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Growing Economies and Reducing Poverty in Developing Countries by Investing in Youth's Human Capital

Human capital and growth, the topic of this year's 35th Annual Economics Conference of the Oesterreichische Nationalbank, is at the core of the poverty reduction strategy for developing countries. In its *World Development Report (WDR) 1990: Poverty*, the World Bank reviewed country experiences and concluded that rapid and sustainable progress in reducing poverty required a two-part strategy. The first element is the pursuit of a pattern of growth that ensures productive use of the poor's most abundant asset – labor, or more broadly, their human capital. The second element is to increase the capacity of the poor to take advantage of these opportunities by helping them to improve that asset. At the time, the priority for investments in human capital was to provide the poor with access to basic social services, especially primary education, primary health care, and family planning.¹ The target of many of these policies was the very young. Variations on this strategy have inspired development plans for the past couple of decades.

This year's WDR, *2007: Development and the Next Generation* amplifies and, at the same time, refines this theme.² Specifically, it argues that, if countries are to sustain the substantial progress they have made in the past 20 years, they now need to

broaden their focus to developing the human capital of those who are a little older – those aged around 12 to 24 years old. Doing so would enable developing countries to take advantage of a unique window of opportunity afforded by temporarily falling dependency rates (known as the demographic dividend). Not doing so risks not only foregoing this opportunity but also alienating a very large cohort of young people, which could have a destabilizing effect on entire societies.

The next section of this paper provides further reasons why developing countries may want to focus on the next generation – today's youth. This is followed by a discussion of why and how it is necessary to refine the basic human capital model in applying it to young people. Three succeeding sections then summarize the WDR 2007's three-part framework for evaluating countries' policies for developing the human capital of the next generation – broadening their opportunities, enhancing their ability to choose among these opportunities, and providing them with second chances in the event that they make poor choices. A brief summary of the benefits and costs of adopting a more comprehensive approach to young people concludes the paper.

¹ World Bank (1990).

² Many of the ideas in this paper are summarized from the World Bank (2006). I would like to thank the colleagues who served with me on the team that prepared that report.

Why Young People and Why Now?

The present global cohort of 1.3 billion young people aged 12 to 24 is the largest in world history. Owing to declining fertility in developing countries, these numbers are on a long plateau, in the sense that they will increase slowly to around 1.5 billion in 2035 and decline gradually thereafter.³

Some see these large numbers as a risk to economic and social stability in developing countries. Governments are acutely aware of the higher fiscal costs of providing services to a large cohort with unprecedented levels of access to primary education and child health services. Concerns also abound because of the risk of unemployment. When the post-war baby boom occurred in Europe and the United States, every percentage point increase in the share of young people in the labor force was associated with a half a percent increase in youth unemployment.⁴ While no straightforward parallel can be drawn as most developing countries are not experiencing a rise in the share of young entrants into the labor force, it is clear that these countries are experiencing similar difficulties in using the human resources of their youth populations effectively.

The other side of the coin is that this is an unprecedented opportunity for countries to deepen their human capital because of the already strong human capital base of the youth generation and because of the demo-

graphic dividend. Despite outstanding challenges, over the past two or three decades, enormous progress has been made in the areas of basic education and health care in developing countries. Primary school enrollment rates in low-income countries outside of China and India rose from 50% in 1970 to 88% in 2000. Average life expectancy at birth worldwide rose from 51 years to 65 years in less than 40 years, largely due to declines in infant and child mortality in the developing world. Making further progress in human capital development will require governments to meet the challenging education and health needs of those aged 12 and over.

The demographic dividend presents another opportunity. Young people today are growing up in smaller families as fertility rates decline. A fifth of adolescents in countries with a total fertility rate of 3 have no siblings, compared with a tenth in countries with a total fertility rate of 5.⁵ Declining fertility means fewer siblings per child and less competition for resources within each household. This can be an important factor in encouraging families, and young people, to invest in their own development. What also matters of course is whether government policies foster an overall climate that favors this human capital investment.

While the timing may vary, this fertility transition means that the share of people of working age in the total population is rising in many de-

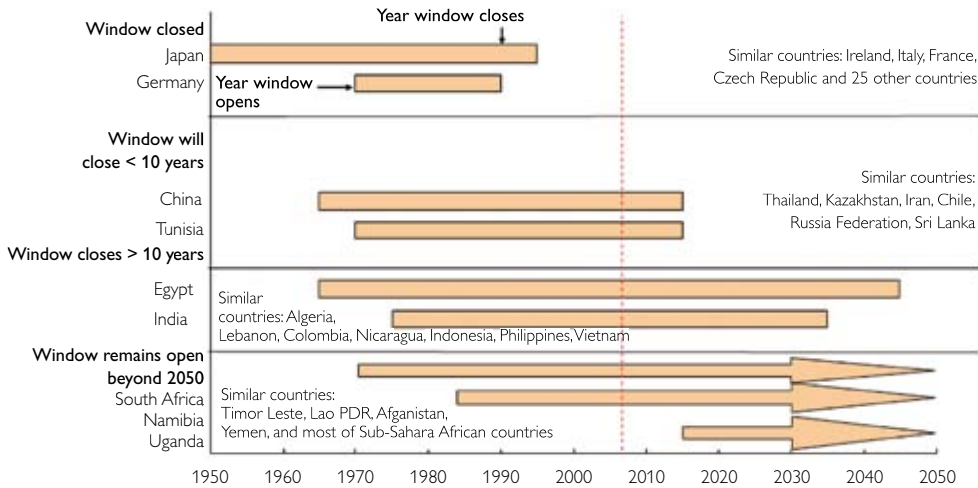
³ For this analysis, we relied on the UN's World Population Prospects database (the 2004 Revision). We used the medium variant of the forecasts.

⁴ Blanchflower and Freeman (2000).

⁵ National Academy of Sciences and National Institute of Medicine (2005).

Chart 1

Demographic Windows of Opportunity when Dependency Rates Are Falling



Source: World Bank (2006a).

veloping countries. This expansion in the workforce in a population that has fewer children and elderly to support means that individuals have increasingly more money to invest in human capital. Many developing countries are experiencing declines of this order of magnitude; in others, including many low-income countries, such declines will be happening in the very near future. Thus, the economic opportunity for investing in children and young people is better than ever before.

Combined with the right policies and institutions, the rise in the share of working age population can boost growth. Between 1965 and 1990, the East Asian “tiger” economies grew much faster than those of Latin America, and one study attributes more than 40% of this higher growth to the faster growth in East Asia’s working age population combined with better policies on trade and human

capital development.⁶ With many developing countries now in (or soon to experience) a demographic window of opportunity, a key question is whether they can learn from the experience of the Asian tigers in providing opportunities for the young labor force to develop their human capital and use it productively in work. This window of opportunity of falling dependency rates will not last forever because aging and retirement will cause them to go up again. As shown in chart 1, this window has already closed in richer countries, but for now, it remains open in developing countries.

A Framework for Analysis: Applying the Human Capital Model

What are the policies and institutions that can lead to the right outcomes? The WDR 2007 claims that policies that encourage investments in young

⁶ Bloom and Canning (2004).

people's human capital during five youth transitions are particularly important:

- Whether they continue to learn beyond primary school age since it is easier to learn when young than when older
- At what age they enter the workforce for the first time because when people leave school, when they begin to work and what kind of job they get will affect their long-term employment prospects
- Whether they stay healthy during a time of experimentation because taking health risks, such as having many sexual encounters or starting to smoke, can have catastrophic effects
- At what age they marry and have children because young people's parenting skills affect the human capital of their children
- Whether they exercise their citizenship, as research shows that the habits of civic engagement are formed early and persist over time.

And what are the priorities for policy action? Economists can still rely on the now classical human capital model to determine these priorities. If the true test of the value of an economic theory is its longevity, then this model passes with flying colors.⁷ The basics are simple and empirically testable (and generally validated). An individual will invest in his or her own human capital (whether in the form of an additional year of schooling or on-the-job training or in the form of adopting a healthy lifestyle) as long as

the marginal gain from that investment exceeds its added cost. The gains extend over a lifetime and are discounted to the present. If some of these gains accrue to others, then governments need to encourage individuals to take those gains into account as well as the gains to themselves in making their decisions. The government may also need to provide some financial assistance to those poor individuals who are unable to afford to finance the investment in advance despite the likelihood of them making big gains in the future.

However, like all basic models, the elegance of the human capital model comes at the price of simplifying assumptions. One assumption relates to the role played by governments in correcting for any failures of the market. Government policymakers do not behave as the benevolent dictators that the models would have them be, dutifully correcting for externalities and equalizing opportunities for all. Rather, their behavior may depend on their accountability. Are they accountable to the ultimate beneficiaries, to special interest groups, to voters at large, or even to their own families or livelihoods? Getting this right will determine outcomes, as was discussed in WDR 2004.⁸ If these policymakers do not feel accountable to young people or if those young people have no platform from which to hold providers accountable, then there are unlikely to be many policies that promote human capital investments in young people.

⁷ Recognized by the awarding of Nobel Prizes to Becker and Schultz (Schultz, 1960).

⁸ World Bank (2003).

Another assumption has to do with who is making the decisions about investing in human capital. The model assumes that a young person makes his or her own decisions. However, between the ages of 12 and 24, young people are still subject to the authority of their parents and/or households who still have a say in any decision about the young person's life. But how much influence does each party have? How do they resolve conflicts if they have different views on, for example, whether the young person should work in the fields and contribute to the household's income or continue to go to school? Some extensions to the human capital model include bargaining among household members to determine human capital investments, but these models are restricted to two parties – the spouses – and tend to treat children as passive receivers of parental decisions.⁹ In some societies, this assumption is not a valid reflection of the reality of the parental relationship with teenagers, but in others, it may very well describe how young people's opportunities can be limited by social conventions.

A final assumption concerns the motives and preferences of the young person as a decision-maker. The model

assumes that human capital investors are well-informed about the benefits and costs of their decisions, discount the future appropriately at the prevailing economic discount rate, account for the risk involved in the investment by comparing it rationally with other risky assets, and have well-formed views not just about their present preferences but also about their future desired consumption bundles as well. But in reality, many young people are inexperienced decision-makers who are only selectively informed about the risks, costs, and benefits of most human capital investments and, even if they wanted to, lack the resources to finance them. Also, many tend to be more myopic and impatient than adults, which may lead them to discount the value of making long-term investments in their human capital. And they are still forming their own identity so that their own preferences for consumption are not well formed and may easily be influenced by their peers (see box). Extensions of the basic model include the explicit modeling of information asymmetries,¹⁰ identity formation,¹¹ the dynamic effects of cumulative learning,¹² and the synthesis of behavioral science with economic thinking.¹³

⁹ An exception is Moehling (2005) who has studied the bargaining power of working children in the U.S.A.

¹⁰ Proposed by Nobel Laureates Michael Spence and Joseph Stiglitz among others. See Spence (1973) and Stiglitz (1975).

¹¹ Proposed by Nobel Laureate George Akerlof (see Akerlof and Kranton 2000), among others.

¹² See the work of Nobel Laureate James Heckman and his colleagues (Cunha et al., 2005).

¹³ See the work of Nobel Laureate Daniel Kahneman and his colleagues (Kahneman and Tversky, 2000).

Neuroscience Meets Social Science – Brain Development in Young People

A decade ago, the prevailing notion was that human brain growth ended at about the age of two. Since then, we have learned that brain growth continues well into adolescence (between the ages of 10 and 19) and into young adulthood. During this period, the brain undergoes a series of changes, and the parts of the brain associated with social skills, problem solving, and identifying emotions mature only by the early 20s. However, this process of brain development cannot entirely explain adolescent decision-making and behavior. Nor does it override the effect of the environment – parents, schools, and communities – in which young people live.

What does this new brain research mean for understanding adolescent decision-making and behavior? Although much more research is needed before definitive policies can be recommended based on the new brain research, it suggests some interesting policy considerations:

- *The loss of neuronal excitation in adolescence is associated with a rise in depression, especially among adolescent females, suggesting a biological basis for the epidemiological finding that gender differences in depression start around the time of puberty. These biological changes combine with external sources of stress to increase the risk of suicide for young people in many countries of the world.*
- *As the brain matures during adolescence, alternations in the synaptic chemicals may influence learning (drugs for attention-deficit disorders improve information transfer at the level of the neuronal synapse). For example, antidepressant drugs may allow certain excitatory neurotransmitters to stay in the space between two brain cells longer than otherwise.*
- *Learning and teaching strategies should be timed to increase young people’s neurodevelopmental capacities. Because neurodevelopmental maturation occurs at different chronological ages for different people, their inability to grasp a concept at one age does not mean that they will be unable to learn the material at a later time. This highlights the risk of educational “tracking” based on comprehension or performance examinations at a young age.*
- *Without a fully mature prefrontal cortex, adolescents may be more impulsive than adults and perhaps more susceptible to peer influences. This impulsiveness – especially in reactive decision-making, as when faced with a situation or threatened to make an immediate decision – emphasizes the value of second-chance programs.*

However, it is too early in the research to draw definitive conclusions about brain development and behavior. Also, physical development interacts with the social environment to determine behavior and outcomes. So parental behavior and expectations, effective schools, communities that are youth-oriented and supportive all make a difference in determining young people’s behavior and how well they learn complex decision-making skills.

Source: Blum (2006).

These refinements to the human capital model mean that, when examining their present policies to develop the human capital of young people, governments should consider not only whether they are providing enough opportunities for young people to develop and use their human capital but

also whether they are developing young people’s ability to choose wisely among these opportunities. Furthermore, they need to consider whether they are providing enough second-chance programs to help young people recover in the almost inevitable event that they make some

poor choices. The WDR 2007 refers to these considerations as the three “youth lenses” through which a country’s policies and institutions must be seen. The rest of this paper applies these lenses to existing policies.

Broadening Young People’s Opportunities

As stated earlier, most developing countries have almost universally succeeded in expanding opportunities for young children, particularly in providing access to primary schools. However, applying a youth lens to these policies reveals at least two important gaps. One is the gap between the quality of the actual education being provided and the skills and knowledge that young people need to succeed in work and life. The other is the gap between the opportunities to continue in school and the opportunities to use the skills learned in school in productive work.

Enhancing the Quality of Human Capital Formation

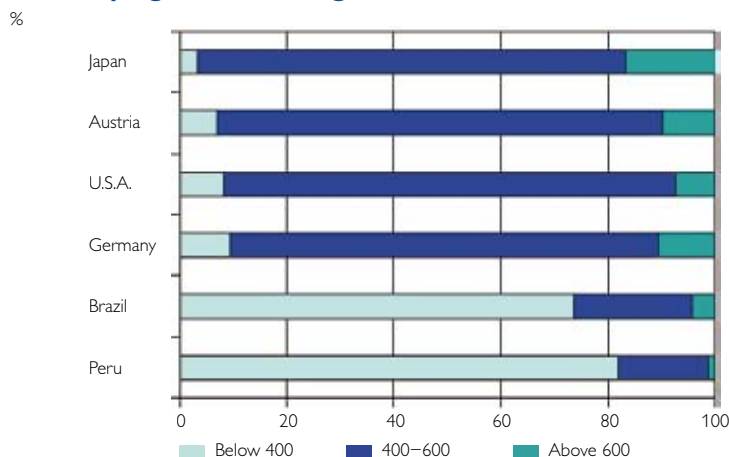
The lesson from the massive expansions in education the 1980s and 1990s is clear – expanding enrollment rapidly can come at the cost of quality. This is reflected in the high enrollment rates but low achievement rates that exist in many developing countries. In Morocco and Namibia, more than 80% of school children stay in school until the last grade of primary education, but fewer than 20% have a minimum mastery of the material. In Ghana and Zambia, fewer than 60% of young women who

have completed six years of primary schooling can read a simple sentence in their own language. Young people are already paying the price of this low quality. Many of the large numbers of adolescents who complete primary education do not know enough to be literate and numerate members of society. Looking through a youth lens thus reinforces the need – which has been well-documented in worldwide education monitoring reports¹⁴ – to improve the balance between expanding primary enrollments and ensuring a minimum quality standard.

This pressure is also being felt in secondary schools and universities, especially in middle-income countries as they cater for more students. It is often very difficult to compare the quality of education across countries because there is no single reference point. But a recent study by Rick Hanushek and Ludger Woessman took the results of standardized tests taken by children in 77 countries and attempted to make them roughly comparable by referencing them to a single standard (the U.S.A., since that country participated in all of the standardized tests). They then computed an index of quality and compared the results across all 77 countries. Chart 2 shows the results for six of these countries. Japanese students performed the best among the six. Almost 17% scored 600 and above, and fewer than 4% scored lower than 400, which the authors considered a rough threshold of functional literacy. Countries like Austria, the United States, and Germany did not perform

¹⁴ UNESCO (2004).

Distribution of Comparable Test Scores at Secondary Level Shows that Developing Countries Lag Well Behind



Source: Hanushek and Woessmann.

Note: 400 is interpreted as "functional literacy" level; above 600 is considered excellent.

quite as well but were not far off. However, in countries like Brazil and Peru, much larger proportions of their students performed poorly.

Part of the solution is to improve not only the infrastructure of basic and secondary education but also the behavior of teachers and administrators. Improving teachers' incentives to maximize the academic performance of their students and increasing the accountability of school administrators to students and their parents were discussed as priority actions in the WDR 2004.¹⁵

If education quality is low or if what is being taught in schools is not relevant in the job market, unemployment rates can be high even for some of the most highly educated. Employers also demand quality and relevance from an upper secondary curriculum that should emphasize practical thinking and behavioral skills, as in South

Africa, and offer a blend of academic and vocational subjects. Policies that create links between educational institutions and prospective employers from the private sector involving regular consultations about employers' skill needs, and joint university-industry research projects, as in China, may also be worthwhile considering.

Another solution is to improve the foundations of children's human capital before they reach adolescence as early investments in nutrition, health, and cognitive development have a positive impact on children's future outcomes. In countries as diverse as Jamaica, the Philippines, Turkey, and the United States, enriched childcare and preschool programs have led to higher achievement test scores, higher graduation rates from high school, and even lower crime rates for participants, which have been evident well into their 20s.¹⁶

¹⁵ World Bank (2003).

¹⁶ Garces et al. (2000), Glewwe et al. (2001) and Kagitcibasi et al. (2001).

Such reforms can be costly because of the high unit cost of educating students beyond the basic level. Teacher shortages in math and the sciences are acute, especially in Sub-Saharan Africa. It may be possible to make efficiency gains by improving the incentives for administrators and teachers, such as performance-based pay schemes now being tried in some Latin American countries.

Facilitating the School-to-Work Transition

For an economy to take advantage of enhanced human capital stocks, it is essential to deploy workers properly. Across all societies, it is not easy to start earning an independent livelihood, especially because the key to getting a job is having a track record – in work habits, job-related skills, and repaying loans – which of course is impossible for someone who is new to the labor force. Therefore, it is not surprising that youth unemployment rates are almost always significantly higher than adult unemployment rates – even in richer countries, where it is often double the adult rate. This differential varies widely in developing countries, but in some countries, youth unemployment can be three to six times higher than that of adults. So what is it that determines a country's success in deploying its young labor?

The first and best way to broaden the employment opportunities available to young people is to promote economy-wide growth that stimulates demand on the principle that a rising tide lifts young people's boats as well

as everyone else's.¹⁷ In many economies, an export orientation and foreign direct investment have expanded the demand for young workers. Along with sound basic education, these policies have been identified as central to the East Asian "miracle". In Indonesia, heavily export-oriented sectors such as electronics and textiles are youth-intensive sectors, in that their youth employment shares are more than twice the national average. So policies that open the economy to free trade tend to be youth-friendly. Looking through a youth lens simply reinforces the arguments in favor of pursuing these policies in the first place.

Looking through a youth lens may also mean that some general policies need to be changed once their implications for young people are taken into account, such as any labor market regulations that negatively affect new entrants disproportionately. Any policies that limit flexibility and mobility between sectors tend to make it harder for new entrants to find work and, thus, constrain young people more than others. The employment protection laws that prevail in Latin American and OECD countries tend to increase the youth unemployment rate. If minimum wages are set too high, they can discourage employers from employing the unskilled, who tend to be mostly young workers who are just beginning their working lives. This is not an argument for scrapping all such laws and regulations. Instead, it is a call to governments to develop policies that provide adequate employment protection without stifling

¹⁷ UNESCO (2004).

opportunities for groups that are already at a disadvantage in the labor market.

If these jobs are the first rungs on the skill ladder, then young people have to be able to move freely to seize the opportunities that arise. Practical training that combines occupational and behavioral skills can make young people more mobile. But the track record of schools and even large public national training institutions in providing such skills has, at best, been mixed. Are there any other ways for young people to acquire these skills?



In developed countries, formal apprenticeships and internships have provided young people with a “structured work experience” in which they learn skills while on the job, and this experience is applicable to middle-income countries with a rapidly growing modern wage sector.

In poorer countries, such as in Burkina Faso, The Gambia, Nicaragua, Paraguay, Rwanda, and Sierra Leone, many young people are more likely to begin work in the informal sector than in the formal wage sector. In these countries, traditional apprenticeships in informal sector firms are more common, and incentives can be introduced to improve quality and foster innovations, as in Kenya’s *Jua Kali* program. Another option for the young is self-employment. Some

young people become entrepreneurs out of necessity, others by opportunity. Both types face constraints made more binding by their age, such as a lack of access to capital and to business networks. Programs to provide seed capital for young people to start a business and make contacts have started in Latin America.

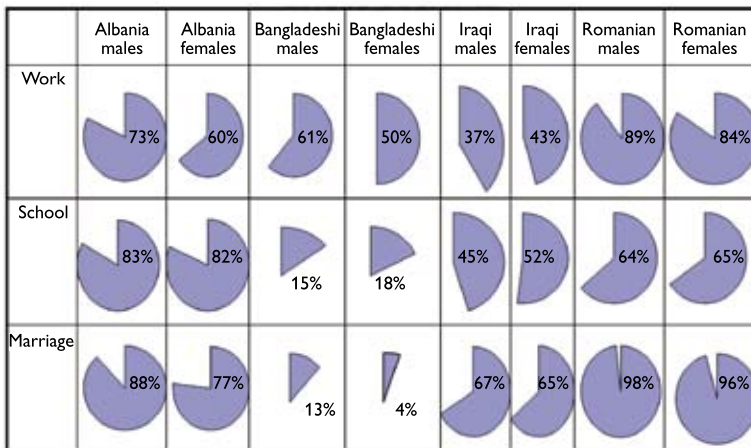
Enhancing the Capability of Young People to Make Good Choices

Because, after a certain age, young people decide how and whether to invest in their own human capital, the WDR 2007 claims that it is important for countries not only to expand opportunities but also to enhance the ability of young people to decide among them. Will they make the right decisions? And how can governments help them to make the right judgments?

When young people are adolescents, their parents and the elders in their families make the most important decisions for them. As they get older, young people themselves begin to be the primary decision-makers. The speed of the shift varies greatly for the different transitions. In some societies, the transition comes early. For many others, it comes only for some decisions and at an older age. And for some, such as young women in traditional societies where decision-making simply shifts from their parents to their husbands, independence never comes. These differences are well-illustrated in chart 3, which shows the responses to an international survey of 15 to 24 year olds, which asked young people in different settings who has had the most influence on decisions about their mar-

Chart 3

Who Has the Final Say? Young People's Influence on Their Own Key Transitions Vary Greatly across Societies



Source: World Bank (2006a).

Note: Intermedia Surveys: The percentage of young people who answered "Myself" (rather than parents, government or other) to the question: "Thinking of ... (each transition: the occupation you have or have had; your marriage partner, your years of schooling), who has had the most influence?"

riage, education, and occupation. Very few Bangladeshi young people thought that they themselves had the most influence on their schooling or marriage choices. In contrast, young Albanians and Romanians felt remarkably empowered to make these important decisions for themselves. Iraqis were mixed and, interestingly, Iraqi males felt that they had less control over their work and school decisions than Iraqi females.

How can countries' policies increase young people's ability to make good decisions about their human capital investments? Access to information combined with incentives, such as loans or credit and price subsidies or taxes, can help.

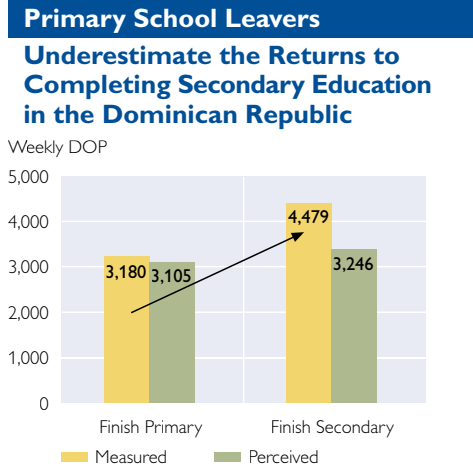
Providing Information

Many young people may be making important life-changing decisions without sufficient information. A

2001 survey of boys enrolled in the final year of primary school (Grade 8) in the Dominican Republic accurately estimated the returns to completing primary school consistently with estimated earnings profiles. This is shown in the left-hand bars of chart 4. However, when asked what the returns to completing four more years of education might be, these boys severely underestimated the returns to having a high school degree – by almost a factor of 10. Since this could affect whether or not these boys decided to go on to high school, the researchers chose students from randomly selected schools and gave them information on the estimated actual earnings profiles. Follow-up surveys in 2005 indicate that those who had been given that information were 12% more likely to be attending school in the following school year than those who were not given the information.¹⁸

¹⁸ Jensen (2006).

Chart 4



Source: Dominican Survey (2001).

Note: Measured = Actual earnings based on worker surveys; Perceived = Earnings perceived by the 8th grade boys if they finish primary or secondary; Perceived returns < measured returns.

Is this a large return? An education project that raised secondary school enrollment rates from 52% to 56% would be considered a success, especially given the small costs involved in disseminating information. This “information project” built no schools, hired no teachers, and bought no textbooks.

The information gap can occur when youngsters observe trends from a very select sample. For example, the Dominican students may have based their estimates on observing the wages only of those young people who remained in the village after completing secondary school as any high earners would have already moved away. This reinforces the value of labor market information programs that target young people in remote areas.

Introducing Incentives

Sometimes information is not enough. Because young people are just beginning to be financially independent, they naturally face more restraints on their consumption and investment decisions. Choosing to invest in increasing their skills involves substantial costs. Out-of-pocket costs tend to vary; for the half of all university students in private universities in Argentina, Brazil, Chile, and Colombia, they range from 30% to 100% of GDP per capita.¹⁹ Even for those in free public universities, the opportunity costs are substantial. Because of the big personal payoffs to higher education, such costs would not be a binding constraint if liquidity were not an issue. But it is. A recent study has found that Mexican households with the same permanent income are less likely to send their offspring to university if they have a bad year.²⁰

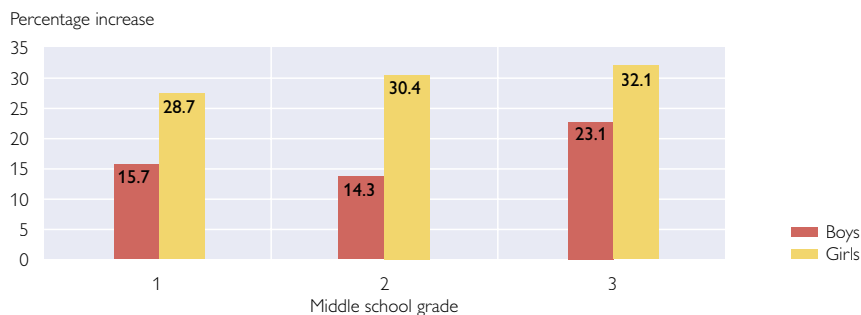
The obvious way to lift this constraint is to provide credit to students. Such credit schemes could not function effectively without government support, since commercial loans are not available to the poorest students because they have no collateral or parental guarantees to back them up. Moreover, the pressures on young people to start earning their livings are high enough even without having to pay back a debt that is many multiples higher than their initial earnings. And many public institutions have found it difficult to administer such schemes because of low repayment rates, especially given high youth

¹⁹ De Ferranti et al. (2003, p. 97).

²⁰ Jacoby and Skoufias (2002).

Chart 5

Percentage Increase in Middle School Enrollment Due to Oportunidades in Mexican Rural Areas by Sex and Grade from 1997 to 2001



unemployment rates. Australia has pioneered a system that makes repayment contingent on graduates' incomes, as tracked by the tax system. Middle-income countries such as Thailand are only now starting to try such credit schemes, which are worth monitoring and evaluating.²¹

The income constraint is binding in poorer countries, even for secondary education. Because parents are the main means of support for young people at this age, some existing subsidy schemes to encourage enrollment are targeted to the household, but the transfers are conditional on the achievement of youth-related outcomes. Mexico's *Oportunidades*, for example, provides such an incentive by giving larger transfers to households if young females (as opposed to males) stay in school. Chart 5 shows that, as a result of the program, girls' enrollment in all three years of middle school increased for much more than that of boys in rural areas. But some innovative programs have channeled subsidies directly to students, particularly young girls, partly as an inducement for them to perform well in school but also to ensure that they

have control over their own decision to attend school despite age-old biases against girls' schooling in some countries. For example, the Bangladesh Secondary Stipend Program targets girls aged 11 to 14, transferring a monthly payment to bank accounts in the girls' names contingent on their performing well enough to pass in school and staying unmarried.

Another type of incentive would be to change the prices of commodities that carry risks for young people. This can be especially important in deterring young people from engaging in risky kinds of behavior, the consequences of which will not occur until much later. For example, when young people develop a dependence on alcohol or an addictive smoking habit, this may not result in liver or lung disease until these young people become adults. Recent research has shown that, in some countries, an increase so-called "sin taxes," like alcohol or cigarette taxes, can result in significant declines in risky behavior. These studies assume a price elasticity of -1.2 for low- and middle-income countries and -0.8 for high-income countries.

²¹ See box 6.3, chapter 6 of *WDR 2007*.

Providing Second Chances

Although broadening the opportunities available to young people and helping them to choose wisely among them are the priorities, many young people cannot take advantage of these opportunities because they were ill-prepared during their younger years. The worldwide median primary school completion rate is now approaching 85%, but many countries and regions still lag behind (for example, Sub-Saharan Africa is at 55%) either because children have dropped out or never went to school in the first place.²² In countries ravaged by civil war (such as Sierra Leone), the proportion can amount to an entire school-age generation. This gap is very difficult to bridge given present educational structures. Even for those who complete primary schooling, many come from such poor backgrounds that they fail to continue schooling

These undesirable outcomes are partly a legacy of past policies and practices that failed to deliver the basic services so important for ensuring that young people become productive, responsible citizens. However, bad outcomes are also partly the result of the misjudgments of young people themselves because they are inexperienced in decision-making and are less averse to risk than adults. Even though adults and young people differ little in terms of their ability to carry out decisions, experimental re-

sults have shown that young people differ from adults in terms of how they assess the eventual consequences of their choices. This may be due to myopia or to a preference for immediate gratification. Alternatively, it may also be due to the young person's search for his or her own identity. This inability on the part of young people to accurately assess the consequences of their choices can have tremendous effects, especially when the payoffs of positive actions such as going to school or using contraception are not experienced till some time in the future.

Given the legacy of past policies and behavior and the many market failures, what can be done to give second chances to young people who are coping with the consequences of their bad decisions? Remediation tends to be relatively costly in the case of many of the five key transitions, which is why policymakers need to focus on the basic needs of younger children, as well as on broadening opportunities for young people and helping them to make wise decisions. Although it is difficult to get precise estimates, in comparing adult basic literacy programs with primary education programs in Bangladesh and Senegal, it seems that the remedial programs are one to three times more costly, even before taking opportunity costs into account.²³ So, the first lesson is to try to get it right the first time.

²² Bruns et al. (2003).

²³ Knowles and Behrman (2003, pp. 39–40). This study showed that a USD 1,000 investment in adult basic education and literacy could produce about 10.23 trainees. The authors compared the benefits of this as equivalent to one year of primary schooling (lower bound) or four years of primary schooling (upper bound). If one were to use the unit cost of education in Bangladesh (about USD 31 from EDSTATS), a similar investment would yield 32.3 primary school students. Thus, the bounds are roughly 0.8 to 3 times the cost, without opportunity costs.

However, there will always be a need to go beyond prevention to try to mitigate the effects of undesirable but sadly inevitable youth outcomes. Some of the second-chance programs that already exist in developing countries include reinvesting in human capital (adult literacy programs) and reintegrating the long-term unemployed into the labor force (retraining programs for school dropouts and public works schemes for the young). To ensure the cost-effectiveness of these programs, it is vital to target these programs and make them attractive to young people and coordinate them with mainstream “first-chance” programs.

Targeting Young People

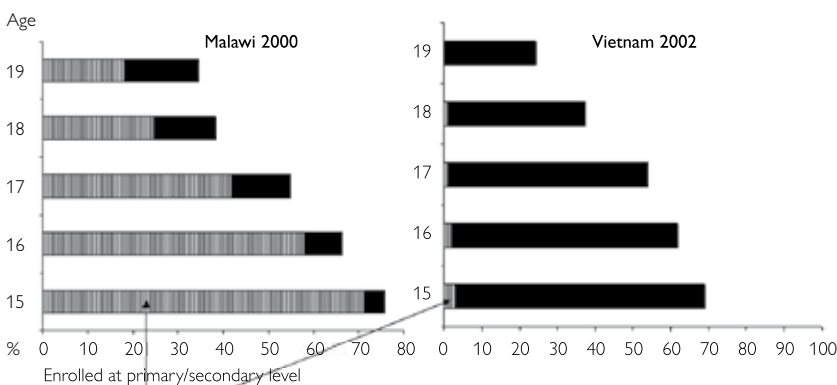
Primary schools are not only providing a sound primary education (six years) to children; they are also catering for many young adults who have repeated many grades many times and/or started school very late. Others are trying to get back into the

educational system after many years away (in post-conflict countries, this may constitute an entire generation of school-age children).

Age-enrollment profiles for different educational levels show that, although some poorer countries such as Vietnam have managed to get their young people through primary levels more or less on time, others such as Malawi have not (chart 6). Malawi has an enrollment rate of almost 75% for its 15-year-olds compared with 70% for Vietnam, but almost all the Vietnamese kids will go on to the secondary level compared with only about 5% in Malawi. Malawi has a higher enrollment rate for 19 year olds than Vietnam, but half of them are still in primary school. What kinds of programs would be needed to make sure that they are educated to the same levels as those who are much younger? Vietnam has no such problem; all 19-year-olds who are in school in Vietnam are already at secondary school.

Chart 6

Large Numbers of Older Youth Are Still in Primary School in Some Countries



Proportion in primary school
Source: World Bank (2006a).

Coordinating with the Mainstream

Most second-chance programs in developing countries are run as private initiatives by NGOs or agencies. The lesson from the few analyses of these programs that exist is that integrating and coordinating these programs with existing programs makes them more effective. To avoid the danger of developing very costly programs that duplicate each other, it is important to ensure reentry to mainstream programs. One example is graduate equivalency programs, which allow dropouts from secondary school to



take classes that will eventually get them the equivalent of a secondary diploma. Another is the U.S. community college system. Designed originally to provide second chances for adults, it is now being used increasingly by young high school graduates; three-quarters of all remedial students are in community colleges.²⁴

By the same token, it is important for mainstream programs to be flexible enough so that early mistakes do not turn into permanent liabilities. Some countries track students as young as age 10 into schools that cater to different abilities, while other

schools are comprehensive. A recent study of countries' educational achievements over time shows that early tracking not only increases education inequality (there is no catching up despite segregation) but may also lessen mean student performance.²⁵

Summing Up

The WDR 2007's three-part framework for developing the human capital of the next generation – broadening their opportunities, enhancing their decision-making ability, and providing them with second chances – needs to be applied to each of the transitions. Spending more money on the basics, especially on improving quality, should be a top priority in countries where young people's outcomes in terms of life skills are still poor. In other countries, more attention needs to be given to upper secondary and tertiary education. However, beyond additional funding, it is equally important to ensure that young people, with the support of their families, are encouraged to invest in themselves. As with any investment, improving the climate for investing in human capital can raise the returns and lower the risks.

What can countries gain by such an investment strategy? The precise amounts will of course vary by country circumstances. But an illustration of the magnitude of the joint effect applying all 3 lenses can be seen by considering the returns to a hypothetical secondary education project using data from the Dominican Re-


²⁴ Span Jr. (2000).

²⁵ Hanushek and Wößmann (2005).

public, Indonesia, and Mexico. Take a project that builds enough schools to increase upper secondary enrollment to 57% from 52% of the relevant age cohort. Earnings and cost data for Mexico²⁶ indicate that such a project would have a benefit-to-cost ratio of 1.03 in present value terms, an acceptable return on an investment that broadens opportunities.

However, recent research shows that secondary students severely underestimate the real returns to completing secondary school.²⁷ A project that not only provided another secondary school place but also gave young people information that corrects their misperceptions of the returns to education would raise the

enrollment rate to 62%. The benefit-to-cost ratio for this project would be 1.68, a much better investment.

Finally, a project that makes the investment less risky for young people would increase enrollment even more. The risk could be in the form of an economic shock that would make secondary education unaffordable, forcing them to drop out, which would be a waste of resources. If a student or her family had the insurance of a scholarship scheme in the event of an income shock, enrollments would rise to 69%. Such a program, combined with the first two, would have a benefit cost ratio of 2.15, which would be even better than the other two options. 

²⁶ *Filmer et al. (2006).*

²⁷ *Jensen (2006).*

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