

Unequal Access to Education: Accounting for Change and Counting Costs

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Introduction

This chapter is in three parts. The first explores how the landscape of education in low income countries has changed over the last three decades, and details changes in demography, patterns of enrolment, gendered participation and numbers of out of school children. The second seeks to understand how aid to education is evolving, notes that aid dependency persists, and raises key questions about whether more aid is a way forward. The third section directly analyses the dilemmas of costs and finance that confront national governments and the international community as they search for methods of financing sustainable educational development that reduces social and economic inequalities.

Article 26 of the UN Charter of Human Rights (United Nations, 1948) asserts that everyone has the right to basic education that is free and that education at all levels should be provided equitably to promote the full development of the human personality and respect for human rights and fundamental freedoms. Access to education is both part of the definition of development and a means to achieve it. It lies at the heart of inequalities and is a central vector for social mobility out of poverty. Yet all of the efforts to realise rights to education in poor countries over the last three decades have run up against the problems of how to finance mass education systems in more equitable ways and how to use aid most effectively.

Chris Colclough and I shared a journey along the education and development highway. We first worked together in the Human Resource Group at the Institute of Development Studies at Sussex in the 1970s. Our first joint paper was for the Bellagio Group Conference of donors in the early 1980s (Lewin, Little and Colclough 1982) which contributed to a shift in emphasis of aid to education towards basic education to benefit lower income households more equitably.

At the invitation of Richard Jolly we worked together on educational financing for UNICEF in the run up to the World Conference on Education for All (WCEFA) (UNESCO 1990a). Our analysis provided the first global estimates of the costs of Education for All and the reform package that would be necessary to make it

affordable (UNESCO 1990b). Fifteen years later Chris and I found ourselves directing sister Research Consortia on Education for the Department for International Development (DFID) exploring access and outcomes related to education and development.

WCEFA and the World Education Forum (WEF) (UNESCO 2000) in Dakar in 2000 reaffirmed that knowledge and skill translate into capabilities that underpin development. It is the distribution of access to opportunities to learn that shapes “who gets what?” in the competition for valued lifestyles, jobs, livelihoods and wellbeing (CREATE, 2006, Lewin and Sabates 2012) and it is the utility of educational outcomes that determines whether those who acquire knowledge and skill translate these into development (RECOUP, 2006).

Chris and I shared beliefs that greater equity and enhanced learning outcomes were part of any useful definition of educational development (Colclough 1977, Lewin 1985); that education was an investment in human capitals without which development would not take place (Colclough and Manor 1993, Lewin 2000); that mass education systems were an essential public good; and that the neo-liberal prescriptions of privatisation failed the tests of access and equity (Colclough (ed) 1997, Lewin 1994).

Section 1: The Changing Landscape of Education in Low Income Countries

Since 1990 the topography of educational development has changed in many ways with implications for access, participation and financing. Four of the most important transitions are discussed below.

Demographic transition

Demographic transition from high to low child population growth has occurred in East Asia and China, is well underway in most of South and South East Asia and in South America. In India our predictions are that about half the States are already in demographic transition and most of the remainder will be after 2020 (Lewin et al 2015). In Sub-Saharan Africa transition is occurring more slowly but the direction of travel is the same (Canning et al 2015). The implications for educational planning and financing are extensive since the most fundamental driver of costs is the size of the school age group. Contraction means there will be more workers per child, and more tax revenue per child to translate into educational investment.

As age groups shrink it should be easier to reduce differences in access and educational quality if the resources released by falling enrolments are targeted on enhancing equity and making attendance less burdensome to poor households. The next two decades will be unlike the 1980s and 1990s when the challenge of expanding participation was compounded by the need to keep pace with substantial population growth. No longer are most countries confronting the high rates of growth in the child population that in the last millennium meant

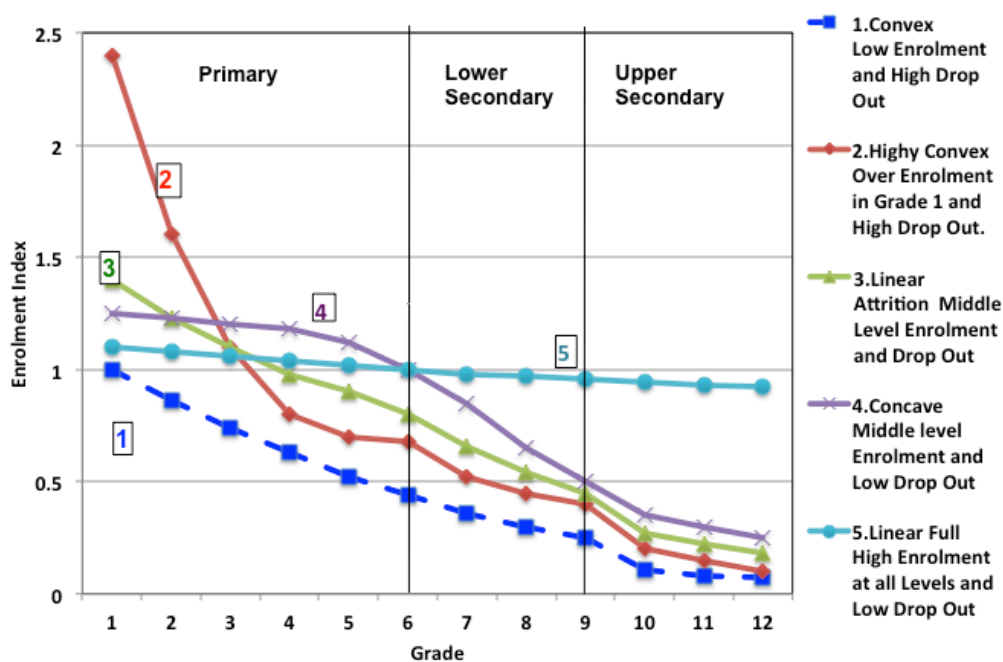
having to double the number of schools, teachers and learning materials every 20 years.

Sub-Saharan Africa (SSA) illustrates the benefits of transition. From 1990 to 2015 the number of primary age children in SSA grew by about 2.5% a year. There were twice as many children at the end of the period as at the beginning. Over the same time in the average Gross Enrolment Rate (GER) in primary increased from 74% to 99%. Enrolments in primary school increased at an annual rate of over 4% from about 60 million to over 150 million. Currently child population growth rates in SSA average about 2.1% for the LICs and 1.4% for LMICs and the GER averages 99% for primary (UIS 2018). The prospect is therefore of much slower growth in enrolments at primary of between 1% and 2% a year. The biggest long term challenge is one we anticipated in 1990 and it is of managing progress towards full enrolment at secondary level. Many poor countries are far from full enrolment and most have historic structures of costs that make universal access unavailable without reforms (Colclough and Lewin 1990, Lewin and Caillods 2000)

Children In School

Since the 1990s enrolment in LICs and LMICs has developed and into five characteristic types (Lewin 2008). Data on enrolments from more than 60 low and low middle income countries have been charted to show patterns of enrolment from grades 1 to grade 12 (Lewin 2017). The method uses an Index that compares enrolments in each grade with the population in the relevant age group. The five patterns are (1) *convex*, (2) *highly convex*, (3) *linear attrition*, (4) *concave*, and (5) *linear full*. Countries falling into each pattern are listed in Annex 1.

Figure 1 Types of Enrolment by Grade in LICs and LMICs



Source Derived from Lewin 2008, 2015

Figure 2 LICs and LMICs Classified by Enrolment Types

Pattern	LICs	LMICs	Comment
1. Convex: Low Enrolment High Drop Out Concave Curve	Burkina Faso, Eritrea, Gambia, Guinea, Haiti, Liberia, Mali, Niger, South Sudan, Sierra Leone	Cote D'Ivoire, Mauritania, Pakistan, Senegal	Intake rate and enrolment to grade 1 low and likely to include over-age children; low primary completion rates and very low lower secondary completion; progression strongly associated with household wealth
2. Highly Convex: Over Enrolment in Grade 1 and High Drop Out	Benin, Burundi, Chad, CAR, Comoros, Congo, DRC, Ethiopia, Madagascar, Malawi, Mozambique, Rwanda, Timor Leste, Togo, Uganda,	Cameroon	Intake and enrolment to grade 1 very high with double the number of children in lower grades than in the age group; high drop out with less than 75% completing primary; less than 50% completing lower secondary; progression strongly associated with household wealth
3. Linear Attrition: Middle Level Enrolment and Drop Out	Afghanistan, Bangladesh, Cambodia, Lao PDR, Myanmar, Nepal,	Lao PDR, Yemen, Nigeria	Intake and enrolment to grade 1 up to 40% more than in the age group; most but not all complete primary but less than 50% reach the end of lower secondary; children from richer households survive longer
4. Concave: Middle Level Enrolment and Low Drop Out	Tanzania	Bhutan, Ghana, Kenya, Honduras, Lesotho, Nicaragua, STP, Tanzania, Vietnam, Zambia, Zimbabwe	Intake and enrolment rates in grade 1 up to 10% more than in the age group; low drop out through primary with high completion rates; drop out accelerates through lower to upper secondary; children from richer households survive longer
5. Linear Full: High Enrolment and Low Drop Out	Tajikistan	Albania, Georgia, Kyrgyzstan, Moldova, Mongolia, Uzbekistan,	Full intake and enrolment in primary grades though to grade 9 with little drop out.

- Type 1 countries have convex enrolment curves through to grade 12. Intake levels into grade 1 are similar to the number of children in the entry age group. The participation index (number enrolled / number in age group for grade) is close to 1 for grade 1. The tipping point, where there are as many children in the age group than are enrolled in school, is in grade 1 or grade 2. Drop out starts in grade 1 and results in fewer than 50% completing grade 6. Completion rates may be below 40% at primary, and are less than 20% for lower secondary. Development at secondary level is strongly constrained by the output from primary.
- Type 2 countries have very convex enrolment curves with high rates of over enrolment in the early grades of primary. Tipping points are typically around grade 3. Enrolment in grade 1 may exceed 200% of the number of children in the age group. High drop out means that less than 70% of the age group complete grade 6 and less than 50% reach grade 9. Over-enrolment arises from many children entering who are over age, and from high rates of repetition. In some countries this pattern has persisted for more than two decades. The implication is that one equilibrium with low enrolment, low drop out and low completion (Type 1), has been replaced by another with a very

high intake, high enrolments, and a higher rate of drop out leading to low completion rates.

- Type 3 countries have enrolments that decline linearly with increasing grade, and the tipping point is around grade 4. It includes countries where the intake rate to grade 1 is high, but is less than 50% greater than the number of six year olds. No more than 75% of children in an age group reach the end of primary school. There may be serious issues with over-age children and repetition, and with persistent drop out such that fewer than 50% complete lower secondary. Primary completion rates constrain expansion of secondary school.
- Type 4 countries have concave enrolments and includes countries that are close to achieving universal completion of grade 6 but have less than 50% completing grade 9. Tipping points are around grade 6 or higher. These countries are more likely to have regularised intake into grade 1 so that all children are within a year of the appropriate age. Most of those who start primary finish at the right age. The biggest attrition occurs in lower secondary and less than half of all children succeed in entering upper secondary.
- Type 5 countries have full enrolment with similar numbers of children enrolled in each grade as there are in the relevant age cohort. Enrolment curves are linear and track the population growth of single age cohorts of children. There is no tipping point. These systems have achieved universal enrolment up to the end of lower secondary.

All the systems are likely to have quality, achievement and equity issues not evident from enrolment flow data. LICs are concentrated in Types 1, 2 and 3. LMICs are predominantly Type 4 and Type 5 systems. Time series analysis suggests that many Type 1 LMICs will graduate to become Type 2 or Type 3 within the next decade. It is also probable that Type 1 LICs will become Type 2 systems, and Type 2 become Type 3. Wherever there is significant drop out there will be inequalities of attainment. Large inequalities are likely to remain in all except Type 5 countries. The most significant correlates of exclusion across LICs and LMICs are household wealth, followed by location and then by gender (Lewin 2017).

Patterns of Participation and Gender

There was a consistent improvement in the balance of enrolments between girls and boys between 1980 and 1997 despite this including a period of falling enrolment rates as a result of widespread recession (Colclough, Al-Samarrai, Rose, and Tembon, 2003). The detailed patterns are complex. Overall in 1990 the Gender Parity Index (GPI) for all developing countries for primary enrolment was 0.86 and for SSA 0.79. By 2015 the value was 0.99 and for SSA 0.94. At secondary the GPI had reached 0.96 globally and 0.88 in SSA. In all regions girls out-enrolled boys at tertiary level except in South Asia and SSA.

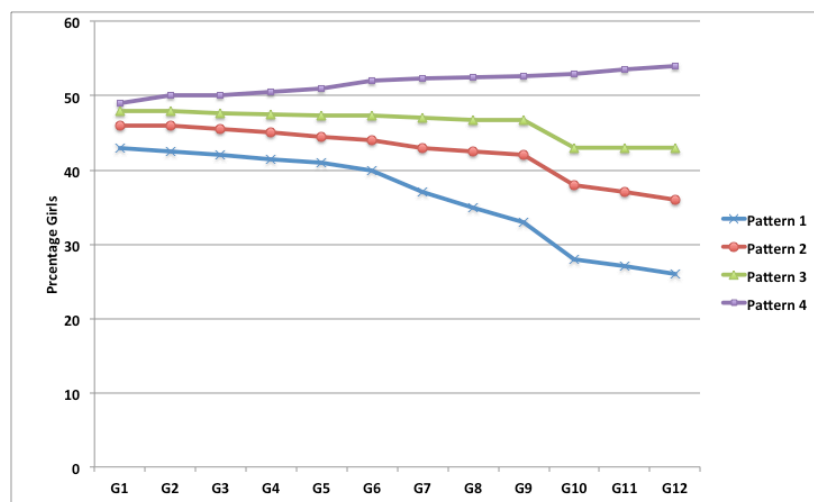
A key issue is that the exclusion of boys has become much more visible especially amongst older age groups at higher educational levels (GEMR 2018b). Few would have predicted that by 2015 girls would out enrol boys in higher education in Europe, North and South America and the Caribbean by more 130

to 100, suggesting boys suffer from new kinds of social exclusion. In most LICs and LMICs it is the poor who appear to discriminate most against their girls rather than the rich in terms of enrolment in school.

Patterns of enrolment of girls and boys can also be synthesised from 60 LICs and LMICs into a single chart to profile participation by grade. A parity index indicates the percentage of girls enrolled by grade. The results illustrate the need for different strategies to accelerate progress towards gender equitable enrolments at each level.

There are four different patterns of gendered exclusion in LICs and LMICs. These can be described as (1) *strong exclusion of girls in all grades*; (2), *weak exclusion of girls in primary, strong exclusion at secondary*; (3) *near equity in primary and weak exclusion of girls at secondary*; and (4) *gender equity or enrolment of more girls than boys in most grades*.

LICs and LMICs Classified by Percentage of Girls Enrolled by Grade



Source: Derived from Lewin 2008, 2015

Figure 3 LICs and LMICs Classified by Patterns of Participation by Gender

Pattern	LICs	LMICs	Comment
Pattern 1 High Inequality	Afghanistan, CAR, Chad		40%-45% girls in grade 1 falling to less than 35% by grade 9
Pattern 2 Middle Inequality	Benin, DRC, Eritrea, Guinea, Mali, Niger, Togo,	Cote d'Ivoire, Pakistan, Yemen	45-47% girls in grade 1 falling to below 45% by grade 6 and below 40% by grade 9
Pattern 3 Low Inequality	Burkina Faso, Burundi, Congo, Guinea Bisau, Ethiopia, Liberia, Mozambique, Sierra Leone, Tanzania	Cameroon Lao PDR, Nigeria	47% to 50% of girls in grade 1 with at least 45% up to grade 6. Grade 9 averages about 45%
Pattern 4 Equal Enrolment	Bangladesh, Bhutan, Cambodia, Gambia, Myanmar, Madagascar, Malawi, Nepal, Rwanda, STP, Timor Leste, Uganda, Vietnam,	Ghana, Guyana, Honduras, Kenya, Lesotho, Nicaragua, Senegal, Vietnam, Zambia	Average of 49% of girls in grade 1 and 50% in grade 6 and grade 9; more girls than boys in high enrolment countries; girls increase with grade level.

- Pattern 1 shows high inequality with large differences in enrolment in favour of boys at all levels. These countries have low overall level of participation.
- Pattern 2 countries have middle levels of inequality in enrolments and have 45% or fewer girls through primary grades.
- Pattern 3 countries have low levels of inequality equality up to the end of primary. At secondary level girl's participation begins to fall off.
- Pattern 4 reflects equal enrolments with participation of girls and boys within the 48%-52% range. There is a tendency for girls to enrol more than boys in higher grades.

Analysis of the data sets indicates that in LICs and LMICs gendered enrolment patterns tend to diminish as enrolment rates increase and patterns 3 and 4 become the most common. Gender differences in enrolments are larger for secondary schools than for primary. Where enrolment rates at secondary are above 50% girls tend to out enrol boys. In SSA in most countries girls tend to enrol younger and leave school earlier than boys who repeat more often and remain until greater ages. Time sequence data shows that most LICs and LMICs have made substantial progress towards gender equity and 75% of LICs and LMICs are now either Type 3 or type 4. Strikingly data on wealth inequalities shows much greater discrimination than in chances of enrolment at different grade levels and less change or consistency in the direction of travel than gender differences (WIDE, 2017).

In Pattern 1 80% of girls and boys have similar enrolment status but only 5% of countries are in Type 1. In Pattern 2, 90% girls and boys have the same participation rates. The problem of more equitable enrolment is concentrated amongst the 10% of children that have different enrolment status suggesting sharply targeted interventions are much most likely to have an impact on the differences. In Pattern 3 and 4 the great majority of girls and boys have the same enrolment status. This does not mean that gender equity is achieved. Critically indicators other than enrolment and completion rates are needed to identify, monitor, and reduce forms of gendered preference and differential exclusions of girls or boys.

Children Out of School

The number of children thought to be out of school has fallen dramatically. In the late 1980s we estimated that about 130 million children of primary school age were not enrolled (Colclough and Lewin 1990). By the time of WEF 2000 the number had fallen to about 94 million (UNESCO 2000). When the Incheon World Education Forum convened the number had fallen to about 60 million (UNESCO 2015). Half of the 60 million out of school primary age children are now in SSA compared to about 40% in 1990. Over 20 million of these are located in just six countries: Ethiopia, Mali, Niger, Nigeria, South Sudan and Tanzania (UIS 2018), Enrolments in secondary had increased fivefold from 11 million in 1990 to 55 million in 215 but still about 60% remained Out-of-School. Other parts of the

world succeeded in achieving more equitable access more rapidly to primary and secondary school than did SSA.

Strikingly the problem of out-of-school children is no longer constructed in terms of primary age children aged 6-11 years without access to education, but is about teenagers. In the last five years the global definition of Out-of-School children has expanded to include children above primary school age. Over 53% of the 262 million now thought to be out of school are of upper secondary age (16-18) and 23% are of lower secondary age (13-15) (UIS 2018b). This rewrites the map of the problem of Out-of-School children and the cost of addressing it. It raises questions about whether the right to education extends to the end of the teenage years and if so how will the delivery of the right be financed? It also places in sharp focus the equity trade off between “investing more in the most marginalised” or investing at the levels where the largest numbers are excluded (UNESCO 2017, GEMR 2017c)

Section 2: Evolution of Aid to Education

The macro shifts detailed above have rewritten parts of the education and development landscape. They have also had profound consequences for aid to education and are shifting the analysis and proposed responses to the “financing gaps” that are central to the persistence of the learning crisis that has persisted over the last three decades.

Much has been made in the last decade of the fact that aid to education has plateaued since 2010. Aid to education from member States of the Development Assistance Committee rose from the year 2000 to reach about USD 12 Billion per year by 2010. Since then flows of aid have stagnated despite much advocacy to commit a greater proportion of aid to education. Aid to education as a proportion of all aid averaged about 10% for 2000-2010 and then fell to around 7% (GEMR 2017a).

Aid to health has grown rapidly and is often compared to aid to education despite the differences being rather more important than the similarities (Colclough 1997). Impatient development partners have convinced themselves that outcomes from investments in health are less ambiguous and produce more short term “results” than investments in education and have largely failed to notice that aid to education is aid to improve health outcomes. Our advocacy (Colclough, Lewin and Oxenham 1985) that more investment in educational development at primary level was needed was based in part on this proposition.

Aid to basic education is now concentrated in a relatively small number of countries. The Global Partnership for Education (GPE 2018a) is a case in point. It is the largest source of concessional finance for education in LICs and it disburses over \$500 million year. About 24% of countries receiving this aid account for 68% of all its aid by value. Some large countries like Ethiopia,

Pakistan and the DRC are the major beneficiaries. On the other hand 42% of aid recipients receive less than 5% of all aid so there is a long tail of commitments (Lewin 2017:45). The IFFEd projections of financing gaps produce the unusual result that 64% of the financing gaps are in just 10 countries only one of which is a Sub-Saharan African country. SSA accounts for only 12% of the total education financing gap. India with one of the largest projected gaps actually gives three times as much aid as it receives. Something is awry with some ideas of a financing gap.

Aid is becoming less important. The amount the GPE can disburse is little more than 2% of the *additional* amounts needed for recurrent financing for the Education 2030 agenda. Significantly, at the GPE Replenishment conference in Dakar in (GPE 2018b, GEMRa 2018) countries likely to be in receipt of GPE grants pledged to increase spending on education to at least 20% of their public budget and 4%-6% of GDP. These pledges amounted to USD110 Billion dwarfing the USD 2.3 Billion pledged by the donors to the GPE. This was a reminder that most of the financial challenge for education is now for domestic financing not aid. The message is that if educational inequalities persist the heart of the problem does not signal a need for more aid. It indicates the need for more domestic commitment backed by political will to change historic patterns of resource allocation to favour greater equity.

Development is happening in many low and low middle income countries. Our best estimates of growth in GDP amongst LICs and LMICs anticipate an average of nearly 5% p.a. based on the most recent five year projections of the IMF (Lewin 2017). The range is wide from less than 2% p.a. to over 8%. At 4% growth GDP will increase by 50% in ten years. At 7% it will double in ten years with considerable benefits for the ability to finance education from domestic revenue. Economic growth will move about half of the current LICs into the LMIC category and some will become UMICs by 2030. These transitions will make countries ineligible for grants and concessional loans e.g. IDA. It should, *ceteris paribus*, reduce gaps in educational financing as more revenue is collected.

In a perverse piece of logic making the case for more “gap filling aid” the IFFEd has recently argued that as countries get richer they need to receive more aid, not less.

“ As countries transition from LIC to LMIC status, aid falls faster than tax receipts rise. Just when many countries start to emerge from very low per capita income, their growth is constrained as domestic taxes and market related public borrowing fail to expand fast enough to compensate for loss of concessional finance” (IFFEd Strategic Case 2019:13).

“Compensation” is a strange idea that both Easterly (2013) and Alice in Wonderland would enjoy. If aid was guaranteed despite aid related development targets being met, this would provide a perverse incentive to suppress domestic revenue collection and underinvest in education. It would increase inequalities between countries. There is an assumption that more lending will drive more growth and that lending can resolve shortfalls in recurrent spending without

risk. This is a not so much a theory of change but of a pathway towards dependence and default (Lensick and White 1999). Currently 20 SSA countries are formally in or at risk of debt distress according to the IMF. Economic transition should lead to less demand for concessionary loans to sub-prime borrowers and more financing from domestic revenue.

Section 3: Educational Financing Past and Future

In the run up to the Jomtien WCEFA in 1990 Chris and I undertook an analytic study which led to the keynote policy paper for the Round Table on Financing for UNICEF for WCEFA (Colclough and Lewin, UNESCO 1990). The paper mapped out the costs of EFA for the first time and identified what would be necessary to achieve the goals that were set in the World Declaration on Education for All. This led to the *Framework for Action to Meet Basic Learning Needs* (UNESCO 1990b) and a clear commitment to enhanced learning. It thus anticipated those arguing recently that what is needed now is *access plus learning* as if learning was not always a priority (LMTF 2015). The final report from WCEFA stressed the importance of learning and included recognition of the “third way” of delivering education through mass media and the informal sector and what would now be called social networks, expert and demand led peer to peer learning networks.

WCEFA committed the international community to mobilise up to \$2 billion a year over and above existing levels of expenditure to meet the financial challenges of Education for All (Usher, 1990:8). The of aid needed represented a 40% increase in the level of aid to education in 1990. It was a very affordable amount equivalent to two Aircraft carriers at a time when defence spending was averaging about 5% of GDP in SSA. A small peace dividend would have paid the bills. The amount would have been higher without a set of reforms to control costs, improve quality, enhance equity, and generate enough finance to support Schooling for All (Colclough with Lewin 1993:239).

The first set of reforms were *cost saving* and included double shifting, class size and teaching load management, and classroom assistants to extend the reach of qualified teachers. The second group of reforms were *cost shifting* and included being permissive of self financed private schools for those who could afford to pay, community contributions to the costs of school building, and a freezing of higher education subsidies unless it became more cost efficient and equitably accessed. The third set of reforms were *quality enhancing* and included investment in learning materials, increases in teacher’s salaries to ensure recruitment and motivation, and measures to increase internal efficiency through reducing repetition and drop out, improved management of learning, limits to the costs to household of attendance, and circles of support around children.

The proposals we made were designed to balance competing ambitions.

- Remain within plausible increases in financing

- Focus on universal basic education and restrain growth at higher levels
- Assume assistance would largely take the form of grants not loans
- Anticipate that economic growth and increased government allocations to education would close financing gaps after 2005
- Limit aid to levels that did not create long term dependence
- Allocate most aid to countries where the needs were greatest and use aid to enhance equity
- Gain political and professional commitment to the proposed reform agenda

Financing Futures

Fast forward to 2019 and the dimensions of the financing dilemma facing LICs and LMICs echoes the analysis Chris and I did in 1990 but the level of ambition has changed beyond recognition. The Sustainable Development Goals, and in particular the education specific SDG 4, anticipate universal enrolment to grade 12, pre-school for all, and massively expanded higher education and Technical and Vocational Education (United Nations 2015). This generates very large gaps between the resources currently allocated to education by governments in LICs and LMICs and the funding necessary. The gap identified by the IFFEd (2016: 105) is about \$ 50 billion a year. This is at least at least ten times the projected amount of aid that was needed for SFA in 1990. These new estimates are the result of ambition untempered by credible planning and realistic revenue streams. They are untroubled by what can be learned from the experience of Highly Indebted Poor Countries (HIPC) post 1996, and the 2008 financial crisis driven by derivatives and sub-prime lending.

Five key issues can be identified all of which have relevance to the kind of sustainable financing that can create the conditions for reducing inequalities. First, recent modelling for the GPE (Lewin 2017:54) indicates that if both primary and lower secondary school were to be universalized with imaginable efficiency gains, the amounts needed for education would average between 6% and 6.5% in LICs and LMICs. This scenario would still leave almost half of all children in LICs without access to upper secondary and less than 15% enrolling in higher education. Providing universal access to preschool would add 15 percent to the total cost. The current estimated total public expenditure on education across the LICs is about US\$19 billion and for LMICs US\$68 billion, representing 3.8 percent and 4.8 percent of GDP, respectively. This includes current aid contributions. To reach or exceed 6 percent of GDP would cost at least another US\$13 billion per year for the LICs and US\$22 billion for the LMICs totalling over US\$ 35 billion a year¹.

Second, the IFFEd has generated much higher costs for the SDGs to be achieved in LICs and LMICs (IFFEd 2016 :105). In their estimates DAC donors would have to increase aid to education in LICs alone from \$13 billion to \$49 Billion a year or

¹ India is excluded from the analysis since its size skews the results and it now receives little aid for education

nearly four times current levels. Their modelling makes the heroic assumption that it is realistic for the LICs to spend nearly 12% of their total budget on education with half of that being financed by aid. This would seem to fall outside the envelop of the “credible plan” advanced at the WEF 2000 as the criteria for external financing of education in LICs. This is four times as big as the Marshall Plan to reconstruct Europe after the second World War which ran at only 3% of GDP. It is also planned to last three times as long. If such large volumes were mobilised lasting aid dependence would be the result with as much as half of all educational spending in many LICs being externally financed.

Third, the Education 2030 Framework for Action agreed at WEF 2015 “urges adherence to the international and regional benchmarks of allocating efficiently at least 4 – 6% of Gross Domestic Product and/or at least 15 – 20% of total public expenditure to education”. Currently 40 percent of LICs and LMICs spend less than 4 percent of GDP on education (of which about a third is aid-related) and less than 15% allocate more than 6% of GDP. Fewer than 20 percent of LICs and LMICs spend more than 20 percent of their government budgets on education. These allocation levels have remained remarkably persistent over time. The proportion of GDP allocated to education in low income countries is currently 3.7% in LICs and 4.6% in LMICs. The proportion of government budgets allocated to education in LICs averaged 16% and LMICs averaged 17% (GEMR 2017:404). If the share of the government budget for education was not to exceed 20 percent (which is 33 percent greater than the current average for LICs and LMICs), and the amount collected from domestic revenue was the LIC/LMIC average of 16% of GDP then this would result in education expenditure being only 3.2% of GDP without aid (i.e. 20% of 16%). It would need at least 30% of the government budget to provide 5.8% of GDP. The targets need revisiting.

Fourth, the good news is that national revenue raising systems are modernising. This is transforming the landscape of educational financing and the “gaps” that exist between what is currently financed and what is needed. Aid to Africa was greater than tax receipts from 1986 to 1995. Since then it has fallen relative to GDP and tax revenues are now twice the value of aid (Moore, Prichard and Fjeldstadt, 2018). This trend is likely to continue with aid shrinking and tax revenues growing. Indeed, this is what is supposed to happen when countries develop and when aid programmes are effective. As low income economies grow direct taxes become a larger share of revenue, and total revenue should grow faster than the economy as the modern sector increases its share of economic activity. Taxes will also become more difficult to avoid with better biometric identification, electronic tracking of transactions, and compliance with international transparency requirements.

Lastly the importance of the evolution of low income countries towards becoming “Fiscal States” that have the capacity to borrow to invest and grow without aid has immense significance. By 2030 tax, not aid, will be the dominant source of public finance in most low income countries. More governments will be able to finance their own development and take control of their development agenda. If there is a “low learning trap” (WDR 2018) it is in large part a “low

financing trap”. It may be that “this year poses some real opportunities to unlock education for everyone - but only if we nail down exactly how we are going to do it and where the money is going to come from” (GEMR 2019). Both these questions have answers located firmly within countries and determined by the national political economy of possibilities rather than in more aid.

Concluding Remarks

Reflections on three decades of how educational financing lead to the conclusion that a two pronged strategy is needed to discourage history from repeating itself with another generation of gap filling aid. The first prong is to support investments in research and development that lead to durable gains in efficiency and effectiveness. LICs and LMICs, especially in Africa, spend relatively more on education and get relatively less in terms of access and learning outcomes than most other parts of the world. Learning is also very unevenly distributed. Three generations of aid to education since the 1960s have not yet succeeded in catalysing a transition to more efficient, effective and equitable systems.

Efficiency and effectiveness gains could generate many billions of dollars of savings and reduce educational financing gaps. Conversely many billions of dollars of additional funding without enhanced efficiency and effectiveness is unlikely to produce sustainable educational development that is worth financing. Sustainable development is not about filling gaps temporarily, but about inputs that generate lasting benefits in access, equity and capability that do not depend on sporadic external financing. Critically this kind of research and development must be embedded *in* systems not undertaken *on* systems by others, so that ownership is translated into action. Systems research has to be done by those who actually run systems who may then be motivated to generate the resources and political will needed to support system level changes that endure beyond short term funding cycles. The benefits would last indefinitely rather than the length of a project.

The second prong is to invest in fiscal reforms that can increase domestic revenue to levels that is needed to achieve the targets set by national governments. There is plenty of scope to raise more revenue and reduce the need for aid to fill “financing gaps”. The fundamental point is that a 1% increase in collection of revenue in SSA would be roughly equivalent to all the aid to basic education from DAC countries. It would not have to be replenished on an ad hoc basis every three years. It would be complemented and increased by real economic growth that would result in more revenue to fund more services.

The best estimates suggest in LICs and LMICS in SSA income tax charged on personal income collects between 5% and 10% of all tax revenue. This compares with a share of over 40% in OECD countries. Income tax is only paid by about 5% of all people who live in Africa, compared to 50% of adults in the OECD. In one East African country only 5% of all company Directors pay any income tax, and few of the wealthiest officials pay any income tax at all. A recent leak revealed that about 5,000 Africans held assets of over \$6 billion in just one Swiss Bank.

The wealthiest client with a personal account balance of over \$700 million came from one of Africa's poorest countries. Corporate tax avoidance and evasion appears widespread. There is no doubt that large amounts of income and assets – some suggest \$50 billion a year - are diverted off shore and are likely to remain untaxed. The result is gaps in educational financing.

More domestic revenue will be generated in most African countries as economies grow and revenue collection becomes more efficient, evasion more difficult, and money transfers more transparent. The uncertainty is more about how additional revenue will be spent than whether more will be collected. The critical shift in perspective is to realise that supporting fiscal reform is a kind of aid to education.

When Chris and I started working together in the 1970s the belief we shared was that development was increasingly something that could be accelerated by aid but not caused by it. Dependency theory reminded us “to develop” should be an intransitive rather than transitive verb with the onus on countries to develop themselves albeit with judicious assistance to accelerate progress. This fundamental truth remains the case.

This analysis in this chapter should not be misunderstood. More aid is needed but not of the gap filling kind that failed to result in sustainable educational development in the past. Gaps in educational financing are generated by aspirations and by the failure to match these with the political economy of good governance that balances resources with spending, and ambition with accountability. Aid and external assistance should never be a substitute for domestic political will. The goal of external financing should be to reduce the need for more external financing. This sounds blindingly obvious but the record suggests that it is yet to be a reality.

If there is a learning crisis it is now mostly to be located and resolved within the political economies and national social contracts of governments accountable to their taxpayers for investing fairly and effectively. The only sustainable solutions will be domestically driven. The problems of gaps in educational finance are shifting from the absolute shortages of domestic revenue in the 1990s, to problems of unbalanced allocation, inefficient mobilisation, and poor conversion of inputs and assets into outcomes. Time may be running out on gap filling aid.

“We cannot depend on other people to finance the education on our continent. I am saying that not to turn my back or to be ungrateful to all these important or noble people who have committed themselves to help, no.....But, if we make our policy dependent on other people when their policy changes, we will suffer. But, if we make the policy for ourselves, then it means that, at all times, we will be in control of our own destiny.” Akufu Addo, President of Ghana, GPE Replenishment, Dakar, Feb 2018.

The next decade will tell if this refreshing rhetoric is matched by a new willingness to curate educational aid towards a new agenda that seeks to reduce the need for more aid. The purpose of counting the costs of unequal access to education is to find a solution to how to pay costs not once, but once and forever, through fiscal reforms rather than the well intentioned but volatile benevolence

of aid. Dudley Seers, the founding Director of the Institute of Development Studies, would have agreed (Seers 1969). There is no solution to closing educational financing gaps that does not depend on the development of fiscal states that can fund public goods from domestic revenue. There is no solution that does not also work to promote efficiency and effectiveness and mobilise resources to best effect and minimise negative effects on the physical and social environment. Enduring solutions are endogenous.

Chris and I were proud of the contributions we were able to make to WCEFA that were precursors of the “Education for All” decades. More aid was mobilised, the focus shifted to basic education, and many millions of children experienced expanded school systems and learned much more than they did before. It is now clearer than ever that the purpose of external assistance to education in the future can no longer be to provide finance to fill gaps in recurrent expenditure. It is to accelerate progress towards educational reforms that promote efficiency, effectiveness and equity that are inextricably linked to well founded fiscal reforms that reduce the need for “gap filling” aid to education in the future.

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