

## **Stem Career Pathways**

### **STEM Professionals**

#### **Laura Crossey, UNM**

- 30 years at UNM with E&PS
- English/writing pathway
- inspired by landscape in the West and switched to geo sciences through immersion program
- no research experience when looking to get into graduate school
- found Washington university that had a strong earth and planetary science program
- worked with basalt rocks to understand lunar rocks
- switched over from hot rocks to water, carry over in basic concepts but also very different
- received PhD from Wyoming University
- got married when in graduate school and worked on PhD with husband
- got a job offer from UNM and decided to take it and stayed

#### **Vince Tidwell, Sandia National Laboratories**

- 25 years at Sandia
- never thought he would be a scientist growing up
- as he finished up high school, he conversed with a geologist from church and was interested in field work
- UT Arlington in Dallas Fort Worth
- enjoyed geology overall
- regret not taking any internships
- went to school and had an internship after bachelor's degree to get an idea on research
- oil market busted in US and many PhDs were being released
- realized that he needed to go to school
- wanted to go for research in water
- applied for several universities, eventually got into University of Arizona for his master's degree
- loved his job with water, critical for everything
- ground-water hydrology
- water chemistry and policy
- wanted to get out of school and worked for DOE but wanted to research
- connect with people at Sandia so that he could get an advanced degree and conduct research, Sandia funded his full PhD
- working in government, was able to recreate himself multiple times without having to start a new job and moving his family, etc

#### **Brian Chavez, Intel**

- 20 years
- spend most of his career in engineering
- engineering degree in biomedical engineering
- by chance, he met a person who worked at Intel and got a job offer from there

- technician at Intel, made him better at his career, connected with many more people than his peers as he rose through the ranks
- critical thinking skills, strong ethics, problem-solving skills
- strong academics to allow you to have the conversation with a company, sell yourself with your behavior, separates the good engineers with great engineers
- no matter where you go, a strong work ethic is very important, that was how he got his job with Intel

### **Jack Jekowski, Innovative Technology, Partnerships, LLC**

- Boston, Northeastern University
  - Co-op school that allowed him to work and go to school at the same time
- started at the very ground level and as he learned from experience and went on to be an engineer, he was able to hone his skills
- one visit to NM convinced him to stay in NM rather than in Boston
- had a job offer in Los Alamos and was able to permanently stay in NM
- because of relocation and field work, he was never able to receive his master's
  - but he was able to travel all over the world and conduct experiments on planes
  - witnessed 30 nuclear events, built instrumentation, managed large numbers of people doing work on those experiments
- if you want to get involved with research in NM, contact EPSCoR
  - also a way to get into the national science foundation
- while you are at this point in time, education is a lot easier to get than to work and come back
  - get as much education you can get so that you can get as many opportunities as you can

### **1) How important research is in your career and who funds it?**

**Brian:** research is important in Intel, that is what keeps them ahead of their competition, needs to be multiple steps ahead, research center in Oregon, what are some things that technology will need or anticipate what is needed → research and development, to make it manufacturable, to move into the process of putting it together and get a working product

**Laura:** research university from UNM, as a professor, we have an internal way of doing their jobs, 40% teaching, 40% research, 20% services, try to combine all of these components together, research projects with freshman students and diversity programs, geothermal classes, partner with NM Tech

**Vince:** spans from fundamental science to applicable science, very engineering and science oriented, very little biological/social sciences at Sandia, enjoy the opportunities to engage with students and interacting with graduate students and help encourage the next generation, able to use the research done and put it in people's hands

**Jack:** research is a quest for new knowledge, funding from federal government, look at events that are happening (scenario planning), gathering lots of different information

and putting the pieces together to extrapolate what will happen in the future, even speculate on events that may seem improbably but if you put the pieces together, you might be able to see how the event may occur in 3-5 years, all of the scientific disciplines are melding together to make the next greatest advancement, it is important to diversify and not stay on a narrow track, expand your universe so you can go into whatever is attractive to you and what you participate in

**2) What recommendations would you have for students to prepare for the pathway you chose?**

- to keep your eye and ear open, networking and making connections
- get experience
- have a good work ethic
- diversifying your field, multilayered issues
- have real experiences and enjoy life, do not hesitate to connect what you are learning to the world around you
- get yourself out there in the real world to really see what your job would look like
- you tend to do things better in fields that you like doing
- try new things because you never know what you might like

**3) How do you know when you're ready to move from academic world and into the real world or vice versa?**

- different ways of doing, what you want to do, something you realize
- many jobs pay for your upper division degrees

**4) How is family integrated in your work?**

- depending on where you end up, is your situation with your family, keep in mind what you're interested in
- having children is a big decision, it works for many people and you figure it out as you continue in your career