PE exam in April, the project engineer is getting support through the career benefits of her firm, Maser Consulting P.A., headquartered in Red Bank, New Jersey. “Earning a PE license will lead to more opportunities in my career. I’ll be able to take on greater responsibilities and manage more complex projects.” says Castillo, who works in the water/wastewater department. “It’s a major milestone that my career seems incomplete without.”

The journey to becoming a licensed engineer can be challenging, yet rewarding when a young engineer finally earns the right to place the PE designation at the end of her last name. As Castillo and EIs gain the necessary experience and prepare to have their knowledge tested, they are looking to PEs and leaders within their organizations for strong support systems.

According to a survey by the Zweig Group, 89% of architectural, engineering, planning, and environmental consulting firms surveyed pay for professional registration exams and

professional registration fees for employees. Nearly half of firms (47%) automatically give salary increases or cash bonuses to employees who pass their first exam. The survey also revealed the following

- Full-service engineering firms were most likely to offer tuition or fee reimbursement (92%);
- 75% of firms offer tuition or fee reimbursement;
- Nearly half of firms offer reimbursement for books and supplies for courses-for-credit; and
- 54% of firms report employees are allowed to attend classes during work hours.

If you're looking for an engineering position at Maser Consulting, an ideal candidate will be someone who believes professional licensure is a career priority, says Human Resources Director Allison Colantouni. "We do look for an engineering intern or someone who will be sitting for the FE or PE exam shortly," she says. "We explain to them about the opportunities that will be open to them once they become licensed."

The encouragement doesn't stop there. "We pay for a prep course and for the exam and provide time off on the PE exam day," says Colantouni. "Employees get a bonus when they pass the exam."

When job hunting two years ago, Castillo was focused on securing a position at a firm with a flexible work environment with leadership committed to helping young engineers to obtain their PE licenses.

A strong mentoring culture is critical to helping young engineers to stay on the licensure path and continue to thrive once they've achieved the PE.

—Detlef Kurpanek, P.E.

That meant being able to work directly under a PE and getting mentoring and other assistance to achieve her goal. "A lot of companies said, 'No, we don't have any program here or it's not needed here, but we'll encourage you to pursue it on your own,'" she recalls. "I now understand how much harder it would be to pursue licensure without this type of support."

In 2010, Colantouni and Maser leadership established Maser University and a mentoring program to provide continuing education and leadership development for more than 500 employees in 18 offices. The firm employs 93 PEs and 18 EIs. The university, which offers employees access to a library of online courses, is critical to helping engineers stay up to date on the latest technology and maintain their licenses—particularly if they are licensed in multiple states. "We determined this was the best way to help them maintain their licenses without it costing a fortune and creating a lot of downtime," she says.

"We encourage our engineers to take courses that will satisfy as many requirements as possible."

Creating the Right Environment

As NSPE member Robert Garza, P.E., rose up the ranks, from serving as an entry-level engineer with the City of Las Cruces in New Mexico to serving as its city manager, he helped establish a culture that values the role of professional engineers. "We tell our employees when they first come in that to have the true, full value as an engineer to our organization, we need you to be able to be responsible for your decisions, not only organizationally, but professionally," he says.

Las Cruces has a population of 100,000, but is projected to grow 2%–3% each year, says Garza. Engineers are essential to this growth. There are 62 engineering positions organization wide that require a licensed engineer. In addition to Garza, PEs are serving in other senior leadership roles, including the assistant city managers, the public works director, the utility director, fire services engineer, and the water resources manager. "There are so many challenges that face us as an organization that involve engineering," he says. "Putting professional engineers in responsible charge of these programs is something that is not only a good idea, but it's also cast into the job descriptions as requirements."

As efforts to devalue engineering licensure increase, Garza's administration may be serving as a prime example of supporting

NSPE's Path to Becoming a PE Resources

NSPE provides its members—licensed or soon-to-be licensed—with the information and resources they need to earn and maintain a PE license.

The PE Institute

The PE Institute offers access to PE exam preparatory courses and a catalog of live educational events, webinars, and conferences. As engineering disciplines become more specialized, continuing education becomes more crucial to managing a rising career. Courses are available to NSPE members at a discount.

The Career Center

Whether you're preparing for licensure, seeking advice, or looking for a new career opportunity, the NSPE Career Center offers access to a job board, mentoring resources, and resume writing services.

Engineering Body of Knowledge

The NSPE Engineering Body of Knowledge provides EIs with a comprehensive list of knowledge, skills, and capabilities to assist them in evaluating their engineering experience. It also offers engineering mentors and supervisors a template to assess the

experience gained by EIs, and it assists in focusing on other areas of experience that may be required for success as an engineering professional.

Leadership Opportunities

EIs can enhance their professional careers by accessing leadership opportunities with NSPE, NSPE state societies and local chapters. The Professional Engineers in Private Practice and Professional Engineers in Industry Young Engineers Advisory Council groups can also provide opportunities for leadership growth.

young engineers on the path to licensure as well as helping PEs to maintain their license. Expenses for PE exam preparatory courses, examinations, and continuing education are covered as an employee benefit. There is also tuition reimbursement and payment of professional and technical society membership fees. Engineering technicians with promise are identified and encouraged to get the necessary education to become a licensed professional. "We encourage and 'preach' the value of licensure, but we also use the system in place, with our compensation levels serving as an additional motivator," says Garza. "We also don't have a large turnover rate with our engineering staff. They come here, they grow, and they thrive."

There's also a succession and mentoring plan for every program. "A PE sitting in a position has the responsibility to find an engineering intern to develop as an heir apparent," say Garza. "That's one of the job description expectations of all of our engineers to be a mentor and help train our EIs."

Making an Investment

Thomas Fallon, E.I.T., firmly believes that it's essential for companies to support their young engineers' pursuit of licensure. His employer, Pleasant Mount Welding Inc., in Carbondale, Pennsylvania, paid for him to take the FE exam. Plus, his supervisor allowed him to take at least an hour of his workday to review test materials in the month before the exam. "Some engineers never get the opportunity to obtain a license and I'm thrilled that my company is supporting me," says the Temple University civil engineering graduate. "If the company invests in a hardworking, educated employee, the return from investment will pay off."

Although Fallon will be taking the PE exam in two years, he realizes how everyday on the job is preparing him for this critical step in his career. "My supervisor has told me that I'll have no problem with the test because every project I work on is like the PE exam itself," he says. "In this field, if you don't learn something new every day, you didn't go to work that day."

Detlef Kurpanek, P.E., believes that a strong mentoring culture is critical to helping young engineers to stay on the licensure path and continue to thrive once they've achieved the PE. Kurpanek's firm,



Merrick & Co., an engineering, architecture, design-build, surveying, planning, and geospatial firm headquartered in Greenwood, Colorado, pays for the PE exam and provides a salary increase to those who pass. The firm also helps employees maintain their licenses by paying for fees and training. "I think our real appeal goes beyond paying for our engineers to take the PE exam," says the vice president of engineering for Merrick's energy business unit. "We create a positive work culture and mentoring environment for our young engineers. We are a place that fosters inquiry and that appeals to them."

Recent graduates and EIs at Merrick are paired with senior engineers, who provide guidance on common types of projects. When Kurpanek mentors EIs, he often thinks about the things that he wished he could have learned when he was starting out in his career. "Mentors should develop a living list, and anytime they work with a young engineer, they should go through that list over the course of that mentorship," he says. "They are going to flourish and thrive in that type of environment."

Hunter Vassau, E.I.T., took heed of his professors' advice throughout his years at Colorado State University and took the FE exam before graduating in 2011. "It was highly recommended because if you try to take the exam in three years, you

might have to relearn the basics," says Vassau, who earned a mechanical engineering degree.

Like Castillo, Vassau is planning to take the PE exam next year. The majority of the projects that he works on in Merrick's energy department may not legally require the stamp of a licensed engineer; however, he is clear about the importance that a professional license represents. "Licensure gains traction with clients and colleagues," he says. "It will help push my career forward."

In the meantime, Vassau is taking every opportunity to learn from Kurpanek and other senior leaders as he gains the experience necessary to become a professional engineer and move ahead. "It has been one of my goals to form a strong mentoring relationship with other engineers," he says. "I want knowledge about their experiences on different projects and the roadblocks that they've encountered. This is also about personal learning that goes beyond my desire to obtain a PE license."

Vassau considers himself lucky to work in a firm that has an encouraging environment for young engineers seeking licensure and who want more leadership responsibilities. "Now is probably the best time to be in the engineering field," he says. "There's a big talent gap, which means there's opportunity for career growth." **PE**