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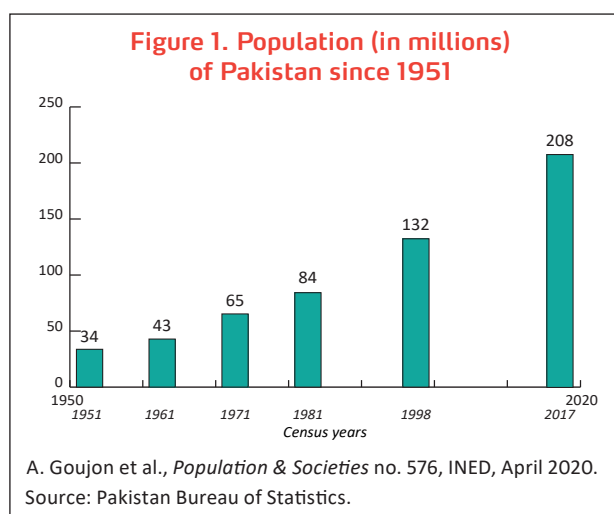
Population **&** Societies

Pakistan: A population giant falling behind in its demographic transition

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To the surprise of many observers, Pakistan's last census revealed faster-than-expected population increases. High fertility continues to drive substantial population growth in the world's fifth most populated country. Anne Goujon, Asif Wazir, and Nicholas Gailey describe Pakistan's demographic changes over the last 3 decades and offer possible explanations for its slow demographic transition.

Faster-than-expected population growth

Pakistan's last census in 2017 counted 208 million inhabitants, which translates into an annual population growth rate of 2.4% since the previous census of 1998 (Figure 1). This pace of growth is lower than that during the previous intercensal period (2.7% in 1981–1998) but much higher than anticipated (1.9%). It is twice the average rate for South Asian countries (1.2%) and above the levels in neighbouring countries such as India (1.6% growth rate between the 2001 and 2011 censuses) and its states located near Pakistan such as Gujarat (1.8%), Haryana (1.8%), Punjab (1.3%), and Rajasthan (1.9%). The difference is also striking compared to other predominantly Muslim countries in the region such as Bangladesh and Iran. In Pakistan, the growth rate drove the population upward by an additional 48 million people during 1981–1998 and 75 million during 1998–2017. Such growth means that, if nothing changes, Pakistan's population will double in only 29 years, whereas the average doubling time for other South Asian countries is about 58 years. To address the 'alarming population growth rate', the government of Pakistan established several federal and provincial task forces in 2018 and has released a set of eight recommendations to address population issues.

Figure 1. Population (in millions) of Pakistan since 1951

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Source: Pakistan Bureau of Statistics.

They range from enacting laws restraining early child marriage to decentralizing reproductive and family-planning services to local governments that would in turn benefit from increased funding.

There are clear differences between provinces in Pakistan (Figure 2). Population growth was highest in Balochistan (3.3%) and lowest in Punjab (2.1%), the country's most populous province with 110 million inhabitants in 2017, which grew by an additional 36 million during 1998–2017 [1].
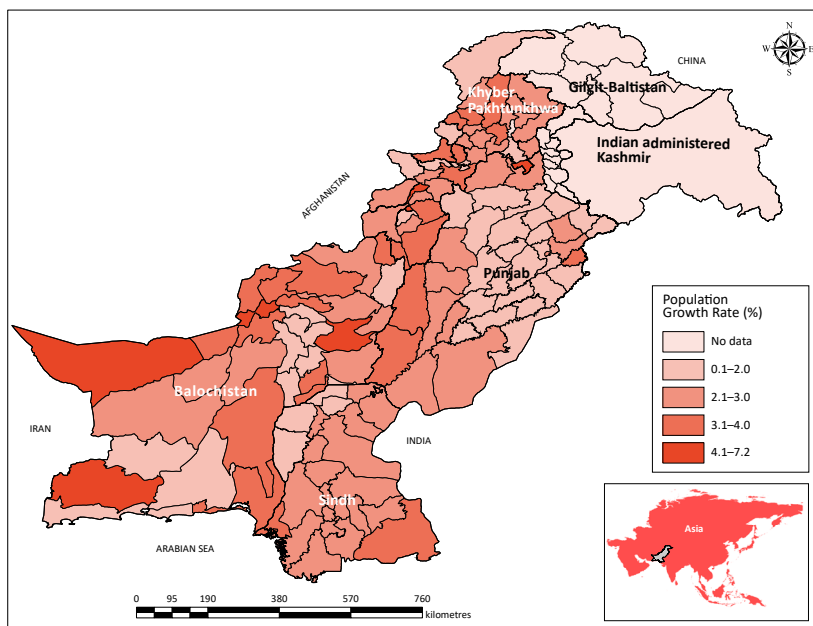
The contribution of mortality

Pakistan is slowly entering the latest stage of the demographic transition, when both fertility and

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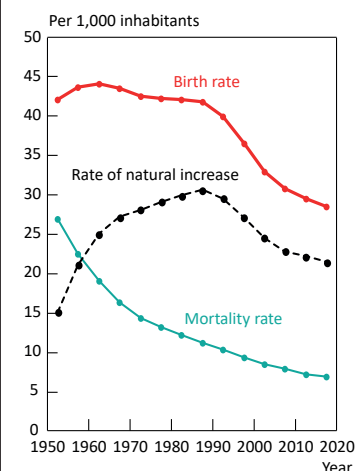
Figure 2. Population growth rates by district, Pakistan, 2017

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Source: Authors' construction using ArcGIS v10.3 and district-level census data (2017) from Pakistan Bureau of Statistics.

Figure 3. Birth, death, and natural increase rates, Pakistan, 1950–2020

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Note: The rate of natural increase provides information on the growth of a population in the absence of migration.

Source: United Nations [4].

mortality rates rebalance at low levels. As shown in Figure 3, death rates have been falling steadily since the 1950s. The crude death rate was as high as around 27 per 1,000 population in 1950–1955 and declined to 7 per 1,000 by 2015–2020. This decline has led to a very substantial increase in life expectancy at birth, from 37.8 years for females and 37.2 years for males in 1950–1955 to 68.0 years and 66.1 years, respectively, for 2015–2020.

However, the overall figures hide a darker picture about mortality in the country, especially under-5 mortality, which could affect the fertility decisions of couples attempting to increase the chances of having enough surviving children. Despite concerted efforts to improve child survival, infant mortality rates over the last 30 years have declined only marginally, from 86 per 1,000 live births in 1990 to 62 in 2017–2018.

A baby born in Pakistan is 41 times more likely to die in its first month than one born in Iceland, Japan, or Singapore and twice as likely compared to a baby born in India or Bangladesh. In 2017–2018, the neonatal mortality rate was still very high. Forty-two out of 1,000 newborn babies, or 1 out of every 24, die within the first month of their life, only a slight decline from 49 per 1,000 live births in 1990–1991. Critical factors responsible for this high number include the poor state of reproductive health care, closely spaced births, and insufficient nutrition, especially during pregnancy.

Once a baby has lived past the first month, its chance of survival improves greatly. The post-neonatal mortality rate (from the second to the end of the twelfth month) is around 20 per 1,000 live births as of 2017–2018. The rate has declined substantially from 37 deaths per 1,000 in 1990–1991, but it remains much higher than in most of South Asia. By comparison, the post-neonatal mortality rate in Bangladesh is 10 deaths per 1,000 live births, 11 in India, and 12 in Nepal.

Falling behind in the fertility transition

Until the late 1980s, the fertility of women in Pakistan remained at a very high level, between 6.0 and 7.0 children per woman, which is characteristic of countries yet to experience the demographic transition. Fertility decline gained momentum in the 1990s, when the total fertility rate decreased from around 5.0 children in 1990–1991 to 4.0 children by 2006–2007. Since then, the movement towards moderate fertility has proceeded very slowly: roughly 0.5 children in 11 years, from 4.1 in 2006–2007 to 3.6 in 2017–2018. Some transformations were influential in initiating fertility reduction in the 1990s. However, most recognized determinants that lead to a decrease in the number of births per woman have shown little change after 2006–2007. In Pakistan, births occur almost exclusively within marriage, and women's age at first marriage has barely increased, from 21.4 years (1990–1991) to 22.9 (2006–2007), reaching only 23.1 in
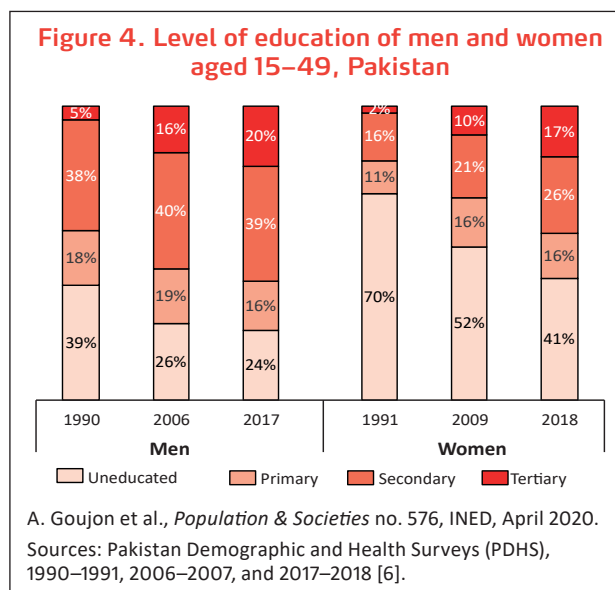
2017–2018. At the same time, teenage marriage declined quite substantially, with the proportion of those never married aged 15–19 rising from 75% to 84% during 1990–2006. Still, in 2017–2018, 14% of adolescent girls were married as teenagers compared to only 3% of adolescent boys.

Family-planning programmes remain very weak overall, although they have been strengthened at the community level (for instance, through the Lady Health Workers programme), which has led to an increase in overall contraceptive prevalence from 13% in 1990–1991 to 35% in 2012–2013. Since then, it has fallen to 34% in 2017–2018, with only 25% of all married women using modern contraceptives.

Unmet need for family planning remains at 17%, one of the highest in South Asia. This translates into about 6 million married women aged 15–49 who would like to maintain their current family size but do not have access to modern contraception. Sharp inequalities exist in unmet need and contraceptive use by education and income level, and across urban and rural populations. Without a reliable public reproductive-health system, poor and uneducated women have higher unmet need and cannot afford contraceptives made available through the private sector.

The short average interval between successive pregnancies is also inconsistent with a robust fertility transition. The time between pregnancies decreased from an average of 29.1 months in 1990–1991 to 28.0 months in 2012–2013. The trend has been very modestly reversed with a spacing interval of 28.2 months in 2017–2018. This interval is considerably shorter than in other South Asian countries such as India (32.0 months), Nepal (36.7 months), and Bangladesh (51.7 months). In 2017–2018, birth intervals were much shorter if the previous child had died (22.2 months) than if he or she had survived (28.7 months). Birth intervals are shortest for teenage mothers aged 15−19 (19.7 months).

Fertility preferences in Pakistan match rather precisely the actual fertility, decreasing from six to four children on average between 1975 and 1991. However, since 2006–2007, there is no indication that women in Pakistan are moving away from a four-child ideal, and acceptance of a two-child family size appears limited. Overall, socio-economic development has taken place, as demonstrated by increased participation in education, particularly for women, e.g. most women of reproductive age had never been to school in 1990–1991 (70%) compared to 41% in 2017–2018, still strikingly high by peer-country standards. For lower secondary schooling, the numbers rose from 18% in 1990–1991 to 43% in 2017–2018 (Figure 4). However, this increase has not been matched by comparable

Figure 4. Level of education of men and women aged 15–49, Pakistan

Legend: Uneducated, Primary, Secondary, Tertiary

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Sources: Pakistan Demographic and Health Surveys (PDHS), 1990–1991, 2006–2007, and 2017–2018 [6].

participation in the labour force. The labour force participation rate for males (aged 10 and over) in 2017 stood at about 68% compared to the notably low 20% for women, representing only a modest increase from 16% in 2003–2004.

Migration and urbanization

International migration has a mild impact on the total population. Approximately 5.9 million Pakistanis were residing in a foreign country in 2015, with about 2.7 million in the Gulf countries [3]. The number of immigrants to Pakistan is estimated to be quite low, except for the continuous flows of refugees from Afghanistan since the early 1980s (after the Soviet invasion). According to the UN Refugee Agency, about 1.4 million refugees were living in Pakistan in 2018, a number that has been stable over the last decade [5]. As with many countries in the region, internal migration has an important impact on the distribution of the population across provinces. Specifically, recent labour force surveys show Punjab was the destination of many migrants from other provinces, particularly from Sindh and KP. Likewise, substantial interdistrict and rural–urban migration is taking place in Punjab and Sindh.

Pakistan has two cities with over 10 million inhabitants. Karachi (the provincial capital of Sindh) continues to hold the title of the most populated city of Pakistan, with 14.9 million inhabitants in 2017 and an average annual growth rate of 2.5%. More surprising has been the dramatic increase in the population of Lahore (the provincial capital of Punjab), which has nearly doubled its size from 5.1 million in 1998 to 11.1 million in 2017, with a 4.1% annual growth rate over the last 19 years. Five of the 10 most populous cities in the 2017 census are located in Punjab, accounting for almost 50% of Pakistan's total urban population [1].

Box 1. The census in Pakistan

The government of Pakistan had long planned a census following the one conducted in 1998. A variety of reasons, including the lack of a favourable political environment in 2008 and the severe flood in 2010, made such plans unfeasible. By 2011, the Pakistan Bureau of Statistics (PBS) conducted a household count, but the government rejected its results due to serious quality issues. Coaxed by the Supreme Court, the government finally held the sixth population census in 2017.

Approximately 207,000 civilian staff from different government departments conducted the census operations in two phases during a 2-month period. Providing security and ID verification, 200,000 army personnel assisted in the census's implementation. Nevertheless, several security incidents occurred during the enumeration, particularly along the western border with Afghanistan. One census team was attacked in Lahore, and seven of its members (two enumerators and five army personnel) were killed.

Despite this event and the lack of some standard quality checks (i.e. pilot census and post-enumeration survey), the enumeration was a success overall and received a largely positive response from the population [2]. However, because the census is the basis for distributing financial resources between provinces, allocating seats in the national assembly, and determining quotas for employees in the federal administration, the preliminary results implied changes that were opposed by several political parties, especially from the provinces of Sindh, Khyber Pakhtunkhwa (KP), and Balochistan. As a result, the dissemination of the final census of 2017 has been extremely disappointing, with PBS releasing only a few provisional results to avoid any further controversies. For instance, data on age, sex, and socio-economic characteristics remain unavailable.

Box 2. Pakistan and its provinces

Pakistan consists of four provinces (Punjab, Sindh, Khyber Pakhtunkhwa [KP], and Balochistan) and the Islamabad Capital Territory. About 98% of the population lived in these areas in 2017. Gilgit-Baltistan (GB), formerly known as the Northern Areas, is an administrative territory with limited autonomy in Pakistan and is a candidate to become a fifth province. The Federally Administered Tribal Areas, which had been a semi-autonomous tribal region in northwestern Pakistan, were merged in 2018 with neighbouring KP. Azad Jammu and Kashmir (AJK) are self-governing territories administered by Pakistan through the Ministry of Kashmir Affairs and GB. They are inhabited by about 2% (4 million) of the population (see map in Figure 2).

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Considering the results of the latest census, Pakistan's population growth is an even greater challenge to development than what was anticipated only a few years ago. According to the most recent United Nations projections, the population could increase by a further 83 million in the next 20 years, reaching 367 million inhabitants by 2060. In the coming decades, Pakistan will be a very different country. Its direction—whether speeding the transition to moderate fertility, or stalling and therefore prolonging decades of rapid population growth—will have a profound impact on the country's social and economic future.

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Abstract

Pakistan's last census in 2017 counted 208 million inhabitants, which translates into an annual population growth rate of 2.4% since the previous census of 1998. The country has experienced a slower demographic transition than most of its neighbours in Asia. Pakistan's total fertility rate is higher, at 3.6 children per woman in 2017, and is falling more slowly.

Keywords

Pakistan, census, fertility, infant mortality, demographic transition, internal migration, refugees, urbanization