Hitting the right note: Engineering buildings for earthquakes with Civil and Environmental Engineer Brady Cox

The ground beneath us resonates at a certain frequency, kind of like the strings on an instrument. When an earthquake hits, it changes the frequency of the earth, much as you might when you put your finger on a string to change the note. The goal of the earthquake researcher is to find ways to make new buildings an opposite frequency so that they do not fall down during earthquakes. This is Brady Cox’s job.

In this episode, we learn how Brady Cox got started on this path as an undergraduate researcher right here at Utah State. Dr. Cox tells us how his mentor convinced him to stay for his Master’s degree as they investigated an earthquake in Turkey, and then how he went on to get his PhD and submit the grant proposal which landed him an invitation to the White House.

During the episode, Dr. Cox tells us two important things: "Engineering makes a difference and natural hazards don't have to be natural disasters" and "We can limit deaths, dollars, down time in seismic events if we're prepared." That's why Dr. Cox's work is so important.

Learn more about earthquake research going on at Utah State in our episode from 2020 with Drs. Ault and Janecke.