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## An economic and statistical analysis of growth and trend of adolescent population in India

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### Abstract

The development of India is closely linked to the wellbeing of its young people. With more than one-fifth of the total population aged 10-19 years, this large number of population represents an opportunity to accelerate economic growth and reduce poverty, but only if nations make the right investments in current and future generations. Adolescent being important segment of society needs proper attention for which reliable data is essential. Hence the researcher tries to find out the trend of adolescent population in India. The present study also attempted to explain the reason of study the trend of adolescent population.

**Keywords:** Adolescent, trend of adolescent population, vicious circle

### Introduction

WHO defines adolescence as the segment of life between the ages of 10-19 years? Adolescence is a transition phase through which a child becomes an adult. During this period, individuals move towards physical and psychological maturity and economic independence, and acquire their adult identity. The term adolescence is derived from Latin word 'adolescere' meaning "to grow, to mature". Adolescence is a significant period of human growth and maturation. It is the most vulnerable stage from the point of view of health. This period is very crucial since these are formative years in the life of an individual, when physical, psychological and behavioral changes take place. There are about 1-2 billion adolescents in the world equal to one fifth of world's population and their number are increasing.

### Definition

- World Health Organization (WHO) defines "adolescence" as 10-19 years old.
- The American Psychologist G. Stanley Hall (1916) asserted that "Adolescence is a period of emotional stress resulting from the rapid and extensive physiological changes occurring at pubescence.

### Objectives

The objectives of the study are,

- To study the trend of adolescent population in India
- To analyze the need of studying the trend of adolescent population.

### Hypothesis

H0: There is no significant increase in adolescent population in census 2021

H1: There is a significant increase in adolescent population in census 2021

### Research Methodology

The study was based only on the secondary data. The secondary data were collected from Census of India websites.

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### Research Design

Those findings were presented in forms of table and trend analysis was used.

### Limitation

The study is only based on secondary data.

### Historical Aspects of Adolescence

The part of life known as adolescence didn't become recognized as a "life phase" until the 19th century. During that century a noticeable gap developed between on stop of puberty and the beginning of life as a working adult that filled the gap came to be called adolescence. Adolescence is an era in historical sense. A dictionary defines "era" as a period extended from epoch and characterized especially a new order of things. Here 'epoch' is defined as a starting point of new period especially as marked by stunning events in puberty markedly. Historians for many thousand years have been aware of certain adolescent phenomena of variations in the human behavior with age. The claim that specialized youth group can be traced back to at least to 16th century in France. Aristotle, however, usually cited as the first sense of detail records of adolescent Development. He described voice changes in male sex, breast development and menarche in females. He stated that the average age at which this phenomenon's occurred presented is a period of adolescence. Biologists describe the adolescence the period between puberty and the termination of physical growth. Prior to 1960s, the adolescence period were regarded primarily as healthy period of life. Twenty first century has fortunately, brought many issues of the adolescents and their medical problems to the forefront.

### Phases in Adolescence

The following are the three Adolescence developmental phases:

- **Early Adolescence (10-13 years):** It is characterized by a spurt of growth, and the Beginning of sexual maturation. Young people start to think abstractly.
- **Middle Adolescence (14-16 years):** The main physical changes are completed, while the Individual; develops a stronger sense of identity, and relates more strongly to his or her Peer group, although families usually remain important. Thinking becomes more Reflective.
- **Late Adolescence (17-19 years):** The body fills out and takes its adult form, while the Individual now has a distinct identity and have more settled ideas and opinions.

### Adolescent in Indian context and their varied images

In contemporary India while adolescence is a comparatively new term, the word youth is better known and has been used at the levels of policy formulation and programming (Singh1997). Adolescents include both boys and girls but in Indian context these two have very different experiences during growing years including adolescence, the cultural differences are vast with regard to their conduct and are based on traditional adult roles stereotypes. Besides age, gender distinctions, there are many variations in the current images of Adolescents in India. The variations arise

from factors such as urban, rural and tribal residence, ethnicity and socio economic levels of the family. Lifestyle of urban adolescents from upper SES is quite different from that of middleclass and lower-class adolescents. Former have access to private, good quality education and are influenced by western ways of life style through travel and exposure; their preferences for music, clothes and interaction with opposite sex are very close to the western counter parts. On the surface there does not appear to be any gender discrimination in the families of these adolescents but covertly they do exist. Pursuing educational endeavors is encouraged both in upper and middle urban class. Urban Adolescents from lower class have to struggle for survival and grow in impoverished, disadvantaged environment making them vulnerable to several risks. Malnutrition, risk of poor health, becoming victims of antisocial activities, brewing and sale of illicit liquor, sex exploitation, prostitution and drug peddling were reported threats for adolescents from slums in a multi indicator survey (Khosla 1997).The picture of rural adolescents is different; the disparity between boys and girls is even greater among them. Less emphasis on formal education makes boys and girls participate in adult activities at home and outside at an early age. The boys are expected to join men in work to earn their living, may it be on a farm or a factory or a traditional craft at home. The routine of a Pre-adolescent/adolescent rural girl is demanding-cleaning the house, cooking, washing, fetching water, bathing younger siblings. Rural girls rarely pursue education beyond primary school level. Early marriage as a trend is common even now, both for boys and girls in rural India.

### Adolescents Differ from Other Groups in the Population

Adolescence is a key phase of human development. The rapid biological and psychosocial changes that take place during the second decade affect every aspect of adolescents' lives. These changes make adolescence a unique period in the life-course in its own right, as well as an important time for laying the foundations of good health in adulthood. Changes in adolescence affect the spectrum of diseases and health-related behaviors; they are Responsible for the epidemiological transition that takes place during the second decade from infectious diseases to non communicable conditions. At the same time, health problems and behaviors that arise during adolescence – chronic illnesses and alcohol use, for example – affect physical and cognitive development. Adolescents' evolving capacities affect how they think about their health, how they think about the future, and what influences their decisions and actions. All of this has implications for the types of interventions needed and how programmes should be implemented. Recent advances in understanding the development of the adolescent brain show that the reward-seeking regions of the brain develop before the regions responsible for planning and emotional control. We also now know that the adolescent brain has a remarkable capacity to change and adapt. This implies that the experimentation, exploration and risk-taking that take place during adolescence is more normative than pathological and that there is real potential to ameliorate negative developments that took place during the early years of life.

These observations, too, have implications for interventions. Some adolescents are particularly vulnerable to poor health and developmental outcomes as a result of individual and environmental factors, including marginalization, exploitation and living without parental support. National health information systems can miss these adolescents, and priority interventions including services may not reach them. They can be neglected, despite being the most in need.

**Adolescent population in India**

There are 253 million adolescents comprising nearly one-fifth (20.9 percent) of the total population (Census, 2011). Of the total adolescent population, 11 percent belong to 10-14 age groups and nearly 9.9 percent are in the 15-19 age groups. The sex ratio among 10-19 years is 898 females for 1000 males (Census, 2011) lower than the overall sex ratio of 940.

**Table 1:** Adolescent Population in India (In millions)

Age group(completed years)	1991*	2001@	2011@
All ages	838.6	1028.6	1210.6
Adolescent(10-19 years)	177.7	225.1	253.2

Young(15-24 years)	153.5	190	231.9
Adult(18 years or more)	475.3	603.1	762
% to total population			
All ages	100%	100%	100%
Adolescent(10-19 years)	21.20%	21.90%	20.90%
Young(15-24 years)	18.30%	18.50%	19.20%
Adult(18 years or more)	56.70%	58.60%	62.90%

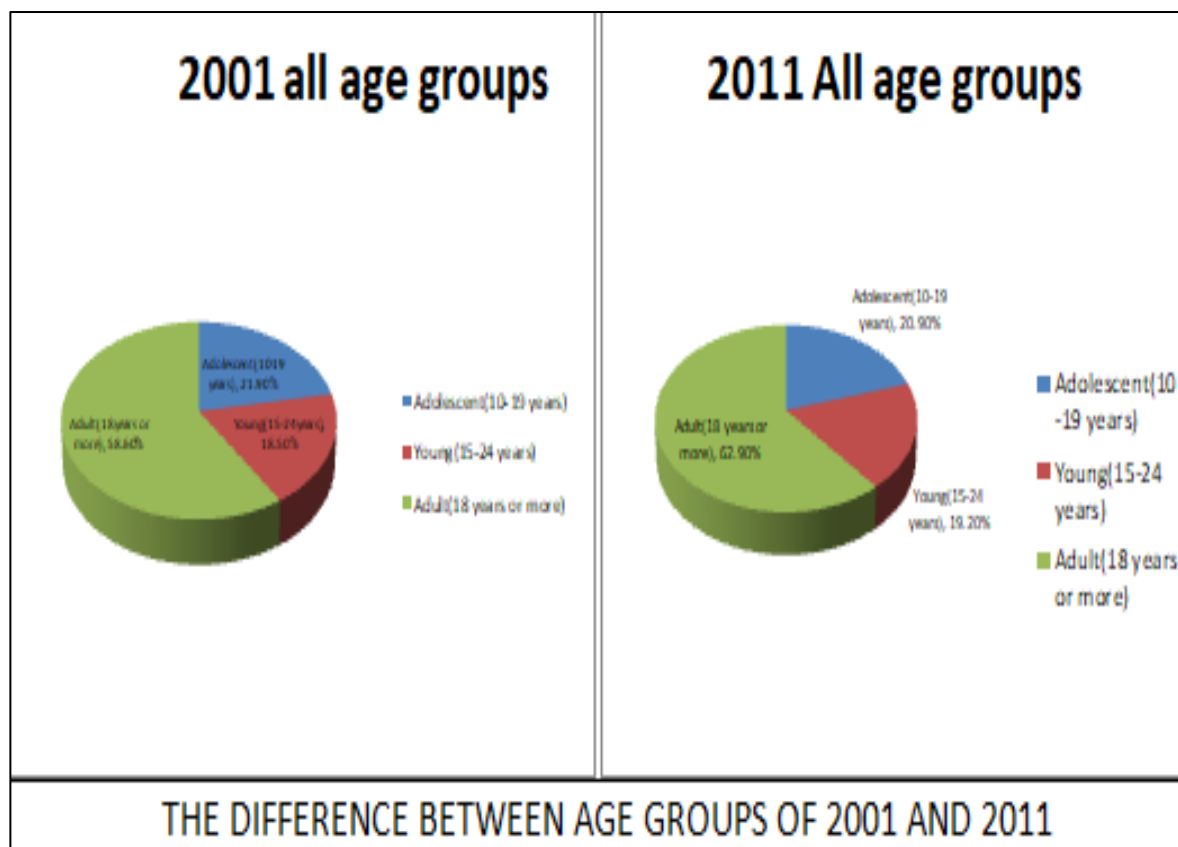
\*Excluding Jammu and Kashmir

@Excluding Mao maran, Pao Mata and Purul Sub divisions of senapati district of Manipur

**Trends of Adolescent population in India**

The table adolescent population (10-19 years) is increasing. In the census 1991 it was around 177.7 million and in census 2001, it was around 225.1 million. In the census 2011, it is 253.2 million. The share of adolescent in total population is increasing.

The above table 1 shows that adolescent population constitutes a considerable portion in the total population. In 1991 census, it constitutes 21.2%, in 2001 census it was 21.9% and in 2011 census it is 20.9%.



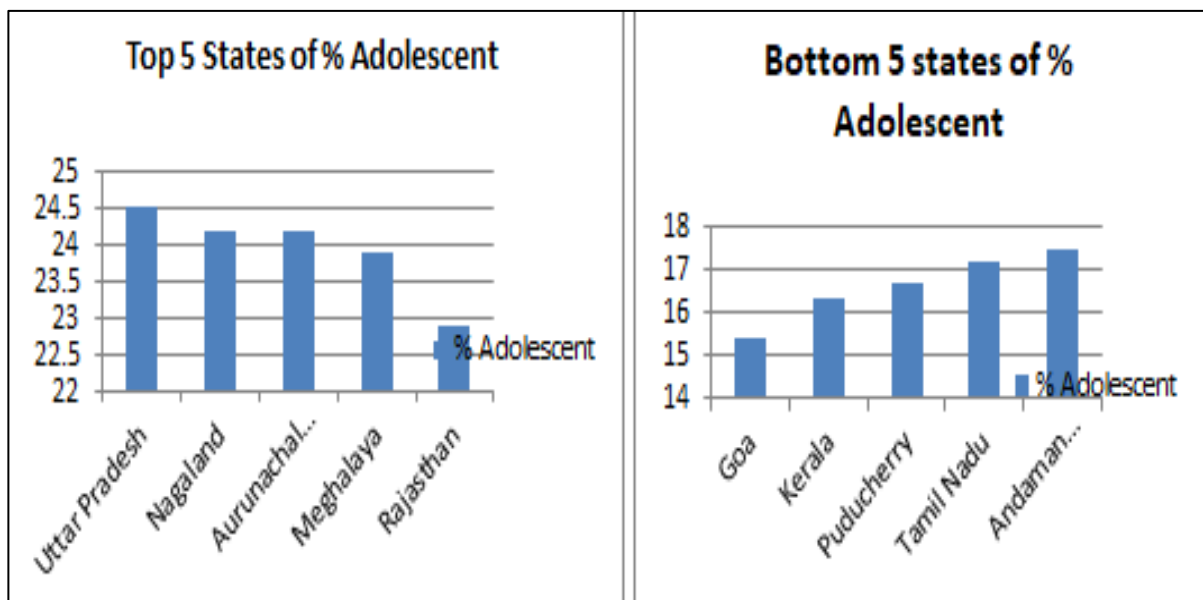
**Table: 2** State Ranking: Adolescents (age10-19 years) as % to total population

Rajasthan	22.9	Andaman Nicobar	17.5
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Source Census 2011

Top 5 States In India as Per 2011		Bottom 5 States In India as Per 2011	
Name of the State	% Adolescent	Name of the State	% Adolescent
Uttar Pradesh	24.5	Goa	15.4
Nagaland	24.2	Kerala	16.3
Arunachal Pradesh	24.2	Puducherry	16.7
Meghalaya	23.9	Tamil Nadu	17.2

The above table 2 shows Uttar Pradesh, Nagaland, Arunachal Pradesh, Meghalaya and Rajasthan are the top five states of India in the adolescent population and Goa, Kerala, Pondicherry, Tamil Nadu and Andaman & Nicobar Islands are the bottom five states of India in the adolescent population.

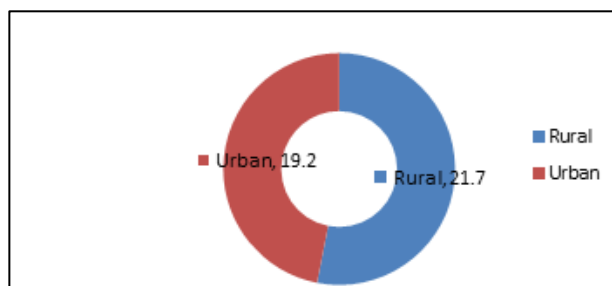


**Table 3:** Trends in Percentage of Adolescent Population In India by Place of Residence

2001		2011	
Rural Areas	Urban Areas	Rural Areas	Urban Areas
21.9	21.9	21.7	19.2

The above table 3 shows that percent of adolescent population in urban areas declined.

From 21.9% in 2001 to 19.2% in 2011, while in rural areas it remained more or less same



**Table 4:** Social Composition of Adolescent Population in India, 2011 (In Millions)

SC	Percentage of Total Adolescents	ST	Percentage of Total Adolescents
44	17.5	23	9.2

The above table 4 shows that 44 million adolescents belong to Scheduled Caste category, comprising 17 percent of the total adolescent population in India and 23 million adolescents belong to Scheduled Tribe category, comprising 9 percent of the total adolescents in India

**Why does Adolescent Population Trend Matters?**

The emergence of a large adolescent population of unprecedented size can have a profound effect on any country. Whether that effect is positive or negative depends largely on how well governments respond to these people’s needs and enable them to engage fully and meaningfully in civic and economic affairs. Governments can choose to see their growing numbers of adolescents as a liability, a cohort

that will place demands on strained resources, or as an opportunity. With the right policies and investments and the engagement of these people in nurturing their own potential, the largest generation of adolescents in human history can become the problem-solving producers, creators, entrepreneurs, change agents and leaders of the coming decades. Large and still-growing populations of adolescents are already challenging in many less developed and low-income countries, where government capacities and resources are strained. Without appropriate investments today in adolescents to prepare them for the future, these challenges of meeting the needs of a growing population will become increasingly daunting with time in many lower income countries.

**From vicious to virtuous circles**

Correlations between high proportions of adolescents in population and obstacles to Development feed a vicious circle of poor life chances for the adolescents. In the critical area of reproductive health, for example, adolescent girls-dominated populations tend to be most likely to have an unmet need for family planning. They are also most vulnerable to HIV and other sexually transmitted infections. Gender discrimination impedes adolescent girls, especially in today’s youth-dominated populations. Adolescent girls face the largest gaps between their enrolments in secondary school—a critical gateway to participation in society and the economy. Not surprisingly, given the overall correlation between high proportions of adolescents in population and lower national economic and development status, total public and private per capita spending on health care is lower in young population countries. This is especially harmful because good health paves the way to economic opportunity, long life, and overall well-being.

**Investing in Adolescent Population and Economic growth**

India has a considerable proportion of adolescent population which has special Significance for national development. With more than one-fifth of the total population between the ages of 10 and 19, investments in

the right policies and institutions are crucial so young people can develop their knowledge and skills, stay healthy and contribute to the social and economic development of their nations. Immediate investments can help adolescent girls and boys to delay marriage and childbearing, prevent HIV infection and take advantage of education and employment opportunities. These investments will not only improve the wellbeing of these people today, but also support healthier, better-educated families and communities.

**Challenges to Adolescence Development**

In this fast moving world, often with fragmentation of countries and cultures and Restless society, the adolescents have to face problems related to socio-cultural conditions. The ubiquitous influence of global mass media combined with peer pressure, cause lifestyle-related problems leading to sexual permissiveness, alcoholism and other substance abuse. The process of juvenile experimentation and unprotected sex without adequate information or understanding carries multiple risks which may cause sexually transmitted diseases (STDs) with serious consequences and even pregnancy and its related complications. There is a disturbing increase reported in domestic violence against children and adolescents, sexual

abuse, child trafficking and prostitution. These traumatic experiences lead to permanent psychological scars and severe health problems. The lower status of women and their relative lack of physical, social and economic power make them more vulnerable to physical violence, sexual harassment, abuse at the workplace, economically coerced sex, and forced prostitution. Female genital mutilation though rare in India is an established practice in several countries in Africa and the Middle East.

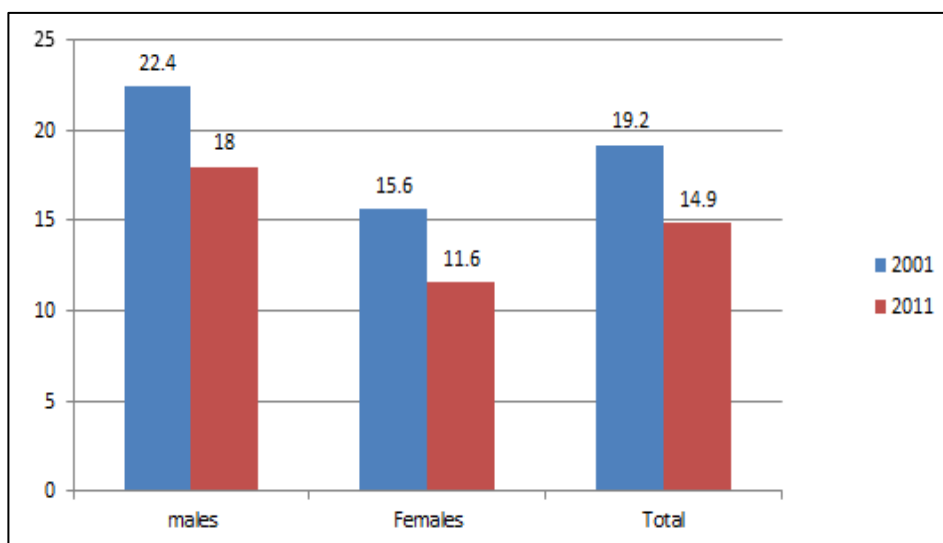
**Economic Compulsions among Adolescent Population**

Nearly one out of three adolescents in 15-19 years is working. Economic compulsions Force adolescents to participate in the workforce resulting in high drop-out for education. Despite adult unemployment, employers like to engage children and adolescents because of cheap labor.

**Table 5:** Trends in Adolescents Work Participation Rate in India

Years	Total	Males	Females	Rural	Urban
2001	19.2	22.4	15.6	22.7	10.1
2011	14.9	18.0	11.6	16.8	10.2

The above table 5 shows that there is a decline in Work Participation Rate by sex in total and rural areas from 2001 to 2011. There is no much change in urban areas.



**Linkages between Adolescent Population and Demographic Dividend**

The demographic dividend is the accelerated economic growth that may result from a Rapid decline in a country’s fertility and the subsequent change in the population age structure. With fewer births each year, a country’s working-age population grows larger in relation to the young dependent population. With more people in the labor force and fewer young people to support, a country has a window of opportunity for rapid economic growth if the right social and economic investments and policies are made in health, education, governance, and the economy. Investments in today’s youth population can position a country to achieve a demographic dividend, but the gains are neither automatic nor guaranteed.

Maximizing the potential of adolescents which is almost 21 percent of the India’s total population presents an

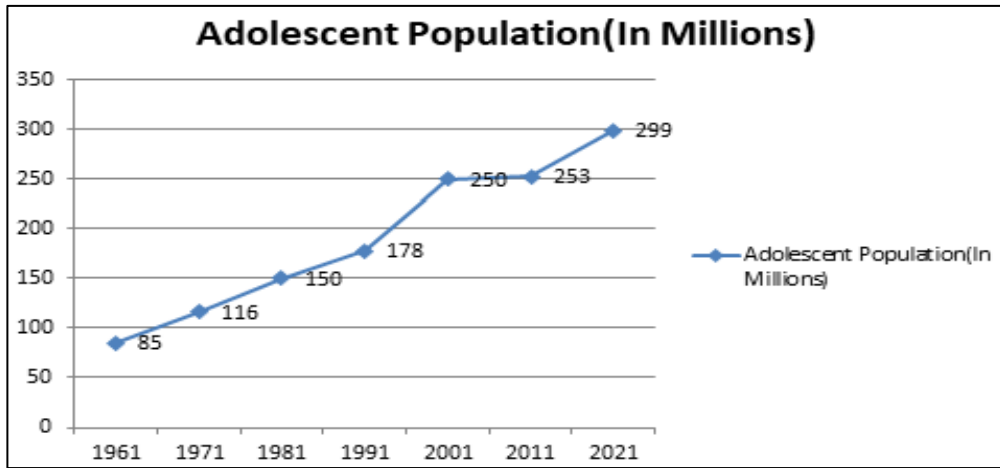
unprecedented opportunity to translate them into a demographic dividend.

**Data Interpretation and Analysis**

**Table6:** Growth of adolescent Population in India

Year	Adolescent Population(In Millions)
1961	85
1971	116
1981	150
1991	178
2001	250
2011	253
2021	299

The Year 1961 shows that 85 million now the forecast of 2021 299, so that it will increasing decades growth of Adolescent Population in Millions



### Interpretation

Adolescent population has increased from 85 million in 1961 to 253 million in 2011. In the last five decades, there has been a considerable increase in adolescent population. By using trend analysis, the alternative hypothesis is accepted. It was found out that in 2021 the adolescent population will be increasing to 299 million.

### Suggestions

- Government should enact more programmes and policies for adolescents.
- Government should allocate resources to meet the needs of adolescent population.

### Conclusion

Adolescents are the actors of social change, not simply beneficiaries of social programmes. However, despite adolescents being a huge segment of the population, policies and programmes in India have focused very little on the adolescent group. In general, it is not a matter of setting up separate interventions for adolescents but rather of ensuring that adolescents receive adequate attention in all policies, strategies and programmes that are relevant to them. To ensure that programmes and policies meet their needs, adolescents must be heard and must contribute to the planning, implementation, monitoring and evaluation of services.

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