ACCESS, AGE AND GRADE

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In many low enrolment countries children are over age for their grade. Conventional indicators of enrolment rates conceal this and better indicators are needed. Over age entry and progression disadvantages late starters; generates wide age ranges in classes and results in pedagogic difficulties; and is likely to especially disadvantage older girls. New efforts are need to ensure on age entry, progression close to age grade norms, and use of multi-grade methods where age in grade ranges remains wide. This policy brief draws on work in the CREATE Pathways to Access Research Monograph, *Improving Access, Equity and Transitions in Education: Creating a Research Agenda (Lewin, 2007).*

Access, Goals and Problems with Indicators

Access to education is central to the achievement of the Millennium Development Goals and the agenda set by the Jomtien and Dakar World Conferences which have promoted Education for All (EFA). The EFA Global Monitoring Report (GMR) assesses progress each year towards the Goals set by the Dakar Framework (see box opposite).

Much of the policy dialogue and development assistance associated with EFA has focussed on universalising primary education and increasing the numbers of girls in school. This is partly because it is easier to monitor progress on these two goals as they appear to lend themselves to simple quantitative indicators. Only recently has more emphasis been given to early childhood care and education and improving educational quality. Adult literacy and meeting the learning needs of all young people continue to be relatively neglected.

The most commonly used indicators of progress on universalizing primary schooling are Gross Enrolment Rates (GER = the total number enrolled in a cycle divided by the number of children of the appropriate age for the cycle), and Net Enrolment Rates (NER = the number enrolled in a cycle who

are within the age range for the cycle, divided by the number of children of the appropriate age for the cycle). The Gender Parity Index (GPI) is the indicator for gender equity. This indicator depends on the ratio of female to male GERs and NERs.

The Dakar EFA Goals
1. Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.
2. Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete free and compulsory primary education of good quality.
3. Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes.
4. Achieving a 50%improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults.
5. Eliminating gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring that girls have full and equal access to and achievement in basic education of good quality.
6. Improving all aspects of the quality of education and ensuring excellence so that recognised and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

GERs have the obvious problem that if all children enrolled are counted this includes many overage and some underage children as a result of variations in the age of entry and repetition of grades during a school career. Although NERs address this by only counting children of primary school age, conventionally they do this across all grades in the cycle. In the case of six year primary schooling with a nominal age of entry of 6 years, the number of children enrolled would include all those between the ages of 6-11 years, even if many 10 and 11 year olds were in grades 1, 2, 3 and 4.

Figure 1 shows the enrolment curve by grade for two hypothetical countries – country A and country B. Country A has many more children in grade 1 than there are 6 year olds in the population as a result of overage entry and repetition. It then has high attrition such that by grade 6 those enrolled are less than 50% of the age group for grade 6. Country B has an enrolment pattern where there numbers in each grade track the number of children of ages appropriate to the grade. Both countries have GERs close to 100%, but one is far from enrolling all children through to the end of primary and the other succeeds. In both cases GERs are close to 100% giving the misleading impression that the status of primary school access is similar. Surprisingly, if small differences are made in the assumptions about the number of overage children in the primary cycle, NERs for the two systems may also be the same. However, the underlying realities they represent are very different.
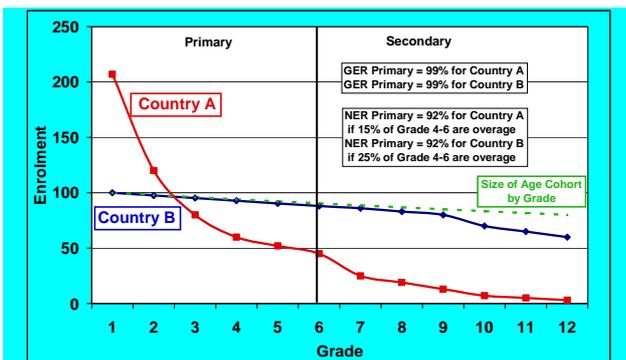

Figure 1 Gross and Net Enrolment Rates

There are two other key indicators used to assess progress on participation. The first is Grade 5 survival rates – the proportion of children entering grade 1 who are expected to reach grade 5. This indicator assumes that drop-outs never re-enrol, that promotion, repetition and drop-out rates remain constant across the cycle and that the rates within a grade apply across all pupils regardless of their repetition history. The second is primary completion rates – the ratio of the number successfully completing the last year of primary school compared to the number of children of official graduation age. As with GERs and NERs both of these are sensitive to the accuracy of demographic projections. The numbers of children within an age group are usually projected from census data that may be as much as 10 years old. Uncertainties of 5-10% are not uncommon leading to similar or greater uncertainties in GERs and NERs.

Actual enrolment patterns suggest that assumptions of constant promotion, repetition and drop-out rates across a cycle are unrealistic, especially where EFA has led to rapid enrolment growth. Enrolments by grade over time from an African country makes the point (Figure 2). Here the announcement of universal primary education resulted in a very large increase in grade 1 enrolments from about 800,000 to 2.2 million in one year. Seven years later enrolments in grade 7 had only reached 500,000 suggesting that attrition rates had increased. In this case it is clearly not true that promotion, repetition and drop out rates remain the same across grades.
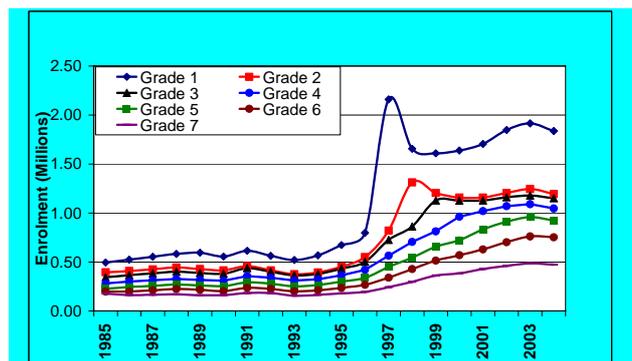

Figure 2 Enrolments by Grade and UPE

No indicators will be perfect. However it is clear that grade specific enrolment rates and weighted averages across grades would be a more helpful indicators of participation than NERs and GERs calculated across the whole cycle. And if population projections are uncertain, enrolment data may be a better indication of progress since comparison year by year should give some idea of growth which can be compared to growth in the birth rate and changes in child mortality.

Zones of Exclusion and Age

CREATE has developed a model of **Zones of Exclusion** expressed in terms of participation by grade. These Zones can be mapped in terms of participation by grade as in Figure 3 and are described in *Reconceptualising Access to Education*, CREATE Policy Brief No 1.

CREATE has also developed an **Expanded Vision of Access.** This emphasises the importance of entry to primary at an appropriate age and progression within a year of the appropriate age for each grade. This is not what happens in many low enrolment countries. Age of entry is delayed, and progression is hampered by repetition and interrupted schooling that results in many children being over age by the end of the primary cycle.
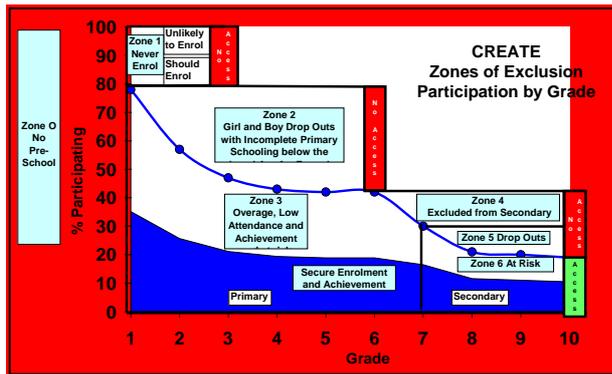

Figure 3 Zones of Exclusion by Grade

If participation is mapped from household survey data the result is often similar to Figure 4. In this hypothetical case based on plausible data, about 40% of six year old children are enrolled securely and perhaps 20% are enrolled but at risk of drop out from grade 1. The 40% who fail to enrol at the age of six reduces to about 10% by the age of eleven. Those who are still unenrolled are unlikely to ever enrol. The numbers who begin schooling but drop out before completing the cycle gradually increase with age until above the age of 12 or 13 they become the majority of those unenrolled. Those securely enrolled in primary in older age groups fall as they either drop out or complete primary successfully and transit to secondary school.
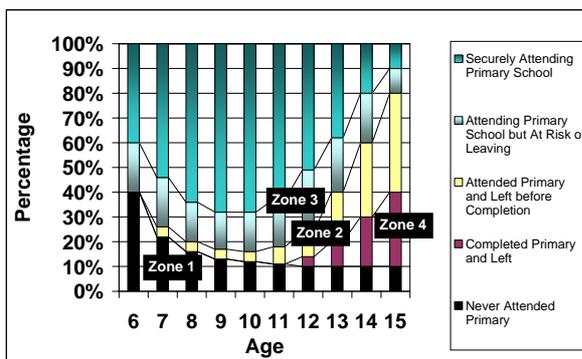

Figure 4 Zones of Exclusion by Age

Age in Grade Profiles

The range of ages of children within a grade can be wide in low enrolment countries. They may also tend to get wider the higher the grade as a result of the cumulative effects of repetition and interrupted schooling. This can be illustrated with data from a Sub-Saharan African country (Figure 5). Here in grade 1, boys and girls are between the ages of 5 and 10 years old. By grade 7, the end of primary, the age range is from 10-18 years, and remains wide in the secondary school grades.
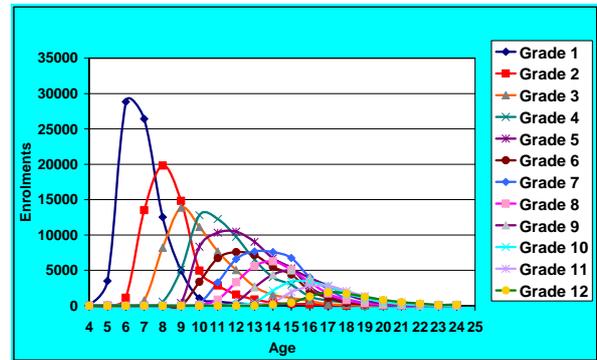

Figure 5 Age in Grade Distribution; Low Enrolment

A contrasting pattern can often be seen where enrolments are higher and the range of ages within grades is much less. An example from South Asia makes the point (Figure 6). Here the age in grade 1 only varies between 5 and 7 years, and from 12 to 14 years in grade 8.
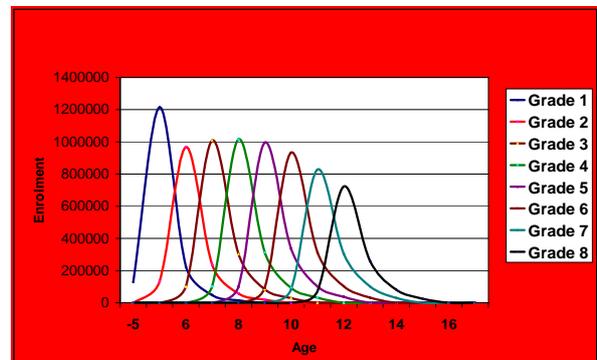

Figure 6 Age in Grade Distribution; Higher Enrolment

Both patterns can be found in SSA and South Asia but the first is most common where participation is lowest.

Does Age in Grade Matter?

First, delayed entry almost certainly disadvantages children entering school, especially where it is associated strongly with poverty. Those entering later are usually from the poorest households with the least cultural capital and least ability to pay the costs of pre-schooling. They are also disproportionately likely to suffer disadvantage from poor health and nutritional status, so they may be doubly disadvantaged.

Second, primary school curricula are generally not purposefully multi-graded. All children in a grade receive the same curriculum independent of their level of cognitive development. With wide ranges in age the natural variation in capability within an age group is over laid on that which stems from age related cognitive development. Mono-grade curricula assume learning readiness across class groups of children who can progress at the same pace. Wide age in grade ranges with mono-grade learning and teaching seem likely to increase the chances of failure and drop out of those much over age for their grade. Amongst the reasons will be repeated failure to succeed and the effects this may have on motivation; social tensions arising from different levels of maturation in the same group with older less capable children alongside younger peers; and pedagogies that may be suited to one age group necessarily being experienced by children in other age groups.

Third, being significantly over age almost certainly has adverse effects on girls' participation where cultural practices give preference to boys schooling, young ages of marriage are common, and puberty occurs whilst still in the primary grades. Two patterns exist in low enrolment countries. In the first, fewer girls enter school than boys in grade 1 and differences in enrolments persist through the primary grades. This problem has to be addressed at the point of entry with incentives to enrol girls and public campaigns to change attitudes.

The second pattern occurs where enrolments of boys and girls in the lower grades are at parity or better. As children get older differential rates of drop out occur. This is often correlated with puberty and is especially prominent in secondary schools in many low enrolment countries. Part of the reason is related to girls being over age since older boys tend to persist longer in low enrolment school systems than older girls. If all girls progressed on age for grade a significant proportion of the enrolment differences up to age 14 would disappear. The solution is to ensure initial entry as close as possible to the official age and organise learning and teaching in ways that do not result in excessive age in grade slippage.

Fourth, for different reasons some middle level enrolment education systems face problems in retaining over age boys. In Southern Africa, parts of South Asia and in the Caribbean, girls consistently out enrol boys. Above a 'tipping point' it is boys who differentially drop out usually in the early secondary grades. Over-age boys may experience rising opportunity costs which pull them out of school where income earning livelihoods are available.

They may also be more likely to act on the perceived irrelevance of curricula directed towards higher education entrance. The more over age they are, the more compelling these motivations may be.

Fifth, in many low enrolment systems low achievers are held back from final year primary school leaving examinations where schools are judged by league tables of pass rates. Blocking progress through to the last grade may discourage over age children from remaining enrolled as it becomes clear that they have little chance of gaining access to secondary schools.

What to do?

Actions needed to reduce age in grade variation include:

- Better indicators of age in grade participation, e.g. grade specific GERs and NERs and weighted averages across the cycle

- More systematic tracking of age cohorts through primary grades and into secondary, especially where skewed enrolment patterns persist

- Sustained campaigns and incentives to ensure entry to primary school at the appropriate age

- Policy and incentives to encourage schools to reduce the range of ages in grades through better management of student flow

- More efficient and effective practice in relation to repetition conceived of as a curriculum and pedagogic problem

Where age in grade will remain wide for reasons outside the control of educational providers, and where small schools with fewer teaches than grade groups are common, the options include:

- Systematic development of multi-grade pedagogy, supported by in-service training of teachers

- Promotion of curricula which allow progress at different rates within the same class group

For more detailed discussion, see:

Lewin K.M. (2007) *Improving Access, Equity and Transitions in Education; Creating a Research Agenda.* CREATE Pathways to Access Research Monograph No 1. Available at www.create-rcp.org.