



# HOW THE MILLENNIUM DEVELOPMENT GOALS ARE UNFAIR TO AFRICA

William Easterly



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*Author's Note:*

*I am grateful for comments from Michael Clemens, Charles Kenny, and Martin Ravallion. Any errors are the responsibility of the author.*

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# HOW THE MILLENNIUM DEVELOPMENT GOALS ARE UNFAIR TO AFRICA

**William Easterly**

## **ABSTRACT**

**T**hose involved in the Millennium Development Goal (MDG) campaign routinely state "Africa will miss all the MDGs." This paper argues that a series of arbitrary choices made in defining "success" or "failure" as achieving numerical targets for the Millennium

Development Goals made attainment of the MDGs less likely in Africa than in other regions even when its progress was in line with historical or contemporary experience of other regions. The statement that "Africa will miss all the MDGs" thus paints an unfairly bleak portrait of Africa.



## INTRODUCTION

One of the centerpieces of foreign aid efforts in the new millennium has been the effort to attain seven Millennium Development Goals (MDGs) for developing countries by the year 2015, representing progress on a range of economic and social indicators.<sup>1</sup> These goals were first agreed at a summit of virtually all world leaders at the United Nations (UN) in 2000, and they have since occupied a great deal of the attention of the UN, World Bank, International Monetary Fund, and bilateral aid agencies in their dealing with low-income countries.

The world as a whole will meet most of the goals, as will most regions. However, the MDG campaign has emphasized the failure of Sub-Saharan Africa compared to other regions. Those involved in the MDG effort have been virtually unanimous that Sub-Saharan Africa stands out in that it will not meet ANY of the goals, as the following quotes attest:

"Africa...is the only continent not on track to meet any of the goals of the Millennium Declaration by 2015." (UN World Summit Declaration, 2005)

"in Africa... the world is furthest behind in progress to fulfill [the MDGs]...Africa is well behind target on reaching all the goals." (Blair Commission for Africa 2005)

"Sub-Saharan Africa, which at current trends will fall short of all the goals." (p. xi, foreword by James Wolfensohn and Rodrigo de Rato, World Bank and IMF Global Monitoring Report 2005)

"Sub-Saharan Africa, most dramatically, has been in a downward spiral of AIDS, resurgent malaria, falling food output per person, deteriorating shelter conditions, and environmental degradation, so that most countries in the region are on a trajectory to miss most or all of the Goals... The region is off track to meet every Millennium Development Goal." (p. 2, 19

UN Millennium Project, Investing in Development, Main Report, 2005)

"At the midway point between their adoption in 2000 and the 2015 target date for achieving the Millennium Development Goals, sub-Saharan Africa is not on track to achieve any of the Goals." (United Nations, Africa and the Millennium Development Goals, 2007)

"However, at the mid point of the Millennium Development Goals (MDGs), sub-Saharan Africa is the only region which, at current rates, will meet none of the MDG targets by 2015." Africa Progress Panel (follow-up to Blair Commission for Africa, communiqué, 2007)

The World Bank makes the same point graphically in figures displayed prominently on its MDG website as of July 2007, shown as Figure 1.<sup>2</sup> Similar pictures are shown in the Global Monitoring Report 2007 by World Bank and IMF, showing Africa to be more off-track than other regions.

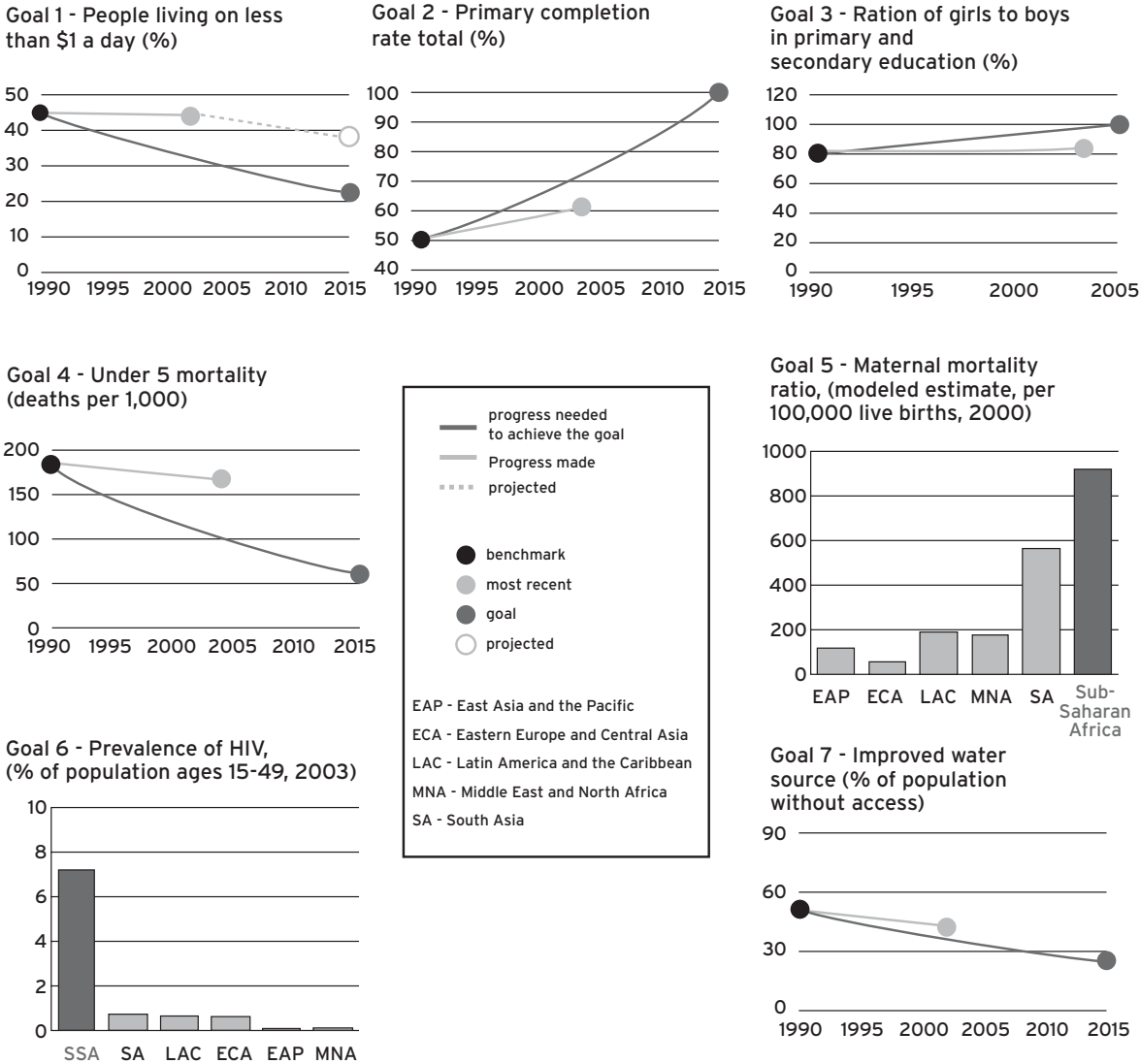
This paper argues that the MDGs are poorly and arbitrarily designed to measure progress against poverty and deprivation, and that their design makes Africa look worse than it really is. The paper does not argue that Africa's performance is good in all areas, only that its relative performance looks worse because of the particular way in which the MDG targets are set.<sup>3</sup>

Measuring social and economic progress is not at all as straightforward as the discussion of the MDGs makes it seem. Setting targets in a particular way will make some regions look better and others look worse depending on a number of choices that any target-setting exercise must make. These choices include the following:

1. Choice of benchmark year
2. Linear vs. nonlinear relationships with time or per capita income

Figure 1: World Bank graphic showing the failure of Africa to meet the MDGs.

Sub-Saharan Africa



3. Absolute changes versus percentage changes

4. Change targets versus level targets

5. Positive vs. negative indicators

There has been very little discussion of these choices that were made in setting the MDGs. Sometimes, the choices made just seem a priori to make no sense;

other times, they seem arbitrary and it is unclear on welfare grounds which measure to prefer; finally, the choices do not seem consistent across the seven MDGs. Unfortunately, as this paper will argue, many of the choices made had the effect of making Africa's progress look worse than is justified compared to other regions, leading to the blanket statements about Africa's failure made above.

## REVIEW OF THE BIAS AGAINST AFRICA FOR EACH OF THE MDGS

I will go through the seven MDGs one by one to discuss these issues. Although there are only seven (eight including the international one) MDGs, there are 32 target indicators underlying them (not counting those for the eighth). I will focus on the indicator that is most discussed in highlighting Africa's failure to meet the MDG in each case (nicely summarized by the picture above, which highlights the one that has received most of the coverage in aid agency documents for each goal).

### **Goal 1: Reducing the poverty rate by half by 2015 compared to its level in 1990.**

There is much about the poverty goal that is arbitrary. First, as many authors have pointed out, a goal of reducing poverty rates places great value on growth that moves an individual from below to above the absolute poverty line, while it places zero value on growth that increases income of those who still remain below the poverty line. There is no rational basis in welfare economics for such extreme weighting. Second, should we target a relative change in poverty rates or an absolute change in poverty rates? If Latin America halves poverty rates from 10 to 5 percent, is that to be preferred to Africa cutting poverty from 50 percent to 35 percent? The absolute change (and hence the percent of the population affected) is three times greater in Africa in this hypothetical example, but the proportional cut is less. It is hard to defend one or the other definitively. We will see that the choices made in defining MDG #1 biased the campaign against Africa in the sense that it was much more likely that Africa would "fail" than other regions, for two reasons.

The first reason is the choice of 1990 as the benchmark year for all the MDGs. A priori, it seems irrational to backdate progress on the MDGs to 1990, when the MDG campaign was announced and agreed upon at the UN Millennium Summit in September 2000. This means countries and regions are judged not only on their progress during the campaign, but also for progress made (or not made) before the campaign started. As an analogue, suppose I told my students at NYU on the first day of classes in September that I had decided to backdate the start of the class to three months earlier and that I was giving them all poor grades for class attendance over the summer. The cries of outrage that I would get from my students have been strangely missing in the discussion of the MDGs, which hardly even mentions the issue of the benchmark year.

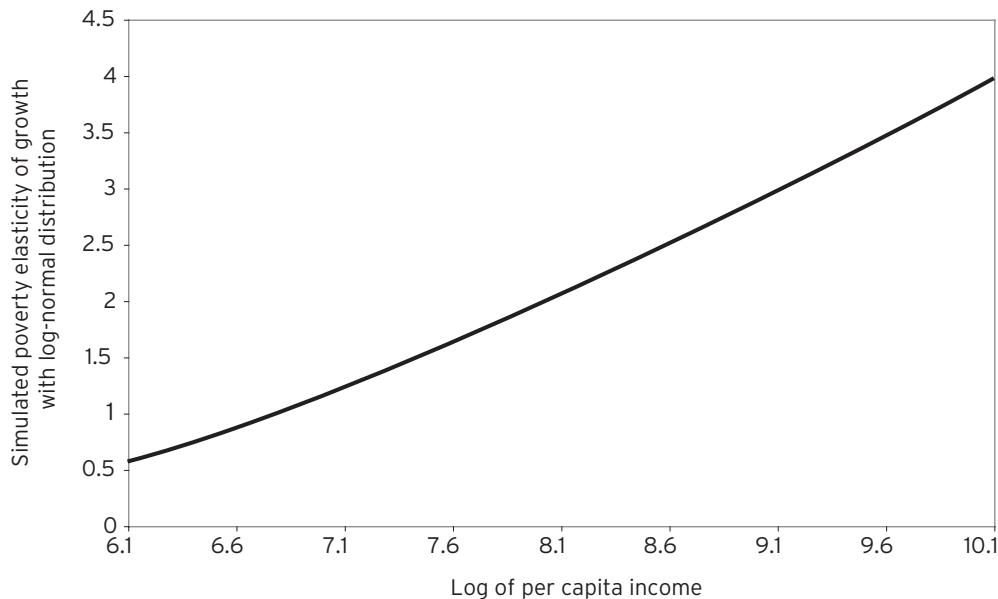
The only justification I could find for backdating the goals to 1990 was in a UN document, as follows:

Most of the goals and targets were set to be achieved by the year 2015 on the basis of the global situation during the 1990s. It was during that decade that a number of global conferences had taken place and the main objectives of the development agenda had been defined. The baseline for the assessment of progress is therefore 1990 for most of the MDG targets. (UN Millennium Development Goals Report, 2006)

This could be an argument that the MDGs were already widely accepted before the formal declaration in 2000. However, much of the MDG discussion notes what a unique event the agreement by 147 world leaders (the "largest gathering ever of heads of state") on the MDGs in the UN Millennium Summit was in September 2000, and how this differentiates it from what had been nearly a constant process of



**Figure 2: Simulation of poverty-growth elasticity with a log-normal distribution**



UN goal setting prior to 2000. For example, Clemens (2004) notes about the education goal that “Roughly once every two decades since the Second World War, an international gathering of policymakers has solemnly promised to achieve universal primary education in developing countries by about twenty years thereafter.” If we are to evaluate the MDG exercise as opposed to just discuss relative historical trends over the past 50 years, we need a break point in UN goal-setting that can serve as a benchmark. The only plausible candidate for such a break-point is the UN Millennium Summit in 2000.

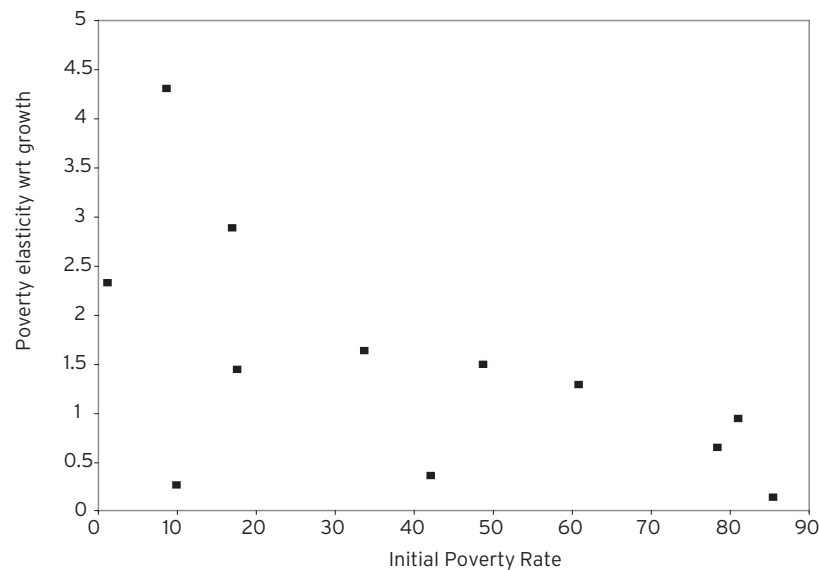
This is particularly relevant for MDG 1, as African economic growth was very poor in the 1990s. Hence it began the MDG campaign in 2000 already “off-track” to meet the poverty Goal (see Figure 1 above). Poor 1990s African growth was certainly bad in itself, but should not be relevant for a goal achievement campaign begun in the year 2000. The same problem bedevils all the MDGs, but I discuss it here for the pov-

erty MDG where its consequences for “Africa’s failure to meet the MDGs” are most stark.

Second, the goal of a proportional reduction in poverty (cutting poverty rates in half) doesn’t recognize that the percentage reduction in poverty is a highly nonlinear function of per capita income (or, closely related, the initial poverty rate). There is a broad empirical consensus that income distribution within countries is well approximated by a log normal distribution. With a log-normal, one can easily simulate the implied percentage reduction in poverty for the same growth rate (known as the poverty elasticity of growth).<sup>4</sup> Figure 2 shows the simulation.

If one starts with a low initial per capita income, then the elasticity will be low. This means that it will take more growth of mean income to achieve the same percentage reduction in poverty than it would in a country with a high per capita income. What is happening intuitively is that as the entire income dis-

**Figure 3: Empirical poverty elasticities**



Source: World Bank and IMF (2007)

tribution (approximated by a bell curve in the log of income) shifts to the right, the fraction below an absolute poverty line at first does not decline very much in percentage terms in the fat part of the distribution (which is where you are if per capita income is low and initial poverty is high). Then, as the mean per capita income increases, the poverty line becomes located near the tails of the distribution, and the poverty rate falls off very rapidly as income grows. This conclusion is logically inescapable once one accepts the empirical approximation of a log normal for the income distribution, and hence we don't really even need to look for empirical confirmation (other than the empirical confirmation of the log normal). Africa is thus disadvantaged in this goal of cutting poverty in half by having the lowest per capita income of any region.

For whatever it's worth, empirical estimates of poverty reduction elasticities do confirm the logic of the above argument. The empirical estimates are noisy, as

poverty rates can change due to changes in income distribution as well as changes in mean income, not to mention measurement error, so they are actually not as clean a test as the simple logical argument made above (if we empirically confirm the log normal). However, Figure 3 shows anyway that a collection of poverty elasticities for various low and middle income regions for two different poverty lines reported in World Bank and IMF 2007 (p. 42) do confirm the logical prediction that elasticities fall with higher initial poverty.

Chen and Ravallion 2004 also found that Africa had a lower poverty-growth elasticity than other regions (although they were discussing it for the poverty gap rather than the poverty headcount measure that we are discussing here).

Hence, Africa needs higher economic growth than other regions to attain MDG #1, for two reasons: (1) to

catch up after starting off behind in 2000, and (2) to compensate for its low poverty elasticity. Reports discussing the MDGs thus require extraordinary rates of growth in Africa. The Africa Progress Panel (the panel of eminent statespersons headed by Kofi Annan, organized by Tony Blair to follow up on the G8's 2005 Summit on Africa) said in 2007: "In 2006, Africa's growth stood at 5.4% ... far short of the 7% annual growth that needs to be sustained to make substantial inroads into poverty reduction." Growth of 5.4 percent in GDP (strangely this discussion is of GDP growth rather than GDP per capita growth) is eminently respectable (if sustained until 2015, it would be in the top fifth of GDP decade growth rates recorded across all 4 decades and all countries from 1965-2005).<sup>5</sup> However, this excellent performance would not be enough to attain MDG #1 because of the two strikes against Africa mentioned above. Instead, Africa would have to achieve the even rarer goal of 7 percent growth over the next decade (i.e. be in the top tenth of decade growth rates recorded over 1965-2005 for all countries). (Clemens, Kenny, and Moss 2007 previously made the same point about the unrealism of Africa's "required growth to meet the MDGs").

The World Bank and IMF (2005, p. 23) ratchet up Africa's requirements even further. Their calculation is that 17 African countries (out of the 28 they analyzed) would need 6 percent per capita growth over 2005-2015 (at least they are discussing per capita rather than aggregate GDP growth). This would be quite an achievement, as less than 5 percent of country-decade growth experiences over 1965-2005 were higher than 6 percent per capita. For all 28 countries they analyze, they arrive at an also extraordinary required growth per capita of 5.2 percent. Yet anything below these remarkable and largely unprecedented growth rates will be (and is being) stigmatized as "Africa's failure to meet the Millennium Development Goals."

To sum up, the bias against Africa in the first MDG comes from penalizing it for its poor growth before the MDG campaign began and penalizing it for its high initial poverty rate, which makes a proportional reduction in poverty harder than for a country with a low poverty rate (Latin America and the Middle East/North Africa, for example, are "on track" to meet the MDG #1 with a much lower growth rate).

## **Goal 2: Attain Universal primary enrollment by 2015**

MDG #2 is different than most of the other MDGs in that it is a level end-goal rather than a changes goal (i.e., changes in either relative or absolute terms). This creates an obvious bias against the region that starts off farthest from the absolute target of 100 percent, which in this case is Africa. Africa has the farthest to go, so once again the campaign is biased to make failure in Africa more likely than in other regions.

**To sum up, the bias against Africa in the first MDG comes from penalizing it for its poor growth before the MDG campaign began and penalizing it for its high initial poverty rate...**

This flaw in MDG #2 has been admirably explicated by Clemens (2004). He pointed out that most African countries have actually expanded primary enrollments far more rapidly over the last 5 decades than Western countries did during their development, but Africans still won't reach the target of universal enrollment by 2015. For example, the World Bank condemned Burkina Faso in 2003 as "seriously off track" to meet the second MDG, yet Burkina Faso has expanded elementary education at more than twice the rate of Western historical experience, and is even well above the faster educational expansions of all developing countries in recent decades.

**Figure 4: Gross primary enrollment (log scale) in Africa and other developing countries**

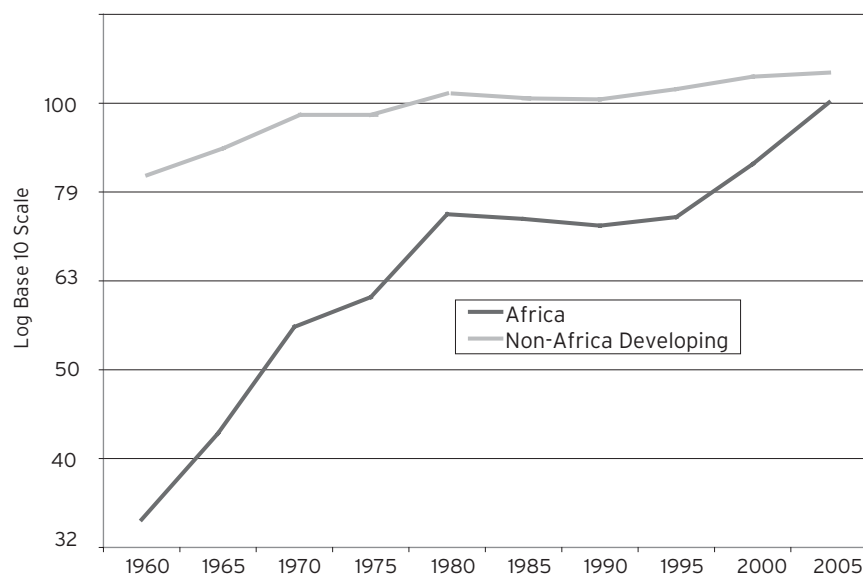


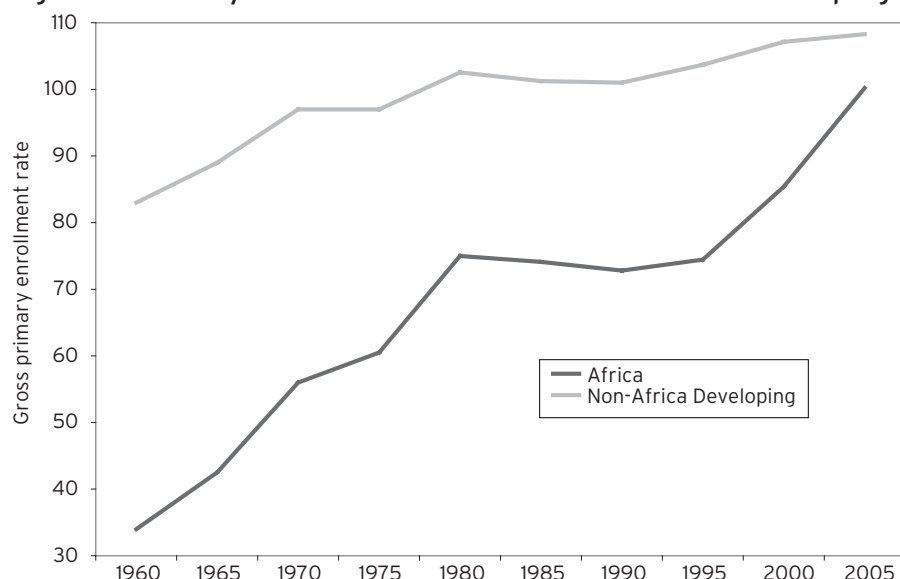
Figure 3 shows that if MDG#2 had been stated as a relative goal of proportional increases in elementary enrollments, we would be talking about an African success story rather than Africa's failure to meet an MDG (and the back-dating to 1990 would not have hurt Africa on this indicator). The graph shows primary enrollment on a log scale so that the slope represents the proportional increase in enrollment. Here there is a nonlinearity that is biased in Africa's favor - those starting off the lowest have the highest proportional increase in enrollment rates. But the goal was not stated in this way. In log terms, Africa has been rapidly converging to other developing countries in primary enrollment (Figure 4).

Africa also does very well if the graph had been put in terms of absolute changes rather than proportional changes. In absolute terms, Africa is still converging rapidly to other developing countries in primary enrollment (Figure 5).

MDG #2 was actually stated in terms of primary completion ratios rather than gross enrollment rates. This may have been a sensible choice, as the primary completion rate is a better measure of who actually gets a full elementary education than gross primary enrollment figures. The latter can be inflated by students repeating grades without actually completing a full course of elementary schooling. However, the two are correlated in practice (correlation coefficient of about 0.5), and the enrollment ratios are available for a much longer time series and larger set of countries, hence my use of them in the figures above.

In any case, figure 6 shows that Africa has also been relatively catching up since 1991 in primary completion ratios.<sup>6</sup> Some countries are particular standouts for their rapid increases in primary completion, such as Benin and Togo. For those two countries, backdating the Millennium Development Goals analysis to 1990 would have made their performance look better (equally unjustifiably for assessing the success of the

**Figure 5: Primary enrollment rates in Africa and other developing countries**



MDG campaign) because they had rapid progress from 1991 (the earliest year available) to 2000.

However, MDG#2 was actually stated as a level goal of 100 percent primary completion rates by 2015. Hence, no matter how fast the progress of African countries or how remarkable the increases relative to Western historical norms or contemporary developing country experience, Africa will fail to meet the second MDG if it fails to pass this finish line (as it will likely fail to do because it started much further away).

### Goal 3: Gender equality

MDG#3 of gender equality is measured by ratios of girls to boys in primary and secondary school. It also sets an absolute level target of a ratio of 100 percent ratio of girls to boys. This gives it one other curious feature.

The goal of gender equality in primary education is redundant if Goal 2 of universal primary education is

achieved. Obviously, if all boys and girls are in school, there will also be gender equality in schooling. I have not seen any discussion of this redundancy in the MDG discussions by the aid agencies.

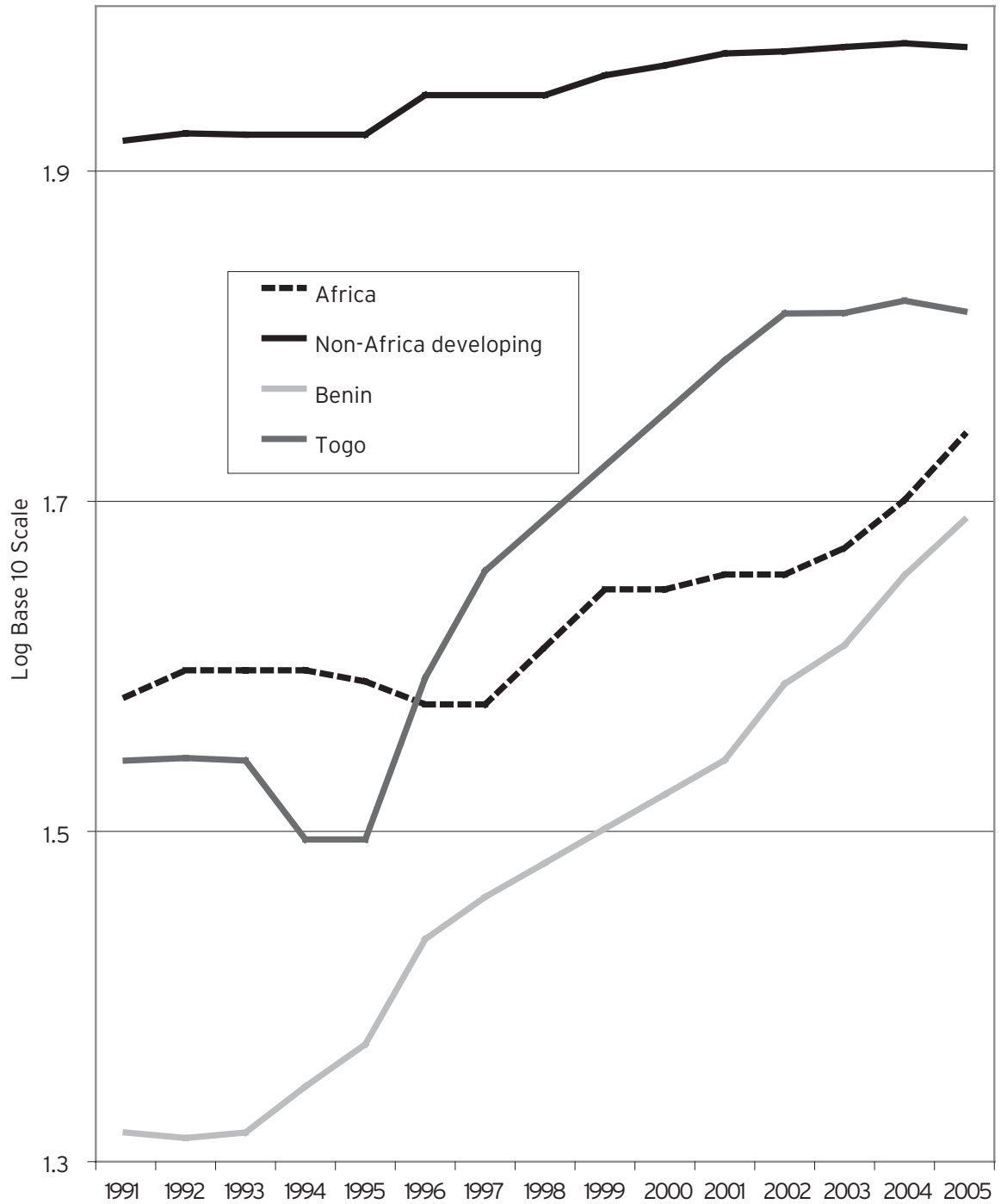
There really are two parts to this argument, the first logical, the second empirical.

1. If MDG2 of universal primary enrollment is achieved, then MDG3 of gender equality (at least in primary education) will be achieved.
2. If there is a shortfall of universal primary education, that shortfall tends to be because of worse performance on girls' schooling than on boys' schooling.

Because of the logical truism (1), the regions that completed MDG2 in effect got to count it twice also as MDG3, at least for primary schooling. Africa didn't have this opportunity because of the way MDG2 was constructed, and so again Africa is penalized relative to other regions.



Figure 6: Primary completion rate, moving median of 3 observations, log scale



**Table 1: Correlation of gender equality and average completion/enrollment rates across countries in 2001-2003**

Correlation of ratio of females to males:	Whole sample	Sample with completion/enrollment rate < 100 percent
in primary school with primary completion ratio	0.68	0.71
in secondary school with secondary gross enrollment rate	0.66	0.70

Second, gender inequality in schooling and overall enrollment are highly correlated in practice (see Table 1). This is not a new finding, it is well understood in the literature. For example, Birdsall, Levine, and Ibrahim 2005 (the report of a task force that tellingly studied the education and gender equality MDGs together) wrote:

More than 100 million children of primary school age are not in school, with the worst shortfalls in Africa and South Asia. Girls are disproportionately affected, particularly in Sub-Saharan Africa, South Asia, and East Asia and the Pacific, where 83 percent of all out-of-school girls live. (p. 1)

So MDG2 for universal schooling and MDG3 in gender equality in schooling are uncomfortably close to measuring the same thing. This argument is perhaps not as compelling a statement of bias against Africa as some of the other arguments in this paper, because many of the MDG targets might be correlated with each other. However, a region like Africa far away from the absolute target in one will likely be far away from the absolute target in the other. In particular, since the target is defined in terms of attaining an absolute level, it is once again true the region that started

with the lowest enrollment ratios (in this case, both primary and secondary enrollment ratios) will have the furthest to go in attaining the related absolute level goals of universal enrollment and gender equality in schooling. The use of the level target also hurts two other regions that started initially low on gender equality, like the Middle East and South Asia. It is again unclear why absolute level targets are used for some goals and proportional changes for others.

#### **Goal 4: Reducing child mortality by two-thirds**

We are back to the world of proportional reduction with Goal 4, that under-five mortality be reduced by two-thirds compared to its level in 1990. Child mortality has been falling everywhere, including in Africa (see Figure 7). Why is Africa off-track to meet MDG #4?

If we examine the history of reductions in child mortality with data going back to 1960 (at five year intervals), we find a strong regularity - the higher the initial mortality, the lower the subsequent percentage reduction in mortality (Clemens, Kenny, and Moss 2007 make a closely related point, that many social in-

Figure 7: Under 5 mortality in Africa, 1960-2005

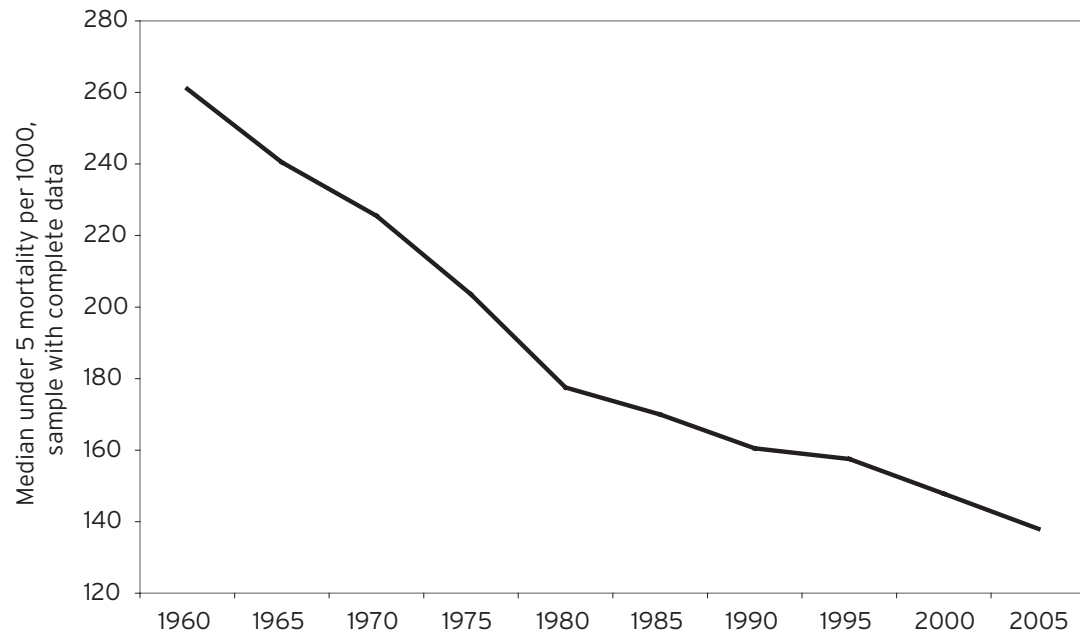
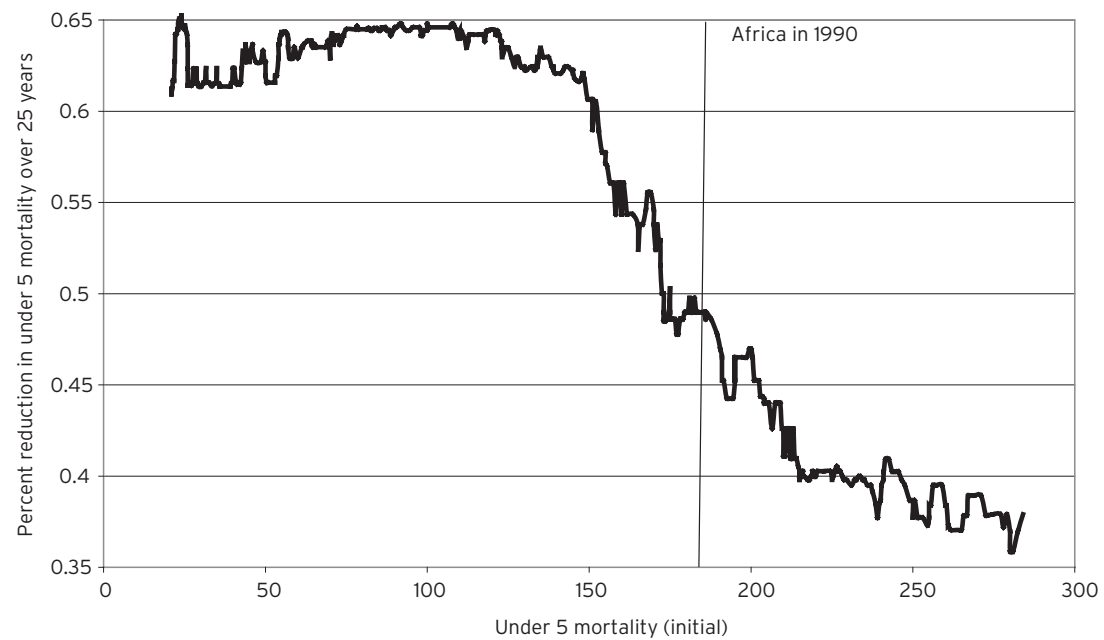


Figure 8: Percent reduction in under 5 mortality, 1960-2005, over 25 year period (100 observation moving median excluding gulf oil states)



**Table 2: Initial child mortality and subsequent reductions**

Under-5 mortality changes over 25 years			
	Percent reduction greater than or equal to 2/3	Percent reduction less than 2/3	Total
Under-5 mortality above Africa median in 1990	29	231	260
Under-5 mortality below Africa median in 1990	149	245	394
<b>Total</b>	<b>178</b>	<b>476</b>	<b>654</b>
Under-5 mortality changes over 25 years			
Percent of row totals	Percent reduction greater than or equal to 2/3	Percent reduction less than 2/3	
Under-5 mortality above Africa median in 1990	11%	89%	
Under-5 mortality below Africa median in 1990	38%	62%	
Under-5 mortality changes over 25 years			
Percent of column totals	Percent reduction greater than or equal to 2/3	Percent reduction less than 2/3	
Under-5 mortality above Africa median in 1990	16%	49%	
Under-5 mortality below Africa median in 1990	84%	51%	

dicators, including school enrollment, gender equality, and child mortality follow an S-shape curve over time, which would generate the prediction that percentage reductions would be lower at high initial mortality).

Table 2 shows the historical pattern of when percentage reductions of two-thirds or greater were realized over 25 year periods during the interval 1960-2005 (using overlapping episodes such as 1960-85, 1965-90, 1970-95, etc.). This is useful for assessing the likelihood of Africa achieving such a reduction over the 25 year period 1990-2015. We use under-5 mortality in the median African nation as a benchmark to divide the whole pooled, overlapping sample into

those episodes that began above this benchmark to those that began below it (Table 2). Of episodes that began above the Africa 1990 benchmark, only a small minority succeeded in reducing child mortality by two-thirds. Those that began below the benchmark showed this two-thirds reduction to be three times more likely than those above it. To look at it another way, a large majority of episodes of more than a 66.67% reduction in mortality began below the Africa 1990 benchmark mortality.

Figure 8 shows the continuous relationship between initial mortality and subsequent median percentage reduction over 25 years. The relationship is very

Figure 9: Under 5 mortality in 4 quartiles by initial mortality (log scale)

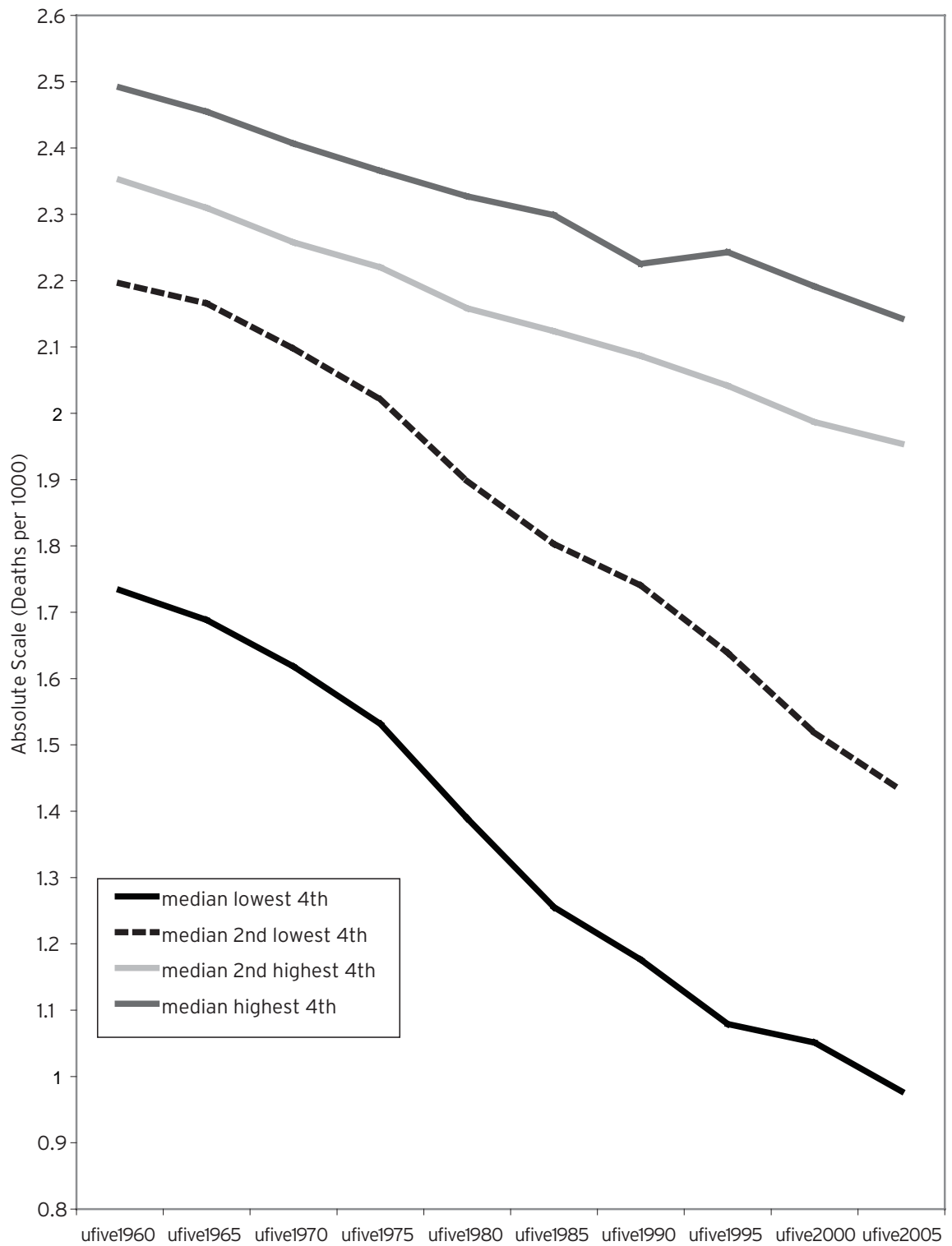
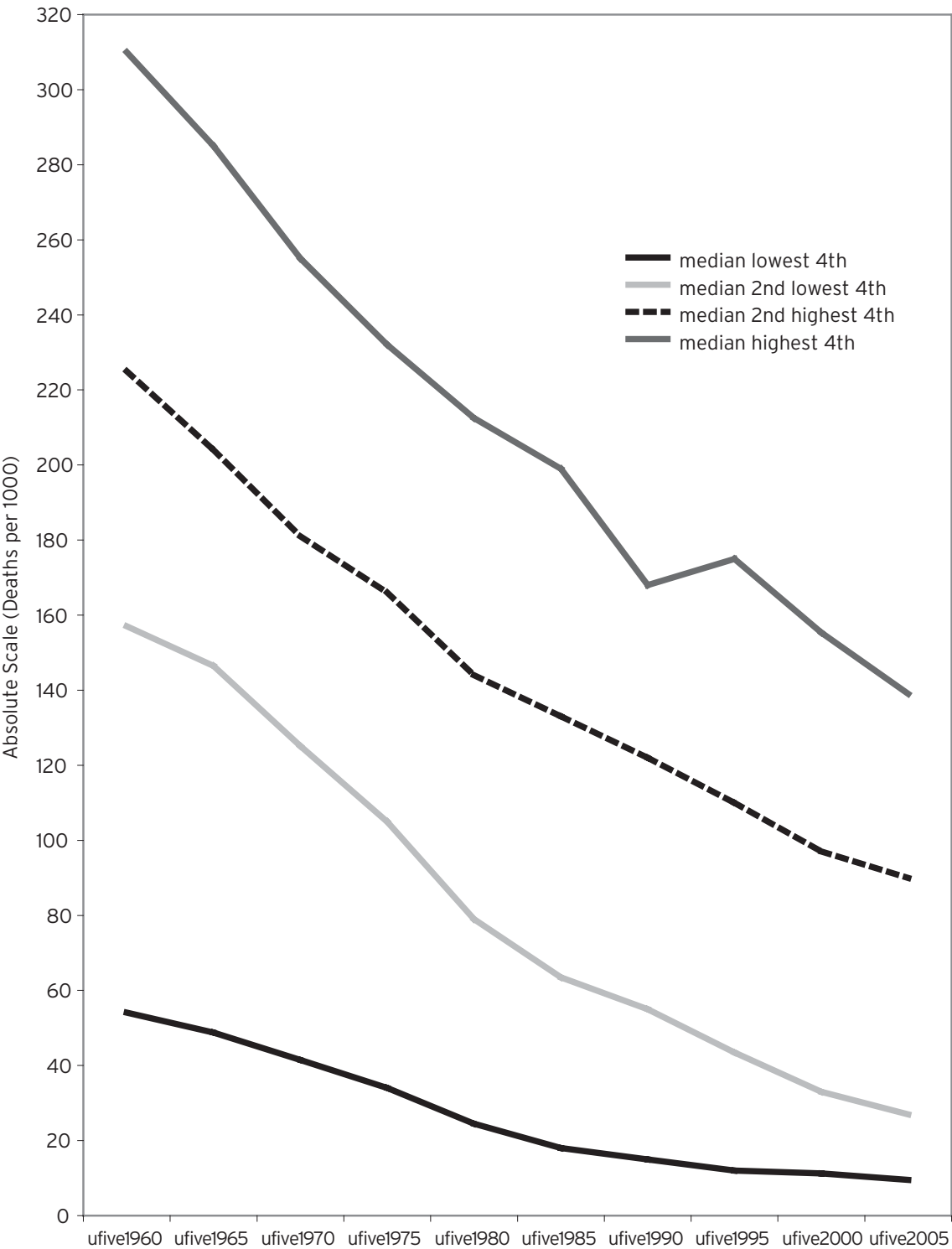




Figure 10: Under 5 mortality in 4 quartiles by initial mortality (absolute scale)



nonlinear, with high mortality countries showing a median reduction of about 35 to 40 percent, then the percentage reduction sharply increases as initial mortality falls, to again level off at 60-65 percent mortality reduction over 25 years at low mortality. Africa in 1990 (the highest mortality region) fell right at the inflection point, and hence was less likely than other regions to achieve this percentage reduction.

Figure 9 shows this pattern in another way, showing the evolution of child mortality on a log scale from 1960 to 2005 depending on what quartile of initial mortality in 1960 a country was in. The bottom two quartiles in initial mortality have much steeper proportional declines than the top quartiles.

**The data required to estimate such trends since 1990 (or even since 2000) does not now and never will exist for those benchmarks, and hence it is already too late to pass on any judgment on whether Africa is “on track” to meet Goals 5 and 6 or not.**

Although there is relative divergence of child mortality rates, there is *absolute* convergence of these same rates – as Figure 10 shows using an absolute scale rather than a log scale. It all depends on how you state the goal – a goal of proportional reduction is more likely to be met by initially low mortality countries, while a goal of absolute reduction in the child mortality rate would be more likely to be met in the initially high mortality countries. Since the goal was stated in proportional terms and Africa was the highest mortality region, the goal as stated was less likely to be met in Africa.

Which type of goal is right? Is an absolute reduction of 140 child deaths per 1000 a greater improvement in human welfare than a two-thirds reduction of mortality in a country that started with 50 child deaths per 1000? It is hard to make a definitive judgment. Perhaps the way the goal is stated should even not be

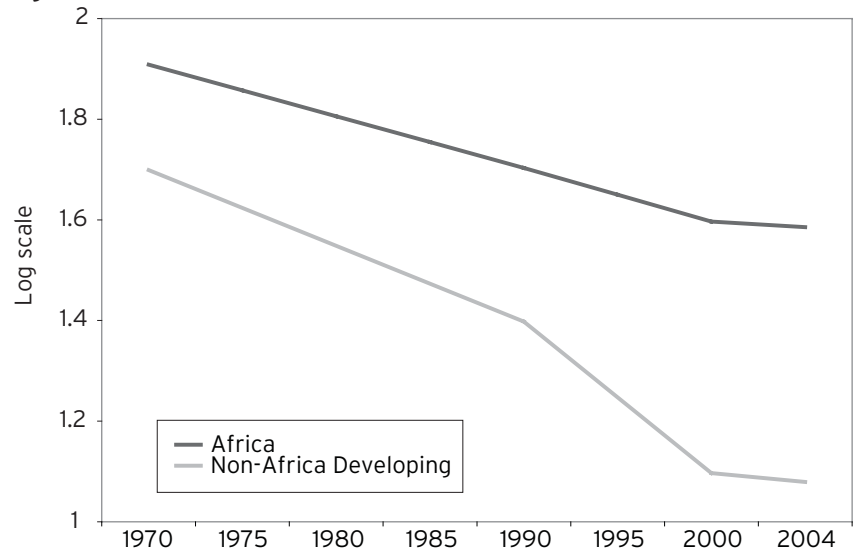
the same for vastly disparate countries. What seems clear is that the relationship between percentage increases and initial mortality made it more unlikely that a high mortality region like Africa would attain the proportional goal. In this sense, MDG #4 is also biased against Africa.

### **Goal 5: Maternal mortality and Goal 6: Fight AIDS, TB, and Malaria**

Africa's is said to be off track on both Goal 5 of reducing maternal mortality by two-thirds over its 1990 level and Goal 6 of beginning to halt and reverse the spread of major diseases like AIDS, TB, and Malaria.

It is not clear on what basis all of the above statements about “Africa missing all the MDGs” are made so confidently, as there is no comparable time series data on maternal mortality and the prevalence of AIDS, TB, and malaria beginning in 1990, or even beginning in 2000. The picture above in Figure 1 on how “Africa is missing the goals” showed that the LEVEL of maternal mortality was higher in Africa in 2000 and that AIDS prevalence was higher in Africa in 2003 than in other regions. The first is probably true, but even this was not based on real data – it was instead a “modeled estimate.” The second is very likely true, even though the exact numbers are hotly debated. However, even if these numbers are accurate, they are irrelevant to whether Africa is “on track” to meet Goals 5 and 6, which are about trends in maternal mortality and AIDS prevalence, not about levels. The data required to estimate such trends since 1990 (or even since 2000) does not now and never will exist for those benchmarks, and hence it is already too late to pass on any judgment on whether Africa is “on track” to meet Goals 5 and 6 or not. This is yet another way in which the MDG exercise is biased against Africa – even when there are no data, Africa is still said to be failing.

Figure 11: Percent without clean water



**Goal 7: Reduce proportion without clean water by half**

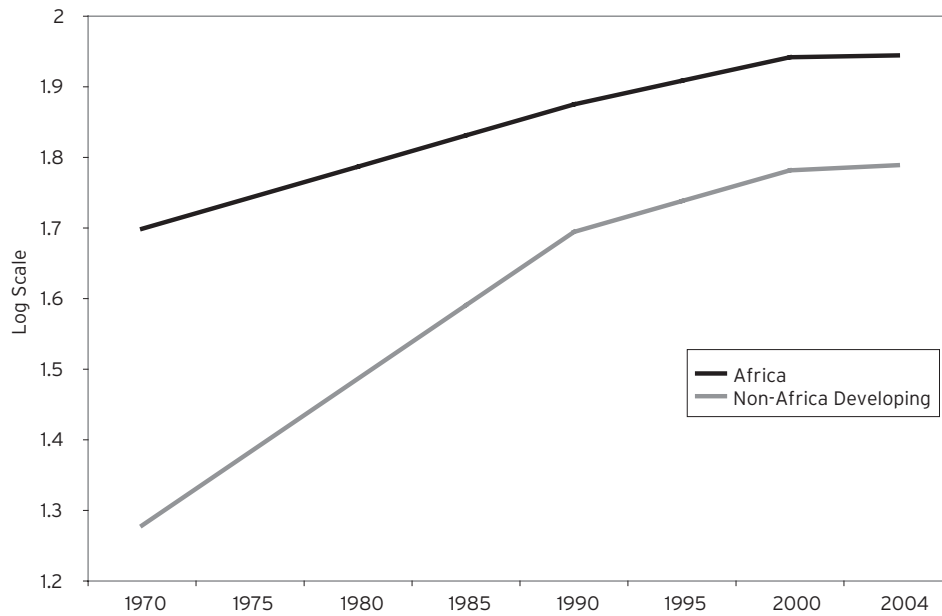
The data on the percent of the population with access to clean water are also very shaky, but here at least some numbers do exist over time. Whether Africa is “on track” to meet this goal turns out once again to depend on arbitrary assumptions about how to measure progress. Here yet another issue raises its head, should progress be measured as the increase in a positive indicator or the reduction in a negative indicator?

Goal 7 is stated in terms of a negative indicator, percent of the population WITHOUT clean water, although the statistic that is reported in the World Bank’s World Development Indicators and that has been used for many years in development work is the positive indicator of percent WITH clean water. Whether Africa is converging to other regions depends entirely on whether you look at percent WITH clean water or percent WITHOUT. How to choose whether to target

a positive or a negative indicator? Goals 1 and 2 were negative indicators, Goals 3 and 4 were positive indicators, Goals 5 and 6 were negative indicators again (albeit ones without data), so there is little consistent pattern to indicate which to choose for Goal 7.

Figures 11 and 12 show how much difference it makes, using log scales as again is the most appropriate whenever a proportional change goal is involved. Figure 11 shows the percent WITHOUT and Africa is diverging from the rest of developing countries from 1970 to 2004, while Figure 12 shows Africa is converging to other developing countries on the percent WITH clean water. Obviously, percentage changes are higher when one starts from a lower base, which gives the advantage to other regions on WITHOUT and the advantage to Africa on WITH. There is no obvious reason to choose one or the other, just as there was no obvious way to make some of the other choices highlighted above.

**Figure 12: Percent with clean water**



If we took the percent without clean water goal as sacred, we could do the analysis also in terms of how likely it is that a region will make a 50 percent reduction depending on the initial level without clean water. Figure 11 may reflect that the same principle holds for the without-water indicator as held for mortal-

ity, that a high percentage reduction is less likely at higher initial levels. I did not extend this to the same episode level analysis that I did for mortality because the underlying data are shaky and available at irregular intervals – errors less serious for constructing the large-sample medians shown in Figures 11 and 12.

## CONCLUSION

**T**he strong conclusion that Africa is missing the MDGs depends on arbitrary and arcane choices as to how you set up the MDGs. Although not necessarily intentionally, they were actually set up in a way that made it more unlikely that Africa will attain them than other regions. In sum for each of the seven MDGs:

1. It was less likely that Africa compared to other regions would achieve a 50 reduction in poverty over 25 years because it had the lowest per capita income, which is associated with the smallest percentage reduction in poverty for the same rate of growth. In addition, the goal was backdated to begin in 1990, penalizing Africa for its worse 1990s growth for a campaign that was announced in 2000.
2. It was less likely that Africa would attain the LEVEL target of universal primary enrollment because it started with the lowest initial primary enrollment and completion.
3. Gender equality in schooling is numerically equivalent to universal enrollment, so other regions that were closer to attaining goal #2 got to count the attainment of goal #2 twice (at least for the primary component of goal #3).
4. A two-thirds reduction in child mortality is less likely when you start at very high mortality, as Africa did.
5. Africa was said to be failing the goal of reducing maternal mortality by two-thirds, but there was no data on maternal mortality trends.
6. Africa was said to be failing to reduce AIDS, malaria, and TB prevalence, but there was no data on trends in these prevalence rates.
7. Africa was relatively falling behind on reducing the percent WITHOUT access to clean water, but it would have been relatively catching up if it had been measured the conventional way of percent WITH access to clean water. The choice of WITH and WITHOUT is arbitrary.

Hence, the implied picture of general failure in Africa - that it is failing to meet ALL seven MDGs - is not fair to Africa. It generates a more negative picture than is justified (not that this paper argues the other extreme that Africa is doing very well in all of these areas). The negative picture matters because it is demoralizing to African leaders and activists, and because it might have real consequences for things like private foreign investment to reinforce the stereotype that "Africa always fails."

The obvious question to ask is why did the MDG setup stigmatize Africa unfairly? There are two possibilities - that it was accidental or that it was intentional. I have no way of knowing which possibility holds. If it was accidental, then it points to carelessness about the MDG campaign, which did not think through setting up the MDGs in a way that gave a fair portrait of progress in all regions.

One of the original designers of the MDGs recently protested that they were meant to apply only at the only global level, not at the country or regional level (Vandemoortele 2007), and he also criticizes the demoralizing effect of labeling Africa an MDG "failure." The goals' design may have been motivated by what would make the most sense at the global level - for example, one could not have a global changes goal of, say, doubling primary completion if it was already more than 50 percent. Obviously this perspective was lost along the way, as the quotes in the introduction from the most prominent players in the MDG campaign make clear. The bias may have happened accidentally when the global goals were shifted to become regional and country goals.

The other possibility is that the bias against Africa was intentionally condoned (including the possibility that the bias-inducing shift from the global to the re-



gional and country level was intentionally condoned). I am not suggesting any sinister conspiracy, just a possibility that the greater “ambition” of the goals for Africa was understood and accepted. If so, perhaps it was motivated by the desire to draw more attention to Africa, raise more foreign aid resources, and spur other actions to solve Africa’s problems.

A UN Millennium Project statement in 2005 seems to imply this latter interpretation:

In every country that wants to achieve the Goals, particularly those with basic conditions of stability and good governance, the starting assumption should be that they are feasible unless technically proven otherwise. *In many of the poorest countries, the Goals are indeed ambitious*, but in most or even all countries they can still be achieved by 2015 *if there are intensive efforts by all parties*—to improve governance,

actively engage and empower civil society, promote entrepreneurship and the private sector, mobilize domestic resources, *substantially increase aid in countries that need it to support MDG-based priority investments*, and make suitable policy reforms at the global level, such as those in trade. (Investing in Development, p. 55, italics added)

Even under the latter, more benevolent, interpretation, it seems undesirable to exaggerate the “Africa as failure” image, which in turn exaggerates the role of “the West as Savior” for Africa (as the MDG campaign has often played out in practice). It is demoralizing to have goals for Africa that only be attained with progress that is nearly without historical precedent from other regions or in Africa itself. Africa has enough problems without international organizations and campaigners downplaying African progress when it happens.

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## ENDNOTES

1. Plus there is one goal relating to foreign aid and other items of “development cooperation” between rich and poor countries, which is not discussed here because it relates mainly to action of rich countries.
2. World Bank  
<http://ddp-ext.worldbank.org/ext/GMIS/gdmis.do?sited=2&menuId=LNAV01REGSUB6>
3. Previous criticisms of the MDGs include Clemens, Kenny, and Moss (2007), and Clemens (2004) (also nicely summarized in Clemens and Moss 2005), who argued the goals were excessively ambitious and would require progress that is historically unprecedented. This is closely related to points made in this paper about the Africa bias, but these previous papers did not focus on Africa per se. These authors also discussed whether increased aid would make achievement of the MDGs more likely (no was their answer), which this paper does not cover.
4. This point is far from original; it is noted by many previous authors. Bourguignon (2005) has an admirably clear discussion of the simple mechanics of poverty reduction with a log normal income distribution, building on the work of many previous authors like Chen and Ravallion (2004), and Kakwani (2000, 1990). Lopez and Serven (2006) defend the log normal approximation to income distribution. Kraay 2006 discusses similar issues. The log normal distribution is a sufficient but not a necessary condition for the relationship between the poverty elasticity and per capita income.
5. Source: the World Development Indicators. I defined the 4 decades 1965-75, 1975-85, 1985-95, and 1995-2005 and analyzed all developed and developing countries with complete data for any or all of the decades. As is conventional in growth analysis, I excluded the Persian Gulf oil countries and the transition countries, since both groups were subject to extraordinary collapses and recoveries based on oil production and prices in the former, and the transition from Communism in the latter. However, the conclusions would not be altered if I included these groups.
6. Because the primary completion data is very noisy and has some gaps, I use interpolation and a moving median of 3 observations to smooth the series and make it continuous.





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