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Development's Data Problem

What we measure affects what we do; and if our measurements are flawed, decisions may be distorted ... [I]f our metrics of performance are flawed, so too may be the inferences that we draw.

The Stiglitz–Sen–Fitoussi Report (2009)¹

This chapter summarizes several decades of shifts in development thinking and the associated indicators, from GDP to UN development goals. Those indicators have great power – including the power to embed massive biases in development policy and in the progress made.

Everyone knows that development has a data problem. However, different people understand that statement to mean quite different things. For some, ‘development’ is the study of poor countries, and the data problem is that those countries aren’t good enough at generating the data needed to study them. For others, ‘development’ is the process by which poor countries and poor people stop being so poor, and the data problem is about having the information to improve that process.

But these ideas of development are themselves problematic: the notion that some countries (or people) have developed, or are developed; while others are developing, or yet to develop. Increasingly, we think of ‘development’ as shorthand for the whole subject of how human beings live on this planet, the ways in which we as a species organize ourselves from the local to the global, to provide the greatest opportunities for each person in current and future generations to live a good life.

A good life might be considered as one in which people have a degree of power in various spheres: the personal (in which empowerment implies that people enjoy a level of health, education and mental well-being, along with decent work and leisure conditions); the economic (a broadly secure level of income, and freedom from extreme inequality); the political (political freedom and political security, i.e. freedom from political violence or instability); and the social

(community well-being, social relations and environmental conditions including environmental security, i.e. freedom from environmental fluctuations).² On this view, poverty is a lack of power – and so is fundamentally political, rather than (say) strictly financial, and necessarily complex and multifaceted.

The data problem for development, understood in these terms, is grave. Typically, we lack sufficient data in countries at all levels of per capita income to ensure that these aspects of a decent life are met. Moreover, the weaknesses of data are not consistent but discriminatory. The data to determine political representation (‘who decides’) and to inform policy prioritization (‘what people get’) tends, as we will see, to exclude further precisely the people and groups who are already marginalized. Development’s data problem reflects a mixture of genuine absences of quantification, deliberate manipulation and bias – in both the collection and the use of data. Those weaknesses, together, are consistently disempowering of marginalized people and groups – effectively deepening their experiences of poverty and inequalities.

Counting is crucial to understanding development. But if we seek to understand development only by what is *already* counted, we lock in the underlying inequalities. This is to make the same mistake as the drunk who searches for their keys under the lamppost despite having dropped them at the dark end of the street, simply because it is the only place they can see. The emergence and maintenance of effective states, and their capacity to promote and support human progress, depend upon the numbers available and selected. At the same time, differences in development thought have implications for the type of counting that is prioritized, and therefore for the numbers that are available.

If the history of development thought is simplified to a series of evolutionary steps in counting, then in each stage we see that mainstream aims have become more nuanced and more relevant to the lived experience of populations. Inevitably, this greater nuance has driven better counting (that is, better measurement of a population’s lived experience). However, the causality runs in both directions because at the same time, better measurement has revealed important realities that have in turn informed different mainstream priorities.

'Development' has itself developed, from the longstanding preoccupation in which economic growth, or the rate of increase in countries' GDP, was the dominant metric of success. The Commission on the Measurement of Economic Performance and Social Progress (the 'Stiglitz–Sen–Fitoussi Report' quoted above) was primarily focused on rejecting GDP as a meaningful metric of progress, but GDP remains disproportionately salient, along with the simple average of economic activity per person, GDP per capita, as a basis to track and compare countries' development.

GDP: Global Data Problem

GDP poses problems both because of what it does not aim to count, and because of how it fails to count even on its own terms. The most egregious issues, in terms of what GDP does not aim to count, are two. One is the absence of any reflection at all that economic output may come at a planetary cost. If activity is less than totally sustainable, pursuing increases in a measure of total activity may prove to be the ultimate in pyrrhic victories – quite literally. The other is the failure to count unpaid activities – in general, and in particular. In general, because if only what's counted counts, then the dominance of GDP must bear some responsibility for the trend of which it forms a part, towards narrow economic evaluation, and the devaluing of other human outputs including cultural public goods. And in particular, because GDP is a gender-biased measure of a reality that is itself already deeply, structurally unequal.³

Women's participation in the labour force globally is estimated to be 26 percentage points lower than that of men. Women also earn less for their participation: 24 per cent less on average, globally. These facts alone would mean that GDP reflects a disproportionately male scale of economic activity – even on top of the inequalities that give rise to the facts in the first place. But it is the additional features of women's economic oppression that make GDP especially, almost perfectly biased as a single measure of 'progress'.

Women's participation in the labour force occurs disproportionately in a sector that is largely or completely excluded from GDP statistics: subsistence agriculture. We might think there is a pretty sizeable economic value, not to mention a human one, to people subsisting rather than not – but if there is, GDP does not count it. Finally, of course, women also contribute disproportionately to unpaid care. According to UN Women, the source of all these statistics, 'in all regions women work more than men: on average they do almost two and a half times as much unpaid care and domestic work as men, and if paid and unpaid work are combined, women in almost all countries work longer hours than men each day'.⁴ Time-use surveys suggest that the economic value of unpaid care and domestic work ranges widely across countries, between around 10 per cent and 40 per cent

of GDP; the one constant is the great majority being undertaken by women and girls.

The effect of GDP would stop at adding statistical insult to development injury were it not for the absolute dominance of GDP as to what remains *the* most important indicator of national progress. Angela Davis has emphasized the case that Marxist scholar Walter Rodney makes in *How Europe Underdeveloped Africa*, that one legacy of colonial occupation was the distinction imposed between men's work as 'modern', while women's work was 'traditional' and 'backward'. This is a legacy that the power of GDP has arguably maintained to this day.⁵ The invisibilization by GDP of women's contribution to society may be the gravest single example of the phenomenon of the uncounted.

Imagine visitors from another planet arriving to discover that a small majority of the dominant species on Earth are systematically excluded from the main 'progress' measure. If our visitors were to set aside for a moment the outright foolishness of largely ignoring the planetary costs of our economic activity, they would perceive rightly that on the basis of GDP, humanity is likely to pursue 'growth' characterized by a systematic neglect of policies that could rapidly increase progress if only women's contribution were to be more fully counted.

The measure also means that policymakers are likely to see 'formalization' as the answer – moving women's activity into the bit that's counted, rather than improving how we count the other bits. Formalization is not necessarily bad, but it is the most narrow response possible. If you rule out all others without thinking about it, the measure has decided policy for you. Such an approach risks becoming a form of statistical victim-blaming, in which the fault lies with women's failure to participate in formal employment rather than in GDP's failure to count their contributions, which in turn hides governments' failures to address the systemic roots of inequality.

Our visitors might go further still, and realize that the economic activity of some other groups, including most notably certain indigenous populations, is also systematically likely to be uncounted by GDP. Coupled with the failure to recognize an economic value to sustainability, this exacerbates the tendency towards policies that destroy uncounted habitats and unvalued ways of life in the name of

economic progress. Where these groups intersect with gender, the problems stemming from ill-measurement are likely to be deepest.

The use of GDP per capita as a more human-centred measure is no less problematic in this regard. Because it is blind to the actual distribution of GDP (if we even consider a per person distribution of GDP to be conceptually meaningful), the impulse is again towards increasing GDP rather than any actual improvement in people's lived experience – say, by reducing inequalities.

In terms of what GDP *does* set out to measure, the data are subject to widespread failure by countries to generate quality series. The failings of lower-income countries, however, have been much more widely condemned than those of higher-income counterparts. For lower-income countries, the weaknesses stem most often from a failure to commit resources to regular rebasing. This can mean that as the shape of an economy changes – for example, with agriculture becoming proportionately smaller as manufacturing or services grow – the estimation of GDP relies on increasingly outdated basic data, and so becomes increasingly inaccurate.

The World Bank's Shanta Devarajan wrote of Africa's 'statistical tragedy' in 2011, and in 2013 Bill Gates named economic historian [Morten Jerven's *Poor Numbers: How We Are Misled by African Development Statistics and What To Do About It*](#) one of his books of the year.⁶ Devarajan highlights the case of Ghana, which a year earlier had revised the basis for its series resulting in a 62 per cent increase in recorded GDP, in the process passing per capita GDP of \$1,000 and so being reclassified by the World Bank from low- to middle-income country status. This illustrates the potential for countries to benefit from rebasing decisions, where delay may mean retaining access to subsidized international funding – a view supported to a degree by subsequent research.⁷

On the flip side, rebasing to show (true) GDP growth can contribute to a narrative of economic success that policymakers may believe likely to be self-reinforcing. There is also evidence of outright manipulation of GDP series for political purposes. A study from the University of Chicago uses data on nighttime light emissions, as captured by satellites, to evaluate the accuracy of public GDP series, and claims to find that the most authoritarian regimes inflate their

GDP by a factor of 1.15 to 1.3.⁸ For both types of reason, the timing of rebasing may provide a small degree of power to lower-income countries; but exerting that power may come at the cost of statistical quality.

While the resulting statistical weaknesses are largely recognized, there is rather less agreement (not least among African statisticians, who may be considered to have relevant expertise and valid perspectives) with the idea that the quality of GDP data should take an even higher priority over other development data, given the limited resources available. Pali Lehohla, then Statistician General of South Africa and Chairman of the Statistical Commission of Africa, agreed on the importance of rebasing GDP series on a regular basis, but responded angrily to Morten Jerven's book. Lehohla argued that the analysis did not reflect the depth of statistical expertise on the continent, nor the progress that had been made, and risked distorting regional priorities.

Much less profile is given to the weaknesses and manipulation of GDP series in high-income countries, even though the evidence is much more direct. An interesting finding of the University of Chicago study is that after adjusting for authoritarian manipulation, the country with the fastest growing GDP from 1992/3 to 2005/6 was Ireland. But Ireland's GDP is perhaps the most overtly distorted of any economy of significant size, because of its role as one of the most significant tax havens for corporate profit shifting. For example, staff at the International Monetary Fund (IMF) estimate that in 2017, a quarter of Ireland's economic growth came from exports of Apple iPhones – even though Ireland does not actually export any iPhones at all.⁹

The quality of Ireland's GDP statistics has been sacrificed for years at the altar of tax havenry. The artificial recording of economic activity that actually takes place elsewhere (and/or the resulting taxable income) is, however, a mere footnote in relation to the revenue losses imposed on those other countries – or the divergence between actual Irish household incomes and per capita GDP. Similarly, the UK Crown Dependency of Jersey, with a population around 100,000, had for some years in the 2000s what was estimated as the highest per capita income in the world, even while foodbanks operated on the island (and continue to do so) for those struggling to subsist.

We consider the statistical distortions flowing from ‘tax haven’ behaviours in [Part II](#), but present this as a cautionary tale for now. Narratives matter, and the narrative of bad data as one more problem of lower-income countries has unfortunately gained much more traction than the counternarrative that data from all countries should be critically understood as reflecting a range of issues of power and incentives. In the European Union (EU), for example, Greece is widely seen since the financial crisis of 2008 as having manipulated national economic data to get round EU budgetary rules.

(Extraordinarily, the former president of the Greek statistics office, Andreas Georgiou, was in 2018 given a two-year suspended prison sentence for having had the temerity in 2009 to insist on publishing accurate deficit statistics – specifically, of 15.4 per cent of GDP rather than 13.6 per cent of GDP – reversing manipulations that had run in varying ways and degrees since 1997, but also, according to some, precipitating the imposition of austerity. The revisions that Georgiou insisted upon were to bring the data in line with the European standard ESA95, and the approach continues to be used today.)¹⁰ Research also shows that the same manipulations appeared across the EU membership, so that Greece was not a *special case* but merely a more extreme case, in line with the observed pattern.¹¹

The continuing, absolute dominance of GDP should be treated as a political issue of the utmost seriousness, rather than as a mere technical puzzle. Few of those engaged with the actual statistics or their creation are blind to its weaknesses. But partial scepticism does not protect against the gradual pull of bad data. That pull takes us towards economic progress that continues to exclude the un(der)counted, notably women and indigenous populations. It also detracts from meaningful efforts to ensure human progress is ecologically sustainable. And it ignores, by and large, the serious quality issues – especially those relating to higher-income countries.

As an indicator of our global data problems, GDP is hard to beat.

Developing Thought

It is three decades since the first major, institutional crack became visible in the dominance of GDP. In the time since, both development thought and the associated counting have seen substantial shifts. GDP may not have been displaced, but the landscape of complementary and alternative measures is very different.

The crucial interventions came from the UN Children's Fund's (UNICEF) *Adjustment with a Human Face* (1987) and the UN Development Programme's (UNDP) first Human Development Report (1990), which made the case respectively for focusing on poor people rather than on poor countries, and for non-GDP aspects of national progress.¹² The more conservative World Bank promoted extreme income poverty as the central element, from the subsequent 1990 World Development Report. This approach gave rise to the 'dollar-a-day' measure, with its manifold and deep flaws. But even this represented an important progression from GDP-based measures, with their complete blindness to questions of distribution.

The World Bank's 'dollar-a-day' measure was eventually adopted as the basis for the target of the first UN Millennium Development Goal in 2000. The Millennium Development Goals (MDGs) together represented the first attempt to establish a common set of progress measures, albeit for lower-income countries only. Alongside, and partly in response to, the primary focus on absolute, monetary poverty came a much wider and richer analysis of individual and household poverty, more closely reflecting the UNICEF and UNDP contributions. There were eight goals, each with a range of indicators to track progress:

Goal 1	Eradicate extreme poverty and hunger
Goal 2	Achieve universal primary education
Goal 3	Promote gender equality and empower women
Goal 4	Reduce child mortality
Goal 5	Improve maternal health
Goal 6	Combat HIV/AIDS, malaria and other diseases

Goal 7	Ensure environmental sustainability
Goal 8	Develop a global partnership for development

The MDGs provide a partial reflection of a major shift in the underlying analysis. Three approaches going beyond monetary poverty measures can be identified.¹³ First, the capabilities approach follows Amartya Sen's influential work and treats poverty as the failure to achieve certain minimal capabilities – rather than as the failure to reach a certain consumption or income level.¹⁴ While the emphasis remains on absolute achievements, the capabilities approach is necessarily a multidimensional one, going far beyond income as a proxy for utility.

The social exclusion approach emphasizes the *relative* rather than the *absolute* aspects of poverty, and hence the ability of people to participate in a given society. Lacking internet access when everyone else has it, for example, may have different implications from the case where no one has access. From this approach tends to follow an understanding of poverty as clearly multidimensional, and significant attention to group characteristics (since these are frequently the basis for exclusion). The relative approach supports a greater emphasis on inequalities.

Finally, the participatory approach seeks to elicit views from within communities on the nature and locus of poverty. Important concerns here reflect issues around doing this without introducing external bias and ensuring the views that are heard are genuinely representative (a problem that looms ever larger as attempts are made to take this approach to national scale). There are also inherent problems of self-identification (including, for example, the tendency to identify others as [more] poor [than oneself]).

[Table 1](#) builds on Ruggeri-Laderchi et al.'s comparison of these approaches with that of monetary poverty, and this is where the MDGs can reasonably be situated. Rather than specify a single definition or approach, and despite giving the World Bank's income poverty measure the headline focus, the framework as a whole set in place a breadth of goals and targets that owed much more to the capabilities approach. In both aspects, the MDGs marked a final

break from seeing development as a problem of 'poor countries', and focused instead on poor people.

Bad Incentives, Bad Data

As the economist Sakiko Fukuda-Parr wrote, the MDGs were ‘used in two ways as an instrument of global governance. The first is as a norm, to create incentives that lead to behaviour change. The second is to describe social objectives in concrete terms and communicate them.’¹⁵ While this makes the indicators for a framework of targets like the MDGs potentially powerful norm-setters, data are inevitably problematic when made, by policy, the subject of direct conflicts of interest.

Table 1: A comparison of four approaches to poverty

Source: Adapted from Caterina Ruggeri-Laderchi, Ruhi Saith and Frances Stewart, 2003, ‘Does it matter that we do not agree on the definition of poverty? A comparison of four approaches’, *Oxford Development Studies* 31(3), table 3.

	<i>Monetary poverty</i>	<i>Capability approach</i>	<i>Social exclusion approach</i>	<i>Participatory approach</i>
<i>Importance in MDGs</i>	High profile, although central only to MDG 1.	Substantial.	Minimal.	Negligible.
<i>Unit of analysis</i>	Ideally the individual, de facto the household.	The individual.	Individuals or groups relative to others in their community and/or society.	Groups, and individuals within them.
<i>Interpreted by policymakers as requiring:</i>	Emphasis on economic growth and distribution of monetary income.	Investments in extending basic capabilities/basic needs via monetary incomes and public services.	Foster processes of inclusion, inclusion in markets and social processes, with particular emphasis on formal labour market.	Empowerment of the poor.
<i>Data availability (as at 2003)</i>	Household surveys regularly conducted; omitted observations can be important. Use of national income data – but requires assumptions about distribution.	Data less regularly collected, but could easily be improved.	Currently have to rely on data collected for other purposes. If agreed on basic dimensions, data could be regularly collected.	Generally only small purposive samples. Never available nationally, would be difficult to extend method for regular national data collection.
<i>Major weaknesses for measurement</i>	Needs to be anchored to external elements. Arbitrary.	Impossibility of set evaluation. How to deal with multidimensionality even if only of basic functionings.	Problems with multidimensionality. Challenge of capturing process.	How comparable? How representative?
<i>Required or minimum standard identified by:</i>	Reference to ‘external’ information (defined outside the unit); central element food requirements.	Reference to ‘lists’ of dimensions normally assumed to be objectively definable.	Reference to those prevailing in society and state. Obligations.	Local people’s own perceptions of well-being and ill-being.
<i>Major weaknesses conceptually</i>	Utility is not an adequate measure of well-being, and poverty is not an economic category.	Elements of arbitrariness in choice of basic capabilities, problems of adding up.	Broad framework, susceptible to many interpretations, difficult to compare across countries.	Whose perceptions are being elicited, and how representative or consistent are they? How does one deal with disagreements?
<i>Problems for cross-country comparisons</i>	Comparability of surveys, of price indices, of drawing poverty lines.	Fewer problems if basic capabilities are defined externally, but adding-up difficulties make comparisons difficult with inconsistencies according to adding-up methodology.	Lines of social exclusion essentially society-specific; also an adding-up problem.	Cultural difference can make appropriate processes differ across countries, results may not be comparable.

Goodhart’s Law is named after Charles Goodhart, who, in considering monetary targeting for a central bank, wrote: ‘Any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes.’¹⁶ Development is rife with confirmatory examples.

An important report on development data from the end of the MDG period explores two obvious cases.¹⁷ First, the authors look at the divergence (in Kenya and Tanzania) between school enrolment as measured by household survey data (that is, what people themselves report) and that measured by administrative data (as reported by the relevant institutions). A systematic element of the divergence can be explained by schools having public funding streams that depend on the reported numbers of pupils. **In other words, where institutions have a financial interest in the data they report, that data will become unreliable. In countries where this is the case, the data tracking MDG progress on education enrolment will be consistently biased.**

A second, parallel example comes from statistics on vaccinations. Where the Global Alliance on Vaccinations and Immunizations (GAVI) began offering low-income countries a financial incentive for each child receiving the third dose of the vaccine against diphtheria, tetanus, and pertussis (DTP3), based on administrative data, that series diverged from the reporting in household surveys. That is, because countries (or their institutions) had a financial interest in the data they themselves reported, the data became unreliable. The equivalent series for measles immunization, where no such financial incentive was in place, showed no change over the period. Again, the reporting of key data on progress was predictably distorted.

At the international level, the incentives to distort are equally present. Perhaps the most blatant political, rather than financial, manipulation can be found in the MDGs themselves. The emblematic success story for many has been MDG 1. Or, rather, MDG target 1(a), which oddly is not the eradication but the halving of world poverty. Over and above that sleight of hand, a closer look at the counting that underlines this claim shows it to be even more problematic.

Criticism of MDG 1 has focused on three main aspects. The substantive question has been whether it is valuable, or reasonable, to target the number of people living in extreme income poverty (on \$1 a day, or \$1.90 as it is now after some allowance for inflation) – as opposed to more ambitious income measures, or indicators of multidimensional human development gains. This is perhaps most simply seen in the fact that the ‘dollar-a-day’ measure was intended to capture some level of being able to meet basic human needs, from an amalgamation of national poverty lines. But while the extreme

income poverty headcount fell from around 1.9 billion people in 1990, to under 750 million in 2015, the number of those deemed to be undernourished – i.e., without the income to avoid the most basic effects of extreme income poverty – is estimated to stand at around 1.5 billion people.¹⁸ In other words, the dollar-a-day measure correlates very poorly indeed with what it was intended to capture: the ability to meet the most basic human needs.

Second, there continues to be fierce technical debate over whether the World Bank's numbers do actually provide a meaningful tracking of extreme income poverty in any particular case. Here the criticisms reflect in part the weaknesses of the underlying data, including major gaps for countries and regions, and other cases that appear to be based on extrapolation from other countries. More detailed critiques relate to the use of artificial exchange rates adjusted between countries for 'purchasing power parity' (PPP); of the appropriate inflation measures at national level but also to address price variations within countries (especially rural–urban differentials, but also the scope for lower-income households to face different pricing regardless of location); and of the appropriateness of combining income and consumption data.

The potential importance of group-appropriate inflation rates can be seen in a study by the Joseph Rowntree Foundation on UK poverty.¹⁹ The authors find that between 2002–3 and 2013–14, an official inflation rate of 3.1 per cent hid an annual average inflation rate of 3.4 per cent for the bottom quintile of households, compared with 3 per cent for the top quintile. In all but one year studied, the inflation rate was higher for the poorest quintile. While the differential may sound small, it adds up: the real cost of living was shown to rise 50 per cent for low-income households, compared with 43 per cent for high-income households, with the result that the UK's absolute income poverty was 0.5 percentage points higher at the end of the period than the standard measures suggest: an extra 300,000 people in poverty, uncounted.

Returning to global poverty, the impact of individual technical decisions on the outcome statistics is also great. Sanjay Reddy and Rahul Lahoti of the Global Consumption and Income Project show, for example, that the World Bank decision to consider different rural

and urban PPP conversions in three large countries (China, India and Indonesia), may have affected the 2011 global extreme income poverty headcount by some 290 million.²⁰ They add, tellingly: ‘The Bank has offered no sensitivity analysis nor discussed the impact of this choice, leaving open the question of why it made the particular decisions that it did.’

The third critique of MDG 1, and the claims of success, is a more basic one: that the goalposts were moved.²¹ As [Table 2](#) shows, the implication of those movements was dramatic for the number of people whom the world effectively agreed to tolerate living in extreme income poverty. The 1996 World Food Summit (the ‘Rome Declaration’) sought to halve the (1996) numbers in poverty worldwide, implying a final ‘acceptable’ level by 2015 of 850 million people. The Millennium Declaration of 2000 backdated the start point to 1990 (to include a relatively successful decade), and sought to halve the *proportion* of people in poverty – a smaller reach given that population growth made the original target more ambitious. The effect was to raise the ‘acceptable’ 2015 level above a billion people.

[Table 2:](#) Shifting the goalposts on global poverty reduction commitments

Note: Data for world and ‘developing country’ (low- and middle-income country) population and extreme income poverty headcount ratios are taken from the World Bank. Proportions in extreme income poverty in 2000 are linear extrapolations (for ‘developing countries’, 1999: 34.8%, 2002: 31%; and world, 1999: 28.0%, 2002: 25.6%).

	<i>World Food Summit</i>	<i>MDG 1 as adopted</i>	<i>MDG 1, revised</i>
<i>Language of target</i>	Halve the world’s number of undernourished people; ‘Poverty is a major cause of food insecurity and sustainable progress in poverty eradication is critical.’	Halve the proportion of the world’s people in extreme income poverty, and of those suffering hunger.	Halve the proportion of the developing world population in extreme income poverty, and of those suffering hunger.
<i>Reference year</i>	1996	2000	1990
<i>Reference population</i>	5.80 billion	6.12 billion	4.25 billion
<i>Proportion in extreme income poverty</i>	29.40%	27.60%	44.50%
<i>Target population</i>	1.70 billion	1.69 billion	1.89 billion
<i>2015 reference population</i>	7.36 billion	7.36 billion	7.29 billion
<i>2015 target population</i>	0.85 billion	1.02 billion	1.36 billion
<i>2015 target as proportion of world population</i>	11.6%	13.8%	18.5%

Finally, and most dramatically, the revised MDG 1 target switched the base from the proportion of world population in poverty to the proportion of people in low and middle-income countries. This seemingly innocuous rewording had a major effect, raising the implicitly acceptable level of 2015 poverty to 1.36 billion people: half a billion more than the 1996 target.

Now, at least on the basis of the World Bank's count, each of the three versions of the target was comfortably met. But put this in context: had the World Bank not made different choices for three countries about rural–urban pricing patterns, the variance identified by Reddy and Lahoti, of 290 million additional people in poverty, would result in both the Rome Declaration and Millennium Declaration targets having been missed.

The opacity of those decisions means that we can't know for sure if the World Bank got them 'right', or those for other countries where the decision went the other way. But we can know for sure that success in meeting the global target to reduce extreme income poverty, except in the least ambitious, final watering-down, was dependent on those decisions.

The institutions and people setting targets for accountability may not easily be held accountable themselves if the targets can be varied with little or no effective scrutiny. And if the numbers used to deliver accountability on any given target are opaquely manipulable by actors with a stake in being able to claim success, it is hard to take such claims at face value.

‘Leave No One Behind’

The 2013 report to the UN Secretary-General of the High Level Panel of Eminent Persons on the Post-2015 Development Agenda proved to be highly influential. It set out ‘five transformative shifts’, of which the first – and the only one still referred to in the terms of that report – is to ‘Leave no one behind’. The report trod a difficult line, on the one hand emphasizing continuity from the MDGs, while, on the other, seeking greater ambition and highlighting the extent to which a concern with social exclusion represents a significant innovation:

The next development agenda must ensure that in the future neither income nor gender, nor ethnicity, nor disability, nor geography, will determine whether people live or die, whether a mother can give birth safely, or whether her child has a fair chance in life. We must keep faith with the promise of the MDGs and now finish the job. The MDGs aspired to halve poverty. After 2015 we should aspire to put an end to hunger and extreme poverty as well as addressing poverty in all its other forms. This is a major new commitment to everyone on the planet who feels marginalized or excluded, and to the neediest and most vulnerable people, to make sure their concerns are addressed and that they can enjoy their human rights. ...

To be sure that our actions are helping not just the largest number of people, but the neediest and most vulnerable, we will need *new ways of measuring success*.²²

The main shift in development thought since the MDGs were put in place has been the continuing rise to prominence of inequalities as a key challenge. One contribution to that has been what is arguably the MDGs’ biggest success, MDG 3: Promote gender equality and empower women.

This fixed in place what was in 2000 an emerging norm. Depending on your point of view, the single target – ‘To eliminate gender disparity in primary and secondary education by 2005, and in all levels of education by 2015’ – either was admirably focused in one area in which it was feasible to construct data, and thereby ensured demonstrable change; or was focused on such a partial interpretation

of the goal as to actively restrict progress. In either case, the goal strengthened the demands for gender equality to be met in a much wider range of areas – and for the relevant data architecture to be put in place.

The gender equality goal also confirmed the technical and political potential to address other group inequalities in such development targets. Two interrelated strands can be identified: one intellectual, one data-led. Great credit must be given to the pioneering work of Frances Stewart on horizontal inequalities and of Naila Kabeer on intersecting inequalities.²³ Alongside this, the growing availability of relatively consistent household survey data has allowed a range of group inequalities to be analysed. Although the data remained (and remains) far from perfect, the effect was to demonstrate the possibility of a truly global framework with disaggregation in multiple dimensions – just as minds were beginning to turn towards thoughts of a successor to the MDGs.

In the writing of Christian Aid's 2010 report, *We're All in This Together*, a range of indicative data on group inequalities within MDG targets was used. It showed, for example, the excess mortality ratios facing children born into indigenous groups in a range of countries, and the extent to which education, household wealth and rural/urban location shape access to contraception or child malnutrition.²⁴ My brief spell working at Save the Children coincided with the global thematic consultations on the post-2015 framework.²⁵ As our efforts were focused on strengthening the approach to inequalities, we began to assemble a more comprehensive dataset from household surveys to show their strengths and limitations.

[Figure 1](#) draws from the subsequently published *GRID* (Group-based Inequalities Database) and provides a simple example of the power of disaggregation. The three panels highlight multiple points, in the almost arbitrarily chosen context of the completion of lower secondary education by India's young people. First, the national level is around 70 per cent. Second, there is something of a gender split: a differential of around five percentage points between boys (higher completion) and girls. It is only when we consider the intersection of gender and household wealth (by quintile) that the most striking results, in the third panel, become visible. Girls are disproportionately

located in the least wealthy three quintiles; and their (average) completion rates here are 65 per cent or below. Boys are disproportionately located in the wealthiest three quintiles, and their (average) completion rates range from nearly 70 per cent up to 90 per cent.

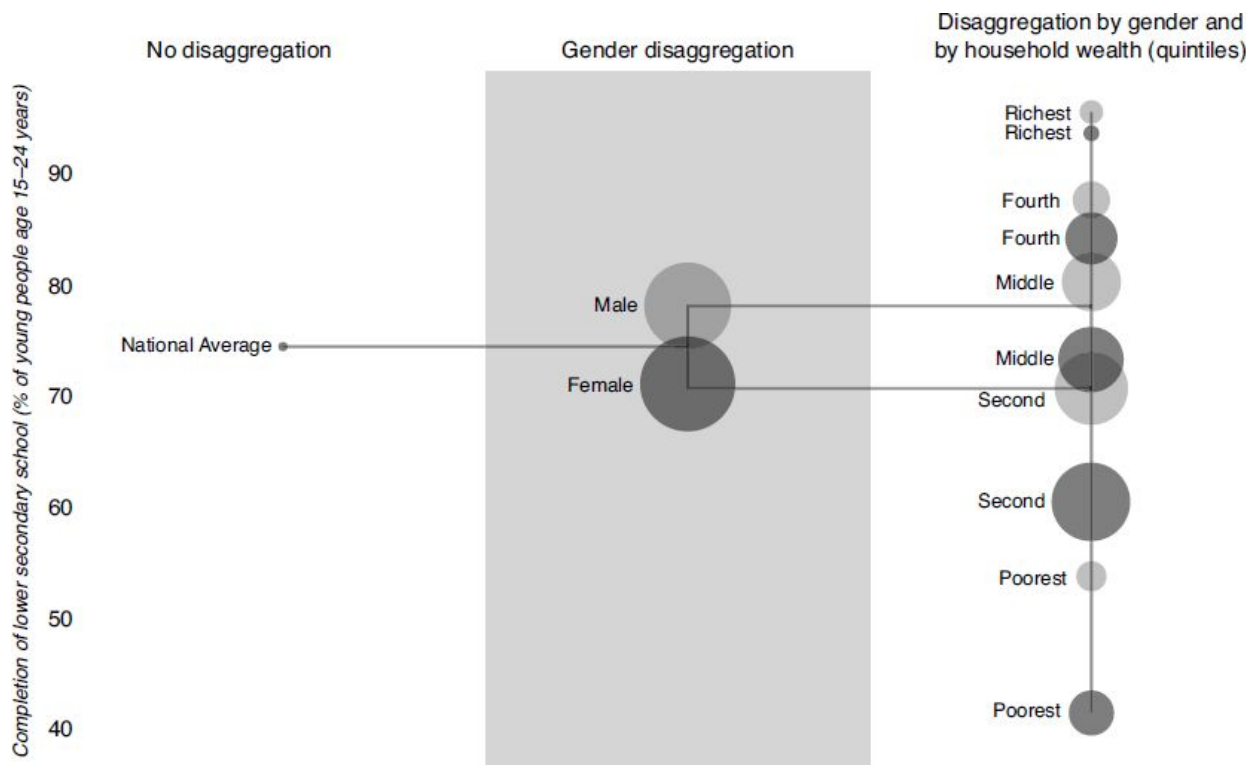


Figure 1: Counting is power: gender and wealth disaggregation of Indian lower secondary school completion

Source: Save the Children's Group-based Inequalities Database (GRID): <https://campaigns.savethechildren.net/grid>.

The prospects for policy improvement are strikingly better when the three panels are in view, as opposed to just the first or second. So too is the potential to hold policymakers to account for addressing inequalities. And now imagine that the same dataset would allow further disaggregation by region, by urban/rural location, by religion, by scheduled caste and tribe, and by the presence of disabilities. What inequalities, what policy-crucial information and priorities would be revealed? This was the dynamic that informed the debates on the post-2015 framework, and much of the optimism of those engaged in them.

At the same time, there was a fierce battle over the extent to which vertical inequality should be targeted. A pivotal moment in development debates had occurred since the MDGs were put in place, with data at the heart of it. Former World Bank economist Paul Collier's *The Bottom Billion: Why the Poorest Countries are Failing and What Can Be Done About It* came out in 2007 and set a new bar for the profile and influence of development writing. But the book can also be seen as the last great defence of an approach that was already outdated by then. Collier focused on countries with low average per capita incomes, and laid out a series of poverty 'traps' that could be overcome by careful intervention by policymakers.

The book's main thesis was subsequently demolished in Andy Sumner's (2010) work on the 'new bottom billion', which took advantage of relatively newly available distribution data to show that the majority of extreme income poverty actually occurred in middle- rather than low-income countries – and had done for some time. Sumner demonstrated that this was due primarily to within-country income inequality, rather than countries' absolute poverty. A quite different set of policy responses follows, once the problem is understood as an inequality 'trap' instead.²⁶

The power of this analysis combined with growing political attention to income and wealth inequalities in donor countries following the 2008 financial crisis, and the economically unjustifiable 'austerity' policies that many governments imposed in response. There remained powerful resistance to hard targets on income (and wealth) inequality, both within and between countries, as explored in [Chapter 5](#) below. But the process to set what would become the UN Sustainable Development Goals (SDGs), a framework set to run from 2016 to 2030, was much more open and participative than had been its predecessor – and inequality was a constant topic.

The process established something much closer to a global conversation (albeit with inevitable issues of access and empowered engagement) than the 'few white men in a room' approach that developed the MDG framework from the original Millennium Declaration. In keeping with this wider ownership, the financing emphasis is very much on domestic resource mobilization (and on tax revenues in particular), rather than on foreign aid – crucial to ensure

that national priorities determine the local application of the global framework.

In the broader context of development thought, the SDGs represent an entirely logical evolution from the MDGs – and one largely signposted by the summary in [Table 1](#) above. Where the MDGs combined the then-dominant monetary poverty and capabilities approaches, the SDGs add important social exclusion dynamics to the framework and in the process put somewhat greater emphasis on participatory approaches – or at least the principles of national ownership, and policy independence.

Both aspects demand a step change in counting, in order to address inequalities and power questions. They require data to capture important group disaggregations, as well as data to provide transparency and support accountability. If MDG 3 both reflected and confirmed the understanding that gender-blindness was not gender-neutral, it was increasingly widely understood that the failure to count was also likely to be regressive with respect to other group inequalities. And so the SDGs were presented under the banner of ‘Leave No One Behind’, and this was made concrete with the commitment that no target will be considered met until it is met for each relevant group within the given population.

Reflecting the recognition that development is global, rather than the province of countries below some arbitrary level of per capita income, the set of 17 goals, 169 targets and a still-emerging set of indicators to run until 2030 is universal (that is, it includes high-income countries).

Goal 1	End poverty in all its forms everywhere
Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3	Ensure healthy lives and promote well-being for all at all ages
Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5	Achieve gender equality and empower all women and girls

Goal 6	Ensure availability and sustainable management of water and sanitation for all
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 10	Reduce inequality within and among countries
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12	Ensure sustainable consumption and production patterns
Goal 13	Take urgent action to combat climate change and its impacts
Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development (including finance; technology; capacity-building; trade; and systemic issues)

The two aims of global goals identified by Fukuda-Parr for the MDGs remain: to set norms and incentives, and to communicate social objectives. The SDGs represent an enormously ambitious and important framework for global policy – and one that reflects the major shifts in development thinking, putting inequalities at the centre of the challenge.

But development's data problem also remains, for while the new framework is in part a response to the significant progress made in counting, it also creates unprecedented demands on the underlying data. The technical challenges to which these give rise have led to calls for a data revolution – but the political imperative for an overthrow of our statistical approaches is not as widely appreciated. Just as with GDP, there are grave risks that targeting development on the basis of indicators assumed to be unbiased will introduce major distortions to policy and progress – because of who and what go uncounted.

Notes

1. Joseph Stiglitz, Amartya Sen, Jean-Paul Fitoussi, et al., 2009, *Report of the Commission on the Measurement of Economic Performance and Social Progress*, Paris: Commission on the Measurement of Economic Performance and Social Progress, p. 7.
2. This view was first sketched out, in a little more detail, in Christian Aid, 2008, *Doing Justice to Poverty*, London: Christian Aid: <https://www.christianaid.org.uk/sites/default/files/2017-08/doing-justice-poverty-christian-aid-understanding-poverty-implications-december-2008.pdf>.
3. A revealing story on the unsuccessful attempts to address uncounted women's work by a young researcher, Phyllis Deane, working on the early application of GDP in Malawi and Zambia, is provided by Luke Messac, 2018, 'Outside the economy: Women's work and feminist economics in the construction and critique of national income accounting', *Journal of Imperial and Commonwealth History* 46(3), pp. 552–578.
4. UN Women, 2015, *Progress of the World's Women 2015–16*, New York: UN Women, p. 11. Statistics compiled by UN Women from various sources including ILO.
5. Angela Davis, 2018, 'Foreword', in Walter Rodney, *How Europe Underdeveloped Africa*, London: Verso Books.
6. Shanta Devarajan, 30 September 2011 keynote speech at IARIW-SSA conference on 'Measuring national income, wealth, poverty and inequality in African countries'; video available at <http://blogs.worldbank.org/africacan/africa-s-statistical-tragedy>; and Morten Jerven, 2013, *Poor Numbers: How We Are Misled by African Development Statistics and What To Do About It*, Ithaca, NY: Cornell University Press.
7. Andrew Kerner, Morten Jerven and Alison Beatty, 2017, 'Does it pay to be poor? Testing for systematically underreported GNI estimates', *Review of International Organizations* 12(1), pp. 1–38.

- 8.** Luis Martinez, 2019, ‘How much should we trust the dictator’s GDP growth estimates?’, *SSRN Working Paper*: <https://ssrn.com/abstract=3093296>. Note that the result cited excludes military dictatorships, which may be considered less sensitive to domestic political pressures.
- 9.** See box 1.1 of IMF, 2018, *World Economic Outlook* (April), Washington, DC: International Monetary Fund.
- 10.** See, e.g., Vasilis Sarafidis, 2018, ‘The tragedy of Greek statistics’, *Ekathimerini*, 10 October: <http://www.ekathimerini.com/233883/article/ekathimerini/comment/the-tragedy-of-greek-statistics>. Georgiou recently received an international commendation for ‘his competency and strength in the face of adversity, his commitment to the production of quality and trustworthiness of official statistics and his advocacy for the improvement, integrity and independence of official statistics’, jointly from the International Statistical Institute, the Royal Statistical Society (UK), the American Statistical Association, the International Association for Official Statistics, the Federation of European National Statistical Societies and the Société Française de Statistique: <https://www.isi-web.org/images/2018/Press%20release%20Commendation%20of%20Andreas%20Georgiou%20Aug%202018.pdf>.
- 11.** James Alt, David Dreyer Lassen and Joachim Wehner, 2014, ‘It isn’t just about Greece: Domestic politics, transparency and fiscal gimmickry in Europe’, *British Journal of Political Science*, 44(4), pp. 707–716.
- 12.** Giovanni Cornia, Richard Jolly and Frances Stewart, 1987, *Adjustment with a Human Face*, Oxford: Clarendon Press; and UNDP, 1990, *Human Development Report*, New York: United Nations Development Programme.
- 13.** Caterina Ruggeri-Laderchi, Ruhi Saith and Frances Stewart, 2003, ‘Does it matter that we do not agree on the definition of poverty? A comparison of four approaches’, *Oxford Development Studies* 31(3), pp. 243–274.

14. Most famously laid out in Amartya Sen, 1999, *Development as Freedom*, Oxford: Oxford University Press.
15. Sakiko Fukuda-Parr, 2013, 'Global development goal setting as a policy tool for global governance: Intended and unintended consequences', International Policy Center for Inclusive Growth (IPC-IG) Working Paper 108, Brasilia: UNDP, p. 4.
16. Charles Goodhart, 1975, 'Monetary relationships: A view from Threadneedle Street', Papers in Monetary Economics, Reserve Bank of Australia; quoted in Viral Acharya and Anjan Thakor, 2016, 'The dark side of liquidity creation: Leverage and systemic risk', *Journal of Financial Intermediation* 28, doi:10.1016/j.jfi.2016.08.004.
17. APHRC/CGD, 2014, 'Delivering on the data revolution in sub-Saharan Africa', *Final Report of the Data for African Development Working Group*, Washington, DC: Center for Global Development; <https://www.cgdev.org/sites/default/files/CGD14-01%20complete%20for%20web%200710.pdf>.
18. Extreme income poverty numbers from World Bank data (see Table 3); undernourishment estimate from Gisela Robles Aguilar and Andy Sumner, 2019, 'Who are the world's poor? A new profile of global multidimensional poverty', Center for Global Development Working Paper 499.
19. Abi Adams and Peter Levell, 2014, 'Measuring poverty when inflation varies across households', *Joseph Rowntree Foundation Report*: <https://www.jrf.org.uk/report/measuring-poverty-when-inflation-varies-across-households>.
20. Sanjay Reddy and Rahul Lahoti, 2016, '\$1.90 a day: What does it say? The new international poverty line', *New Left Review* 97, pp. 106–127.
21. A shift first highlighted by Thomas Pogge, 2004, 'The first UN Millennium Development Goal: A cause for celebration?', in Andreas Follesdal and Thomas Pogge (eds), *Real World Justice: Studies in Global Justice*, vol. 1., Dordrecht: Springer.

22. UN, 2013, 'A new global partnership: Eradicate poverty and transform economies through sustainable development', *Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda*, New York: United Nations, p. 7 (emphasis added):
https://www.un.org/sg/sites/www.un.org.sg/files/files/HLP_P2015_Report.pdf.
23. Frances Stewart established the Centre for Research into Inequality, Security and Ethnicity (CRISE) at Oxford, which has established the concept of horizontal inequalities in development discourse. See, e.g., Frances Stewart, 2002, 'Horizontal inequalities: A neglected dimension of development', Queen Elizabeth House Working Paper 81, Department of International Development, Oxford. The MDG Achievement Fund played a major role in supporting work that directly addressed potential applications of intersecting inequalities within the SDG framework, including the important contributions of Naila Kabeer – see, e.g., Naila Kabeer, 2010, *Can the MDGs Provide a Pathway to Social Justice? The Challenge of Intersecting Inequalities*, New York: UNDP, IDS/MDG Achievement Fund; and Veronica Paz Arauco, Haris Gazdar, Paula Hevia-Pacheco, Naila Kabeer, ... and Chiara Mariotti, 2014, *Strengthening Social Justice to Address Intersecting Inequalities Post-2015*, London: ODI/Spanish Development Cooperation/MDG Achievement Fund. The Multidimensional Poverty Index, through the leading work of Sabina Alkire and the Oxford Poverty and Human Development Initiative (OPHI) has also highlighted the potential of survey data, albeit without stressing group inequalities.
24. Alex Cobham, Andrew Hogg and multiple Christian Aid contributors, 2010, *We're All in This Together*, London: Christian Aid.
25. Jess Espey, Alison Holder, Nuria Molina and Alex Cobham, 2012, *Born Equal: How Reducing Inequality Could Give Our Children a Better Future*, London: Save the Children; and José Manuel Roche, Lisa Wise, Dimitri Gugushvili and Luisa Hanna, 2015, *The Lottery of Birth: Giving All Children an Equal Chance to Survive*, London: Save the Children.

26. Paul Collier, 2017, *The Bottom Billion: Why the Poorest Countries are Failing and What Can Be Done About It*, Oxford: Oxford University Press; and Andy Sumner, 2010, 'Global poverty and the new bottom billion: Three-quarters of the world's poor live in middle-income countries', *IDS Working Paper* 349, Brighton: Institute of Development Studies. Collier and Sumner discuss their respective bottom billions at: <https://www.ids.ac.uk/projects/the-new-bottom-billion/>.