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Stone, D. (2020). Counting: How We Use Numbers to Decide What Matters. Liveright Publishing Corporation

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Counting: How We Use Numbers to Decide What Matters.
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Over the course of six chapters, a prologue and an epilogue, Stone's *Counting: How We Use Numbers to Decide What Matters* cultivates an accessible and provocative narrative about the life of numbers and the policy intentions and impact of counting. Using a clever play on words, Stone's "count" means both "to tally" and "to matter" (p. V). She argued that we can and must do things differently to avoid reproducing the mistakes that have contributed to and perpetuated inequities across our public systems. Stone shines a spotlight on the mostly harmful ways counting has caused us to not pay attention to what we don't see, and how we have used numbers to decide who is seen and, therefore, who counts. She brought to life historical examples that inform modern statistical efforts where monetary interests continue to feed and starve the counting mechanisms that reproduce stratified societal hierarchies. With tongue-in-cheek humour, she highlighted how we can find a job for any statistic and eventually cautioned the reader that "sometimes the right answer to a question is to challenge it" (p. 138).

Among the counting offenders, she named American political and social system giants such as the Census Bureau's definition of poverty, the calculation of GDP and unemployment statistics, the COMPAS algorithm for predicting a prisoner's likeliness to commit more crimes if on parole, the Department of Human Services' data on various social programs, and even the use of standardized tests to measure teacher performance. She informed us that this book is about highlighting the stories the numbers are trying to tell (p. XIV). She pointed out erroneous factors included and excluded, intentionally and unintentionally, and how economists and social and political scientists use these "and other distorted economic measures because, they say, some measure is better than none" (p. 89). Stone balanced her argument somewhat by telling the story of how numbers can be witnesses to crimes as in Flint, Michigan's water crisis. In this David and Goliath tale, she recreated a timeline of events that demonstrated how "numbers are weapons of the powerful" (p. 97), manipulated by politicians to minimize the impact, in parts per billion, of lead poisoning and how a professor and a pediatrician wielded the "numbers against the strong" (p. 97) to restore safe drinking water to Flint.

"Counting" is grounded in support from numerous peer-reviewed journal and newspaper articles, books, conference reports, and YouTube videos on topics of data, measuring instruments, democracy, mathematics, economics, and social and political science, and this is not an exhaustive list. While Stone did not provide criteria for why or how she chose the literature consulted in the writing of this book, she engaged a format of point and counterpoint to propose a balanced view, although asserting firmly that counting often works against those who are not doing the counting. She demonstrated the power imbalance using empirical and qualitative data to create a body of evidence that pointed to bias inherent in the instruments themselves, reflective of the humans who created them. Stone peeled back the layers of widely used social measures to demonstrate that "predictive algorithms suction up all that government power, call it data, and bottle it in mathematical formulas" (p. 114) and that it is in the human creation of the algorithm that human decisions create bias, and that bias reproduces itself in the algorithm's output. The child welfare system, Stone writes, "transforms official decisions made by government employees into risk traits of people the system has already swept up" (p. 120). Surveys, too, Stone told us, can have similar harmful effects if the questions are structured to plant an idea in the reader's mind. Delivering a clear and methodical caution to how we use our numbers, Stone offered guidance to policymakers in

how they should ask their questions and how to break away from the way we have counted in the past to not "perpetuate derogatory images of blacks that white Americans and Europeans have used to justify slavery and discrimination for centuries" (p.149). Here, she provided examples of how to tell a brief story before asking the question to put the reader in the mindset of the victim and she is unequivocal and consistent in her pursuit to build better research methods. In her *Causal Stories and the Formation of Policy Agendas*, Stone argued that problems become policy when a problem is perceived and that "Causal theories are also used as an instrument of social control to maintain existing patterns of dominance" (p. 296). If poor measuring tools, surveys, and algorithms lead to policies that reproduce systemic racism and oppression against traditionally marginalized groups, Stone challenged us to build better measuring instruments. She tackled the Covid pandemic, too, addressing how policy makers balance one harm (the Coronavirus) against another (economic impact of lockdown) stating that ethically, we are responsible for saving the most people versus deciding who is more worth saving, with policy and leadership strategies focused on "taking action to prevent a situation from getting so desperate" (p. 236).

There are a couple of cautions I would propose, though, related to *Counting*. First, in her discussion of competing human rights, Stone addressed the fight of a gay couple to have the Christian baker bake their wedding cake, although the baker refused on the grounds it was against his religious beliefs. Stone relied on the judges to uphold the law of the land and the will of the people, alluding to a fair, impartial, and just court. She argued that we must leave this in their hands and "expect no less of number crunchers" (p. 181). In this example, it is peculiar that Stone does not address the bias inherent in the selection of Supreme Court justices both in Canada and the US where political views inform their decisions and have significant impact on who counts. Holding number crunchers to the same standard as politically inclined Justices in 2021 is not how we will improve counting.

Also, in outlining such a strong position against using numbers, there is risk that all numbers might be cast in this light and set aside. In management studies, organizations engage in data analysis to make predictions and chart a path forward. Most commonly, tools such as regression and line of best fit tell us how clustered our data is and where the greatest benefit arises relative to the cost. In education, though, we are called to create meaningful policies to engage outliers, the underserved and underperforming that are not in the majority. This is one of the best tools at our disposal to gather the voice of those whose voice often remains unheard. Recently, the number 215 became synonymous with tragedy and horror when the bodies of 215 Indigenous children were found buried in a mass grave in Tk'emlúps te Secwépemc First Nations on the grounds of a former residential school near Kamloops, British Columbia. The stories of missing and murdered Indigenous friends and family had been told for decades from those who survived the residential school's system but not until the numbers were captured did the stories find a footing in the Canadian psyche. While there are clear dangers in exclusively emphasizing the power of numbers, who counts and how we count them can also cause those who have been overlooked to finally be seen.

References

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