

# Introduction: Measuring Matters

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## 1. Historicizing Inequality Knowledge

In September 2011, protesters occupied a park in New York's financial district. The Occupy Wall Street movement, spreading over many cities and several countries over that winter, made inequality its banner and did much to bring the issue to the foreground of public debate. Through a sophisticated combination of age-old protest tactics and social media use, Occupy denounced the injustice of the accumulation of riches and power by a small and unaccountable elite. In that sense, the object of the protests was not novel, but the way it was framed—the 99 versus the 1 percent—was (Gould-Wartofsky 2015; Ramos Pinto 2019).

This highly successful slogan is derived from an abstract form of quantification of the distribution of incomes, produced by professional economists and statisticians through techniques that are opaque to nonexperts.

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As Daniel Hirschman has shown, the production of this kind of stylized fact—the accumulation of capital in the hands of a small segment of the population—requires the development of measurement conventions, data series, and analytical techniques that result from the combination of, at the very least, the political will to measure them; the capacity of official bodies to assemble the data; and the interest of experts in analyzing it, even before they join the legion of facts and narratives that compete for public attention at any one time (Hirschman 2014). In recent years, quantification practices and their political and social implications have come under increased public scrutiny, including criticisms of GDP, “happiness” indices, the ethical and social implications of big data or the rise of the quantified self (Davies 2015; Neff and Nafus 2016; Pilling 2018). Quantification has also become the subject of a growing number of historical studies, which cumulatively reveal the increasingly dominant role of numbers in society’s knowledge of itself since the middle of the eighteenth century (Porter 1986, 1995; Poovey 1998; Desrosières 2002; Prévost and Beaud 2015). The expansion of practices of quantification produced what Hacking called an “avalanche of numbers,” which were used to construct a vision of the economy and the population (Hacking 1990: 45). The growth of social and economic knowledge was also accompanied by attempts to chart the deprivation produced by the business cycle (Bulmer, Bales, and Sklar 1991). Alice O’Connor (2002) calls this “poverty knowledge”: techniques to identify, enumerate, and explain deprivation deployed by states, philanthropists, and social activists that produce visions of poverty and its causes, and guide interventions into the social sphere. The quantification of social knowledge spread throughout empires, producing “colonial poverty knowledge,” which influenced metropolitan practices and, later, global visions of welfare and poverty (Horne 2002; Speich Chassé 2011; Tilley 2011; Kalpagam 2014; Cooper 2015; Davie 2015). “Poverty knowledge” can be, and has been, used to make arguments about inequality. But it is not always knowledge about inequality if it focuses primarily on questions of absolute, rather than relative deprivation. One of the questions that underpin the approach taken by the articles in this special issue is to ask why “inequality knowledge” has a more scattered history than knowledge about poverty, and at the same time why and how inequality surfaces as an object of interest and measure at particular times.

Human societies have long struggled over questions and rules of distribution of resources, status, and opportunities, but, historically, the question of social justice has been more often put in terms of the injustice of

poverty than of inequities of distribution. From the eighteenth century onward, ideas of justice were coupled with the aim of a more equal distribution of resources in a systematic and sustained way. This resulted from the convergence of several secular changes: the development of the idea of a community of citizens endowed with equal political rights, the emergence of ideas of accumulation and growth that would make equalization feasible, and the rise of institutions with the plausible capacity to enact and enforce such redistributive measures—such as the modern nation-state and a commercial society (Stedman Jones 2004; Jackson 2005; Hunt 2007; Stuurman 2017). Quantification and calculation were central to enlightenment-era debates about inequality and how to address it. The Marquis de Condorcet's pioneering attempts to design a social insurance scheme relied on the growing production of vital and fiscal statistics (Stedman Jones 2004: 28–29). It could also be argued that statistical ways of seeing the world were themselves part of the shift of perspective that made the ideal of redistribution plausible. Attempts to map the wealth of the nation as an interrelated economic system (such as the work of William Petty or François Quesnay) is an exercise of a substantively different nature than the older practice of simply counting the poor or identifying the wealthy for the purposes of taxation. It presupposes a relationship between those included in the universe of measurement and the assumption that, at some level, they are equally worthy of being counted (Espeland and Stevens 1998: 317). This makes more plausible the argument that their claim on resources is not independent of the entitlements of others and opens the space for claims of redistribution.

Despite the close connection between measurement and inequality in the age of enlightenment, for most of the following two hundred years, direct measurement of distribution was a rarity. In part this was due to the way the discipline of economics turned its attention to other issues at critical points—such as price formation or aggregate growth—that made distribution a secondary concern (Sandmo 2015; Alacevich and Soci 2017; Cook 2019; Lepenies 2019). In a world where evidence increasingly meant a quantified “fact,” the relative absence of quantified “inequality knowledge” influenced debates about distribution. Conversely, the production of such knowledge facilitates debates around inequality, whether it is in the form of a comparison of national Gini indices to highlight the gap between the Global North and South, in the mandatory publication of gender pay gap figures by public and private institutions, or expressed in the editorial success of Thomas Piketty's *Capital in the Twenty-First Century* (2014).

Yet this also leads us to ask why inequality fades in and out of focus as a subject of measurement. The history of economic thought, as mentioned above, is one place to look. But it cannot be the only one, especially if we see economic ideas as being themselves part of wider visions and debates about the world. Looking at the last hundred years, it is clear that the measurement of inequality has not been a purely technical issue divorced from the political and social contexts. Discussions on how to define and measure inequality reveal not only innovation in, and disagreement over, techniques, but also reflect contemporary socio-political concerns. At the end of the nineteenth century, Vilfredo Pareto's law of incomes—in effect proposing the existence of a “natural” curve of distribution—and the ensuing debate around it took place against the background of the vehement critique of liberal capitalism expressed by a strengthening labor movement (Alacevich and Soci 2017; and also Giacomo Gabbuti, in this issue). Simon Kuznets's influential hypothesis—that income inequality rises as societies enter a process of economic transformation but recede once productivity differences between sectors ease—gained traction during the heyday of modernization theory (Speich Chassé 2011; Macekura 2017). The questioning of the post Second World War economic model provides the key to understanding Anthony B. Atkinson's pioneering efforts to bring inequality to the attention of the economics profession in the 1970s, as James Tomlinson argues in this issue. Maria Bach and Mary Morgan, also in this issue, show how growing criticism of the failure of modernization-led development contributed to a search for new forms of measuring international disparity. The emergence of the concept of “global inequality” since the turn of the millennium is clearly related to an increasing concern with the phenomenon of globalization (Milanovic 2016). Finally, the wave of public interest that propelled Piketty to international fame cannot be explained solely by the elegance of his graphs or the soundness of his data, and can be seen in the light of a revival of conflicts over distribution in Western polities feeling the aftershocks of a global economic crisis and the political economy of austerity (McCall 2013: 89; Ramos Pinto 2019).

Looking at these moments leads us to ask how inequality has come to be defined through its measurement, which techniques were used and why, and what aspects of the human experience of inequality have been de-emphasized as a consequence. How have inequality measures influenced debates about justice, and conversely, how have such debates influenced the development of new measures? How have measures been implicated in the trajectory of inequality in and out of political attention? What

kind of inequality-directed (or inequality-creating) politics and policies are made possible by different modes of measurement of distribution? This special issue brings together contributions from historians, economists, sociologists, anthropologists, and historians of science to address these questions. Taken together, they show us not only the potential of a historical approach to the issue of inequality measurement, but also how much scope there is to investigate further and how many questions still need addressing. Our contributors come from diverse fields, and cover a range of periods and geographies. But they are brought together by a common set of questions and in relation to the broader field that has developed in the last twenty years—the social science of measurement. In the following sections this introduction will map out this field and show how it relates to the aim of writing a history of inequality measurement, connecting the contributions in this special issue to broader debates, and identifying avenues for future enquiries.

## 2. How Does Measurement Matter?

In recent years there has been a tendency toward the consolidation of several traditions of enquiry into the broad field of the sociology of measurement (Mennicken and Espeland 2019; Diaz-Bone and Didier 2016; Ber- man and Hirschman 2018). This resulted from the confluence of several scholarly streams, including the tradition of critical analysis of public statistics in France, spearheaded by Alain Desrosières's work on statistics as a tool of governance, and the "economics of conventions approach" (Desrosières 2011; Diaz-Bone 2016); the Bielefeld network of North American and German scholars in the history and philosophy of science with parallel concerns on processes of quantification and its impact on social life (Porter 1986; Krüger, Daston, and Heidelberger 1987; Hacking 1990); as well as a broader collection of US-based sociologists in the tradition of symbolic interactionism. Equally significant was the influence of Michel Foucault's writings on the British critical accounting school and governmentality studies (Miller and Rose 1990; Rose 1991), and finally a wider range of historians and historical sociologists working on social knowledge as a tool of power and politics (for example, Rueschemeyer and Skocpol 1996; Tooze 2001; Szreter, Sholkamy, and Dharmalingam 2004; Crook and O'Hara 2012).

What unites these strands is an attention to how the form of measurement depends on the interaction of normative, political, and technological

factors, which shape what is measured, how it is measured, and how such measures are implicated in interventions that shape the world (and are in turn, shaped by it). Knowledge and action are, in the terms of one of the branches of this field of study, co-constructed (Jasanoff 2004). Turning our gaze to such processes means opening up the black box of quantification and measurement to scrutinize actors, tools, and networks, but also ideologies, cultures, and institutions crisscrossed by relations of power, all of which are located in particular places and times and subject to the sedimentation of historical legacies.

Naturally, there is a great deal of diversity in these approaches. Yet despite different routes into the problem, the investigations in this issue reveal preoccupations connected with those of the field of the sociology of measurement. Areas of overlap and commonality include interests in: (a) the mode of production of quantified knowledge; (b) the dialectics of visibility and invisibility generated by choices of categories, measurements, indices and indicators; and (c) the retroactivity of measures, or how they come to shape the world and social action. Addressing these themes, the articles that follow point to important new ways to think about the how measurement defines inequality (or better inequalities) as an issue of salience and how it shapes conflicts over distribution.

### The Production of Inequality Measures

One of the focuses of the sociology of measurement has been to deconstruct the claims of an unmediated or “natural” relationship between reality and its measure. In short, the object of measurement is not a given, it requires careful selection and construction, particularly when it regards social phenomena such as the distribution of income, resources, or other characteristics. Synthesizing approaches in the field, Richard Rottenburg and Sally Engle Merry (2015: 12–15) identify three steps to the making of “useful data”: (1) establishing equivalence between the objects of comparison; (2) developing a system for classification of the objects to be measured, and finally; (3) the process of assigning observations (coding) to these categories. Each of these steps implies forms of expertise, deployment of technologies, and acts of judgement and interpretation. These are far from the “mechanical objectivity” sometimes claimed for quantitative data, and cannot be abstracted from their social and political contexts (Porter 1995: 4–8).

The first step requires making the objects of measurement comparable, what Espeland and Stevens (1998) term “commensuration,” and Des-

rosières the creation of an “equivalence space,” that allows diverse objects to be linked by a single characteristic (Diaz-Bone 2016). In an example at the start of this introduction we highlighted one such process: the development of humanity as a common denominator in the eighteenth century allowed creating a picture of distribution across all, or rather, most of society. This was not a given; during the French Revolution, as in many other times, the commensurability of humankind was contested and fiercely fought over: whether women, servants, colonial subjects, ethnic, and religious minorities should be included in the category of citizens, and therefore earned the right to be counted, was a fraught question (Singham 1994). Comparisons of inequality across nations were rare until the early twentieth century—Pareto’s work discussed by Gabbuti here being an early example—and imperial centers and colonies were long considered incommensurable, and the very act of comparing them was a radical political intervention, as Eleanor Newbigin’s analysis of K. T. Shah and K. J. Khambata’s *Wealth and the Taxable Capacity of India* in this issue shows. Daniel Speich Chassé (2011) argues that it was the combination of the universalist ethos of the early postwar period, the postcolonial moment, and the technocratic conviction that modernization would allow the “Third World” to close the gap that made the idea of international comparisons of GDP plausible. Yet, true to the spirit of internationalism, the unit of comparison continued to be the nation-state, at least until recently. Reflecting the belief that globalization has erased borders, the measurement of global inequality (understood as the distribution of incomes among all humans, regardless of where in the world they are counted) has become an established practice (Milanovic 2016). Paradoxically, this exercise in the globalization of measurement is nevertheless based on a fundamental methodological nationalism, since it relies on measures produced by national statistical agencies with varying underlying capacities and methodologies (Speich Chassé 2016).

But in terms of inequality, commensurability is not solely a question of *who* is to be counted, but also of *what* is to be counted—which quantities relating to the object or case are going to be put in evidence. In one sense this points us to Sen’s question, “equality of what?” and the plurality of dimensions where measurements may seek to (and have sought to) describe distribution, “incomes, wealths, utilities, resources, liberties, rights, quality of life,” to name but a few (Sen 1992: 20). While incomes have come to dominate the yardstick of (in)equality, at several times measures that seek to establish a different evaluative space have emerged, as is the case with the social indicators movement, which initiated five decades

of attempts to quantify and compare “levels of life” and “well-being” (Land and Michalos 2018). In this issue, Bach and Morgan use the case of the United Nations Development Program’s (UNDP) changing choices of measures of development to illustrate this point. They show how the UNDP’s championing of the Human Development Index from 1990 was driven by the desire to broaden the terms of comparison, until then dominated by aggregate measures of national productivity, and include dimensions of well-being such as access to health and education. Yet, the UNDP and other development agencies have also increasingly focused their measurement efforts on issues of poverty through instruments such as the Human Poverty Index or the Multidimensional Poverty Index. While these provide much wider and more fine-grained representations of poverty, they leave questions of distribution in the background, perhaps reflecting what Samuel Moyn (2018) has called the prioritization of “sufficiency” over “equality” since the 1980s.

The question of *what* is to be counted also points to the process through which the object of measurement is constructed. The deceptively simple question of income, not to speak of more complex dimensions of welfare such as health or education, is fraught with problems of quantification and commensurability. The very category of “income” is a construct that encompasses different ways in which money may accrue to an individual or household: via earnings from work or from capital, or as cash transfers from the state in the form of welfare payments, or as remittances from relatives abroad. Yet the problems of categorization here pale into insignificance in relation to the construction of commensurability across wider spaces and contexts. Morgan (2011) shows us how the pioneers of national income accounting struggled to transpose the categories and conventions of their method to Africa where much production that was not oriented to the market, but took place in nonmonetized environments, such as the home or community. The assumption that the household was a self-contained productive unit also collapsed in the face of polygamous, multinuclear, or extended family arrangements that supported extensive sharing and noncash exchanges. Given the difficulty of using money as a measure, food consumption has often been used as a proxy for measuring welfare, yet one that is riddled with problems of measure and interpretation as Poornima Paidipaty shows in this issue with regard to attempts to estimate inequality in 1950s India by comparing levels of consumption of “fine grains.” A few years earlier, in the late 1940s, French colonial field missions would spend up to a week with a

sample rural family, weighing up their meals as a way of estimating average calorie consumption—a strange sight, and one that raises the question of whether such distinguished visitors were offered a “typical” meal (Bonnecase 2018: 477–78). Cultural distance, power differentials, and mistrust between those who make the measurement and those who are the object of measurement compound these problems.

Addressing such difficulties requires acts of imagination, adaptation, and reinvention of concepts and categories, instruments and measures: officials attempting to survey plot sizes in 1950s Gold Coast for the purposes of estimating productivity tried to circumvent the suspicion of farmers by abandoning measuring instruments and pacing borders instead (Serra 2014: 13). A not dissimilar problem haunts attempts to measure distribution of incomes in today’s rich nations where the difficulties of statistically sampling small numbers, under-reporting of income in surveys, and significant tax avoidance and evasion complicate the task of estimating the incomes of the highest earners (Piketty, Saez, and Zucman 2018). Equally, the task of estimating global distributions of income and poverty lines is a complex and contentious one, as debates over the reliability of the World Bank’s purchasing power parity indices show (Reddy and Lahoti 2016; Edward and Sumner 2018).

Finally, the available technologies and logistics of measurement also have an influence on how inequality knowledge is produced. At one end of the process, this means the process of observation that produces the datum: how is it recorded, stored, collated, and transmitted. Above we have already mentioned the very physical and material work of surveyors and enumerators—walking, weighing, but also sorting, compiling, and other actions that require the engagement of tools and spaces. Didier’s study of the production of statistics in New Deal-era United States highlights this materiality: officials in the agricultural statistics division invented a system for stacking paper forms (the “shingling”) that with the aid of a metal ruler (the “peg strip”) made it possible to add up figures and create averages without the need to copy responses. By speeding up the calculation of averages, these techniques allowed the data on average district outputs to be compared as a matter of course (Didier 2007: 290–92). Computers, digitization, and IT systems have dramatically changed the way in which statistical information is collected, collated, and calculated—but it also has its own materiality, from the infrastructure of chips, servers, and cables that underpins it, to the nature of the interface with the enumerator and the statistician—not to mention the way in which it has

made it possible for nonexperts to access data series and perform their own calculations at the touch of a button.

As a consequence, the coordination of often vast programs of measurement require an extensive commitment of resources and infrastructures which until recently were most readily available to nation-states, and even not to every state, and not at every point in time. Training, recruiting, and maintaining a corps of officials dedicated to the production of quantified knowledge is costly, and this influences what is measured and how. In the 1930s, US New Deal bureaucrats used unemployed white-collar workers as enumerators for surveying unemployment, as they were less expensive than fully trained officials. As a result, questionnaires had to be tailored to enumerators of “middling ignorance” (Didier 2009: 243). At around the same time, the London School of Economics commissioned a survey of London’s working-class households using surveyors paid per card completed. Abernethy’s analysis of the survey files shows that one surveyor reached levels of productivity well beyond his peers, having personally produced almost a fifth of all responses—which he seems to have done by rushing through questions and completing entries with his own personal estimates at a later point. This has noticeable effects on the estimation of wages and the incidence of poverty that largely escaped studies that relied on the results of the survey (Abernethy 2013).

Clearly, at one end of the spectrum—as in the London survey or stretched colonial administrations—the conditions in which data is produced creates what Jerven has termed “poor numbers” (Jerven 2013). We should not dismiss the ubiquity of such numbers and how often their quality goes unquestioned, especially once removed from their site of production, aggregated with other data, and presented with the stamp of approval of a powerful international organization or state (Porter 1995: 90). But even when measures are “sound,” the difficulties of interpretation of indicators of inequality is brought home with clarity by several of the papers in this issue. As Paidipaty shows, P. C. Mahalanobis argued that the level of consumption of “fine grains” by households in postindependence India was an indicator of welfare and levels of inequality. However, if wealthier households diversified their diet by replacing cereals with meat, the level of inequality would be artificially lowered, challenging the utility of fine grains as an indicator. Moisés Kopper’s essay on attempts to define a middle class in modern Brazil through the lens of statistics reveals the ambiguities of interpretation. The choice of techniques, proxies, classifications, and approaches, as well as technologies and logistics, influences what is measured and how it is measured.

### Dialectics of Visibility and Invisibility

Historically, inequality itself comes in and out of focus as an object of measurement, most often replaced by a focus on poverty. These shifts in attitudes and priorities map closely onto political sensibilities and changing historical circumstances (Desrosières 2010: 42–47). They also draw our attention to the ways in which social metrics help to make certain social phenomena visible, while hiding or displacing others. As Wendy Espeland (2015: 61) explains, measurement is a “technology of simplification,” which uses enumeration to turn concrete and diverse lived realities into commensurable, narrowly defined abstractions. This process strips narrative density and context from the phenomena being described, and as such, numbers can hide as much as they reveal.

This dual dynamic, between revealing and concealing, is an operative tension throughout the essays in this collection. Tomlinson explains in his essay that though the economist Anthony B. Atkinson did not set out to work on inequality, his research in the late 1960s, framed around the figures of the “elderly” and the male “full-time worker” (abstractions in their own right), helped thin the field of inquiry in ways that would eventually make unequal distribution of income and the disproportionate gains of the top-end of the economic spectrum visible (both in technical and policy terms). In sharp contrast, O’Connor’s essay examines the visibility of the 1 percent in our current discourses about inequality, and argues that while the slogan is powerful, it draws attention away from the deeper structural inequalities wrought by four decades of neoliberal economic policies.

In abstracting, much of the density and particularity of human experience gets lost. Theodore Porter calls this the “thin description” of quantified data. In contrast to Clifford Geertz’s (1973) thick description that attempts to retain a wealth of deeply contextualized information about a cultural event or artifact, the “thin description” of numbers deliberately strips away the complexity of embedded social facts, in order to commensurate, transport, and analyze large-scale phenomena. Clear examples of the thinning of description exist all across the scholarly literature examining “inequality knowledge.” These include the calculation of universal caloric requirements (Bonnecase 2018); or the standardization of the “household” as a unit of measurement in Ghana, in ways that overlook the structure of polygamous families and rural/urban remittances (Serra 2014); or the sidestepping of the messy and contentious politics of caste in India’s postcolonial census (Desai 2010); the processes of selecting, standardizing, and deploying social metrics obscures the particularities of social life: of

meals eaten with friends, branching kinship networks, and the deprivations of social caste, and class. In the process, we lose not only rich detail, but also intersectional evidence, what helps explain links between more narrow measures (income or wealth, for instance) and other areas of social exclusions, including class, race, gender, sexuality, caste, and ethnicity (McCall 2002).

And yet, simplification must be seen as a virtue of effective measurement schemes, and not simply as a problem or a deficit. “Thin descriptions” are powerful and portable in a way that “thick descriptions” are not. The success of many instruments for gauging inequality and poverty, such as the \$2-a-day global poverty line or using the Gini coefficient to rank order nations according to levels of income inequality, are easy to understand and allow ready comparisons. In order for measurements to travel and to facilitate the development and articulation of large-scale policy targets, thin descriptions are crucial. Such descriptions, while they disrupt existing narratives, help forge new ones that can have profound range and political purchase.

In recognizing this process, it is also important to think about and explicitly address issues of power. Whose measures, abstractions, and numbers matter? Which forms of authority undergird the choices made by scholars, technocrats, and politicians, as they come to focus on some aspects of inequality and not others? A closer examination of the creation of measures exposes not only power dynamics but also layers of disagreements and contestations, even among experts. As Rob Konkel’s (2014) work on the monetization of poverty or Morten Jerven’s (2014) on the political economy of agricultural statistics show, producing a consensus in any project of measurement is a fraught and complicated balancing act, which negotiates conflicting priorities and points of view among bankers, development specialists, agricultural engineers, peasant cultivators, and many more.

But counterpowers or subaltern actors can also make use of numbers to intervene in the politics of distribution—what has been called “statactivism,” or mobilizations that use numbers as a key part of their political arsenal (Bruno, Didier, and Prévieux 2015). The quantification of claim-making is a process that deserves attention: as James Tomlinson notes, even by the middle of the twentieth century, leading British progressives such as R. H. Tawney argued against the quantification of arguments about social justice. And even earlier, measures of distribution were being used by campaigners and reformers to make political arguments, not least in K. T. Shah’s estimates of Indian inequalities. Other movements, such as Occupy,

have drawn on numbers produced by the state or academics, repurposing them to their objectives. However, in order for “insurgent” forms of measurement to gain a hearing they need to be backed by social power and not merely quantitative accuracy. While numbers may be “right” in the sense of conforming to scientific parameters of quality, they will not obtain purchase unless animated by a source of political power—a movement, state, or other powerful actor. Małgorzata Mazurek has recently uncovered the pioneering work of Ludwik Landau, a Polish statistician who produced what was perhaps the first estimation of international inequalities using “uniform world prices.” Despite his links to transnational networks of statisticians, as a Jewish Marxist working in 1930s Poland, Landau was isolated. By the time his work was published in Poland in 1939, the clouds of war were closing in. (Landau was murdered a few years later, and his efforts were mostly forgotten [Mazurek 2019].)

If power matters in making data count, narratives that make sense of numbers catalyze that power. Rainer Diaz-Bone suggests that we pay attention to the “semantic content” of measurement conventions or the extent to which they invoke or embody normative ideas. If this content matches or reflects dominant ideas, such measures are more likely to gain acceptance (Diaz-Bone 2016: 55–56). At face value, inequality is a descriptive statistic with little “semantic content.” It is a noun, not a verb, and carries little information as to what or who is “doing” inequality. Hence the same patterns of inequality can appear as “natural,” (compare with Pareto’s law of incomes, discussed by Giacomo Gabbuti in this issue), immoral, or even desirable, according to how they are framed. Semantic content can also be embedded into the making of measurement itself in the process of commensuration and categorization. A measure that implicitly undervalues “reproductive” work or adopts a culturally located standard (as do IQ measures used to assess the distribution of cognitive assets), will have the effect of reinforcing existing prejudices—and may well be better accepted for it (Carson 2006).

### Reactivity, Subjects, and the Politics of Inequality

The final effect of measurement we want to highlight in this introduction is its capacity for changing the object it focuses on. If ideas, social contexts, and political struggle influence the production of quantitative knowledge, once data is created it has the potential to generate multiple effects (Desrosières 2015). In some senses, that is the aim of measurement: to highlight

an object of intervention or quantify a target to be met, to measure progress (Rottenburg and Merry 2015). By directing attention and action, channeling resources, and creating incentives, measures can have multiple effects. Measures of inequality can be part of regimes of accountability where numbers are used to monitor the behavior of individuals, institutions, and states that, either through compliance or compulsion, are disciplined to work toward “improving” their numbers (Power 1997; Espeland and Sauder 2007; Morgan and Bach 2018).

In many instances, we see in the drive to measure the aim to make inequality count—to widen the information space to take into account the differential fate of women, or of ethnic minorities, for example. In such instances, inequality measures are political instruments with great political potential. The nationalist economists studied by Newbiggin clearly sought to provide fuel to anticolonial arguments by bringing to light, in quantified terms, the extent to which British rule had impoverished India. Similarly, while the diffusion of national income accounting in the era of decolonization elided inequalities within countries, it also made clear the disparities between the “Third World” and the rest, and provide ammunition for movements clamoring for an “New International Economic Order” (Speech Chassé 2011; Gilman 2015). However, the way in which data is calculated and presented matters: economists and statisticians have long discussed the problems that may arise from the use of summary measures or indices that will invite action that influences the index number, but not necessarily the underlying problem. Given its sensitivity to changes in the middle of the distribution, the Gini index may encourage governments to prioritize the “richest” of the poor, since this will have a more visible effect on the index than transfers to the poorest (Atkinson 1970). Similarly, in their contributions to this issue, O’Connor and Tomlinson suggest the focus on the wealth of the 1 percent reinforces calls for the taxation of high incomes, attacking the symptom, but not the cause.

Yet numbers also have the potential to change perceptions of their object, even at times its self-perception. We have already mentioned the importance of the “right to be counted” which can form the basis of claims to rights and redistribution (Breckenridge and Szreter 2012). But we can also point to instances where the charting of inequality can itself contribute to creating new subjects, or in Ian Hacking’s term, “making up people” (1986: 161). The creation of income or wealth categories can develop its own reality, be it through the process of “othering” through

classification of a minority, or by providing a common basis for the development of new subjectivities. The drive to classify, count, and rank different categories of workers has contributed to shaping class identities differently in different parts of the world (Boltanski 1987; Szreter 1993). Kopper's analysis in this issue of the role of statistics in the making of a new middle class in Brazil at the turn of the millennium speaks to the same process, while Daniel Zamora Vargas points to the construction of the poor as a distinct social category in mid-1960s Europe, a process of "othering" which entailed categorizing and measuring poverty abstracted from the domains of work and broader society.

### 3. Toward a History of Inequality Measurement

The articles in this issue, while addressing different social, historical, and disciplinary locations, are tied by a common set of questions. They examine the effect of particular social contexts and contests on the making of inequality measurements. They explore the normative and political consequences of historical choices when it comes to framing, quantifying, and disseminating "inequality knowledge." They bring our attention to the social processes that help identify areas of disparity and injustice, and that—through poverty lines, budget surveys, Gini coefficients, Lorenz curves, fractile graphs, income data, and more—make social classes, consumer aspirations, basic needs, and economic injustice visible to experts as well as the general public. In addressing these topics, the collection also inaugurates a wider set of questions for ongoing research and scholarly conversation. The work here begins to examine, and invites others to investigate, the shifting lines between the public and private generation of data, our affective and emotional attachments to numbers, the relationship between economic deprivation and other forms of social and political inequalities, and the creation of insurgent metrics, in protest or opposition to dominant narratives.

Many recent histories of measuring inequality, like social statistics more broadly, have centered on the activities of state institutions and government bureaucracies. However, as data generation and analysis become more dispersed due to the availability of new tracking technologies and statistical tools, state actors are joined by a wide array of private corporations that measure countless aspects of human activity, from the number of steps we take daily to our consumption patterns and internet browsing. These rapid

transformations prompt us to consider more closely the changes and tensions between the private and public generation of numbers. Such fault lines and tensions are not new: the social survey movement of the late nineteenth and early twentieth century was rooted in the activities and activism of private industry, philanthropy, charity, religious communities, and social services of various kinds. As such efforts expanded and were incorporated into government bureaucracies, the nature and significance of the gathered data changed. More historical investigations of this relationship, between private and public collection of data, and the shifting, contested borders between the two would shed new light on contemporary debates about metrics, privacy, and accountability.

As our reliance on Big Data grows, many scholars remind us that “more data” is not automatically better at illuminating inequalities. As statistician Cathy O’Neil (2016) explains, algorithmic governance can reinforce preexisting inequalities in areas such as policing, lending, risk analysis, and employment promotion, even when the underlying data contains no explicit information about race, class, or gender. Such technologies, many of which are protected by intellectual property and patent laws, remain incredibly opaque and hard to contest. These developments remind us to pay more attention to issues of power, to see whose priorities and choices are privileged when developing systems of quantification, measurement, and communication. Our examinations of the metrics of inequality, therefore, need to be broader, looking not only at material deprivation but also at ongoing forms of social segregation and discrimination, in terms of race, class, gender, caste, and sexuality. These social factors certainly overlap with the economics of inequality (as we see with gender or class pay gaps) but can take distinct forms of exclusion, separate from income or wealth. How have social inequalities been framed and measured over time? Historical examination of earlier efforts can shed light not only on prior contexts but more generally on how connections between social and economic inequalities operate and can be made visible.

Attentiveness to the overlaps between social and economic disparities requires approaches to knowledge production that are both more global and more local in focus. Much of the scholarship has until now focused on Western academic debates, international organizations, and the rise of modern welfare systems in Western Europe and North America. Yet, throughout the nineteenth and twentieth centuries, the politics of (and purported remedies for) poverty and disparity were also driven by criticisms

of colonial rule, slavery, and indenture, and global economic monopolies. These, in turn, were framed by social and political movements against imperialism, apartheid, gender and labor exploitation, and dictatorship in different parts of the world. The rise of dependency theory and demands for the creation of a New International Economic Order in the 1970s, for instance, speaks to a multiplicity of different agendas, for framing and thinking and about the global causes and solutions to poverty and exclusion. Such efforts deserve far more scholarly and historical attention.

Paying greater attention to social movements and activist efforts in the production of knowledge and measurements helps us see the emotive and affective capacities of numbers. The slogan of the 99 percent against the 1 percent was not just a statistical discovery. It was also an emblem of solidarity and democratic inclusion. Numbers can also carry deep emotional and political attachments. The simplicity of the \$1-a-day and \$2-a-day global poverty lines underscores the meagerness of these amounts, and promises that the solutions to poverty are within reach. Our attachment to particular numbers (as thresholds, indicators, and slogans) points to narratives and the emotions we invest in them. This is also true of graphical representations, which have become emblematic of different policy perspectives on economic inequality (Savage 2018). Whether it is the optimistic story of growth and eventual equality we see in the Kuznets curve, the pessimistic “U” curves in Thomas Piketty’s (2014) story of the concentration of wealth, or Branko Milanovic’s (2016) “elephant curve” (which tells a nuanced story about the winners and losers of economic globalization), visuals are stories about our past, present, and future. Their impact depends, in part, on the simple linearity of both the narrative and its representation.

Finally, if the efficacy of measurements depends on the meanings we attach to numbers, such numbers have also historically been subject to complex forms of contestation. Whether it is anticolonial nationalists in India, attempting to estimate per capita incomes in order to expose the effects of British colonial rule, or union workers estimating price rises to negotiate cost of living allowances, numbers can be produced from below as well as from above. The histories of such “insurgent” or counter-measurements largely remain untold, but in the context of inequality metrics, such attention is crucial for understanding how inequality discourses are shaped, not only by experts, but from numerous vantage points, including those who are excluded from mainstream policy forums.

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