For David Dahl, family was more than a support system—it was a key factor in leading him to a career in statistics.

Family has always been important to David Dahl. He grew up in a tightly knit family of seven and often turns to the examples set by his parents and siblings for guidance. It is no surprise, then, that these close family ties led him to his career in statistics.

When I got to college, my brother showed me a least-squares regression line, which is a statistical method,” Dahl said. “I thought it was neat that one could summarize the patterns in data using math.”

After this first exposure to statistical practices from his brother, Dahl took an introductory statistics class to spend time with his sister who was taking the class as a prerequisite for the business school. He found the topic so engaging that he switched his major to statistics and started down the road to become a statistician.

Dahl received his bachelor’s and master’s degrees in statistics from BYU in 1997 and 1998, respectively. He then graduated from the University of Wisconsin–Madison with a PhD in statistics in 2004 and decided on a career in academia. Dahl grew up in a college town and his brother is a professor, so becoming a professor seemed like a natural career choice for him.

“I decided to become a professor because I think it is cool to be an expert in something,” Dahl said. He was hired by Texas A&M University as an assistant professor in 2004 and was promoted to associate professor with tenure in 2010. But he felt a draw to BYU and, in 2012 he joined the BYU faculty as an associate professor. His research now focuses on computational biology and bioinformatics, but Dahl believes that one of the perks of statistics is that the possibilities are endless.

“One of the fun things about statistics is that you can play in everyone’s backyard,” Dahl said. “I can learn about biology and help biologists do their analyses and make good decisions, but then another day I can work on finance or work on chemistry. I can work on whatever interests me and interests other people.”

For now, though, Dahl’s focus is protein structure.

“We are trying to predict the structure of a protein given its amino acid sequence. Proteins are made from amino acids, and if you stick them together a certain way and get the right sequence, they will fold into a particular shape,” Dahl said. “What that shape is determines what it does in the organism. For example, hemoglobin carries oxygen because of its particular shape. Experimental methods for determining the shape of a protein can be difficult and costly, so there is a lot of interest in building statistical models to predict structure.”

These models not only help statisticians and biologists understand what each protein does but they can also potentially help doctors treat certain diseases. The future of computational biology and bioinformatics includes building proteins with particular shapes to target diseases.

“Right now we are working on basic science, trying to better understand how proteins fold into their shape, but there are applications for this science further down the chain,” Dahl said.

Dahl also considers his knowledge and career as part of the chain of progression.

“I am constantly learning new things to help further my research and to teach my students,” Dahl said. “I am a perpetual student.”

But statistics makes constant learning easy because of its influence in so many areas.

“I love the idea that you can quantify uncertainty about something and make decisions even when you don’t have a perfect knowledge,” Dahl said. “Statistics is about making informed decisions without having to know everything.”

Dahl uses these same principles in making decisions in his family life. He enjoys spending time with his wife, Lisa, of fifteen years, and their five children, but balancing a career and a family has required them to give their activities careful evaluation to ensure proper attention to both.

Along with the blessings of his academic career, Dahl is also grateful for the continued influence from the tightly knit family he grew up with.

“My brother, Gordon, is my best friend, outside of my wife,” Dahl said. “He is a professor at another university, and we speak every few days on professional and personal matters.”

Dahl appreciates the influence his family has had on his life and his career and hopes that the influence of family can continue on throughout his life and the lives of his children.