CHILD DEMOGRAPHICS IN UZBEKISTAN

GENERATION 2030

ASIA

Child demographics in Asia

AFRICA 2.0

Child demographics in Africa

UZBEKISTAN

Investing in children and young people to reap the demographic dividend
This report outlines pivotal changes in Uzbekistan’s demographics. While the country is currently standing at both demographic and economic crossroads, the first and crucial step to achieving the demographic dividend will be to prioritize investments in children and youth.

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Investing in children and young people to reap the demographic dividend
The Republic of Uzbekistan stands at the crossroads of a demographic, economic and technological transition. It has reached the early demographic dividend stage, which implies it still has time to reap a period of high and prolonged growth that could boost prosperity and reduce poverty and inequality.

The window of demographic opportunity will not stay open for long, given Uzbekistan’s population trajectory. It is therefore imperative that these investments in children and young people are made now and in the coming years, as the country will begin to transition towards an aging society within a decade and a half or so.

Four actions stand out as priorities for boosting growth and human development: enhancing the quality of education, health care and nutrition to strengthen the nation’s human capital; prioritizing economic flexibility and entrepreneurship; scaling up technological access and innovation; and fostering social participation and cohesion.

Boosting its human capital will require that Uzbekistan enhances access to and particularly the quality of essential services, including in early childhood development, secondary and tertiary education, job skills development, and nutrition and health care for marginalized and remote populations.
Given the evolving nature of labour and productive markets of the 21st century, Uzbekistan should prioritize an economic model that seeks to boost investment and productivity, adapts rapidly to changing global and regional conditions, and foster entrepreneurship, particularly among young people.

Technology presents a major opportunity for Uzbekistan to advance towards a demographic dividend. A key way to realize its potential will be to expand access to quality information and communication technology, and promote measures that will spur technological innovation among young people.

Social cohesion is critical for a prosperous and harmonious society. Fostering the participation of young people, especially young women, in economic and civic life of communities and societies, and the inclusion of marginalized populations in the growing prosperity of the nation, will be important factors in both supporting the demographic dividend and in building a stable society.

Uzbekistan is well placed to take advantage of its demographic window of opportunity in the context reforms guided by the Action Strategy 2017-2021—provided it makes the required investments now—and particularly those related to investing in children and young people. This will enable the country not only to maximize its chances of a growth and employment spurt in the near future, but also to set the base for a more productive, innovative, inclusive and stable society in the longer term.

The time is now to invest in children and young people.
Students gather in the playground of the Fergana district school.

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Uzbekistan stands at a window of demographic opportunity...

Over the past two and a half decades, Uzbekistan has undergone a steady demographic transition. Fertility levels and child mortality have reached low and steady levels. The country’s population, although still growing, has stabilized while remaining youthful. And the share of dependents (children under 15 years of age and people over 65 years of age) in the total population has declined over previous decades.

This transition has shifted Uzbekistan into a phase that is currently classified as the ‘early demographic dividend’ stage. With the share of the working age population set to expand in the next few years, and with the number of dependents remaining at a moderate level, Uzbekistan will have favourable demographic conditions for a growth spurt – the so-called demographic dividend – that could substantially lift real incomes and help to reduce poverty. This dividend can occur when the working age population approaches its maximum size and has less dependents to support, leaving the former with more disposable income that can spur greater consumption, production and investment and in turn drive growth upwards.

Recent assessment of the remarkable economic growth performance of the so-called East Asian miracle demonstrates that demographic shifts could substantially account for the miracle portion of economic growth. For example, it is estimated that one fourth of the Chinese economic growth over the last thirty years can be attributed to the demographic transition. China was able to leverage its demographic dividend in 1980-2010 by investing in human capital and creating enabling economic environment to accelerate growth.

Uzbekistan’s working age population is still growing but at a slower pace, and will start to shrink from 2048

FIG. 1 Total Population by broad age groups, 1950 – 2100

...but the window will not be open for long given the country’s population profile...

But given present fertility and longevity trends, Uzbekistan’s window of demographic opportunity will not be open for long. Uzbekistan’s population structure is set to change markedly in the coming years. Fertility rates are currently around 2.2 babies per woman of child-bearing age (15-49 years) and are set to fall to replacement levels (2.1) in the coming decade, and then below replacement level thereafter. These trends will mean that the share of
children in the population, currently around 37 per cent, is set to decrease markedly – by an estimated 20 per cent between 2015 and 2030 – as fertility rates continue to decline and the population begins to age.\textsuperscript{6}

The transition has important implications for the future of Uzbekistan’s economy and society, as during the post 2030 period, the lower number of children will imply a shrinking working age population in the latter decades of the 21st century. And in approximately a decade and a half, Uzbekistan will see an increase in its dependent population, as its citizens live longer, and many of the current working age population start to become elderly.

This ageing process is common to many countries currently in upper-middle income and high-income brackets, and will shortly begin to affect some lower-middle income nations, as well. In addition, continued net emigration of part of the working age population, together with the rise in the elderly dependent population, could become a drag on the economy and exert further strains on public finances given the high cost of elderly care and social security.

Uzbekistan’s demographic dividend, though eminently possible, is not guaranteed. Like other countries in Central Asia, attaining the dividend will require a targeted action plan with a long-term vision to maximize the current and future potential of its children and young people, while also planning on how to take care on the growing elderly population in the future.

\textbf{Uzbekistan’s total population is expected to peak around 2060 and will start to decline thereafter}

\textbf{FIG. 2} Total Population of Uzbekistan, 1950 – 2100

\textbf{Uzbekistan’s median age is already increasing and will surpass the global average by mid-century}

\textbf{FIG. 3} Median age (years), 1950 – 2100

\textit{Source for both figures: United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects: The 2017 Revision, United Nations, New York, 2017 (Medium Variant)}
...and it will need to act swiftly and decisively to reap the full benefits

The 2017-2021 Action Strategy for Development of Uzbekistan, if enacted in full, could go a long way in creating favourable conditions for attaining demographic dividend. Given that the demographic window of opportunity for Uzbekistan is limited, it is imperative that the country takes full advantage of its current favourable population structure. This will entail actions on several fronts – investing in human capital, creating the right economic model that can absorb the growing labour force, enhancing technological access and innovation, and fostering participation of the young generation to realize themselves and contribute to the socio-economic and harmonious development of Uzbekistan. The next sections of the report will briefly examine how each of these four actions can be undertaken.

**Uzbekistan’s child population will reach its peak in mid-2020s and steadily fall during the rest of the century: the population of Uzbekistan will decline after mid-century**

**FIG. 4A** Child population of Uzbekistan, 1950 – 2100

**FIG. 4B** Children under 18 and total population in Uzbekistan, 1950-2100 (in millions)

*Note: The horizontal lines for each are proportional to the number of inhabitants.*

*Source for both figures: United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects: The 2017 Revision, United Nations, New York, 2017 (Medium Variant)*
Children in biology and chemistry class, School 9 in the Fergana district.

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AN HISTORIC WINDOW OF OPPORTUNITY FOR UZBEKISTAN

BOX 1 THE DEMOGRAPHIC WINDOW OF OPPORTUNITY

The term ‘demographic dividend’ refers to the economic growth that can be achieved by having proportionally more working age people as a share of the population. It is driven by the demographic transition of a country’s population. As mortality and fertility decline, the population’s age structure changes. With fewer births each year, a country’s young, dependent population grows smaller in relation to the working age population. This is the period when the dividend can materialize: the increasing share of working age population compared to other age groups leaves each working age person with fewer dependents to support, and thus more disposable income that can spur greater consumption, production and investment and, in turn, accelerate growth.

The window of opportunity for a demographic dividend is closely linked with such demographic transitions. There are no distinct criteria that defines the beginning and end of the window, but it begins to open when the share of working age population is increasing and fertility reduction has progressed far enough to reduce the dependent child population. The window begins to close when the share of the working age population starts to shrink again due to continued low fertility and the increasing share of the elderly in the population.

This report uses a typology developed by the World Bank that classifies countries according to their potential for reaping a demographic dividend based on two demographic indicators: the share of the working age population and fertility levels.

Pre-dividend countries: Countries whose share of working age population will increase between 2015 and 2030 have an opportunity to reap a demographic dividend. Among them, those that had comparatively high total fertility (four or more births per woman) in 2015, are classified as ‘pre-dividend’ countries, since the window of opportunity for accelerated economic growth has not yet opened due to ongoing rapid population growth, resulting in a high child dependency ratio. Uzbekistan belonged to this category until the 1980s.

Early-dividend countries: Countries showing a relative increase in the working age population and a total fertility of less than four births per woman in 2015 are further along the path toward reduced fertility and thus experiencing lower child dependency ratios and a higher proportion of working age population. These countries are classified as ‘early-dividend’ countries, and Uzbekistan currently fall into this category.

Late-dividend countries: Countries with a declining share of working age population between 2015 and 2030 face a closing window for their first demographic dividend. Countries that in 1985 – roughly one generation ago – had a total fertility rate above replacement level are classified as ‘late-dividend’ countries. Most late-dividend countries have a large share of working age population and are in a position to continue ‘harvesting’ the benefits of the first demographic dividend, but will face fundamental changes in coming years. In the current trajectory, Uzbekistan is projected to enter this stage by the early 2030s.

Post-dividend countries: ‘Post-dividend’ countries have experienced below-replacement level fertility since 1985, and will face a rapidly increasing elderly population, further decreasing the already diminishing share of working age population. In Asia, five countries or territories have already reached this stage: the Chinese Special Administrative Regions of Hong Kong and Macau, Japan, the Republic of Korea and Singapore. In the current trajectory, Uzbekistan will enter this stage around the late 2050s.

Uzbekistan’s demographic transition has already started...

FIG. 5 Composition of total dependency ratio (children aged 0-14 and persons 65 years of age and over as a percentage of the total population) in Uzbekistan, 1950–2100

...and the country’s population distribution is set to change markedly in the coming decades

FIG. 6 Population by age and sex in Uzbekistan, 2015, 2030 and 2050 (in millions)


Uzbekistan is at the early-dividend stage of its demographic transition

FIG. 7 Stages of the demographic transition and demographic dividend and Uzbekistan's current stage

<table>
<thead>
<tr>
<th>STAGE 1</th>
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<td>Death Rate</td>
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<td>Rapid fall</td>
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<td>Population</td>
<td>Stable</td>
<td>Rapid increase</td>
<td>Slow increase</td>
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Demographic Dividend:
A large labour force with few dependents leading to accelerated economic growth

**Uzbekistan, 2018**

- **Pre-dividend**
  - Share of children: +
  - Share of workforce: -
  - Share of elderly: -
  - Many children, few elderly
    - High fertility rates leading to high dependency ratios with many children per 100 working age adults.

- **Early-dividend**
  - Share of children: -
  - Share of workforce: +
  - Share of elderly: -
  - Increasing share of workers
    - Increasing share of working age population leads to lower dependency ratio which opens up the window for a demographic dividend.

- **Late-dividend**
  - Share of children: -
  - Share of workforce: -
  - Share of elderly: +
  - Decreasing share of workers
    - The share of the working age population is high though decreasing. Opportunity for a strong economic growth but the window of opportunity is closing.

- **Post-dividend**
  - Share of children: -
  - Share of workforce: -
  - Share of elderly: +
  - Few children, many elderly
    - Countries with fertility rates often under replacement level. Share of working age population is shrinking further due to an increasing share of elderly
An Historic Window of Opportunity for Uzbekistan

Uzbekistan’s current population dynamics are characterized by a declining fertility rate, decreasing dependency ratio, which is projected to peak in 2030, and an increasing working age population which is projected to peak in 2048. These key trends all resemble the important demographic conditions attributable to the demographic dividend. Many countries, particularly the so-called “Asian Tigers” in East Asia, harnessed the increased human capital to realize the rapid economic growth and successfully attain the demographic dividend. While there is no “one-size-fits-all” solution for reaping a demographic dividend, Uzbekistan’s model of demographic dividend can adopt and enhance the lessons learned from other countries so as to bring about a more powerful dividend. The Republic of Korea’s story provides an example which illustrates how Uzbekistan can move forward to make the demographic dividend a reality.

Republic of Korea

The Republic of Korea is widely accepted as one of the “textbook” examples of a country that successfully reaped a demographic dividend. In 1960, the Republic of Korea was one of the poorest countries in the world, with a per capita income of about US$ 100. However, in a mere 30 years the country catapulted into the ranks of the Organisation for Economic Co-operation and Development countries and within the space of 50 years it has achieved a per capita income of US$ 20,000.

Much of this remarkable process is closely linked to that of the Republic of Korea’s demographic transition. While the fertility level was 6.1 children per woman in the 1960s, this number rapidly dropped over a few decades and reached 2.26 children per woman by 1982. Of note is Uzbekistan’s current fertility level which is estimated at 2.26 as of 2017 and which is projected to steadily decline. Further, the dependency ratio (ratio of the dependent population aged under 15 or over 64 to the total population) of the Republic of Korea also declined rapidly over a few decades, which contributed to the tax revenue, catalysed the Government’s focus on job creation and created a virtuous cycle of overall enhanced social services.

In terms of absolute numbers, it is worth reviewing the Republic of Korea’s past demographic trends and Uzbekistan’s current demographic dynamics to see how the Republic of Korea – which had similar initial demographic condition decades ago to that of Uzbekistan today – utilized its demographic dividend. Based on a literature review and analysis, three key factors were identified to explain the relevance of the Republic of Korea’s successful attainment of the demographic dividend to Uzbekistan’s current situation: education, empowerment and economic plans.

Box 2 Past and Future Roads to the Demographic Dividend: Republic of Korea and Uzbekistan

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Education
As the size of Uzbekistan’s working age population will increase in the coming decades, it is imperative that these future workers are well prepared and have skills that are readily transferable in the labor market. For example, the Republic of Korea’s shift toward a primary school curriculum fostering “production-oriented” education in the 1970s helped students to gain knowledge and skills relevant to the workplace, enabling the country to reap the demographic dividend through enhanced manufacturing.

While this example provides a useful framework for Uzbekistan to design its educational agenda, the continuous evolution of technological advancement is a key consideration. Although Uzbekistan would invariably benefit from a demographic dividend by adopting the Republic of Korea’s production-oriented approach in cultivating human capital, the country would need to adapt the approach by addressing the current global climate where technology and automation is rapidly replacing manufacturing. Uzbekistan therefore needs to develop its own, unique approach towards reform of the education sector, and create its own model of an adaptable, dynamic and resilient workforce that can cope with the rapidly changing nature of jobs and desired skills. The creation of a culture of lifelong learning and investments for digital fluency and ICT literacy skills of children and adolescents will be essential if Uzbekistan is to build human capital that can successfully lead the future economy.

Empowerment
The Republic of Korea specifically targeted the participation of women in the labor force as a key policy to boost growth, savings and consumption, and thereby encouraged young female workers to play an important role in the initial stage of the country’s economic growth. Notably, however, classes in many coed high schools were still divided along gender lines and only five per cent of the Republic of Korea’s high schools in 1996 were co-ed. In Uzbekistan, where the gender parity gap is much smaller than that of Korea’s during its period of economic growth, the complete closure of gender disparity both within and outside of schools and the promotion of girls’ empowerment programmes can together significantly accelerate progress towards a demographic dividend. It is also important that fathers, who are often not primary caregivers and seldom engage in early childhood education activities, and boys partake in these empowerment programmes and experience the value of gender equality from the earliest stages of a child’s life.

The enhancement of the education sector should be augmented with an empowerment programme for women and girls to synergize Uzbekistan’s progress towards a demographic dividend. Investing in female education is among the most effective means of attaining a demographic dividend, because of the observed relationship between higher levels of women’s education and lower fertility rates. While child marriage contributes to higher fertility, the provision of quality education results in lower fertility and increased productivity. Further, by empowering women to achieve social, economic, and political independence at public and household level can help build a more equitable society where all citizens are equally engaged in building a better nation.

Long-term economic plans
In addition to investing in the health and education of its current and future citizens, the establishment of good governance and long-term economic policies are essential for countries to reap a demographic dividend. Economic policymaking must consider key demographic factors and long-term gains when striving to create decent jobs, promote trade openness or provide access to credit.

The Republic of Korea’s government, as it began to rebuild the country and normalize the economy after the Korean War in the early 1950s, addressed the unemployment situation through a rural construction programme that provided minimum wages to contractors involved in the construction of infrastructure, including dams and roads, as well as erosion control and reforestation. This notion of “self-help” or “self-build” towards development contributed to the attainment of economic growth in the Republic of Korea. The manufacturing opportunities at a global level were extensive. The Republic of Korea established a strong infrastructure – the chemical, iron, and steel industries’ profiles which fostered improvements in the Republic of Korea’s balance of trade. In this regard, for Uzbekistan, the harnessing of the current and incoming human capital will require a better understanding of the global financial/business climate and integrating foresight approach to the government’s policies and investments in education, job creation, economic development and social development, which is the key basis of economic prosperity.

Confluence of 3 E’s (empowerment, economy and education)
As highlighted above, countries that have reaped a demographic dividend experienced a favourable convergence between global economic trends and national population dynamics. While the degree of success varied by country, the most effective synergy of these key drivers was fuelled by efforts to empower children and youth, both socially and economically. Strategies for empowering and equipping children and youth for the future are therefore critically important for Uzbekistan in the coming years.
ENHANCING HUMAN CAPITAL: QUALITY EDUCATION, SKILLS, HEALTH AND NUTRITION
KEY ISSUES TO REAP THE DEMOGRAPHIC DIVIDEND FOR UZBEKISTAN'S CHILDREN
While a demographic dividend entails harnessing various channels and mechanisms across a country’s socio-economic structures, a critical focus must be the strengthening of the quality of a country’s human capital through investing in children and young people.

A 2013 research paper identified education attainment as the single most important factor behind obtaining demographic dividends. This model treats educational attainment as a major determinant of not only higher productivity, but also of fertility and mortality declines. Most of the economic growth effect attributed to the change in age structure is, in turn, a result of the dual effect of education on fertility and productivity. The demographic dividend occurs when increases in the proportion of the working age population are accompanied by a boost in the productivity of that population.

On educational access, Uzbekistan measures relatively well against other countries of comparable human development. Children in Uzbekistan can expect to receive around 12.2 years of schooling, and most of its population of 25 years of age or older have, on average, received at least a decade of formal education. Primary school participation rates are universal for both girls and boys in Uzbekistan.

Beyond access to education, unlocking the full potential of Uzbekistan’s next generation requires holistic and well-informed sector reforms and investments to enhance the quality of education.

Despite the progress of recent decades, key challenges remain in reforming Uzbekistan’s education system, particularly in bolstering access to pre-school education, and enhancing the quality of secondary and tertiary education. Only 25 per cent of Uzbekistan’s pre-schoolers had access to early childhood education in 2016. This compares to the Central Asia regional average of 29.6 per cent during that period, with Kazakhstan ranking the top with 58 per cent. Heckman and others have shown that returns to economies and individuals are highest for investments in the early years, including preschool education. The Government has shown a strong resolve to prioritize pre-school education and committed to making a free year of pre-school universal by 2031.

In education, this requires increasing the number of years of schooling...

To ensure that Uzbekistan is well positioned to reap a demographic dividend, children and youth must receive enhanced education and training, in terms of both quantity and quality. Preliminary UNICEF analysis drawn from a demographic dividend simulation model undertaken for all Asian countries has found that if Uzbekistan were to increase the expected number of years of schooling in the next few decades to levels closer to those of high income countries – around 17 years from primary school onwards, as opposed to 12.2 years which is Uzbekistan’s current level – this would help to considerably boost its average gross domestic product (GDP) per capita by 2050. In addition to the rate of pre-school enrollment, tertiary education has become a major concern with an enrollment rate of just 9 per cent in 2017. Improving both the enrollment rate and the quality of tertiary education is a must for Uzbekistan to chart an innovation-based development course. At present, with its current trends in education, the country is on course to only double its GDP per capita by mid-century.

...enhancing the quality of teaching and comparative analysis with international standards...

*Here, while the increase in the educational attainment alone does not automatically result in the country’s economic development, it can reflect that adequate education policies are in place to build human capital.
In terms of the quality of education, comparative international indicators for Uzbekistan are not readily available. Nor is there a national framework for comprehensive assessment of the quality of education. This objective is not unique to Uzbekistan: an increased focus on learning outcomes and the quality of teaching are challenges that many countries in the medium human development phase also face. In an increasingly intertwined and globalized world, it is essential for Uzbekistan to develop and adopt its own quality assessment framework, participate in the international assessment processes and learn from international best practices. A further challenge is to build a common vision of a future workforce that is prepared for the era of knowledge-based economy, rapidly emerging technologies and higher value added production and services that can accelerate growth.

Further, it is increasingly recognized that education systems are not necessarily equipping young people with the skills required by the labour market of the 21st century. Emerging evidences suggest that the cognitive skills of the population are powerful correlates of individual earnings, distribution of income and economic growth. Evidence points towards large skills deficits in middle-income countries such as Uzbekistan, and it will be critical to track and take into account the relevant indicators for skills development and seek to narrow these gaps.14

Finally, investing in teachers and future teachers needs to be further prioritized. Currently, teachers’ salaries remain low in Uzbekistan, amounting to only 63 percent of the national average salary. The construction industry’s wage averaged 3.4 times higher than those of teachers, and those in the trade sector made 2.2 times higher.15 Wage differentials can seriously impact the quality of education by reducing the prestige of the teaching profession, attracting less qualified individuals and demoralizing those who see education as their long-term career.

...and expanding access for young people to learn workplace relevant skills and knowledge

Some of the critical areas to review and enhance include the training of students with workplace-relevant skills and knowledge, provide students with a culture of lifelong learning, encourage the promotion of critical thinking, creativity, and emotional intelligence, and familiarize students with digital skills and information and communications technology (ICT) platforms. While STEM (science, technology, engineering and mathematics) is not an ultimate one-size-fits-all solution, it is critical in ensuring that the younger generation of Uzbekistan today is able to fully enjoy the advantage of technology while harnessing technology as a tool to unleash their full potential.

Box 3 Curricula Reform for Uzbekistan

To prepare the workforce of today and tomorrow to fully realize its potential against the changing trajectory of jobs, the report suggests a number of future-ready strategies. Among them, four particular areas provide key action points for Uzbekistan’s Generation 2030:

→ Provide robust and respected technical and vocational education and training Along with increasing the workplace relevance of formal secondary, and even post-secondary education for adolescents and children across the region, increased support should also be given to Uzbekistan’s widespread practice of offering informal apprenticeships, to ensure quality and relevance.

→ Create a culture of lifelong learning This is particularly crucial given the pace of technological developments and Uzbekistan’s generally uneven provision of formal education. Skills acquisition across all types of training will be increasingly essential, and the focus should be providing children and youth with a way to recognize opportunities and hone their capacities accordingly.

→ Ensure the future-readiness of curricula In addition to offering quality education in science, technology, engineering and mathematics (STEM) from the early stages of school life, encouraging critical thinking, creativity, cognitive flexibility and emotional intelligence should be prioritized in Uzbekistan. Special attention should also be given to encouraging more girls to work in STEM.

→ Invest in digital fluency and information and communications technology literacy skills As in many high-income countries, digital fluency and information and communications technology literacy skills will be the new default skill set required by Uzbekistan’s future labour market. Possessing these skills can also contribute to reducing poverty by equipping people with adequate tools to enter a larger labour market and design home-grown and entrepreneurial solutions that do not require high levels of capital investment.

Adapting learning in Uzbekistan to future job requirements must start now – beginning by investing in the education of children and youth.
Health is a critical dimension of human capital, and investing in health of young people and children generates externalities such as better educational outcomes and increased productivity.

Investing in health care and nutrition for children and young people is also critical to building a nation’s human capital, which is vital to business competitiveness. Current outcomes for Uzbekistan’s young children are sound: the country enjoys a high level of maternal and newborn care, with almost all births attended by a skilled health professional. Moreover, the country’s strong advances in reducing child and maternal mortality are also noteworthy.

Nonetheless, there is room for further strengthening of the health system to lift it to the levels of countries in upper-middle income status and beyond. According to the latest internationally available figures, Uzbekistan’s health expenditure (GGHE-D) as percentage of general government expenditure, at 9 per cent is still low compared to the recommended international standard (15 per cent). This suggests that there is the potential for expanded public health care spending.
Health system strengthening and improving quality of care is a critical agenda to build human capital in Uzbekistan

The latest international health system data from the World Health Organisation (WHO) for Uzbekistan is reported from 2011. At that time, Uzbekistan is reported to have had 2.6 physicians per 1,000 inhabitants, a figure that had been steadily falling for a number of years. In addition, figures from WHO indicate that while Uzbekistan had an average of 4.4 hospital beds per 1,000 population in 2009, which while above the average of 2.11 for lower middle income countries, has also been falling. The lack of comparable international data for these indicators makes it difficult to ascertain their current levels and trends.

Uzbekistan more than doubled the global average of the number of physicians in 1990, but this number has been decreasing as opposed to the increasing global and LMIC/MIC trends

FIG. 8 Number of Physicians (per 1,000 people), 1990 – 2013

Nutrition is a further determinant of productivity along with health and health care. A forthcoming nutritional survey will provide insights into the nutritional status of the country’s children and young people. A growing concern is the relatively high rates of obesity among the adult population, which were estimated at almost 17 per cent in 2016, up from just over 14 per cent in 2014. With urbanization continuing at pace, ensuring that children, young people and families, particularly the most disadvantaged, have adequate nutrition will be an important pillar to support productivity gains in the coming years.

Uzbekistan’s number of hospital beds remains above the global average, but has been continuously falling over the past decades

FIG. 9 Number of Hospital Beds (per 1,000 people), 1985–2015


Children playing in school playground, Samarkand.

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Creating jobs for young people must keep pace with their entry into the formal labour force

In addition to investing in health and education of its current and future citizens, the establishment of good governance and sound, long-term economic policies are essential for countries to reap a dividend during their demographic window of opportunity.

Each year around half a million of young people enter the Uzbekistan workforce. Job creation for young people in particular has not been able to keep up with supply, resulting in a 17 per cent of youth unemployment rate – three times higher than the official average rate of unemployment for the entire working age population.22

The informal sector is still a dominant force for the labour market...

Informal employment is high and growing in Uzbekistan, by some estimates reaching 54 per cent in 2013, the latest year for which figures are available. Informality is high across the economic sectors, including agriculture (80 per cent), industry (60 per cent) and services (38 per cent).23 These high rates of informality can underestimate the contribution of these sectors to overall GDP growth, but also point to the precarious and uncertain nature of employment for many in Uzbekistan.

...and incentives for emigration remain high...

Lack of formal sector jobs in Uzbekistan creates a push factor for many Uzbek young people to migrate in search of work, particularly to Russia, Kazakhstan and Turkey. Recent statistics shows that over 2 million people migrate for work.24

...with attendant implications for the human capital base and social dislocation on children and young people.

While the positive impacts of labour migration, particularly remittance flows, are well known, there is often less focus on its negative implications. First, it can weaken the base of domestic human capital – there is evidence that outgoing migrants have higher cognitive and working skills than workers that do not migrate, other things being equal.25 A second effect is that it can lead to increases in social problems – particularly for the children and spouses left behind.

Third, labour migration and remittance flows are particularly vulnerable to economic shocks in receiving countries, as the majority of Uzbek migrant workers to Russia and Asian countries often have moderate levels of education attainment and thus occupy semi-skilled jobs. These jobs are usually first to be cut during economic slowdown. An examination of migrant’s profiles shows that the average worker’s age is 31, nine out of 10 of them are men, two-thirds of them are married, and more than 90 per cent of them have only secondary-general or secondary-specialised education.26

All these factors imply that although migration may ease the pressure on the local labour market and provide income generation opportunities for many Uzbek citizens, a key incentive for reaping a demographic dividend in Uzbekistan would be to retain its human capital and employ it productively rather than export it through labour migration.
The rapid investment led growth of recent years should be complemented by job creating initiatives...

Retaining labour and productively employing young people entering the work force will require sound and innovative policy making to foster strong and inclusive growth. Over the past few years, Uzbekistan has experienced moderately high rates of economic growth, averaging around 7 per cent (it slowed to 5.3 per cent in 2017). However, although economic growth may seem to be high, especially in comparison with neighbouring countries, its contribution to employment creation remains weak.

A 2013 International Monetary Fund report estimates employment elasticity of the economic growth to be around 0.32, which implies that 1 per cent of economic growth results in employment growth by just 0.32 per cent. There are several reasons for that, the main one being that economic growth in Uzbekistan is mostly driven by state capital investments that tend to generate lower rates of job creation in the formal sector. With a majority of the labour force already working in the informal sector, the government faces the challenge of adjusting to an economic model that accelerates formal job creation.

The Government acknowledges the challenge of employment generation. The 2018 State Programme on Employment envisages the creation of 535,300 new jobs. The new jobs are to be generated through implementing investment projects in regional development programs, expansion of education and healthcare sectors, private-sector development, development of national artisanal goods and services, and introducing temporary and seasonal works including public ones. The government also aims to boost private-sector expansion through providing microloans to entrepreneurs.

Steps have also been taken to improve business environment. The most notable changes are the unification of the exchange rates, removal of restrictions on accessing foreign currency, tax reforms and lowering of administrative barriers and restrictions on export activities. It is believed that these reforms will not only contribute towards general expansion of the business activity but also facilitate a movement from informal to formal sectors. That should encourage creation of formal jobs in the country that are better paid, more secure and productive. The overall improvement in the business environment has already been reflected in the growth of the country’s overall ranking from 106 (out of 190 countries) in 2015 to 74 in 2018 in World Bank’s Doing Business Index.

...addressing key challenges of enhancing agricultural productivity, fostering entrepreneurship...

But challenges remain to create jobs required for young people. These include enhancing agricultural productivity through a more productive and remunerative farming system, fostering entrepreneurship through increased access to financing in particular, and creating the conditions for innovation and adaptability through investing in the vocational, digital and soft skills required by the 21st century labor market.

...and investing in access to technology

In a modern competitive world, access to technology is a key factor in determining economic growth potential. Uzbekistan has made strong strides in this area in recent years, with around 80 per cent of its population currently enjoying access to cellular phones. Like other middle-income countries, internet penetration is significantly lower at just over 52 per cent, according to the 2016 figures from the International Telecommunications Union. Internet coverage is also heavily concentrated in urban areas – and with 64 per cent of the population still living in rural areas, it remains challenging to meet the needs of the rural population. Further, the quality of connection is often intermittent in many areas.

However, given the continued robust growth of Uzbekistan's economy, increasing investment in broadband technology, high literacy rates, and the rapid increase in websites developed in Uzbek, there is enormous potential for Uzbekistan to develop this area. This would enable the country to realize the economies of scale and other benefits of a digital economy.

To do so effectively, Uzbekistan will need to foster a base of skills for the 21st century for its young people in three areas: foundational literacies, including traditional literacy and numeracy, and also ICT literacy; competencies, including critical thinking, creativity, communication and collaboration; and character qualities, including, curiosity, adaptability and leadership.

Consideration should also be given to swiftly upscaling access to digital connectivity across the country. Cost effective solutions exist to enable even remote communities to gain access. Schools are increasingly seen as a vantage point for digital access within communities, with the attendant benefits for learning and knowledge transfer.
PROMOTING PARTICIPATION OF WOMEN AND YOUNG PEOPLE

Samarkand Medical Institute, training for medical students.

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KEY ISSUES TO REAP THE DEMOGRAPHIC DIVIDEND FOR UZBEKISTAN'S CHILDREN
Achieving a demographic dividend also depends on greater participation in society and the economy, particularly of women...

Acquiring a demographic dividend is not only related to enhancing human capital and boosting economic flexibility. Evidence shows that encouraging a wider participation in economic and civic life is also essential. In countries such as the Republic of Korea and Thailand, there was a noticeable correlation between prolonged and faster greater involvement of women in the economy and society.\textsuperscript{32} Open societies where citizen’s voices are increasingly heard in decision-making are also associated with greater prosperity and economic and social stability.

Uzbekistan fares well on several key measures of girls and women’s empowerment and participation. One such area is primary education: according to the State Statistical Committee, girls have achieved parity with boys in access to primary education, although disparities emerge after Grade 9 when girls turn 15 or older.\textsuperscript{33} But this trend does not continue up to the higher levels of education, including tertiary education. The number of female tertiary graduates has been steadily declining since 2011, from about 44 per cent of the total tertiary graduates in 2011 to only 35 per cent in 2017.\textsuperscript{34}

On employment, women continue to play a limited part in the formal workforce, with female participation rate at 53.8 per cent of the total eligible population in 2017 according to the latest data from the International Labour Organisation.\textsuperscript{35} The gender gap between economically active men and women is more than 20 percentage points. In some rural areas, women face particular challenges in accessing formal employment such as teaching, because services such as free childcare are minimal, there are less jobs available, and their domestic burdens are generally higher than those of women in urban settings.

Social stereotypes, discrimination, low access to higher education, and lack of childcare infrastructure are key impediment to attracting and retaining women in the labour force. Economic research provides strong evidence that gender equality boosts economic growth, when women have the same opportunities as men to contribute to economic development.\textsuperscript{36}

Expanding women’s participation in the labour force will be critical if Uzbekistan is to take advantage of a potential demographic dividend. The country’s economic dependency ratio – measured as the dependent population compared with those in registered employment – is \textit{three times} larger than its dependency ratio, and much of that is related to low female participation in the formal workforce. The experience of other countries that have attained demographic dividends, including the Republic of Korea, China and the East Asian tigers, has seen the economic empowerment of women as a critical component in expanding purchasing power and driving forward consumption, investment and growth.

If Uzbekistan is to reap a dividend from the demographic transition, the empowerment of women for work in the formal sector must be prioritized. Against a backdrop of technological developments, more skills training for women will be needed in high value added subjects – namely in science, technology, engineering and mathematics (STEM).

The fostering of increased numbers of women in formal industry is increasingly important because women who work in the informal sector, in low-skilled jobs, are often without protection under labour laws, social benefits such as pensions, health insurance or paid sick leaves. Women are often subjected to
working in unsafe conditions. Results of the study of the “Life in Transition III” survey data indicate that women in Uzbekistan were more likely to suffer from underemployment or being employed in the informal sector.  

Uzbekistan’s female labour participation has been slowly increasing since 1990 and now reached more than half.  

**FIG. 10** Female labour force participation rate (%), 1990–2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Upper-middle-income countries</th>
<th>High-income countries</th>
<th>World</th>
<th>Uzbekistan</th>
<th>Middle-income countries</th>
<th>Lower-middle-income countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>35.8%</td>
<td>70.2%</td>
<td>56.2%</td>
<td>63.5%</td>
<td>41.7%</td>
<td>28.4%</td>
</tr>
<tr>
<td>2016</td>
<td>49.1%</td>
<td>82.5%</td>
<td>62.7%</td>
<td>72.1%</td>
<td>51.1%</td>
<td>35.0%</td>
</tr>
</tbody>
</table>

Fewer women in Uzbekistan graduated from higher education in 2016 than they did 10 years ago.  

**FIG. 11** Graduate from tertiary education (%), 2006 – 2016

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>54.6%</td>
<td>42.4%</td>
</tr>
<tr>
<td>2016</td>
<td>49.4%</td>
<td>37.1%</td>
</tr>
</tbody>
</table>

Uzbekistan has the challenge of taking action to foster the participation of women in economy and society. Meeting this goal will be an important component of its drive to increase domestic demand, and reduce dependence on commodity exports and foreign investment.

Women are significantly under-represented at the managerial level in multiple sectors of the economy.  

**FIG. 12** Distribution by gender of managerial positions and by employees by sectors of economy in 2010.

...and of young people

A second strand of fostering participation is to enable citizens to have a greater involvement in decision-making forums. This is particularly important for Uzbekistan’s young people, for several reasons. First, it is their right under the Convention of the Rights of the Child. Second, it makes for more informed and better policymaking, particularly in areas that concern them directly.

Third, the projected ageing of the population in Uzbekistan will place an increasing burden on national health care services and budgets, a heavier focus will be on chronic non-communicable diseases, age-related care, and other services geared to the elderly. To address the needs of children and elderly people, priorities may have to be reviewed and adjusted, in order to strengthen social services as well as to foster job creation and legislative changes. It is therefore of paramount importance that children and youth are given an adequate voice to be heard in making these plans, policies and investments in Uzbekistan. The promotion of the principles of the Convention on the Rights of the Child can better support and empower children and youth to provide feedback to authorities regarding issues affecting their lives and well-being.

Uzbekistan’s young people represent a unique opportunity for the country. Fostering initiatives for their participation in their individual development, and that of their communities, will have multiple benefits. It will strengthen young people’s abilities to meet their own subsistence needs. It can prevent and reduce vulnerabilities to economic, political and socially unstable environments and influences. It promotes ownership and sustainability of public policy interventions. And in particular it enables young people to actively engage in the development and life of their country and communities, and builds up trust, social capital and a sense of shared responsibility.

**BOX 4 IMPLICATIONS OF HIGH DEPENDENCY RATIOS**

In general, a high dependency ratio indicates that the economically active population and the overall economy face a greater responsibility for supporting and providing the social services needed by children and by older persons who are often economically dependent. For instance, a high child dependency ratio implies that higher investments need to be made in schooling and child-care.

While this is not an unusual trend for many pre- and early-dividend countries like Uzbekistan, the country’s much higher economic dependency ratio compared to the demographic dependency ratio implies that the working age population is not fully utilized in its labour market, thus leaving a gap in terms of the national productivity and growth potential. The relatively low female labour force participation rate in Uzbekistan, which has been steadily increasing in recent years, could be one of the attributable factors to this trend.

The high overall dependency ratios have specific implications for children and youth. This is because the level of investment for their well-being and development could compete with that of the elderly population’s, as this cohort’s needs increase as their numbers rise. As dependency ratios rise, some common economic solutions include: raising retirement age in line with longer life spans; reducing the real value of state pensions, and raising income taxes to fund pension and health care spending. However, these strategies could pose higher risks to Uzbekistan’s future generations because the resources allocated for early childhood development, communicable diseases and other areas required for younger citizens will increasingly become limited. Simultaneously, young employees will have to pay higher income taxes than their parents did in order to support the increasing number of pension recipients. The promotion of economic growth would enable higher tax revenues at the same tax rates, yet it requires a robust economic system and model within which the labour market can absorb its entrants with decent and sustainable jobs.

It is therefore imperative that Uzbekistan promotes economic growth by investing in children and youth, starting now. A particular focus must be on the development of their skills for the future job market where competitiveness would be determined by digital fluency and resilience against the rapidly evolving technological advancements.
In Uzbekistan, the economically active population faces a significant burden in supporting their dependents who are not necessarily children or the elderly.

**FIG. 13** Economic vs. demographic dependency ratios (%) of countries in Asia, 2015

The time is now to invest in children and young people

Uzbekistan stands at an important moment. It has the population conditions to gain an economic dividend that could lift millions from poverty and inequity, and increase prosperity and stability. Global economic trends are also fairly favourable for economic growth, and it has been shown that countries that have reaped a dividend have been those that have been able to take advantage of the convergence between good growth conditions and national population dynamics through sound and forward looking public policies. And while the degree of success has varied by country, the most effective synergy of these key drivers was fuelled by efforts to empower children and youth, both socially and economically.

Without empowering the younger generation through investing in their education skills and health, a dramatic economic transformation is probably unattainable – even with a favourable population structure. Uzbekistan has an opportunity to leverage the lessons learned from other countries, as it seeks to achieve confluence between the three streams – education, economy and empowerment through participation – to achieve a demographic dividend.

The current reforms guided by the Action Strategy of Uzbekistan for 2017-2021 can help unlock the demographic dividend. Putting children and young people at the heart of this strategy will be imperative to build the human capital required. It will be challenging, like all things worthwhile – but it is a challenge that can be met to enable Uzbekistan to reap its own full potential.


6 Ibid.


8 United Nations Development Programme, Human Development Index, Expected Years of Schooling, accessed December 2017.


12 United Nations Development Programme, Human Development Index, Expected Years of Schooling, accessed December 2017.13.


17 Ibid.


19 World Health Organization, World Health Statistics (Number of Physicians per 1,000 population), WHO, Geneva 2017, accessed December 2017.

20 World Health Organization, World Health Statistics (Hospital bed per 1,000 population), WHO, Geneva 2017, accessed December 2017.


26 Project “Supporting strategic research for sustainable development”. Employing socially vulnerable people in Uzbekistan: situation, problems and solutions. UNDP, 2018 [unpublished draft].


28 Decree of the President of the Republic of Uzbekistan “O Merah Po Realizatsii Gsudarstvennioi programme sodeystvia zanaytosti naseleniya na 2018 god” Number 3506, Tashkent 2018.

29 Ibid.


33 State Statistical Committee, Zhenshchiny i Muzhchiny Uzbekistana [Men and Women of Uzbekistan], 2015, Tashkent.

34 UIS Statistics, Graduates from tertiary education, both sexes male and female (number), 2017.

35 International Labour Organization, ILO Statistical Indicators (Female Labour Participation Rate, %), accessed December 2017.


As part of support group activities, HIV positive adolescents play a board game at the Day Care Centre of the Research Institute of Virology of the Ministry of Health in Tashkent in Uzbekistan.

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Uzbekistan stands at a crossroads, with a window of demographic opportunity ahead, but only for a relatively short period of time. UNICEF believes that the honing of investments in children and youth is the best way to achieve and sustain the most optimal growth in the future, in addition to being critical for underpinning stability, strengthening social cohesion and building citizenship. Like all things worthwhile, it will be challenging – but it is a challenge well worth meeting for the future of all Uzbekistan citizens.