Bone Lead Levels for Subjects in Utah ETHAN KENDALL, MICHELLE ARNOLD, Weber State University — Lead is a toxin known to cause neurological damage. High levels of lead exposure can lead to heart disease, high blood pressure, renal disorders, birth defects, and an increased risk of delinquent behavior. Through the use of X-ray fluorescence (XRF) and gamma spectroscopy, lead concentration in subjects’ right tibia and left calcaneus are measured. The relationship between lead concentration and demographics such as age, gender, height, weight, and years lived in Utah will be explored.