Spotlight on Hidden Physicists

Jessica L. Slish
Womelsdorf, PA

I am a physicist working as a lab engineer for Yuasa Battery, Inc., in Reading, PA, which specializes in batteries for motor vehicles. I do performance testing on batteries and components and some chemical analysis. I lend technical support to many processes within the facility, and I am currently running several process improvement projects throughout the plant.

Daniel Richford
West Islip, NY

I received a BS in physics and then went to law school. Except for the amount of reading, it’s not all that different—the logic and reasoning behind law and physics are quite the same. I’m not sure what type of law I want to do, but I’m certainly going to see what patent law is all about.

Paul C. Sinclair
Maumee, OH

I earned my BS degree in physics from Rhodes College in 2007. I switched to mechanical engineering and earned my master’s degree in 2009. Since then I’ve found a job designing and testing radio-controlled (RC) off-road racecars. These cars involve high-strength composites, aluminum, and titanium alloys. They must endure some pretty large forces, given their extremely high power-to-weight ratios. I started racing these cars back in high school, and my foundation in physics has given me the ability to pursue my passion as a career.

Mary Anna Evans
Gainesville, FL

My career began with a bachelor’s degree in physics in 1983, and then took incremental steps away from the traditional path until, in 2010, I find myself writing mystery novels. After receiving my BS, I earned a master’s degree in chemical engineering and then spent a couple of years teaching community college physics. I was subsequently the assistant director of a university research center before taking a job as an environmental consultant.

I enjoyed environmental work, but it was a job that left me little time for my family and no time for creative pursuits. After the birth of my third child, I decided it was time to change course. I wrote my first book in the scraps of time between diaper changes and ferrying kids to piano lessons. It got me a hotshot Manhattan agent, but no sale. She said, “If you got this close with your first book, then you should write another.” (My unsaid response to this advice was “That’s easy for you to say. You’re talking about a year of my life.”) However, I did take her advice and that second book, Artifacts, was published in 2003, receiving great reviews and a national award. Relics, Effigies, Findings, and Floodgates followed in quick succession, and my sixth book, Strangers, will be published in October of this year.

Interestingly, I’ve found that a science education follows you all the days of your life. My books, though written for adults and with no intended academic content, are being used in schools to teach math, science, and social studies, and I am often invited to speak to teachers on ways to teach science concepts out of real-life situations and made-up stories. I am coauthoring a book on math literacy, and when it is published in 2011, I will have the sense that my career has come full circle. Writing that book has drawn heavily on both the math I learned as part of earning my physics degree and on the literacy awareness that comes from being a novelist. My co-writer and I are planning a follow-up book on science literacy that will be an even closer fit with my physics education. We’ve also published articles on math and science literacy in a recent issue of Florida Readers Journal and an upcoming issue of Mathematics Teaching in the Middle School.

For more information on my work, visit http://www.maryannaevans.com, and for information on learning to write your own stories, visit http://www.ahingawriters.org.

These days, I think often of something my father told me many years ago: "No education is ever wasted."

Brett D. Gilbert
East Hampton, NY

After receiving my BS in physics from the University of Toledo, I attended Boston University’s graduate program in astrophysics. The program, however, while very good, did not engage me the way I thought it would, so I joined the Peace Corps and taught physics in Ghana. I subsequently obtained my master’s degree in philosophy, a subject that drew my attention as an undergraduate through studies in quantum physics and cosmology, and I went to law school. I had not thought about law school as a real alternative in particular, but a joint PhD/JD program offered me a complete scholarship, so I jumped at the opportunity. In
a short time I came to love my legal studies over the PhD program. Following law school I practiced criminal defense law in New York City for a number of years, first with the Legal Aid Society and then with a high-profile criminal defense firm. I missed academic life, however, and I then took a position in law school administration. I am now assistant dean for career services for Touro Law Center in Islip, NY.

I believe that my background in physics, with its focus on evidence to substantiate a claim, prepared me very well for law school and legal practice. I always loved the “a-ha!” moment when I found a case to support my position or a witness who substantiated my client’s version of the facts. Building a case supported by facts and evidence came naturally to me, thanks to my training in physics. While I am sure that some physicists view legal argument as mere sophistry, unconnected to the real world, many lawyers represent individuals in need of help, and the cases lawyers build in their work are connected, in a very concrete way, to the real world and lives of these clients. The legal profession needs more scientists who are trained to think critically and rationally.

---

Michael E. Oberlin
Santa Fe, NM
When I got my undergraduate degree, I honestly wasn’t sure what I would be doing with it. I had achieved a bachelor’s in physics and neuroscience, which opened up a world of possibilities, but two major hurdles remained: I did not know a comfortable amount about how business worked in the real world, and I did not have a specific enough idea about what path I would follow. So, I took a few years off to find my niche. Since then, I have found a place for myself in software engineering, noting that while physics is

---

Geoffrey T. Anderson
Tucson, AZ
I fit the bill. I work in the tech industry as a product manager, a blend of technical prowess, political and communications skill, and some business and marketing savvy. I have worked in the measurement and test world at KLA-Tencor, at Veeco Instruments, and at Zygo, measuring nanometers, as well as at Cisco and now at Open Text in communications products.

---

James W. Westover
Orlando, FL
My career path strayed only slightly (so far) from the typical path. Upon completing my BS in physics, I was working as an assistant systems administrator for the university I attended. Following that I found contract work as an exploratory data analyst for a metals company in Canada. However, before completing that contract I was admitted to graduate school to pursue my PhD in physics. So I am back on the beaten path, for now, while I complete my PhD.

---

Barrett Ware
Washington, DC
After graduating I assumed I would work in a research lab for a few years and then go back and get my PhD. However, the Cold War was ending and with it, the era of unlimited jobs for physicists. As an undergraduate, I was day-trading stocks with great success. Eventually, I became a portfolio manager for real estate–secured municipal debt.

---

Brian L. Tichenor
League City, TX
I enjoy meeting physicists seemingly everywhere! During my undergrad physics program I was interested in magnetic properties of materials, then in grad school I explored the ultra-structure of dental enamel. When I joined the materials engineering group at Boeing, my lead and his manager were also physicists! I worked a few years in failure analysis, then process development, then later in the implementation of materials engineering in systems design. I’ve never been unemployed. For the last 3 years I’ve been leading a young group of engineers in the development of Orion, the NASA manned spacecraft, and yes one of those is a young physicist! After a 25-year career with Lockheed, I now consult on materials engineering across the corporation. Good luck to you all!