

PAKISTAN HUMAN CAPITAL REVIEW

POLICY NOTE 1

Pakistan's Human Capital: Opportunities amid Crises



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Pakistan's human capital: Opportunities amid crises

SUMMARY

Pakistan can realize major economic growth and development by investing in its people and their human capital. But the reality is that Pakistan's human capital is low and has improved only marginally over the past three decades. Inequalities in human capital outcomes have persisted or widened over time between the rich and poor, men and women, and rural and urban areas and among the provinces. Human capital outcomes are low across the board, with even the most economically advantaged groups in Pakistan having lower human capital outcomes than less economically advantaged groups in peer countries. Pakistan's Human Capital Index (HCI) of 0.41 is low in both absolute and relative terms. It is also lower than the South Asia average of 0.48, with Bangladesh at 0.46 and Nepal at 0.49. Pakistan's human capital outcomes are more comparable to those in Sub-Saharan Africa, which has an average HCI value of 0.40.

Pakistan thus remains far from realizing its potential and forgoes substantial growth and development. Despite favorable demographic tailwinds, Pakistan is currently unable to reap its rightful dividends due to inadequate investments in education, health, social protection, and the labor force. Its public investment of about 2.5 percent of GDP in education and 0.9 percent on health is much lower than the global average and the average for similar economies. Pakistan spends about 0.6 percent of GDP on social safety nets, compared with the global average of 1.5 percent.¹ The COVID-19

pandemic has deepened the challenges, adding a significant threat to human capital development at all stages of the life cycle. Disruptions to health services and income losses due to the pandemic have forced many to skip regular health checkups and treatments, with adverse consequences that are likely to be felt for decades to come. And school-age children and youths have similarly experienced huge disruptions in access to education and job opportunities. Making matters worse, the 2022 floods further limited access to health and education services and likely increased malnutrition and learning poverty.²

These low human capital investments will limit the realization of Pakistan's ambition to become an upper-middle-income country by 2047. If Pakistan continues on its current trajectory in human capital development, its GDP per capita would grow overall by a mere 18 percent through 2047, the 100th anniversary of its founding. If Pakistan can boost human capital investments and its HCI value to the level of its peers, per capita GDP could grow by 32 percent. But if Pakistan improves both its human capital and its use of human capital, bringing adults into employment outside farming, GDP per capita could rise by 144 percent, eight times more than under business as usual.

To boost its human capital, Pakistan needs to bring population growth under control, invest more in the supply of health and education, and enhance female labor force participation. Pakistan needs a healthy, skilled, and resilient population to ensure high economic

This policy note draws on a chapter of the Pakistan Human Capital Review. See the full report for a list of authors and contributors.

growth that is both inclusive and sustainable. Bringing more women into education and the labor force will require increased focus on their safety, not just at school and in the workplace but also in transit to and from home, while creating more jobs accessible to them in all parts of the country. With the right policies and investments, the growing working-age population can become healthier, more educated, more skilled, and more productive—and can earn more, if the economy generates more and better jobs. This calls for a deliberate effort from multiple stakeholders and sectors to build on intrasectoral and intersectoral externalities. For example, healthy and well-nourished children learn better and earn more as adults, and higher levels of education help improve health outcomes throughout the life cycle as well as improve access to employment opportunities.

INTRODUCTION

Pakistan faces a human capital crisis. Its population, three-quarters of which is under the age of 35, has very recent memories of failures in the schooling system and in health services. Federal and provincial governments, as well as Pakistan’s policymakers, often cite high stunting rates, high childhood mortality, high out-of-school populations, and low learning levels. Gender inequality is particularly stark in education and the labor market, and all outcomes remain unequal across wealth quintiles and geographic regions. Pakistani leaders are also keenly aware of public opinion polls showing voter concerns about the lack of jobs, reflecting the low utilization of human capital.

Given that better education and health translate into improved productivity, and that human capital is often the only asset for the poor, sustainable poverty reduction is unlikely to materialize without substantial investments in human capital. Despite widespread agreement that Pakistan has a human capital crisis, there is surprisingly little consensus

around the enormous opportunity of investing in human capital. With a high fertility rate and a growing and young population, successive governments in Pakistan have tried to keep pace and have continued to provide subpar health and education services to ever more people.

Improving human capital takes a long-term commitment. As a first order of business, Pakistan needs to bring population growth under control, to ensure that it can invest more in its existing population and reap a demographic dividend, rather than continue to provide low-quality services to the ever-growing population. It needs to invest more in the supply of health and education services. Pakistan’s population challenge can be turned into a demographic opportunity only by improving the quality of basic services and improving human capital. And Pakistan needs to enhance female labor force participation, to ensure that families and the country as a whole can benefit from the talent available. The surest ways to reduce the population burden are to keep girls in school longer,³ improve health services for young women,⁴ and bring women into the labor force.⁵ With the right policies and investments, the growing working-age population can become healthier, more educated, more skilled, and more productive—and can earn more if the economy generates more and better jobs.

PAKISTAN’S PERSISTENT HUMAN CAPITAL CRISIS

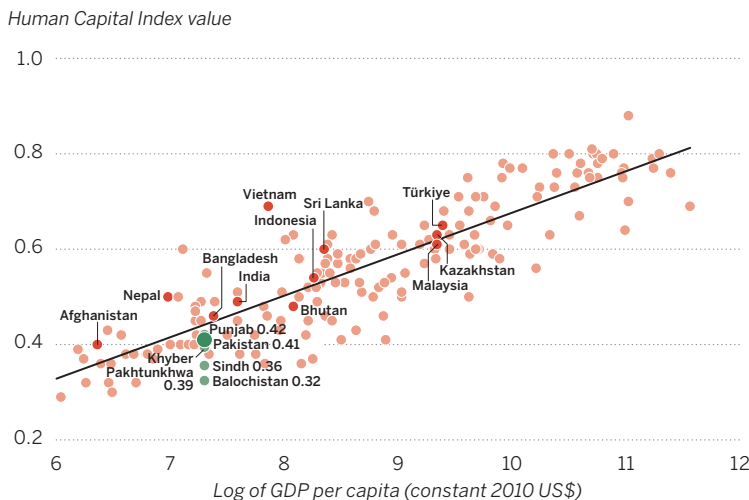
Pakistan’s human capital crisis has two facets. The first is the low absolute and relative level of human capital itself. Pakistan has an HCI value of 0.41, which is lower than expected for its level of economic development (figure 1). There is also substantial geographic variation, with Balochistan at the global bottom, and Punjab at the regional bottom. Pakistan’s human capital outcomes are more comparable to Sub-Saharan Africa’s, which has an average HCI value of 0.40 (table 1). The South Asia average is

0.48, with Bangladesh (0.46) and Nepal (0.49) having higher HCI values than Pakistan.

To put this in perspective, consider that a child born in Pakistan today can expect to be as productive as a child born in Sub-Saharan Africa and only 72 percent as productive as a child born in the Middle East and North Africa or 59 percent as productive as one born in Europe and Central Asia (see table 1). Given that better education and health translate to improved productivity, and that human capital is often the only asset the poor have, sustainable poverty reduction is unlikely to be achieved without substantial investments in education, health, and social protection.

All social groups in Pakistan suffer from low human capital, creating a strong incentive for governments to improve services for everyone. Even the population in the top quintile of Pakistan's wealth distribution experiences high stunting rates, high childhood mortality, and low learning outcomes. A child born today in a household in the top wealth quintile in Pakistan will have an HCI value of 0.50, that is, she will be only half as productive as she could be. In contrast, for low- and middle-income countries such as Lesotho and Vietnam, those in the highest quintile have HCI values ranging from 0.59 to 0.85.⁶

FIGURE 1 Pakistan's Human Capital Index value is among the world's lowest and lower than expected given its level of economic development



Source: Pakistan provincial calculations from 2017 and 2019 Demographic and Health Surveys. Country estimates from the Human Capital Project. GDP from World Bank national accounts data and Organisation for Economic Co-operation and Development national accounts data.

The second facet of Pakistan's human capital crisis is its low utilization. Economic gains from human capital can be realized only if people can use their skills and ingenuity in productive activities, such as gainful employment in the labor market. The basic utilization-adjusted HCI (UHCI) based on employment status is used to get an

TABLE 1 Pakistan's Human Capital Index value compares poorly with those of other world regions

Indicator	East Asia & Pacific	Europe & Central Asia	Latin America & Caribbean	Middle East & North Africa	North America	South Asia	Sub-Saharan Africa	Pakistan
<i>HCI Component 1: Survival</i>								
Probability of survival to age 5	0.98	0.99	0.98	0.98	0.99	0.96	0.93	0.93
<i>HCI Component 2: Education</i>								
Expected years of school	11.9	13.1	12.1	11.6	13.3	10.8	8.2	9.4
Harmonized test scores	432	479	405	407	523	374	374	339
<i>HCI Component 3: Health</i>								
Survival rate, from age 15 to 60	0.86	0.90	0.86	0.91	0.92	0.84	0.74	0.85
Fraction of children under 5 not stunted	0.76	0.90	0.85	0.82	—	0.69	0.69	0.62
Human Capital Index (HCI)	0.59	0.69	0.56	0.57	0.75	0.48	0.40	0.41

Source: World Bank 2020.

idea of how much human capital is being utilized in the labor market. The basic UHCI measure simply multiplies the HCI value by the employment to population ratio to see how much human capital translates into gainful employment.

Pakistan’s UHCI value is only 0.20, much lower than expected given its economic development and virtually at the global bottom.

This means that the benefits that Pakistan can realize from its human capital are further depressed because it does not have an environment for citizens to put their human capital to work. In fact, with their low UHCI values, the provinces of Balochistan (0.15) and Khyber Pakhtunkhwa (0.16) are at the very bottom of the global distribution of human capital utilization. There is an enormous gender inequality in utilization of human capital: the UHCI value is 0.08 for women, compared with 0.31 for men. This has largely persisted over the past three decades, with basic UHCI values increasing by 3 percentage points for men and by 4 percentage points for women (figure 2).

The UHCI for women is also lower in Pakistan than in other countries, even those with similar UHCI gaps between men and women (figure 3).

Gender gaps in India are similar despite overall better UHCI values for both men and women there. The gender gap is wider only in the Islamic Republic of Iran, with a similar UHCI value for women and better outcomes for men.

Women’s low returns to education at the primary and secondary levels may trigger a cycle that reduces incentives for parents to invest in their daughters’ schooling.

Poorly educated women are ill-equipped to obtain better-paying jobs. While high-paying occupations improve along the range of education levels for men, women’s labor force participation—and thus their wages—increase only beyond 10 years of education. The key factors that limit female labor force participation are household work, marriage norms (with women expected to withdraw from the labor force after marriage), female mobility norms (with women not being allowed to

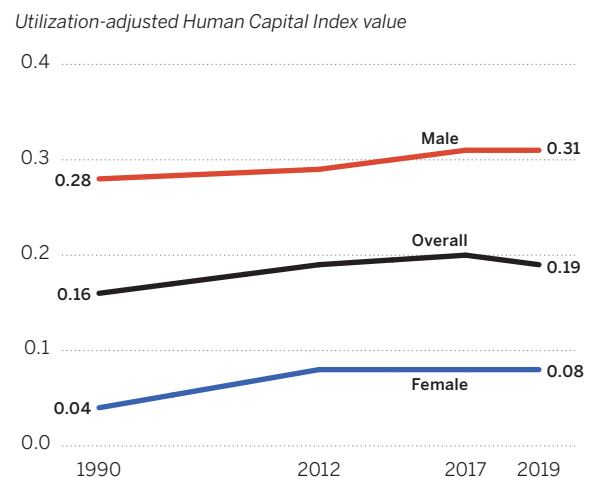
travel outside the household or village), and safety concerns for women on the job and in transit.

The HCI can also be adjusted for “better employment”—a full utilization-adjusted Human Capital Index (full UHCI).

The idea behind the full UHCI is to measure the share of the working-age population that utilizes its human capital more productively. This is a measure designed to more closely capture the productivity gains from human capital by classifying agricultural employment as less productive employment (from a human capital perspective).⁷ The full UHCI also corrects for a country’s potential for realizing human capital gains, giving those of working age with no human capital (and agricultural workers) a minimum value for productivity (considering this as raw labor). In low- and middle-income countries, the full UHCI is typically higher than the basic UHCI, because there is less potential to utilize human capital in better jobs.

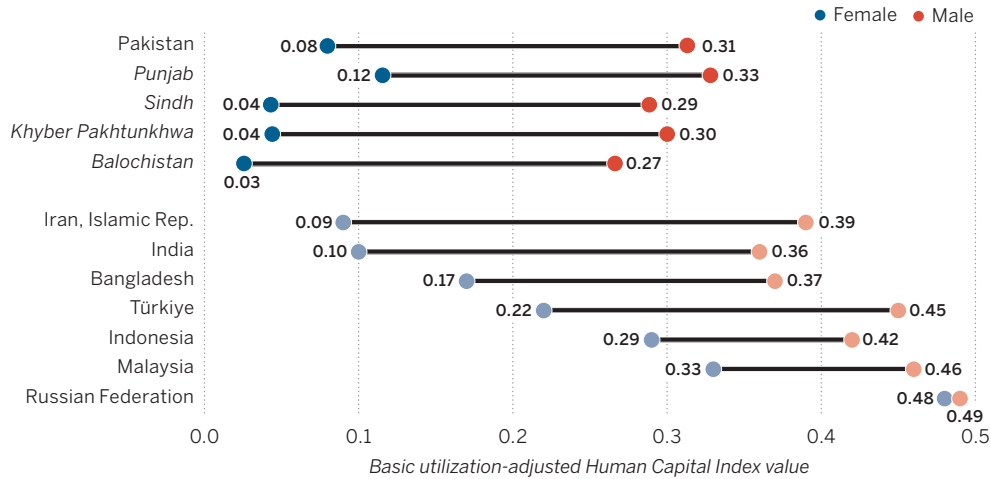
According to the full UHCI measure, human capital utilization in Pakistan is 26 percent (figure 4).

FIGURE 2 Gender gaps on the basic utilization-adjusted Human Capital Index remain wide



Source: World Bank calculations using data from Demographic and Health Surveys, Household Income and Expenditure Surveys, Pakistan Social and Living Standards Measurement Surveys, and Labor Force Surveys.

FIGURE 3 Pakistan's basic utilization-adjusted Human Capital Index value for women is lower than that in peer countries



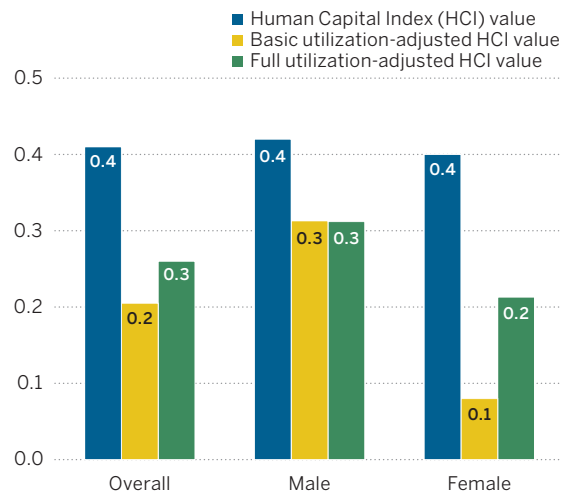
Source: World Bank calculations using data from Demographic and Health Surveys, Household Income and Expenditure Surveys, Pakistan Social and Living Standards Measurement Surveys, and Labor Force Surveys for Pakistan and provincial numbers. Benchmark values from the Human Capital Project.

UHCI values means that the larger problem facing Pakistan is underemployment (particularly for women) relative to job opportunities in the labor market.⁸ This becomes apparent when breaking the measure down by gender. For men, there is no difference between the two UHCI values, whereas women, when they do enter employment, tend to secure more productive employment, attributable to the relatively large share of highly educated women joining the labor market.

THE IMPORTANCE OF HUMAN CAPITAL FOR GROWTH

The benefits of focusing on human capital investments are well established in the economic literature. Human capital investments have a dynamic and circular relation with economic growth, and both are linked through various pathways. Improvements in early health outcomes translate into better education outcomes, leading to more opportunities for productive employment. Productive workers are better able to utilize technology, accelerating the transition to technology-based production,

FIGURE 4 Pakistan's Human Capital Index value falls dramatically when adjusted for utilization, particularly for women



Source: World Bank calculations using data from Demographic and Health Surveys, Household Income and Expenditure Surveys, Pakistan Social and Living Standards Measurement Surveys, and Labor Force Surveys (see Annex 1B).

Note: Basic utilization-adjusted HCI represents all employment. Full utilization-adjusted HCI denotes nonagricultural employment.

which in turn rewards human capital investments. And as Pakistan reaps the benefits of this growth, it will be able to invest more in

health and education services that strengthen this virtuous cycle.

Human capital complements physical and natural capital in the production process and is key to technological innovation.

Societies with higher human capital and equality of opportunity are more cohesive, more able to find solutions to complex challenges, and ultimately more prosperous. Human capital makes up 61 percent of Pakistan’s wealth.⁹ As the nature of work evolves in response to technological advancements, global integration, and other changes, investing in human capital becomes even more important. Labor markets will increasingly demand workers with higher human capital, especially those with advanced cognitive and socio-behavioral skills.¹⁰

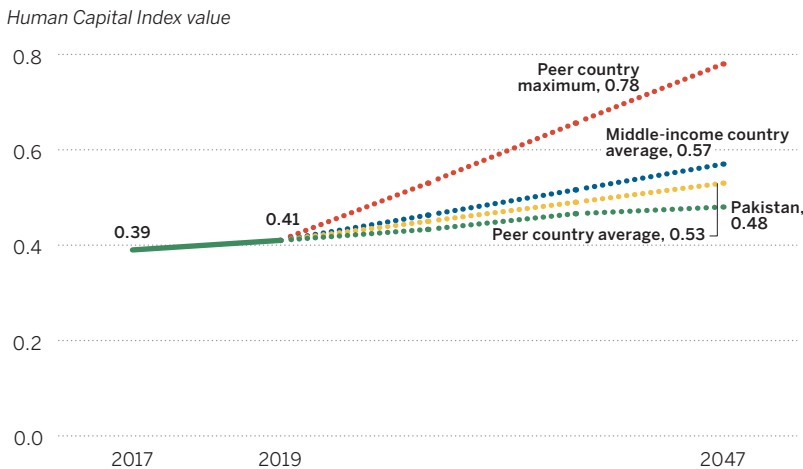
Pakistan has more to gain from human capital investments in economic terms than most peer countries.

As Pakistan seeks to become an upper-middle-income country with a thriving populace and economy, stronger efforts to accelerate progress in building human capital are critical. Four growth scenarios for Pakistan to invest more in human capital and realize better outcomes for its citizens

are presented below. Each of these scenarios is based on basic assumptions of growth and considers a timeline of 25 years, to the year that Pakistan will turn 100:

- *Business as usual:* The first scenario assumes that the long-run rate of change observed in the Pakistan data continues without any change. At this rate, Pakistan’s HCI value would still be only 0.48 in 2047 (figure 5). Thus, even 100 years after the country’s independence, a child born in Pakistan in 2047 would be less than half as productive as she could be given the risks to complete education and full health that prevail.
- *Matching its current peers:* A second scenario is where Pakistan seeks to reach the present-day average of its peers. This is also a conservative estimate, as Pakistan would still substantially lag its peers, which are likely to continue to improve their human capital outcomes in the same period. That would mean reaching an HCI value of 0.53, so children born in Pakistan in 2047 would be just over half as productive as they could be.
- *Matching the average lower-middle-income country advancing to upper-middle-income status:* A third scenario projects what would happen if Pakistan improved its human capital outcomes at the same pace as a typical country that transitions from lower-middle-income status to upper-middle-income status, reaching an HCI value of 0.57. This is perhaps the most realistic scenario that Pakistan could aim for, given its ambitions to transition to upper-middle-income status by 2047.
- *Matching the best performing lower-middle-income country advancing to upper-middle-income status:* Finally, a fourth scenario—more ambitious but still realistic—would have Pakistan seek to reach the maximum of its peers. This would result in substantially higher gains on human capital, with a child born in Pakistan in such circumstances being more than 70 percent as productive as she could be. In all scenarios, much of the progress on the HCI would come from improving learning-adjusted years of schooling, suggesting

FIGURE 5 The Human Capital Index gains that Pakistan could make if it improves all components over the next 25 years



Source: World Bank calculations using data from the Human Capital Project, 2020.

a strong focus on ensuring that children have access to quality education (figure 6).

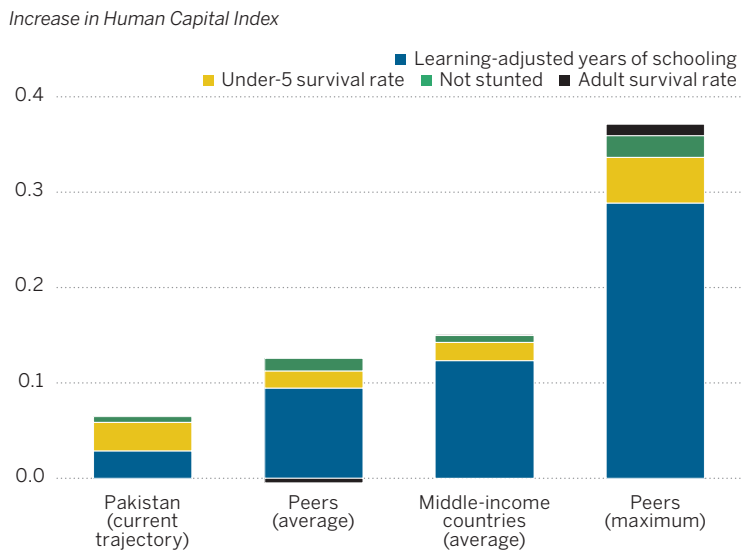
key to deal with the challenges presented by an aging population.

Pakistan is the world's fifth most populous country, with about 230 million people. An “early demographic dividend” country with immense potential for accelerated economic growth from the changes in its population age structure, Pakistan can reap dividends from two phases of the demographic transition (figure 7). The first dividend can be captured as the demographic transition speeds up and the population age structure becomes more concentrated among those of working age. The right policies and investments in human capital can lead to youth cohorts that are healthier, more educated, more skilled, and more productive and can earn higher incomes if the economy can create good jobs for them.

However, Pakistan is currently missing the opportunity to capitalize on its potential demographic dividend. If existing trends continue, it will miss out on the associated economic

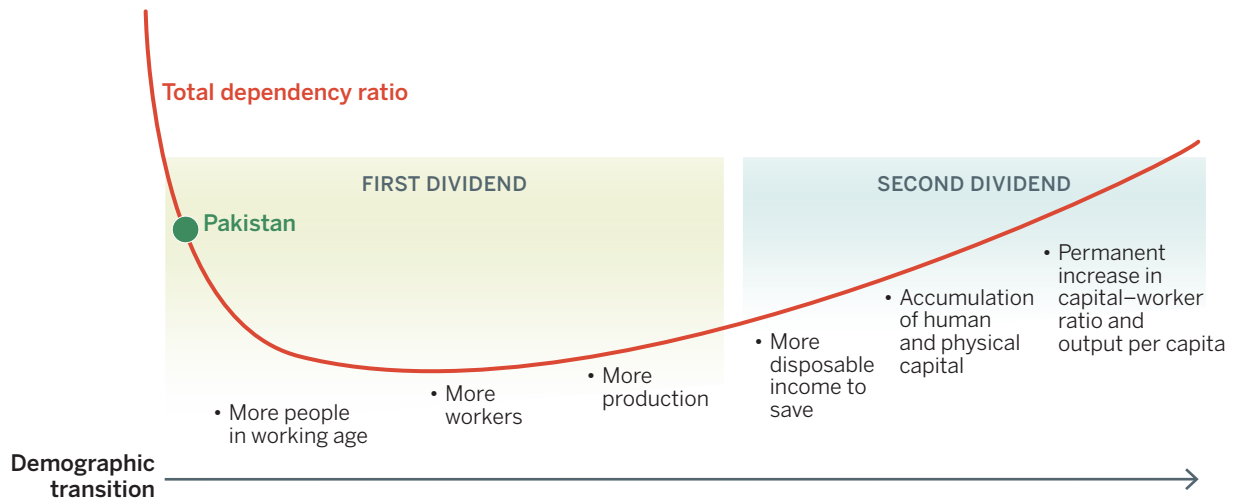
The second phase comes along later in the demographic transition if Pakistan can increase savings and investments as a result of fewer dependent children, more disposable income, and prospects for longer lives. Seizing the second demographic dividend through human and physical capital accumulation and higher labor productivity is going to be

FIGURE 6 Improving the Human Capital Index: Component contributions



Source: Human Capital Project.

FIGURE 7 Can Pakistan harness its two distinct demographic dividends?

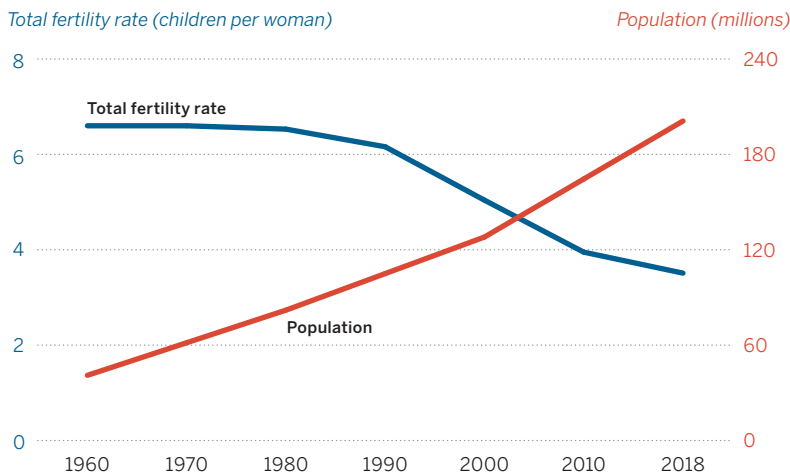


Source: World Bank elaboration.

development possible from a potential demographic dividend in the future as well. This is due to a confluence of low human capital, low labor force participation, and low productivity, as well as a pace of job creation that is slower than population growth.

In Pakistan, fertility rates are comparatively high, and government investment in human capital is low, thus producing low human capital outcomes. Even though the total fertility rate has been falling over the past six decades, from 6.6 children per woman in 1960 to 3.5 in 2018 (figure 8), it is still much higher than in comparator countries. Fertility rates have been falling in all provinces, but in 2018, women in Punjab and Sindh still had more than three children on average, and women in Balochistan and Khyber Pakhtunkhwa had four children on average.

FIGURE 8 The fall in fertility that Pakistan needs to accelerate

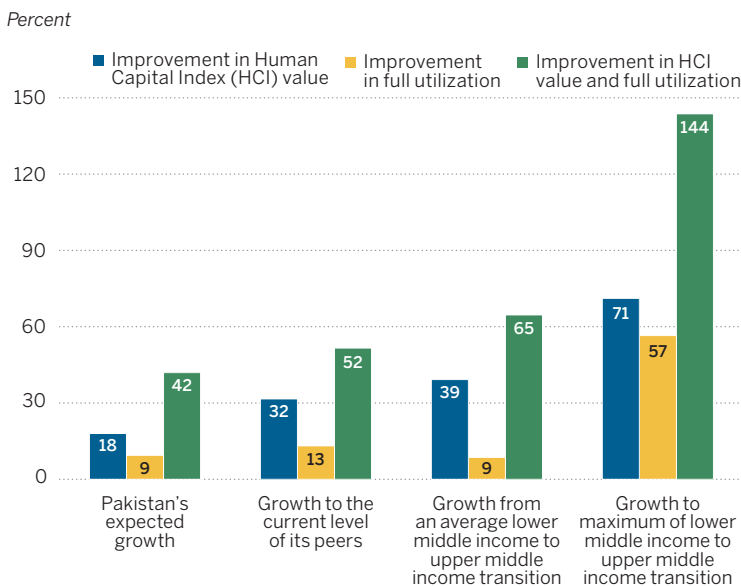


Source: World Bank calculations using data from World Development Indicators.

RECOMMENDATIONS

There is ample global evidence that no country can sustain economic growth over the long run without solid investments in human capital. As Pakistan seeks to become an upper-middle-income country with a thriving economy and population by its centennial, efforts to accelerate progress in human capital development will be essential. Given the low level of human capital, the policy agenda for Pakistan is clear. It will need to focus on fundamentals: bring its population growth rate under control, invest more in the supply and quality of health and education, and bring women to the labor force. Bringing more women into education and the labor force will require a focus on their safety, not just at school and the workplace, but in transit to and from home, while creating more jobs accessible to them in all parts of the country.

FIGURE 9 The economic benefits of building human capital will be substantial



Source: World Bank simulations.

Note: Baseline is Pakistan's 2018 GDP per capita of US\$1,483.

Pakistan can realize major economic growth and development by investing in its people and their human capital. Simulations of several realistic scenarios show how much Pakistan's economic productivity could increase by investing more in human capital over the next 25 years—to 2047, the 100th anniversary of its founding (figure 9). If Pakistan continues to improve its HCI value at the current rate, its GDP per capita is expected to grow by a mere 18 percent by 2047. If it can boost its HCI value to the level of its peers, its per capita GDP growth could nearly

double to 32 percent by 2047. Raising its HCI value to the maximum among its peers would allow GDP per capita to grow by 71 percent. Even greater economic gains can be realized by improving the utilization of human capital—by bringing more adults into the labor force and into more productive employment outside agriculture, where workers can make greater use of their human capital. Investments in human capital, while ensuring its full utilization, will result in the largest gains in Pakistan's economic growth and development. These range from an increase of 42 percent from the current GDP per capita to 144 percent, eight times more than under business as usual.

In summary, the Government of Pakistan needs to prioritize investments that ensure quality education and health services for all its citizens.

- *Exercise effective stewardship over human capital and declare emergencies over the health and education crises.* This requires long-term planning beyond the tenure of any government and political cycle. With the COVID-19 pandemic and devastating floods deepening its already poor state of human capital, the Government of Pakistan needs to declare emergencies and take bold actions to tackle its health and education challenges.
- *Make family planning a priority across all human development initiatives.* Pakistan should integrate population planning in academic, religious, and national policies and develop its labor market to accommodate the growing youth population. Key actions include training more Lady Health Workers to educate women on family planning, creating more awareness about the use of modern contraceptives, increasing the provincial health budget, and focusing on structural inequalities in access to health and education.
- *Invest more and more smartly in people and develop avenues for them to deploy their human capital more productively.* Human capital externalities and market failures provide a strong rationale for the government to invest in human capital. In most developing countries, poor people stand to lose the most when the public sector fails to make these investments, but even those in the highest income quintiles lag their peers in other countries. To boost its human capital, Pakistan needs to invest more in the supply of health and education through domestic resource mobilization, shifting resources from costly energy subsidies and improving efficiency in the existing allocations to human development sectors.

NOTES

1. World Bank 2018b.
2. Government of Pakistan 2022.
3. For a review, see Wodon et al. (2018).
4. See, for instance, Bhuiya et al. (2004); Douthwaite and Ward (2005); Hennink and Clements (2005).
5. Bloom et al. 2009.
6. Quintile data are available for 15 low-income and 22 lower-middle-income countries.
7. The basic idea behind this is that in many developing countries, large shares of the population are employed in small agricultural settings, where work is primarily physical, and it is difficult to realize gains from higher human capital levels.
8. The full utilization has a U-shaped relationship with GDP per capita. In low-income countries (as opposed to middle-income countries), the full utilization rate is usually higher than the basic utilization rate. As discussed in World Bank (2020, p. 91 ff.), the intuition behind this is that in low-income countries, there is less human capital and hence there are also fewer opportunities for making better use of that human capital in better employment.
9. World Bank 2018a.
10. World Bank 2019.

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