

Additional Perspectives on Data Equity

Jonathan Schwabish*

Urban Institute

Alice Feng**

Natera

Wesley Jenkins***

Urban Institute

ABSTRACT

Through rigorous, data-based analysis, researchers and analysts can add to our understanding of societal shortcomings and point toward evidence-based actions to address them. But when data are collected and communicated carelessly, data analysis and data visualizations have an outsize capacity to mislead, misrepresent, and harm communities that already experience inequity and discrimination. In the forthcoming Urban Institute report, *Additional Perspectives on Data Equity*, is a follow-up report to the popular *Do No Harm Guide: Applying Equity Awareness in Data Visualization* and will highlight the voices and experiences of people working with data from underrepresented groups.

Keywords: diversity, equity, inclusivity.

Index Terms: A.m [General Literature]: Miscellaneous; J.4 Social and Behavioral Sciences; K.7.m [The Computing Profession]: Miscellaneous—Ethics

1 INTRODUCTION

In June 2021, we published the *Do No Harm Guide: Applying Equity Awareness in Data Visualization* [1], a first-of-its-kind resource borne of nearly 20 interviews with data experts on how data analysts, researchers, and communicators can apply an equity lens to the way they work with and visualize data. The guide centered empathy as a key tool for data practitioners to use so as to not perpetuate stereotypes, biases, and other types of harm, and it offered considerations for chart design surrounding language, data ordering, color palettes, and missing groups. The guide also went beyond data visualization, discussing many other equally important aspects for working with and communicating data in equitable ways: critically examining data, engaging in lived experiences, building diverse and inclusive data teams, seeking feedback on data products, and acknowledging the role of gatekeepers such as funders, journal editors, and government agencies on the data process.

As expansive as the original guide was, we knew it was just the beginning and that there was still more ground to cover. We wanted the guide to serve as a foundation upon which we could continue to explore and dig deeper into the topic of equitable data research and communication. Now, we are preparing to release a follow-up report to the *Do No Harm Guide*, one that will focus on voices from groups and communities traditionally underrepresented in data research and communication.

In this second volume, the *Do No Harm Guide: Additional Perspectives on Data Equity*—which will be followed by another report in 2023—we hear directly from members of such groups

about their thoughts and experiences on how they take, or would like others to take, an equitable approach to data work. This volume consists of five essays, which cover community-based participatory research, the experiences of Native communities in research and data, steps to reduce mental health disparities, the barriers facing Black women in STEM fields, and building community-academic partnerships in Hawai‘i. The authors of these essays, all of whom are members of groups traditionally underrepresented in the data fields, are community-engaged researchers and champions for collecting, analyzing, and communicating data equitably. The goal of this short paper is to give readers and attendees at the 2022 Workshop on Visualization for Social Good at the IEEE VIS conference (<https://vis4good.github.io/>) a preview of this new report and how they might start to consider ways to make their data collection, analysis, and communication (visualization) efforts more equitable and inclusive.

2 THEORY

As we thought about what a second volume of the *Do No Harm Guide* might look like, we were aware of the limitations of our own lived experiences. Two of us are cisgender American white males, one Jewish and one not, while the other is a cisgender Asian-American female. Although we could have conducted another round of interviews with people working in the data field to see how they and their organizations are applying data equity in their work, we felt that hearing directly from members of other communities would provide more insight and depth of experience that we could not.

In January 2022, we began seeking potential contributors, asking our Urban Institute colleagues for their recommendations, and finding people doing interesting work across a variety of fields. After kicking off the project in early February, the authors spent the spring writing their essays. As editors of the volume, we provided feedback—on content, length, and with an eye towards a cohesive final volume—to each. We are also fortunate to have a talented team of editors, project managers, and other communications experts to help us guide the authors in their work.

Several themes emerge from this diverse collection of essays. Many of our authors describe the impersonal, almost transactional, nature with which researchers often approach their communities. Whether these people and communities have sought the help of researchers or not, they are often met with harmful results. A long history of studies have inflicted harm on already marginalized populations, from medical experiments performed on enslaved women to blood samples taken from a Native community and used without their consent. The legacy of such harm has led many communities not to trust researchers. And outreach in the other direction is less common—researchers do not often seek out communities’ input, advice, and experiences even though doing so can enrich the research, add a specific human element to what is often seen as an “ivory tower” approach, and—hopefully—result in work that is more likely to be embraced and utilized by the communities it seeks to assist.

In response to this imbalance, several of our authors call out the need for researchers and data experts to build relationships with communities. An exploration of the principles of Community-

* email: jschwabish@urban.org

** email: feng.a.g@gmail.com

*** email: WJenkins@urban.org

Based Participatory Research (CBPR), from Leonore Okwara, offers suggestions for how data experts can establish positive, equitable relationships with community members. A CBPR approach establishes a collaborative, co-learning environment where community members bring the expertise from their own lived experience to contribute to and provide feedback on the research process. By taking the time to engage in self-reflection, participate in community-facing research meetings, and develop communication products that are relevant and appropriate for non-academic audiences, researchers can build necessary trust between their institutions and community members. Jane Chung-Do and co-authors place this kind of collaborative research in a specific setting by exploring the experience of the Waimanalo Pono Research Hui, a community-academic partnership formed by community leaders and academic partners of the Waimānalo area of the island of O’ahu. Founded in 2017, the Waimanalo Pono Research Hui created protocols and rules of engagement that promote community consent and culturally centered approaches, equitable resources and benefits, and data sovereignty and dissemination to keep power within the community. Such rules highlight communities’ strengths and produces research that benefits the community rather than extracts from them. Both essays offer analysts and researchers practical strategies to build trust and forge strong relationships between communities and researchers.

Patrice Kunesh, of Standing Rock Lakota descent, and Kendra Root, a citizen of the Muscogee Nation, document several examples of embarrassment, harassment, and exploitation from researchers among Native American communities and bring those experiences into the modern era by offering data analysts and researchers recommendations on how to fill in the data gaps of Indigenous communities. Some of the challenges when it comes to collecting and analyzing data concerning Native people and communities include wholesale data gaps where data are not collected at all about certain issues, lack of centralized data systems and uniform data collection processes, misclassification of race/ethnicity, jurisdictional gaps, limited sample sizes, and mistrust of data collection and government agencies that are the result of previous exploitative research practices. By incorporating Native principles such as respect, reciprocity, relationship, and relevance, researchers can ensure that how they collect and work with data is done in a way that respects the complexity and resilience of Native American communities.

Data and data projects can only be made more equitable if work teams are diverse, reflect a variety of experiences, and trained to work with empathy and equity at the forefront. Ashley Scott visits the challenges underrepresented groups, especially Black women, face in the science, technology, engineering, and math (STEM) fields, both in the educational pipeline and in professional settings. Underfunded schools and negative stereotypes and cultural biases often dissuade Black women from pursuing STEM degrees. Strategies to support and encourage more participation of Black women in STEM include diversifying hiring and leadership opportunities, establishing mentorship pipeline programs, and supporting working parents with childcare benefits. Similarly, Quianta Moore explores how a new generation of mental health practitioners can be trained to conduct their work through an equitable and inclusive lens in order to reduce disparities in mental health and inequities in treatment. Institutions of higher learning should teach the knowledge and skills of how to engage with diverse communities, including ways to incorporate diversity, equity, and inclusion (DEI) in research design, so students are equipped to engage with communities from the start of their projects and to center the voices of people with lived experience throughout the research process.

3 CONCLUSION

This second volume of the *Do No Harm Guide* is still just the beginning. There are many more voices to hear from, more experiences to understand, and more research techniques to put into practice. As with the original report, the lessons described here are not fixed rules researchers should follow, but issues to consider when collecting, analyzing, and communicating data. In doing so, not only will data work be more equitable and inclusive, but also more useful and embraced by the people who are best positioned to use the work in their lives and in their communities.

REFERENCES

- [1] Schwabish, Jonathan, and Alice Feng. "Do no harm guide: Applying equity awareness in data visualization." <https://www.urban.org/research/publication/do-no-harm-guide-applying-equity-awareness-data-visualization> (2021).