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Chad M. Topaz* (cmt6@williams.edu). *Diversity through a data science lens.*

This talk presents two data science projects related to diversity. First, motivated by the grievous underrepresentation of women in mathematics, we conducted a crowdfunded and crowdsourced study of 13,000 editorships on mathematical science journals. While women are known to comprise approximately 16% of tenure-stream faculty positions in doctoral-granting mathematical sciences departments in the United States, 8.9% of the editorships in our study are held by women. We also describe group variations within the editorships by identifying specific journals, subfields, publishers, and countries that significantly exceed or fall short of this average. Building on this study, a team of art scholars, statisticians, and mathematicians conducted the first large scale study of diversity amongst artists whose works are held in the collections of major U.S. museums. We estimate that 85% of these artists are white and 87% are men. The relationship between museum collection mission and artist diversity is weak, suggesting that a museum wishing to increase diversity might do so without changing its emphases on specific time periods and regions. We conclude with a brief description of a new endeavor called QSIDE, the Institute for the Quantitative Study of Inclusion, Diversity, and Equity. (Received September 11, 2019)