Navigating through the transitions of the next generation of workers, leaders, and entrepreneurs offers great potential (and poses great risks) for growth and poverty reduction in developing countries. The human and social capital of the young will determine national incomes. Their decisions, as the next generation heading households, communities, work forces, and nations, will affect the welfare of everyone else in society. How can policies help? Governments already do many things that affect the lives of young people—from setting the broad economic context in which they live and work, to providing education, to setting laws about early marriage, voting, and child labor. Are these activities sufficient or even appropriate? How can they be improved? This chapter suggests that a youth lens on these policies would focus them on three broad directions (figure 2.1):

- Broadening the *opportunities* for young people to develop skills and use them productively.
- Helping them acquire the *capabilities* to make good decisions in pursuing those opportunities.
- Offering them *second chances*, to recover from bad decisions, either by them or by others, such as their governments or families.

Governments provide education and health services for youth and set the broad economic policies and regulations for labor markets where they work. A youth lens on policies, however, reveals important gaps. In many countries the quick and massive

**Figure 2.1 Transitions seen through three lenses focus policies and magnify impact**

<table>
<thead>
<tr>
<th>Policies affecting human capital formation during youth transitions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economywide policies and institutions: macro stability, investment climate, governance, labor market regulations</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Training</td>
</tr>
<tr>
<td>Health services</td>
</tr>
<tr>
<td>Welfare and family services</td>
</tr>
<tr>
<td>Infrastructure</td>
</tr>
</tbody>
</table>

**Opportunities**
- Low literacy and knowledge of basic skills despite higher primary completion
- Insufficient access to secondary and tertiary study
- Few job opportunities
- No platform for civic engagement

**Capabilities**
- Inexperienced as decision makers
- Still forming identity and preferences
- Lack of resources
- Myopia and risk taking

**Second chances**
- Consequences of poor outcomes longer lasting than for adults
- Remediation more costly for adults

“*Youth friendly*” policies

Source: Authors.
expansion of primary education has resulted in unprecedented pressure for places at secondary schools but not always transmitted literacy and basic life skills. Labor market regulations may have very different effects on younger workers than on older workers. Youth in many developing countries lack a platform for civic engagement. Therefore, policy makers need to improve access to services that help the young develop and preserve their human capital. They also need to give them ways of beginning to use that human capital to sustain their livelihoods and participate fully in community life.

At some point (the exact age varies across cultures) young people make their own decisions to seize (and in some cases create) these opportunities. Choosing well from an expanded set of opportunities depends on developing the capability to define one’s goals and act on them—one’s agency. Youth must make these choices at a time when they are acquiring an identity and are inexperienced as decision makers. Governments can help by providing information and tools to manage the risks that many youth confront for the first time. In some cases, government policies also need to enhance the role of young people as decision-making agents, particularly adolescent girls in societies where they are further behind in skills or where they are unable to choose for themselves.

Because many young people are deprived of opportunities to develop their human capital or participate responsibly in the decisions that affect them, they need second chances. The consequences of not offering those chances will reverberate for decades afterward, not only as youth become the next generation of workers and leaders, but also as they become parents who influence the succeeding generations. These programs for second chances can be costly, but not as costly as remediation for adults. To lower costs, the programs should be well integrated in the overall delivery system for developing human capital. They also need to target those who need them most, resolve moral hazards if they encourage risk-taking, and supplement rather than replace family-based safety nets.

In sum, the three broad policy directions that emanate from a youth lens imply that governments need not only reorient spending and publicly provided services but also improve the climate for young people and their families to invest in themselves. These are the “youth friendly policies” (figure 2.1) that the rest of the Report elaborates. Just as the three lenses have to be aligned for the image to be in focus, so must policies be well-coordinated to have maximum impact. Opportunities can be missed if the capabilities to grasp them are blunted or misdirected. Having better decision-making capabilities (agency) can lead to frustration if the opportunities are too far below aspirations. Not having second chances can lead to a free fall in outcomes, regardless of the opportunities or capabilities.

This framework derives directly from the human capital model familiar to economists (box 2.1). It is also important to add a gender filter to the youth lens. The youth transitions vary for males and females. Societies that try to protect the well-being of young girls often wind up restricting their opportunities and capabilities for schooling and meeting health needs. (See the spotlight on a gender filter on the youth lens following this chapter.)

**Broadening opportunities**

Economywide and sectoral policies affect the opportunities for human capital investment. Public financing, provision, and regulation of education and health systems have largely determined not only the number and quality of skilled workers available to the economy, but also of skilled parents and active citizens available to families and communities. Economywide policies for aggregate public spending, the labor market, external trade, and the money supply affect growth and investment—and thus influence how many workers of different skills will be demanded. To what extent are countries’ human capital policies and institutions adequately providing opportunities for young people to develop their future skills—broadly defined to include not just work, but also social
B O X 2 . 1 Applying the human capital model to young people

People of the world differ enormously in productivity; these differences are in turn largely related to... the accumulation of knowledge and the maintenance of health. The concept of investment in human capital simply organizes and stresses these basic truths... I would venture the judgment that human capital is going to be an important part of the thinking about development, income distribution, labor turnover, and many other problems for a long time to come. —Gary Becker (1964) in Human Capital

If the true test of the value of an economic theory is longevity, the human capital model passes with flying colors. Its basics are simple and empirically testable (and generally validated). An individual will invest in his or her human capital—an annual year of schooling, on-the-job training, or acquiring 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, governments need to stimulate individuals to take them into account in making decisions. Public action may also be needed if poor individuals cannot mobilize the resources to finance the investment now, despite a promise of big gains in the future.

Like all basic models, the elegance comes at the price of simplifying assumptions—assumptions that have led to extensions that this report uses to analyze the hard realities facing youth in developing countries.

To whom are policy makers accountable?

One set of these assumptions 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. The age range 12–24 is precisely when the locus of decision making shifts from parents or households—and in most cases, both parties have a say in the final outcome. But how much say does each party have? How do they resolve conflicts if they have different views—such as whether the young person should work and contribute to the household income or go to school? Economic models have tended to treat children as passive receivers of parental decisions. In some societies this assumption is a stretch of reality, a point especially obvious to parents with teen-agers; in others it may very well describe how youth's opportunities can be limited by social conventions. The model's extensions include bargaining among household members to determine human capital investments.

Are investors in human capital well informed decision makers?

A second set of assumptions has to do with the model's the models would have them be, dutifully correcting for externalities and equalizing opportunities for all. Instead, their behavior may depend on their accountability. Is it to the ultimate beneficiaries? Is it to their supervisors? Or is it to special interest groups, voters at large, or even to their own families or pockets?

Getting that right will determine outcomes, as examined in World Development Report 2004. If these policy makers do not feel accountable to young people, or if young people do not have a platform for holding providers accountable, a gap in youth's opportunities for human capital investment may result (box 2.2).

Who makes investment decisions?

A second set of assumptions 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. The age range 12–24 is precisely when the locus of decision making shifts from parents or households—and in most cases, both parties have a say in the final outcome. But how much say does each party have? How do they resolve conflicts if they have different views—such as whether the young person should work and contribute to the household income or go to school? Economic models have tended to treat children as passive receivers of parental decisions. In some societies this assumption is a stretch of reality, a point especially obvious to parents with teen-agers; in others it may very well describe how youth's opportunities can be limited by social conventions. The model's extensions include bargaining among household members to determine human capital investments.

Source: Authors.

skills? What would this “youth lens” imply for the priorities for public action?

The answers are far from easy because some constraints on young people vary greatly across countries while others are more common. This section focuses on the following policy priorities:

- Improve the quality and relevance of services that enhance basic skills, such as literacy and knowledge about health outcomes, especially for low- and some middle-income countries that have raced to meet quantitative targets for education for all.
- For countries that have long been able to provide access to primary and lower secondary education of acceptable quality, address barriers to expanding opportunities for building higher level skills in upper secondary and tertiary institutions.
- For all countries, help people build skills at work while they are young and most apt to learn from work experiences—and start toward an independent livelihood.
- For all countries, provide opportunities for young people to be heard and to participate in civic life outside the family—to build their skills for exercising citizenship.
Addressing these priorities poses difficult (but not insurmountable) challenges for government. Services beyond the basic mean higher unit costs, both for providers and for beneficiaries, who face greater opportunity costs. The case for public intervention is not as strong for upper secondary and higher education as it is for primary.

**Improving the quality and relevance of services that enhance basic skills**

A youth lens points to improving the quality of basic services for children as well as for young adults, especially in countries that have recently improved quantitative indicators of primary school enrollment. Despite the higher primary completion rates, many children enter adolescence ill-prepared for work, further schooling, and the practicalities of coping with life in a more connected and complex world. Literacy and numeracy, the backbones of the arguments to justify public subsidies to primary education, are often not in place by grade 6. The most recent UNESCO report to monitor the Education for All (EFA) campaign puts it starkly: “Simply focusing on quantitative goals such as universal primary education will not deliver EFA...” In many parts of the world, an enormous gap prevails between the numbers who are graduating from schools and those among them who have managed to master a minimum set of cognitive skills. Fewer than a third of children in the countries named in figure 2.2 achieved minimum mastery of the relevant topic by grades 4–6, even though the average net enrollment rate was about 65 percent.

Improper health practices mean that many children enter adolescence stunted and malnourished. More than 40 percent of all 10- to 14-year-olds in Cameroon, Guatemala, Nepal, and the Philippines are anemic. Ill health puts them at a disadvantage when they go to school or work. For men and women who work in urban Brazil, a 1 percent increase in height leads to a 2.0 to 2.4 percent increase in wages or earnings.

Because many children enter adolescence on the proverbial wrong foot, the first priority is still their adequate preparation. Basic services have lasting impacts well into young adulthood in both developed and developing countries. Aside from primary schooling and basic health care of those age 6 and older, early childhood development programs, such as enriched child care, increase the probability of graduating from high school and attending college—and reduce the likelihood of being charged with a crime. Studies in the Philippines find that nutritional status at a young age leads to academic success, as measured by greater chances of school enrollment and lower repetition rates, even by the time students are 11 years old. In Turkey, a mother-child education program providing early enrichment for young children and training and support for mothers increased educational attainment, reduced delinquency, and improved the status of mothers in the family.

One could go further and extend the basic agenda to include grades 6–9 (or roughly middle school). These are grades necessary to consolidate the gains, and in some cases remediate the missed opportunities, from
earlier grades. Many students in these grades are adolescents 12–15 years old. Many countries are already expanding their definition of basic education to include this age.\textsuperscript{11} As countries embark on these extensions, however, the lesson from the attempt to universalize primary is clear—ignore quality at your peril. A balanced approach that improves quality along with quantity may mean higher costs, but there will be savings as well, because higher quality education implies less repetition.\textsuperscript{12}

Addressing barriers to expanding opportunities for building higher level skills beyond literacy, numeracy, and basic health knowledge

Countries need to broaden opportunities in postbasic services—in upper-secondary, technical, and higher education, and in training centers and informal settings, including the workplace. On this, there is an emerging consensus, especially for middle-income countries (chapter 1). But how can already strapped governments afford to pay for these services, which are more expensive per learner, for all who want them? They cannot, under present circumstances. There are two ways out: one is to have more options to finance these services, the other, to make delivery even more efficient.

Financing and targeting. Students and their families are already paying for a big part of these costs, especially at tertiary levels, in countries as diverse as Côte d’Ivoire, Indonesia, the Republic of Korea, and Paraguay (figure 2.3). This would not be especially worrisome if all promising young people could afford to finance such training, because the returns accrue mostly to the individual student. More often than not, however, large numbers of poor (and some not so poor) are unable to finance it. With private spending on higher education exceeding 60 percent of GDP per capita in Benin and Côte d’Ivoire, it is not surprising that tertiary enrollment rates are below 5 percent—and very few of those attending are poor. Guaranteed free universal access to higher education would hardly be a solution—it is neither fiscally feasible nor equitable because poor young people are severely underrepresented among the pool of secondary completers and could probably not afford to forgo work. Best would be providing a financial environment for institutions to offer student loans. Because this takes time and scarce management resources to develop, scholarships—tightly targeted to the poor and merit-based—would be warranted to encourage promising youth from low-income families.

Spending cost-effectively. For governments already struggling financially with providing primary education and basic health care, it is even more important to pay attention to cost effectiveness. Because basic services are failing poor young people, the lessons of World Development Report 2004\textsuperscript{13} are relevant here, especially those on strengthening the accountability of service providers to clients and citizens (box 2.2). The lessons apply perhaps even more strongly, because many of the services used
by young people (rather than those used by children) tend to be more expensive per person. The one dimension not emphasized in that agenda, which does not differentiate among generations, is the voice of young people in improving service availability, discussed in box 2.2 and in the next section.

Enhancing opportunities to begin a sustainable livelihood

Human capital, once developed, needs to be used productively to sustain a livelihood. This has long been recognized to be a main path to poverty reduction, because labor is what the poor have in abundance. How the young start off in their working lives has an enormous effect on their later prospects. Because young people are on a very steep part of their learning curves, they can acquire skills quickly when working, an attribute that diminishes with age. For most of them, this means working in the private sector, which in most countries is the largest employer. Policies should ensure that young people do not start full-time employment too early and that they have free entry and mobility when they are ready.

Start at the right time. Poverty can force children to work at home or enter the labor market prematurely, encouraging adolescents to drop out of school early. Because dropouts often never return, the short-term income gain to the parents and family comes at the cost of forgone education for the child. Their chances of being able to read, for example, may fall because literacy rates increase significantly as individuals go from no schooling to 1–3 years of schooling and then again to 4–6 years.15

Cash incentives to remain in school may enable youth to stay long enough to acquire a threshold level of basic skills that are difficult to accumulate outside the school setting. Literacy and numeracy would also provide a strong base for more advanced skills, which help in insulating one during downturns. The East Asian financial crisis of 1997–98
hit the least-skilled and other marginal workers—women, young workers, the less educated, recent school dropouts, and first-time job seekers—in Korea the hardest. Young workers ages 15–29 accounted for the lion’s share of job destruction, especially young female workers.\textsuperscript{16} Job recovery also took longer for the less-educated young worker. Similarly in Argentina, workers with less education took longer to be reabsorbed into the labor force after its recent financial crisis.\textsuperscript{17}

Free entry into the labor market. The young continue to gain skills after they enter the labor market, but because they are inexperienced, their unemployment rates tend to be higher than those of adults. For industrial countries, the unemployment rate of young people ages 15–24 is two to three times that of adults, and for some developing countries up to five to seven times (chapter 4). These differences may not matter so much if they are due to the natural search for jobs. However, they are an enormous problem if young people, unemployed for the first few years of their working lives, become basically unemployable thereafter, at least in the formal sector.

What policies could ease entry of young people into the labor market? Broadening opportunities for young people’s employment is best premised on economywide growth that stimulates demand: a rising tide lifts the boats of young people and everyone else. Some of these policies unintentionally have a disproportionately large effect on young people. In many economies, such as those in East Asia, exports and foreign direct investment expanded the demand for young workers and were a principal source for growth explaining the East Asian Miracle.\textsuperscript{18} They have had a particularly stimulating effect on increasing the labor force participation of previously excluded groups, such as young women (box 2.3).

At the same time, some broadly based policies, especially those regulating the labor market, can hurt new entrants disproportionately. For example, minimum wages are sometimes set too high, and some studies in the United States and Latin America have

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**BOX 2.3 A tale of two exports: How electronics in Malaysia and garments in Bangladesh promoted work for young women in traditional societies**

Malaysia in the 1970s and 1980s and Bangladesh in the 1980s and 1990s experienced rapid increases in the labor force participation of young women, especially in some export industries.\textsuperscript{19} In Malaysia the electronics assembly sector attracted a steady stream of young women from rural areas to the state of Penang. Similarly, the garment sector in Bangladesh drew many young women from rural areas to such cities as Chittagong and Dhaka.

Women constituted 90 percent of the garment workforce in Bangladesh and the semiconductor assembly workforce in Malaysia. These sectors provided many young women with their first opportunities to enter the labor force: 93 percent of female workers in Bangladesh’s garment sector and two-thirds of women in Malaysia’s electronics sector had no previous work experience.

The previous generation of Malaysian women had neither the educational attainment nor the employment opportunities of their daughters—nor the modern lifestyle associated with wage employment. Case studies from Bangladesh reveal that young women preferred working in the garment industry to agriculture or domestic service. Work in the garment sector meant higher wages and social status. Though factory work was strenuous, those who did it had higher self esteem and autonomy. In a survey of Bangladeshi garment workers, 90 percent of young female respondents had a high opinion of themselves, compared with 57 percent of female workers in nonexport industries.

The salaries of these young women enhanced their status within their families as well as benefited their families. Their wages could contribute up to 43 percent of household incomes in Bangladesh. A 1995 study indicated that 80 percent of families of female garment workers would fall below the poverty line without their daughters’ salaries. While these contributions did not always improve their bargaining power in the household, they seem to have had more inputs into some key decisions, such as the timing of marriage. In Malaysia work before marriage has become the norm. Young women working in Bangladesh’s garment sector, having also delayed marriage, expect greater influence in the choice of their marriage partner, as had already occurred in Malaysia.

Some long-term economic and social effects are unclear. Once married, young women tended to leave wage employment, and most young women expect to work only three or four years. Aside from the short tenure, many of the jobs were tedious, low-skilled, had limited upward mobility, and were managed in traditional patriarchal ways. Young women experienced greater autonomy as they migrated to urban settings, but were sometimes stigmatized for having a more Western, individualistic lifestyle. Nevertheless, what is clear is that these young women in Bangladesh and Malaysia have broken some new ground and in the process contributed economically to their families and societies.

found that they can reduce the employment of youth. Employment protection laws provide stability to those already employed, but could inhibit employers from taking a risk in hiring promising but inexperienced workers. A study of 15 Latin American and Caribbean and 28 Organisation for Economic Co-operation and Development (OECD) countries found the impact of such regulations on young people’s employment rates to be more than twice that on prime-age male workers. Overly generous social protection schemes have the same effect.

Social attitudes, including discrimination by employers and the reluctance of families to let young people work outside the home, can also suppress opportunities, especially for females. Young women already contribute much to the economy through unpaid work at home, work notoriously missing from GDP estimates. The entry of such a trained and motivated pool into the formal labor force can produce higher growth because they are a large share of the population relative to those not working, even without a dramatic fertility transition. Discriminatory practices can change, too, as countries develop, though some social norms are remarkably resilient (see examples in the spotlight on gender following this chapter).

Mobility. Once employed, young people tend to be highly mobile, more so than older workers. Changing jobs is one way of getting better jobs and in the process accumulating human capital. Policies and institutions that hinder mobility thus especially affect the young.

Except for the lucky (or the well-connected), many young people start work in the informal sector. Some thrive there, especially those who manage to set up successful businesses. This is a fairly small proportion of the labor force (chapter 4) and a fairly limited and risky route. For many young people who find it difficult to get credit, self-employment is a survival strategy, discussed later in this chapter. Moreover, because success in business can be elusive, many would-be entrepreneurs end up working for someone else at one time or another.

For the bulk of the young workforce, the surest way to a better job that provides adequate training and skill-building opportunities is to move eventually into the formal sector. Here, again, policies that provide an incentive for the private sector to hire young people will be important. In Côte d’Ivoire, Rwanda, and Senegal in the late 1990s and early 2000s, because of the small size of the formal sector and overly high expectations, the unemployment rate for those with postsecondary education was seven to eight times that for those with just primary education. Pursuing investment climate improvements for firms can create more and better jobs, as discussed in World Development Report 2005.

The lack of domestic opportunities has pushed young people to look outside their local environment, including outside the country. Most of the world’s migrants are young. Because they are some of the best and the brightest, many observers are concerned about the brain drain (chapter 8). Policies to get the most from international migration include improving the infrastructure for migrants to send remittances, enabling migrants to stay connected with their home countries, and encouraging the successful return of young migrants. They also include better access to information on jobs, as in the Philippines.

Opening opportunities to be heard outside the family

The skills and the desire to interact with the broader community and engage in civic life are also formed early (chapter 7). Moreover, having a voice expands opportunities for better service. (“Voice” is shorthand to indicate not just expression but recognition and inclusion—a chance to contribute to society and be acknowledged.) World Development Report 2004 argued that the voice of the beneficiary, the poor person, can be routed directly through contact with the service provider or indirectly through influence on policy makers,
who then direct providers to deliver better services (see box 2.2).25

This is true for all in society, but for young people—only beginning to make their voices heard outside the home, less patient with incremental change, and searching for their identity—the opportunities for expressing voice through voting or consultation are perhaps even more relevant. Opportunities to speak out are particularly important because their parents may not fully represent their interests, as discussed more fully below. The absence of such opportunities can make alternative forms of expression, such as violent behavior, more attractive.

Indirect routes of accountability—from citizens to policy makers to service providers—may become more important as people vote or otherwise make their views known after age 18, officially, but in practice, much later. For most young people, such indirect routes are not available. Direct consultation and recognition through participation in implementing development projects or in setting budgets are also key (box 2.4). The young are more likely to have opportunities to be heard and have an impact in local (rather than national) settings.

The effect of broadening such opportunities is not simply to ensure stability—it is often a way to get better outcomes if the young can use their creative energies productively. It is a marvelous way to develop skills in decision making, the topic of the next section.

**Developing the capabilities of young people as decision-making agents**

With an expanded array of opportunities, how should one choose among them? And who should choose? The extent to which young people participate in decisions that affect how they acquire skills, begin to work, and express a voice varies across countries, societies, and cultures. This section explores how young people can contribute enormously to their own well-being, and that of the nation, if policy makers recognize young people as decision-making agents who define their own goals and act on them.26

Recognizing agency is not enough—it must be resourced, informed, and responsible. That is, it must be “capable.” What determines this capability? The section highlights the importance of addressing the most important issues youth confront as they participate more in decision making:

- Having access to sound information—necessary because young people have had less opportunity to learn from life than adults.
- Commanding real resources—necessary because young people may not be able to afford to invest in themselves, even if they have promising prospects.

> “Many parents fear for their children and would ‘ask’ them to follow their way of doing things, without allowing youth to try new things, for fear of the danger.”

Young person, Thailand

December 2005

**BOX 2.4 Young people’s voice in budget setting improved outcomes in Ceará, Brazil**

CEDECA (Centro de Defesa da Criança e do Adolescente)-Ceará started “Children and Young People in Action—Participating in Budget Work,” in Fortaleza, a city with more than 2 million people, in 2002. (CEDECA-Ceará educates citizens on the importance of Brazil’s budget process.)

After identifying 50 young people from different areas of Fortaleza, CEDECA-Ceará trained them on budget content and process. The training covered public administration, political organizations, budget legislation, revenues, expenditures, the budget cycle, budget execution, ways for civil society to engage with the budget process, and the roles of executive, legislative, and judicial authorities.

The 50 young people researched and documented the needs of young people in various parts of Fortaleza by making visits and taking photographs. Having learned to analyze municipal budgets and interpret the results, they engaged with the Fortaleza city government’s formal budget process. In 2003 they submitted 33 amendments to the budget proposal for 2004, related to programs for education, drugs, and sexual abuse.

According to respondents, for the first time in the city of Fortaleza, the debate on the budget was marked by the participation of young people who contributed to the discussions in a competent manner. To add value to their proposed amendments, they gathered in front of the Town Hall on the day of the budget vote. There was a mixture of surprise and incredulity among the councilors. They could not believe that a group of young people could understand the budget, present proposals, make their voices heard, and above all protect the right to participation in the drafting of policies aimed at them.

Of the 33 suggested amendments to the 2004 budget, three passed. The project has since scaled up. The young people in the project are now training others. CEDECA-Ceará says that their efforts resulted in an additional allocation of $400,000 to children and young people in 2004 and $760,000 in 2005.

The government of Sweden is supporting an evaluation of the effects of the project on social and private outcomes, and its results are expected to be ready in the near future.

Young people make more—and more important—decisions as they age

Parents, or adult guardians, make most decisions affecting the schooling, health, social life, and general well-being of children. As children age they gradually begin to exert more control over many decisions affecting their lives. Those who are 24 make different decisions from those who are 12—in a process that some have called a progression from adolescence to emerging adulthood.27

The pace of this shift (and the decisions) varies widely across countries and cultures and may have nothing to do with level of development. A 2005–06 survey in a set of diverse countries asked whether young people ages 15–24 felt that they themselves had the most influence regarding decisions across the important transitions of education, marriage, and work (figure 2.4). Despite the variations, at least half the youth surveyed felt in most cases that they had the most influence. Notable exceptions are Bangladeshis and Tajiks regarding marriage and school.28

Understanding more about the nature and consequences of choosing among life’s opportunities is critical to effective government policy. Where parents, older relatives, or community leaders do most of the deciding, their incentives, resources, and constraints matter most (see box 2.5). How ever, even when young people do not have outright decision-making responsibilities until they are young adults above 18 or even older, they can still exercise considerable agency early on.

This independence is perhaps most obvious for schooling and health behaviors, which are most difficult for adults to monitor and control. Young primary school completers may dutifully enroll in secondary education in accord with their parents’ wishes, but they will not necessarily go to class or study hard enough. The state may...
impose minimum ages at which young people may marry, and parents may try to impose rules about whom young people will see, but sexual activity may (and does) take place surreptitiously. Adolescents can express their agency even in seeking work opportunities. A study of 21 villages in 1998 in the Indian state of Karnataka, all just over 100 kilometers from the technology hub of Bangalore, indicates that 12 percent of all boys ages 10–14 were current or returned migrants. Of these, almost a third were considered strongly “autonomous migrants”—they left without any parental pressure or even involvement in decision making or in facilitating work or living arrangements.

So, applying a youth lens means that policy, in addition to addressing parents, needs to account directly for the behavior of young people, even when they are very young or living in what are seemingly traditional settings. How? By enhancing their access to information, their command over resources, and their skills to decide.

**Supporting the search for information**

Young people know a lot. And because they are on average better educated than previous generations, their rates of literacy are much higher, especially in low-income countries, where the literacy rate of those 15–24 is 75 percent, compared with 59 percent for those 35–44. Indeed, the effect of this literacy is greater if one of these young people happens to live in a household where all others are illiterate—because this would enable a transfer of information to those who cannot read, especially important in remote areas where using fertilizer and other technologies or following a regimen for the treatment of tuberculosis entails understanding directions. Researchers argue that such proxy literacy, the exposure of households to people who are literate, would add another third to India's literacy rate. Indeed, the effect of this literacy is greater if one of these young people happens to live in a household where all others are illiterate—because this would enable a transfer of information to those who cannot read, especially important in remote areas where using fertilizer and other technologies or following a regimen for the treatment of tuberculosis entails understanding directions. Researchers argue that such proxy literacy, the exposure of households to people who are literate, would add another third to India's literacy rate. Indeed, the effect of this literacy is greater if one of these young people happens to live in a household where all others are illiterate—because this would enable a transfer of information to those who cannot read, especially important in remote areas where using fertilizer and other technologies or following a regimen for the treatment of tuberculosis entails understanding directions. Researchers argue that such proxy literacy, the exposure of households to people who are literate, would add another third to India's literacy rate.

What more is there to know? Plenty. Young people's general knowledge may not extend to human capital investment and risk-taking behavior. A 2003 survey of otherwise well-informed and educated Vietnamese youths ages 14–25 indicates that fewer than 60 percent of rural youths had ever heard of syphilis or gonorrhea. Only about a third had heard of the menstrual cycle. In a country where traffic accidents are the leading cause of death and serious injury for those ages 15–19 and where motorbike use by urban young people exceeds 70 percent, only about a quarter use a helmet—many were simply not convinced of its protective value.

The availability of some information is doubtless rooted in social norms for topics appropriate for discussion. A recent survey in Russia quotes a 20-year-old woman from the North Caucasus as saying: “I am interested in diseases and infections transferred sexually. The problem is that I cannot ask my parents, because my breeding does not allow me to discuss such issues with [them].” Instead, the most common source of health information cited by young people is television. Peers, some equally ill informed, are often an alternative to families or schools as a source of information.

The consequence is ill-informed conclusions because the noise in the information flow can be profound. Many studies show that young people tend to overestimate sexual activity and other high-risk behaviors in the population, putting more pressure on them to conform.

What can be done? Three main avenues can be followed to address the problem. One is to improve the curriculum already being taught in existing institutions. School-based reproductive health education programs can be effective in increasing knowledge and the adoption of safe sexual behavior (chapters 5 and 6). Moreover, evaluations have found
no evidence that sex education increases sexual activity among youth. Such programs are clearly not enough, however. There are concerns, too, that sex education programs reach only a select group—those still in school.

A second avenue is to develop options outside the traditional institutions of skill formation, including social marketing of reproductive health services targeted to youth, peer counseling programs, mass media programs, and workplace and community outreach services targeted to youth. These programs can promote good reproductive health if targeted to the right audience and linked to services already in place. (Otherwise they may simply lead to unmet demand.) Although not subjected to rigorous evaluation, they have been tried in Cambodia, Thailand, and Uganda—countries that have contained the spread of HIV/AIDS.

These programs need to address the source of the information gap. In the absence of information, people will act based on their own perceptions. Teenage girls in Kenya, when asked about the age patterns of HIV, massively underestimated the prevalence of the disease among males in their late twenties, making them more complacent about “sugar daddies.” A randomized intervention provided HIV profiles by gender and led to a closer matching among like-age groups.37

An information gap also occurs when youngsters observe trends from a very select sample. In the Dominican Republic in 2001 a survey of boys enrolled in the final year of primary school accurately estimated the returns to completing primary school consistently with estimated earnings profiles but severely underestimated the returns to having a high school degree. This was because they based their estimates on observing the wages only of youth who remained in the neighborhood after completing secondary schools (the high earners moved out). Students at randomly selected schools were then given information of the estimated actual earnings profiles. Follow-up surveys in 2005 indicate that those given the information were 12 percent more likely to be attending school in the following school year relative to those who were not given the information.38

A third way is that purveyors of information must themselves be well trained and motivated with the right incentives. Recent research on absenteeism among service providers in health and education, discussed in World Development Report 2004, shows that this is easier said than done. In Latin America, teaching quality responds to the level and structure of compensation. However, a review of seven country initiatives indicates that for an incentive scheme to work, it must be very selective, of sufficient size, and very closely linked to monitorable performance.39

Using peers is also a promising mechanism for transmitting knowledge, but peers are no panacea, for they too must be informed—and they must be a positive influence. For example, U.S. residential job-training programs, which allow participants to avoid interactions in their dysfunctional neighborhoods and develop their own self-image, are more successful than programs that do not have the expensive housing component.40

Helping the young command resources

Of the observable markers of transition—such as completing school, leaving home, beginning one’s work life, marrying and becoming a parent—financial independence seems to be the best predictor of self-perceived adulthood, in rich and poor countries alike.41 In this Report’s Bangladesh consultations, the recurring phrase was “nijer paye darano”—that is, “standing on one’s feet.” It refers to economic independence—not having to depend on parents or other family members for livelihoods.42 As young people begin to be financially independent, they naturally confront more severe restraints on their own consumption and investment decisions.

For the nonpoor who can still rely on resources from families, this is not as much of an issue. Indeed, one of the reasons that the age of leaving home is getting later even in richer countries is that young adults rely on their families to get a firmer economic footing. In France and Germany, the share of
young men ages 20–24 living in the parental home increased from around 56 percent in 1986 to 62 percent in 1994; in Italy the increase was steeper, from 50 percent to 66 percent, even among men 25–29. For those from poor families, however, or for those who for one reason or another (such as orphanhood or family breakup) can no longer rely on family resources, the result could lead to underinvestment in human capital, to a bad start on the road to a sustainable livelihood, and, for females, to a weak negotiating position in marriage.

Resources for investing in human capital. Young people who have to make choices about investing in skill formation are confronted with substantial costs (see figure 2.3). Out-of-pocket costs tend to vary—for the half of university students in private universities in Argentina, Brazil, Chile, and Colombia, they range from 30 percent of GDP per capita to 100 percent. Even for those at free public universities, the opportunity costs are substantial. Because of the high payoffs to tertiary education in those countries, such costs would not be an issue unless liquidity were a binding constraint—and it is. A recent study for Mexico found that households with the same permanent income are less likely to send their offspring to university if they had a bad year economically. In many countries, parents lack the wherewithal to pay for such schooling directly or simply expect that young people will contribute significantly as they get older. But will young people do so, since they face more binding resource constraints?

The obvious way to ease this constraint is to provide credit to the student—she who benefits pays, even if it’s later on. In advanced countries where students bear a significant burden of the cost, education is financed by students who take out loans. Such credit schemes could not work without government support, because commercial loans are not available to the poorest students, who lack the collateral or parental guarantees to back them up. Moreover, the pressures to begin earning a livelihood are high enough even without the enormous responsibility of having to pay back a debt that is many multiples of initial earnings. Some promising schemes to mitigate these issues are being offered, such as loans that make repayments contingent on income actually earned (see box 3.6 in chapter 3).

Resources for starting a livelihood. Aside from being a barrier to education, inexperience and lack of collateral can also hinder youths who have the motivation and skill to start new businesses. Evidence indicates that liquidity is more of a constraint on young entrepreneurs than on more established ones. Their lack of a credit history and their inexperience puts them at a disadvantage to adults. This is a tricky area because it would not be prudent to direct government funds to subsidize risky commercial ventures. Some recent experiments to expand microcredit to young people may point to a promising avenue (box 2.6).

Strengthening negotiating positions in families and among peers. Emerging research shows that command over resources is an important way to enhance the agency of young women in marriages, especially ones arranged more for the convenience of families and parents than the young couple.

**Box 2.6 Is microcredit an answer to relieving the young’s resource constraints?**

Microcredit has enhanced opportunities for poor people in countries like Bangladesh. It supplies credit in areas too poor or remote to be served by traditional banks. Through group lending, microcredit provides poor people, especially women, with a viable alternative to the collateral required for traditional loans. Group membership serves as a monitoring device to ensure that each member makes her loan payment, thus absorbing part of the risk. Research shows that it has improved the income-earning opportunities of women. Because young people also lack collateral, can microcredit open doors for them? Would such a system work for a group that is, on average, more mobile and perhaps less risk-averse?

The final answers are not known, but analysis of data from Bangladesh may be indicative of microcredit’s promise. There, young people (ages 12–24) have taken advantage of microcredit loans. Ten percent of youth have gotten a loan, compared with 33 percent of all adults. Of all loans to youth, the majority come from microcredit institutions (73 percent). Of all who were eligible to receive loans in 1999, 17 percent received their first loan before the age of 25. There is no indication that young people’s loans ran into disproportionately more problems than those to adults. They tended to pay similar interest rates and to use them for similar activities.

Initiatives have been undertaken recently to broaden the use of microcredit schemes as a way to channel resources and empower young people. It is important to evaluate these experiences and to share their lessons.

Source: Data calculated from Khandker (2005).
Indeed, in some societies, young people, especially girls, are never empowered to make decisions themselves. That power simply shifts from the parent to other older people, such as the husband or mother-in-law. Poor youths are also more likely to succumb to pressures to accept money or goods in exchange for sex, putting them at increased risk of HIV and other sexually transmitted infections. Many young people take up smoking because of peer pressure.

Programs that help young people earn a living or that provide credit may also empower them to withstand social or peer pressure to engage in risky behavior. An evaluation of the justly celebrated microcredit programs in Bangladesh showed that they had an effect on education, health, and labor market outcomes of both men and women—and that credit to women had the greatest impact on variables associated with women’s power and independence.

### Helping young people to decide well

Information, once received, has to be filtered and assessed before it can be acted on. This is difficult even for the most confident of people, and it can be paralyzing for those unaccustomed to the analytic processes of decision making. To some extent this could be addressed in schools. Educational systems that emphasize memorization and rote learning may teach facts but fail to inculcate the analytical skills to come to well-informed decisions.

Such life skills can be taught in schools with changes to the curricula. Sometimes this requires changing the environment for learning to counteract well-entrenched behavioral economics.

### Box 2.7 Are youths rational (at least according to economists)?

There have been three ways of modeling what separates youths from adults, based on some recent literature reviews. They are based on traditional economic analysis, developmental psychology, and the intersection of the two, behavioral economics.

**Traditional economic analysis.** In this framework, dictated by expected utility maximization, as long as benefits exceed costs in present value, an activity will be pursued, and the same goes for risky activity. Even addictive activities, like smoking, are considered rationally by forward-looking agents who choose their own optimal consumption, fully cognizant of long-run negative consequences. Disparities between youths and adults thus do not rely on variant psychologies or levels of rationality, but can result from income differences or sensitivity to price. Indeed, preliminary evidence suggests that, in the decision to pursue risky activities, youths are quite sensitive to economic factors, spawning incentives to curb teen smoking. Gruber (2001) cites a U.S. government study that concludes that increasing the price of cigarettes is the most reliable method for reducing teen smoking.

**Developmental psychology.** Unlike traditional economic analysis, developmental psychology treats the decision making of youths and adults as separate processes. In some studies, the factors youths take into account when making decisions or formulating opinions are a subset of those used by adults, while in other cases, youths and adults consider different factors altogether, or with significantly different weights. Halpern-Felsher and Cauffman (2001) found adults to be more competent decision makers than youths when asked about the short- and long-run costs and benefits of different interventions such as cosmetic surgery or whether to participate in an experimental medical study. Competence was measured by consideration of all options, risks, and long-term consequences. The differences were particularly striking between adults and younger adolescents (those in the 6th and 8th grades).

There is evidence that youth and adults use different considerations in decisions. When asked about the perceived consequences of such risky activities as smoking, drinking, and drug use, youths considered consequences involving social reactions more than adults. Steinberg and Cauffman (1996) show an inverted-U relationship between age and susceptibility of peer influences. Susceptibility increases between childhood and early adolescence, peaking around age 14, and declines during the high school years.

**Behavioral economics.** According to behavioral economics, incongruous behavior and decision making by youths and adults may be the upshot of different perspectives regarding the future. First, younger people are more likely to heavily discount the future over the present. Activities with high short-run benefits or high long-run costs (or both), and underinvestment in activities with both high short-run costs and high long-run benefits would be the result.

Second, future utility can also be affected by projection bias—the tendency of people to overappreciate their current preferences and project them onto their future preferences without duly taking into account the effects of changes in their situations in the interim. For example, while increased education can bring a young man better job prospects as an adult, he may underestimate the importance of a good job to him in his adulthood because his current preferences do not put great weight on job opportunities.

Third, risk-taking is affected by past engagement in risky behavior. Suppose that one has engaged in a risky activity in the past, the outcome of which—good or bad—is still uncertain, and is now choosing whether to repeat the same activity. If the activity brings short-run gratification, the higher the probability of a bad outcome, the more likely one will engage in it again, because the marginal risk is decreased. The implications are frightening. The higher the risk of contracting AIDS from unprotected sex, the more likely someone who has had unsafe sex in the past will do so again. The worse the long-term effects of drugs, the higher the probability that someone who has so much as experimented with them will become a regular user.

So economists would generally say that youths are probably quite rational, given their preferences, the resources they command, and the perceived costs of their actions. Whether youths would say the same of economists is another matter.

*Source: Basu, Ku, and Zarghamee (2006).*
opportunities, capabilities, second chances: a framework for policy

practices that channel behavior, some of which may not even be recognized. Research from secondary schools in Thailand indicates that girls who study in single-sex environments do better in math and develop more leadership skills than girls in mixed-sex environments, a finding consistent with research in developed countries.48

For many young people, however, it is more than a matter of learning decision-making skills. Because many youths are still seeking their identity, their decisions are more complicated. The process of developing a person's sense of self has been used by some economists to explain seemingly irrational acts, including young people's tendency to engage in risky behavior, such as joining violence-prone gangs, despite the low expected economic payoffs to such activities.49 The search for identity, and the influence of peer groups on a young person, go some way toward explaining how much risk a person is willing to take and how much to discount the future relative to the present. Experimental results show, for example, that young people tend to take greater risks in driving automobiles when there are peers present than do older adults in a similar situation (box 2.7).

Coming to the correct decision for someone who discounts future costs too heavily, or who adopts risk-taking behavior to belong to a group, requires making that person aware of future consequences and forcing him or her to confront them. Incentives can sometimes influence such decisions, especially if the young would not take the effects on others (or on themselves in the long run) into account, even if they had the information and knew how to decide for themselves. In the United States, higher cigarette prices significantly reduce smoking by young people.50 In Indonesia, a 1 percent increase in the price of cigarettes reduces consumption by about a third of a percentage point.51 By contrast, banning cigarette and alcohol advertisements and setting minimum ages for drinking are attempts to increase the price of such behaviors, but evidence suggests that their impact tends to be weak (chapter 5).

Innovative schemes that have channeled subsidies directly to young girls—partly as an inducement for them to perform well in school but also to ensure that they "own" the decision to attend, circumventing age-old biases against girls' schooling. The Bangladesh Female Secondary School Stipend program, targeted to girls ages 11–14, transfers money to a bank account for girls directly, contingent on their performing well and staying unmarried. While rigorous impact evaluation has yet to be done, indications are that this was a major factor in the large increase in girls' secondary school enrollment in the country (see chapters 3 and 6).

Offering second chances

Broadening the opportunities available to young people for services and the start of a sustainable livelihood, and helping them choose wisely among them, are the priorities. Many young people cannot take advantage of these opportunities, however, because they were ill prepared during younger ages. The worldwide median primary school completion rate is now approaching 85 percent, but many countries and regions still lag behind (Sub-Saharan Africa is at 55 percent) either because children have dropped out or never went to school in the first place (box 2.8).52 In countries ravaged by civil war, the proportion could amount to an entire school-age generation (see the spotlight on Sierra Leone following chapter 7).

Bad nutrition at an early age can also diminish life chances for many young people. Height may reflect previous health investments and is accepted as a proxy for earning ability later in life.53 Many people are disabled and cannot take advantage of opportunities—estimates vary widely, but they range around 75 million to 150 million of those ages 10–24.54

Inevitably, some young people will choose or be led down the wrong path. Early childbearing is still a problem in many developing countries. More than half of all infections of HIV/AIDS occur among young people under 25. In the United States, those ages 15–19, 7 percent of the population, account for more than a fifth of the arrests for violent offenses and roughly a third of
“The system in my country … does not track down those [who] ‘drop out’ in time to ensure that they do not end up becoming a liability to the world. That is what is happening here; thousands of young people walking aimlessly in the streets [with no] jobs, no social services, and therefore nothing.”

Chernor, 21, Sierra Leone September 2005

A sound primary education (six years) is relevant for youth not only as a foundation; for many young adults, it is also the place where they are still learning. Some have repeated many years. Others started school very late. Still others are trying to get back into the educational system after many years away—in postconflict countries, perhaps a generation of school-age kids.

The 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 (see the figure). Malawi has an enrollment rate of almost 75 percent for all its 15-year-olds, compared with 70 percent for Vietnam, but almost all the Vietnamese kids are in secondary level, compared with only about 5 percent for Malawi. The situation persists for older children. Malawi has a higher enrollment rate for 19-year-olds than Vietnam, but half of them are still in primary school. What 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 issue with age-mixing: all 19-year-olds in school are already at secondary levels.

Large numbers of older youth are still in primary school in some countries

![Graph showing age-enrollment profiles for Vietnam and Malawi](image)

Source: Authors’ calculations based on Demographic and Health Surveys (2002 in Vietnam and 2000 in Malawi).

Why second chances? Mitigating the effects of past policies and behaviors

These undesirable outcomes are partly a legacy of past policies and practices that failed to deliver the basic services so important to the foundations for better youth outcomes. Apart from not spending enough for these services, the failure to spend properly has had enormous implications that were documented well in *World Development Report 2004* (see box 2.2). Undesirable outcomes are also a legacy of family and community strictures. Early marriage, deep-rooted in some societies, can close off opportunities prematurely.

Bad outcomes are also, however, partly the result of the misjudgments of young people inexperienced in decision making and less averse to risk. Even though adults and youths are not that different in their ability to carry out decisions about risky situations, experimental results show that youths differ in how they value the consequences of choices. This could be due to myopia, or to a preference for immediate gratification. It could also be linked to the search for identity—a subject of endless fascination to academics (see box 2.6). The differences in valuing the consequences of choices could have tremendous effects, especially when the costs of actions are borne now—such as going to school or using contraception—but the payoffs occur farther in the future.

Recent research also shows that these attitudes may also have physiological roots. Brain imaging indicates that the part of the brain governing the ability to assess risk matures last, around the early twenties (box 2.9).

How such biological development affects behavior is not clear, but it offers yet another possible explanation for the observed willingness of the young to take more risks than adults. In some countries the insurance market takes account of this difference. The car insurance industry is well aware of the penchant for the young to indulge in risk taking. In Ireland a 19-year-old pays almost three times more than a 29-year-old for car insurance. Companies have long offered incentives to reward responsible past behavior, such as a good track record. Some have even reportedly offered to reward future behavior, such as good grades, presumed to be associated with prudence. However, such insurance markets are thin in developing countries and fail to protect the vast majority. For example, the one insurance market that young people could use is motor insurance, given that the leading cause of death among males outside Africa is injury, most caused by vehicular accidents. The spread of this industry is confined to only a few...
Brain development among youth: Neuroscience meets social science

A decade ago, the prevailing notion was that brain growth ended at about the age of 2 years. Since then, we have learned that brain growth continues well into adolescence (between ages 10 and 19) and into young adulthood (see the figure below). During this period the brain undergoes a series of changes, and parts of the brain associated with social skills, problem solving, and identifying emotions mature only by the early twenties. 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, communities—in which young people live.

Brain development: Arborization and pruning

The brain is made up of nerve cells—about 10 billion of them—connected by branches or dendrites. These branches move information from one cell to another, but these connections are not soldered together; rather, there are spaces between the branch of one cell and the body of another. These spaces are called synapses, and information moves from cell to cell across these spaces by releasing tiny packets of chemicals. When there are abnormalities in the chemicals in the synapses, a variety of clinical conditions result, such as depression and attention-deficit and hyperactivity disorders.

Different parts of the brain handle different activities—that much is well-known. What is new is the finding that during adolescence certain areas of the brain grow in size and other regions become more efficient. For example, the area of the brain responsible for language more than doubles in size between ages 8 and 14. Consequently, language acquisition is optimal at those ages. So, too, connections grow and strengthen between the brain stem and the spinal cord, increasing the connections between the emotions and what the body feels. Throughout childhood and adolescence, more and more nerve cells grow sheaths around them called white matter or myelin. This is like building a superhighway, allowing information to be interpreted and recalled much faster than was ever possible as a young child.

These structural changes are only some of the brain’s alterations during adolescence. Another major change is called “pruning.” Throughout early childhood, the number of connections between cells increase, and because the process is much like the growth of branches on a tree, it is called arborization. It allows a child’s brain to be very excitable—which is why children seem to be perpetual motion machines. In adolescence, many of those branches die—through pruning. The brain is less excitable but also more efficient in carrying information.

The pruning follows a consistent pattern throughout adolescence and young adulthood starting at the back of the brain and ending at the prefrontal cortex. The prefrontal cortex regulates impulses, risk-taking, planning, decision making, empathy, and insight. Research also shows that the cerebellum, recently discovered to be important for mathematics, music, decision making, social skills, and understanding humor, continues to grow through adolescence and well into emerging adulthood. The last structure of the brain to stop growing, it develops until the mid-twenties.

Implications for social policies

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 youth 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, antidepressive drugs may allow for certain excitatory neurotransmitters to stay in the space between two brain cells longer than otherwise.

- Learning and teaching strategies should be timed to increase 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 are unable to learn the material. This speaks to 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—suggests the value of second-chance programs.

It is, however, too early in the research to draw definitive conclusions about brain development and behavior. Also, physical development interacts with the social environments to determine behaviors and outcomes. So parental behaviors 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).

Timeline of brain development

### Timeline of brain development

#### Prenatal

- Week: 0 6 12 18 24 30 36
- Month: 0 6 12 18 24 30 36
- Year: 0 4 8 12 16 20 24

#### Postnatal

- Cell birth
- Migration
- Axonal/dendritic outgrowth
- Programmed cell death
- Synaptic production
- Myelination
- Synaptic elimination/pruning

#### Major stages

- Majority of neurons
- Fewer neurons, primarily in cortex

Source: Andersen (2003).
developing countries and its penetration is shallow in middle- and low-income economies, where average premiums per capita are only a tenth of those in high-income economies.60

What’s to be done?

Given the legacy of past policies and behaviors, and the many market failures, what’s to be done? Remediation tends to be relatively costly for many of the transitions, which is why early attention to basic needs for younger children, as well as broadening opportunities for young people and helping them decide wisely, are essential. It is difficult to get precise estimates because remedial programs are so different from the original ones. A rough order of magnitude comparing adult basic literacy programs with primary education programs in Bangladesh and Senegal yields a range of differences that make the former one to three times as costly, even without taking into account their opportunity costs.61 So, the first lesson: try to get it right the first time.

Beyond prevention, countries rightly have many programs that try to mitigate the effects of undesirable but sadly inevitable youth outcomes. These include reinvesting in human capital (adult literacy programs), treating those infected with communicable diseases, providing drug rehabilitation, integrating the long-term unemployed into the labor force (retraining programs for dropouts and public works schemes for the young), and reintegrating young people into the social fabric (demobilization programs after civil wars, the juvenile justice system). These programs cover all the transitions that the Report deals with.

Three other lessons seem to matter most: target programs closely, coordinate them with mainstream “first-chance” programs, and mitigate without encouraging risky behavior (or encouraging moral hazard).

Targeting. Because of the cost of second-chance programs, it is important to direct them to the neediest, as with other costly schemes. Many young people have access to family resources that can act as a safety net. In richer countries, the incidence of returning to the parental home, at least temporarily, has increased after a failed marriage or relationship, job loss, or devastating illness. Households able to cope with this are less at risk and therefore need less subsidy than young people who have frayed family connections, especially in developing countries. There is evidence, for example, that young people return home in smaller numbers if they are from families that have experienced the death of a parent or divorce.62 Orphans are thus more vulnerable and a priority for social programs.

Another reason for targeting is that some programs that mean to benefit mostly youths but do not identify them as the main beneficiary may fail to reach the neediest, who may not seek the service if they are less aware of where it is. This is why campaigns to address reproductive health, such as postnatal care services for very young mothers (chapter 5), are so aggressive at social marketing.

Coordinating with the mainstream. Second-chance programs tend to be disconnected, run as separate initiatives by NGOs or agencies (chapter 9). The lesson from the few analyses of these programs is that integration and coordination make them more effective. To avoid the danger of developing very costly parallel programs, it is important to ensure reentry. One example is graduate equivalency programs, which allow dropouts from secondary systems to take classes that will eventually get them the equivalent of a secondary diploma (chapter 3). 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 as a second-chance program—three-quarters of all remedial students are in community colleges.63

By the same token, it is important for mainstream programs to be flexible so that early mistakes do not turn into permanent liabilities. Some countries track students as young as age 10 into differing ability schools—while others keep schools
opportunities, capabilities, second chances: A framework for policy

A recent study of countries’ achievements over time shows that early tracking not only increases education inequality (there is no catching up despite segregation) but may also lower performance. A recent study of countries’ achievements over time shows that early tracking not only increases education inequality (there is no catching up despite segregation) but may also lower performance.64

**Remediation with accountability.** No one doubts that all people, including youths, should face the consequences of their risky behaviors—for their own good and for society’s. In the case of criminal behavior, moral justice and deterrence demand it. After one has strayed, though, what is best for society? Rehabilitation is very costly, but the payoffs are highest for young people who still have a lifetime of potential productivity ahead of them. For those who commit crimes at a young age, what is most critical is that they face the consequences of their action without being made to lose hope. In the Philippines, 3,700 children are reported to be in adult jails, “in conditions detrimental to their health and well-being.”65 Many of them—some with relatively minor misdemeanors, some homeless—are incarcerated with hardened criminals. The consequences should be commensurate with the gravity of the crime, and programs should allow young people to rehabilitate themselves where that is possible and appropriate—“restorative” rather than “retributive” justice, in the parlance of chapter 7. More demobilization programs are being designed to rehabilitate young combatants (see the spotlight on Sierra Leone following chapter 7).

Any remediation program confronts what economists call a moral hazard. If someone knows that the consequences of his or her risk-taking behavior are mitigated by a government program or insurance, that person may engage in more risk-taking behavior than warranted. There has been some fear that the availability of antiretroviral therapy for HIV may cause young people to take fewer precautions. In Kenya, condom use fell after the government announced reported “cures” for AIDS (chapter 5). The solution to such problems is not to deny second chances, such as treatment. That would be unethical as well as wasteful. Instead, it is to build incentives that encourage the care-taking behavior to persist even in treatment.

The three pathways implied by the youth lenses in the framework discussed here—opportunities, capabilities, and second chances—need to be applied to each of the transitions introduced in chapter 1. Sustained greater spending on the basics, especially quality, is a top priority in the poorest countries. In others, more attention to upper secondary and tertiary education is key. However, it is not all about spending. Equally important is to ensure that young people, with the support of their families, are stimulated to invest in themselves. As with any investment, improving the climate for investing in human capital can raise the returns and lower the risks. The returns in the form of a good job and an active civic life can be enhanced by policies that level the opportunities for young and old alike. Prudence in taking health risks can be encouraged by the right incentives.

The youth lenses must be aligned to get the most impact. An illustration of the magnitude of this joint effect can be seen by considering the returns to a hypothetical secondary education project using data from the Dominican Republic, Indonesia, and Mexico.66 Take a project that enhances opportunities by building enough schools to achieve a gain in upper secondary enrollment to 57 percent from 52 percent of the relevant age cohort. Earnings and cost data for Mexico indicate that such a project would have a benefit-to-cost ratio of 1.03 in present value terms—an acceptable return on investment that broadens opportunities.

Recent research shows that secondary students severely underestimate the real returns to completing secondary school.67 A project that not only provided another secondary school seat but also enhanced the capability of young people simply by providing information to correct their misperceptions of the returns to education, would raise the enrollment rate to 62 percent. 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 youth 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—a waste of resources. If a student or her family had the insurance of a scholarship scheme in the event of an income shock (a second chance), enrollments would rise to 69 percent. Such a program, combined with the first two, would have a benefit-to-cost ratio of 2.15—better, yet again.

The framework introduced here must be applied in a way that takes into account different economic, demographic, and social environments. Some countries deal well with the next generation of development challenges—others, less so. Countries could also be characterized by the speed at which young people start to make decisions for themselves: in traditional societies the young make fewer decisions about major life transitions, and in others they exercise independence faster than their predecessors. How countries can apply the principles in these different settings across each of the transitions is the subject of part 2.
Gender differences emerge sharply with the onset of puberty, affecting the life trajectories of girls and boys in profoundly different ways. Governments have a range of policy levers to counter the inequalities in opportunities, capabilities, and second chances of young women and men. Some policies are not targeted—they equalize opportunities indirectly by addressing constraints. But disadvantaged from the start, many young women also need directly targeted programs to help them catch up.

**Life trajectories diverge early—and permanently—for adolescent girls and boys**

Initiation rites in puberty, which vary from circumcision ceremonies in some African societies to debutante balls in the Americas, signal the break with the homogeneity of childhood and the emergence of gender-based expectations for girls and boys. With these rites of passage, the lives of young men and women begin to follow social trajectories defined by gender. Gender-defined roles and responsibilities tend to curtail girls’ opportunities and decision-making capabilities but broaden those of boys. In some societies girls are married very young. In others, families severely restrict girls’ freedom to protect their virginity before marriage. In still others, adolescent girls often become pregnant and have children outside marriage. These gendered trajectories for young women and men are revealed in gender differences in youth outcomes.

The interplay of differences in sex (biology) and gender (society) also shapes the different disease burdens for adolescent boys and girls. In addition to health risks associated with early and frequent childbearing, young women ages 15–29 suffer disproportionately from HIV/AIDS, unipolar depressive disorders, panic disorders, and fires. Rape and domestic violence account for 5–16 percent of healthy years of life lost by women of reproductive age. In contrast, young men suffer more from disabilities related to violence, alcohol use, and accidents, patterns similar to those in high-income countries, suggesting common risk-taking behaviors and underscoring the global nature of the problems of violence and drugs in adolescent males.

In education, the trend has been toward gender convergence, marking one area where girls’ transition to adulthood has undergone significant change. Across countries, school attendance and labor force participation rates have risen faster for young women than young men, in both the 15–19 and 20–24 age groups. However, the schooling experience can still be gender-sensitive. For example, in Kenya where adolescents attend mixed schools and are fairly free to associate with the opposite sex, teachers view girls negatively, often saying that they are too lazy or less capable than boys are to learn.

Time-use studies indicate other differences in the lives of adolescent girls and boys. The amount of time devoted to work, paid or unpaid, rises with age for boys and girls, but girls tend to work more hours than boys, spending long hours fetching water and firewood, cleaning and cooking, and minding younger siblings. Time-use studies in Kenya, India, Nicaragua, Pakistan, and South Africa show that, on average, girls ages 15–29 work about one hour more a day than boys.

For young women in many regions, the transition from school to work does not take place or is interrupted because of marriage and childbearing or because it is socially unacceptable for them to work for pay. Compared to young women, men are more likely to work for pay—especially if they are not enrolled in school—and to work less on domestic chores and unpaid economic activities. The pressures on boys to earn income may explain the rise in school dropout rates for boys. Girls who are not in school are more likely to participate in unpaid domestic work and household surveys may not capture such work. This is evident, for example, in the percentage of “idle” girls in many developing countries: by age 14 the proportion of girls who are absent from both school and paid employment in six developing countries ranged from 6 percent in Nepal to 44 percent in the Republic of Yemen.

**Programs that equalize opportunities can reduce gender disparities**

Broadening opportunities so that young men and women have better access to services will reduce gender disparities. Governments have a range of policy levers—pricing policies, legal and regulatory reform, better designed service delivery, selected investments in infrastructure—that could have equalizing effects even without gender-based targeting. How? Through alleviating the constraints that disadvantage girls. Some could reduce the relative costs associated with investing in girls’ productive skills. Others could increase the information to counter labor market biases against girls, or increase infrastructure investments that ease the burden of household work for girls.

Consider the gender-specific impact of an ostensibly gender-neutral program, such as building more schools in rural areas. More schools should benefit both boys and girls, but studies show different effects for boys and girls. In countries as diverse as Pakistan and Ghana, reducing the distance to a secondary school elicits greater responsiveness in schooling for girls than for boys, partly because girls’ enrollment is lower to begin with and because distance is a bigger constraint for girls, for whom personal security is a concern for parents.

Trade policies also can have disproportionately larger effects on young women’s employment opportunities. Take Bangladesh, where young women joined the export-driven textile sector in large numbers, increasing their wages dramatically. The increase in women’s employment and earnings enhanced their bargaining power within their households. Gender-informed health safety in the workplace and other regulations to ensure good employment conditions for female workers should increase the gains for young women even more—and
counter the consequences of their inexperience in the workforce.

In addition to general policies and programs, gender-targeted programs must be implemented especially because gender-defined transitions to adulthood often severely limit girls’ voice or exposure to information. When low-income families are forced to ration spending on education, health care, and nutrition, girls and young women tend to bear much of the costs. As household incomes rise, spending on these items also rises, with girls and young women often benefiting proportionately. For example, giving larger cash transfers to families to send and keep girls in schools, as with Oportunidades in Mexico, has increased enrollment for girls (see the figure).

A pilot education project in the province of Balochistan, Pakistan, subsidized the establishment of private neighborhood schools. Parents were given the financial resources and technical assistance to contract a school operator to open a neighborhood private school, with the financial resources being tied to the number of girls enrolled in the new school. Opening a new neighborhood school increased girls’ enrollments by 33 percentage points, a far larger effect than on boys’ enrollments. This project was for primary education. Because distance to school is an even greater worry for secondary school girls in Pakistan, the relative gains for girls of greater school availability at secondary level is likely to be even higher.14

Facilitating young women’s school-to-work transition requires targeted training programs and labor intermediation services. To attract young women, Chile Joven, an employment training and traineeship program for low-income, high-risk youth, included awareness campaigns for the business sector to recruit women, offered child care services, provided gender training for trainers, and expanded the traineeships in firms for young women. Sixty-five percent of participants found a job on finishing the program, and 70 percent of them found a job in their area of study, proportions much higher than for the control group, and the returns to labor market performance were better for women than for men.15 Similarly, the youth job training program ProJoven in Peru—created in 1997 to help economically disadvantaged youths ages 16–24 to enter the formal labor market—increased real incomes and reduced the gender wage gap. Fifty-four percent of the participants were young women. Before the program, young men were earning 45 percent more than women—after, only 2.7 percent more.16