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Advocating for Data Access

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Advocating for Data Access

Abstract

Participants in the numeracy movement have long recognized that an understanding of the social construction of quantitative evidence holds a place in the center of critical thinking about quantitative reasoning. Often, social construction manifests itself in choices about what should be counted and how. But an equally important choice is what data should be made available and to whom. As the movement matures, numeracy advocates must take their place alongside librarians in lobbying for broad access to basic data related to public policy.

Keywords

quantitative reasoning, public policy, data access

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Cover Page Footnote

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In our serial column, *Considering What Counts*, Joel Best reminds us that people play a critical role in creating the data we depend on for personal, professional, and public decision-making. In this issue's installment, Best and Johnson (2024) consider an important example: measurement of maternal mortality. As the authors explain, in recent decades the medical community has adopted repeatedly revised the definition of maternal mortality, substantially expanding its scope. While such definitional refinements can serve noble aims (eg, spurring additional life-saving efforts to extend successes of the medical community throughout the 20th century), it is clear that such changes can impede understanding of progress across time.

Sometimes definitions evolve even when survey administrators make no changes at all. Viewers of the Netflix series *The Crown* may recall a massive work slowdown by UK coal miners begun in the fall of 1973. Grawe (2004) describes how this work action threatened the quality of income data collected in the 1974 waves of the Family Expenditure Survey (FES) and the National Child Development Study (NCDS). In summary: frustrated by unevenly applied price controls that left workers exposed to rising costs for rent and food, miners demanded a substantial raise from the government which owned mining operations. Determined to combat inflation with wage and price controls, the government refused the miners' wage demands. So, the workers declined all overtime work which resulted in a 30% reduction in coal production. Despite this reduction in supply, the government was equally committed to price controls on coal. Rather than allowing price increases to curb consumption, the government held prices steady and called for voluntary reductions in energy use. When, not surprisingly, those calls failed to effect the necessary changes in coal use, the government put the country on a three-day work week at the start of 1974. Unfortunately for survey administrators, sensible questionnaire items like "What do you usually receive each time you are paid?" (FES) and "indicate the range in which the members of the household's usual net income falls" (NCDS) became ambiguous overnight. (Thankfully for data users, Grawe's [2004] analysis of responses in- and outside the three-day week regime suggest that nearly all respondents continued providing five-day week figures.)

While such questions of measurement are of critical importance, the focus of this editorial is on another human role in the generation of quantitative evidence: deciding who has access to data after its collection. The *Statistical Abstract of the United States* provides a particularly sharp example affecting not only those living in the US but anyone affected by US policy. According to the US Census Bureau (n.d.), the *Abstract* was published by the US government from 1878 through 2012. Then, as part of the 2012 budget compromise negotiated between President Obama and a Republican Congress, the Census Bureau discontinued the program (Samuelson 2023). As a compendium, the *Abstract* didn't contain data that weren't

available elsewhere, but by collecting summaries of so many public data sources it made that data accessible.

Since 2012, the *Abstract* continues as a subscription-based database published by ProQuest. We should all be grateful that the private market stepped in to fill a hole. But the privatization of the *Abstract* has meant that a go-to source for basic US data related to public and private decision making exists in a two-tiered system. For those in institutions subscribing to the *Abstract*, data is (on the margin) freely available. But for everyone else, the compendium is held behind a paywall that public libraries may or may not choose to unlock. Through expert internet research practices, those without access can reconstruct *Abstract* content at a considerable cost of time. However, as Samuelson (2023) points out, this approach presumes the researcher knows what she is looking for. All too often, the information we need is adjacent to the content we actively pursue. The *Abstract* promotes such serendipity in quantitative reasoning (QR) by summarizing a world of information in one place with links to underlying sources to allow deeper exploration.

As the numeracy movement develops, it should view lobbying for data access as part of its mission (just as the mature discipline of library science has done). The journal's authors have produced a steady stream of research exploring teaching practices surrounding the use of quantitative information—and rightly so because the evidence shows that students need to grow in this important facet of 21st-century critical thinking. But if we overlook our role in ensuring data access, we may find that our effort to make QR skill ubiquitous is undermined by paywalls and other barriers that limit the availability of quantitative information.

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