Jeff Freymueller has been on the faculty at the University of Alaska Fairbanks since 1995. He graduated from the University of South Carolina with a PhD in Geology in 1991, and followed that with postdoctoral work at Stanford University. Dr. Freymueller’s research focuses on the measurement and modeling of solid earth deformation caused by a variety of sources, including active tectonics and earthquakes, volcanism, hydrological and cryospheric mass variations, and sea level change. Many of these processes also present hazards to society, and the study and characterization of these hazards is a basic step toward hazard and risk mitigation.

Space geodesy, in particular high precision GPS, is the primary tool for this work. Dr. Freymueller works on improving the geodetic measurements themselves, on the development of reference networks to support geoscience and other applications, and in the more accurate definition of reference systems for the measurement of crustal motions. He developed the crustal motion model for Alaska currently used by the National Geodetic Survey’s HTDP software. He currently serves as the Coordinating Scientist for the Alaska Volcano Observatory, and as the Director of the EarthScope National Office.