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Those Who Can, Teach

In California, a nonprofit is recruiting experienced engineers and scientists to teach in the beleaguered public schools.

BY NANCY COOK



About a year-and-a-half ago, Julian Lewis took a buyout from Lockheed Martin. He'd worked at the defense contractor for 34 years in aerospace engineering, mainly around Los Angeles, ultimately as the director of operations for a fleet of top-secret aircraft that can fly for 24 straight hours. Lewis, now 54, assumed he'd spend his retirement indulging his love of golf and volunteering to mentor youths.

Instead, he is training to teach math and science at an inner-city high school, as arranged by a California not-for-profit venture called the EnCorps STEM Teachers Program. "I realized that their values and vision were right in line with mine," Lewis explains.

EnCorps was founded in 2007 by philanthropist Sherry Lansing, a former CEO of Paramount Pictures. The organization's mission is to recruit experienced private-sector workers in science, technology, engineering, and math, and to train them to teach in public schools. Its participants, on average, boast 17 years of work experience in one of those fields (25 percent come from aerospace or engineering, and another 24 percent have high-tech backgrounds). At first, the program was geared toward retraining workers age 50 and older, but EnCorps has recently opened up its ranks to younger workers and to veterans. Not quite half of the participants are 50 years or older.

The program works like this: A STEM worker interested in a teaching career goes through a rigorous application and interview process. This involves several written essay questions, a commitment to work in a

school where teachers are needed, and four hours of interviews, in which the applicant must present a sample school lesson. EnCorps accepts fewer than 10 percent of applicants.

The idea of recruiting nontraditional teachers for work in public schools dates back to World War II, according to Anthony Carnevale, director of the Georgetown University Center on Education and the Workforce. Over the years, government initiatives and privately run programs such as Teach for America have tried to lure well-educated young people or older, experienced private-sector workers into teaching. "That gives young people a connection to the adult world that really motivates them," Carnevale says.

EnCorps's distinction is to focus on filling the need for teachers in math, science, and high-tech. Once people join EnCorps, they go through a three-day professional development institute run by the nonprofit, then enroll (at their own expense) in a teacher certification program at a local community college or university. Earning a teaching credential can take anywhere from 16 weeks to 18 months, says Katherine Wilcox, executive director of EnCorps. Only then does the participant, with the nonprofit's help, look for a job somewhere in California, often at a high school that focuses on technical careers that don't necessarily require a college degree.

One such school is the STEM Academy of Hollywood. The 550 students, mostly Latino, in this Los Angeles school all qualify for a free or reduced-price lunch. It's where Lewis trained as a teacher and where he hopes to work once he receives his teaching credential from the University of California (Los Angeles).

The high school's principal, Paul Hirsch, says he appreciates the EnCorps program because it helps students connect what they learn in the classroom to their future careers. "There's a promise there of building career skills for these kids," he says. "Some of the disillusionment in an inner-city school goes away."

Lewis understands all too well the perils of growing up poor in a tough neighborhood. He came of age in the 1970s in the crime-ridden South Bronx, and as a teenager, he was "going nowhere," he recounts. A public school teacher recognized that Lewis had a passion for aviation and recommended that he attend a technical aviation high school in Queens. The move changed the trajectory of his academic and professional life.

There, Lewis learned a trade and set himself on a career path. He graduated from high school in 1976 and was hired by an airline in Miami, earning \$20 an hour—not a bad wage, even today, for someone without a college degree. His technical training and his know-how in math and science soon led him to Lockheed Martin. Along the way, he earned a college degree and climbed the corporate ladder, doing well enough that he could afford to retire in his mid-50s.

This personal experience, in part, drew him to EnCorps's mission. "It mirrored the opportunity that I got when I was a kid growing up," he says. Lewis feels strongly that a STEM education can help disadvantaged youths, even if they don't end up in college. "Anyone coming out of high school with that skill set," he says, "can make a decent income that you can raise a family on. You will definitely position yourself to become middle class right there."

Right now, Lewis is still earning his teaching credential. He also worked unpaid for about 40 hours at the Hollywood school, assisting an experienced teacher in a civil-engineering class. Each month, he talks with a mentoring teacher, arranged by EnCorps, and also meets quarterly with participants who enrolled in EnCorps at the same time he did.

The organization's goal is not only to lure experienced workers from industry into public schools but also to ease California's growing shortage of teachers. The state, by EnCorps's estimate, will need an additional 33,000 math and science teachers by 2025. "Not enough STEM majors go into teaching," Wilcox laments. "The whole culture of teaching gets a bad rap."

Since 2007, EnCorps has trained about 85 people who have become full-time teachers—not bad for a small nonprofit that operates on an annual budget of less than \$1 million, with just three staff members who work from home. Another 60 people are going through the credentialing process, and 72 more have signed up to start next fall. The training typically takes about two years from start to finish.

The program is perfect, Wilcox says, for retirees such as Lewis who have already made enough money not to mind the low salaries for a starting teacher in California, typically \$48,000 to \$55,000 a year. Once he's finished at UCLA, Lewis hopes to teach three days a week—to leave time for golf—at the Hollywood school, where he and the principal have discussed starting a program in aeronautical engineering.

As for the cut in pay he'll take, Lewis just laughs. "I won't be making anything comparable," he says, "but it's not something I've really asked about. ... This is basically a passion."