India's demographic dividend: opportunities and threats

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India's Demographic Dividend: Opportunities and Threats

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Abstract

Demographic transition creates a small window for countries to leverage their demographic dividend and leapfrog to a higher level of income-employment situation. This opportunity comes in the middle stage of demographic transition when the population pyramid shows signs of maturity and bulges in the middle, indicating a relatively larger share of youth or working age persons in total population, and hence a low dependency ratio. Consequently, countries can engage this human resource to augment its productive capacity. If sensibly utilised, this can raise per capita income level dramatically – pulling up the country to a substantially higher plane of living standards. However, the efforts will fall flat if this group of youth, on which so much depends, are not productive enough to enhance output significantly. Often questions are raised about the employability of the youth because of their inadequate education, training, and market ready skill and if the youth are not absorbed meaningfully into the workforce and are productive enough, this demographic dividend will turn into a demographic nightmare. Huge youth unemployment is the surest way to social tension, unrest, and unlawful activities. Hence to understand India's readiness in this aspect we must look at the issue of education, skill formation and employment among youth in India. In this overview paper we find that current skill/training situation of youth in India is inadequate. Surplus and shortage coexists in the labour market indicating serious mismatch between supply and demand. There is an urgent need to relook at human resource development pattern in the country. It appears that a socioeconomic crisis is looming large and demographic opportunities will turn to threat unless intervened immediately.

India's Demographic Dividend: Opportunities and Threats

1. Demographic Dividend: The Concept?

Demographic transition creates a small window for countries to leverage their demographic dividend and leapfrog to a higher level of income-employment situation. This opportunity comes in the middle stage of demographic transition when the population pyramid shows signs of maturity and bulges in the middle, indicating a relatively larger share of working age persons in total population, and hence a low dependency ratio. During this stage the child population share comes down noticeably, releasing human and financial resources earlier engaged in provisioning of children's needs – primary healthcare, primary education, and motherly duties at the household level. The aged population at this stage is still not large enough to draw away most of this released capital for old age care. Consequently, countries can engage this surplus capital – human and financial – to augment its productive capacity. If sensibly utilised, this can raise per capita income level dramatically – pulling up the country to a substantially higher plane of living standards. This opportunity is however transitory, since within a short period the demographic dividend vanishes – low birth rate and low death rate combining together to increase the aged population substantially without adding to the youth and hence increasing the dependency ratio again. Therefore countries have to be ready to reap the dividend as it arises and the timing has to be picture-perfect.

2. Readiness to Reap the Dividend

What does it take to be ready to reap the demographic dividend? The key lies in using the working age population optimally to enhance production to the maximum possible. This calls for physical investment in productive capacities and expanding employment to the fullest. Critical ingredient would be the child, adolescent and youth population who would be entering the workforce in the near future and contribute to the increased production. However, the efforts will fall flat if this group, on which so much depends, are not productive enough to enhance output significantly. Often questions are raised about the employability of the youth because of their inadequate educations, training, and market ready skill or sometimes even because of their ill health. Status of adolescents and children in India are also circumspect because of lack of adequate education and primary health care facilities availed by them. Therefore health, education, skill, of the three groups and general productivity of the youth are pre-requisites for countries to leverage its demographic dividend (See Box 1).

Box 1

Steps Necessary to reap Demographic Dividend

According to a recent USAID POLICY Project Report, various steps are needed to facilitate countries in leveraging their demographic dividend. Investments in education, health, and job creation are vital, as are policies that favour the fertility declines that have created and sustained the window. Policy objectives include the following.

- Ensuring that infants receive good medical care.
- Protecting women's reproductive health (and enhancing their health knowledge, since they play the central role in the health of their families).
- Stressing the health of children and teenagers, to improve educational performance.
- Focusing especially on low-income populations, with strong public sector programs.
- Reducing unwanted pregnancies since it benefits maternal health and family welfare and hastens the changes in age structure;
- Improve human resource capabilities and create jobs to absorb the large numbers of teenagers coming into the workforce;
- Encourage savings to generate productive capital;

[From "Understanding the Demographic Dividend", by John Ross, POLICY Project, USAID, Washington, DC; September, 2004]

3. DEMOGRAPHIC DIVIDEND AND INDIA'S READINESS

Against the above backdrop, it would be important to examine India's position, who will add about one quarter of the global youth population in the next three decades. A relative latecomer compared to western countries, India is in the midst of a major demographic transition. A process that started in the late 1970s is likely to last another 30 years from now. The working-age ratio in the country is set to rise from about 64 percent currently to 69 percent in 2040, an addition of over 300 million working-age adults. This would make India the largest single contributor to the incremental global workforce over the next three decades. Whether India is able to transfer this demographic dividend to a source of income growth would depend on the readiness of India's youth to participate meaningfully in the production process. This in turn would depend critically on broader health and educational achievements of children, adolescents, and youth that are conducive to the exploitation of the demographic dividend.

Also, being a vast country with diverse social groups and spatial patterns, there may be disparity in the readiness of youth to reap this dividend. Groups/regions where youth lack proper education, vocational training, or marketable skill will be left behind when the physical capital would expand and engage persons with adequate human capital. While this will create a drag on the macroeconomic performance and lower the demographic dividend in general, a further crucial consequence would be increasing disparities among social groups

and regions and associated social tensions and unrest. Amazingly enough, regions/states and groups that were lagging in terms of demographic transition stand to gain the most from the demographic dividend, since they are the ones with potentially large youth population ready to enter the workforce.

However, if the youth are not absorbed meaningfully into the workforce and are productive enough, this demographic dividend will turn into a demographic nightmare. Huge youth unemployment is the surest way to social tension, unrest, and unlawful activities. The frustration of unemployed youth as evident during the recent *Arab Spring* suggests that the lack of jobs can be a source of social unrest. Work by the Institute of Criminology at Cambridge University, which has been studying the subject for nearly 50 years, established long ago that young people are more likely to commit crime when they are out of work. That crime is often petty but it can turn into something more serious. Left untreated, youth unemployment is an issue set to destabilise fragile economies, become a breeding ground for extremism, and leave a generation permanently scarred. Hence to understand India's readiness in this aspect we must look at the issue of education, skill formation and employment among youth in India.

4. OBJECTIVES

Against the conceptual framework discussed above, the paper aims to look at the following issues:

a) *Education and Skill formation among youth*
b) *Current status of youth employment and unemployment*
c) *Current status of education/technical skill of youth workers*

5. DATA SOURCES

The paper mainly uses the NSSO survey data on *Education in India: Participation and Expenditure* for 2007-08 as also the NSSO survey data on *Employment and Unemployment* of 2009-10.

As mentioned earlier, demographic dividend will depend critically on the productivity of the youth and their contribution to the GDP .this is in turn would depend on three facts – education/skill formation among youth, productive employment among youth, and correspondence between the skill set supplied and demanded in the labour market. Let us discuss these issues in the following sections.

6. EDUCATION AND TRAINING AMONG YOUTH

Formal educational standard of the Indian youth is not remarkable (Table 1). Just 40 per cent have secondary or higher secondary level of education while less than 8 per cent have graduate degree or post graduate training, more than 17 per cent are illiterate. Vocational and technical education is noticeably lacking among the youth with only 2.5 per cent having any technical training (Table 2 & 3). Just about 1 in every 100 have technical degrees in medicine, engineering or agro technology. Even for those who have some short of vocational training, in most cases they were informally obtained either from family members or through on-the-job instructions. Another notable feature has been the high drop out among youth learners before completing the full-length of general education or technical training (Table 4). More than 70 per cent of the youth have left studies before completing the highest stage of study. Most remarkably there is a clear locational and gender bias also with rural youth and young woman lagging far behind the urban or male counterparts in education and training.

7. EMPLOYMENT STATUS OF YOUTH

Of the total 275 million youth population in India, 102 million youth are active in the labour market (Table 5). More than 7 million, or close to 7 per cent of these youth, are unemployed. Among those who are employed, less than 20 per cent have regular salaried jobs while close to half are self-employed – an euphemism used more often to indicate '*doing something rather than being openly unemployed*'. Most of these jobs classified as self-employment are petty trading, cultivation, running small enterprises, etc. A substantial portion – more than one fourth – is engaged as casual labourers with no certainty about job availability or earnings from one day to the next. It thus transpires that remunerative employment among youth is not satisfactory with very few engaged in regular productive jobs. This raises a question regarding the contribution of youth to the GDP and their productivity.

8. THE SKILL QUESTION

a) Skill set of youth workers

If we consider the skill set of the youth who are employed certain interesting feature comes up (Table 6). Accepting that skill set is a direct reflection of the general/technical education of the person concerned, we observe that more than half of the wage workers and close to three-fourth of the self-employed youth are unskilled – with less than 10 years of education and no vocational training. Notably, more than one-fifth of all workers are illiterate – putting up a serious doubt about the productivity of the youth workers.

b) Skill Supply and Skill Demand Mismatch

Against the backdrop of substantial low skill of the workers who are employed, it is surprising to find high unemployment among the skilled youth – those with some technical training, technical degrees and diplomas (Table 7). More than 22 per cent of these youth are currently unemployed, with another 5 per cent being casual labourer and 13 per cent being self-employed. Just about60 per cent of such high skilled youth have any regular salaried job. Unemployment is highest among engineering/technology graduates and those with undergraduate diploma in medicine.

Against such surplus in the labour market of skilled manpower, there are stories of shortages that are as much glaring. A study by Murthy and Paul (2003) indicate that more than 80 per cent of corporate entities report vacancies at managerial tend in the preceding year of which close to half are hard-to-fill vacancies because of skill-shortages. The candidates who apply do not fulfil the job requirement or skill-demanded of the employers. Problem areas include lack of job-specific skill, absence of basic abilities and unsuitable personal traits to occupy managerial positions. Surprisingly most of the applicants had a post- graduate degree/diploma in business administration or business management.

Blom and Saiki (2011) present a similar story for engineering and technical graduates. It is reported that 25 per cent of the employers are not happy with the skill level of their graduate engineers/technologists .majority lack the basic problem solving skills and mind application quality-a direct fall out of our rote education system. Communication and team working skills are also absent in one-fourth of the engineers and more than one –fifth lack such simple qualities like mathematical, science and technological knowledge- a field which they were specifically trained in.

A study by FICCI (2011) points out that 90 per cent of employers/business houses under FICCI faced labour shortage in the previous years. More than two-third of them suffered revenue loss more than 10 per cent due to low production and unmet orders caused by labour shortage.

It is thus amply clear that there is a serious mismatch between the skill set processed by Indian youth and the skill that are demanded by the employers in the labour market .while there is a serious over-supply to unskilled workers and low skilled workers, there is a serious shortage of skilled man power and most of our trained/educated youth are unemployables rather than unemployed. This calls for immediate relook at our training /education system and adjusting them to match the skilled demand of current times.

9. SUMMARY

We had initiated our discussion by pointing out the possible demographic dividend that India may reap over the next decade or so by utilizing its growing youth population productively. However the current scenario as discussed here does not project a rosy picture. It is estimated that more than 200 million persons will be added to the workforce in the next two decades. However the current education/ skill pattern and the emerging economic structure are not compatible and it is apprehended that while there will be above 10 per cent surplus of unskilled/semiskilled workers at the same time there will be a shortage of a similar quantum of skilled workers who not only possess formal training but also the skill set now being demanded in the labour market. In the globalized scenario employers are edgy about maintaining their competitiveness and hence about the productivity of their workers. Hence qualifications will not be enough to land an appropriate job, one must be able to contribute sustainability to the production process and revenue of the firms/farms. Unless this mismatch is corrected on a war footing, India shall end up with a vast mass of unemployed and unemployable youth and facing a demographic disaster rather than a demographic dividend. And that would surely be a powder keg of social disaster waiting to explode at the slightest spark of discontent.

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Table 1

Proportion of youth in different Educational Categories – 2007-08

	Rural			*Urban*			*All*
Category	***Male***	***Female***	***All***	***Male***	***Female***	***All***	
Illiterate	12.8	29.5	21.0	6.3	11.5	8.8	17.4
Literate below Primary	7.5	8.0	7.8	4.9	4.8	4.9	6.9
Below Secondary	44.8	38.2	41.5	34.6	30.2	32.5	38.9
Secondary Passed	30.0	20.9	25.5	39.1	38.0	38.6	29.4
Post HS Diploma	1.1	0.5	0.8	2.5	1.2	1.8	1.1
Graduate & above	3.9	2.8	3.4	12.7	14.3	13.4	6.3

Source: Author's calculations based on NSSO (2008)

Table 2

Proportion of Youth having Technical Skill/Training – 2007-08

	Rural			*Urban*			*All Male*	*All Female*	*All*
Category	***Male***	***Female***	***All***	***Male***	***Female***	***All***			
Certificate/Diploma	1.1	0.5	0.8	3.5	2.0	2.8	1.8	0.9	1.4
PG Diploma	0.3	0.3	0.3	1.9	1.4	1.6	0.8	0.6	0.7
Degree	0.2	0.0	0.1	1.5	0.7	1.1	0.6	0.2	0.4
Any Tech Training	**1.6**	**0.8**	**1.2**	**6.9**	**3.9**	**5.5**	**3.2**	**1.7**	**2.5**
No Tech education	**98.4**	**99.2**	**98.8**	**93.1**	**95.9**	**94.5**	**96.8**	**98.3**	**97.5**

Source: Author's calculations based on NSSO (2008)

Table 3

Proportion of Youth having Vocational Training – 2007-08

	Rural			*Urban*			*All Male*	*All Female*	*All*
Category	***Male***	***Female***	***All***	***Male***	***Female***	***All***			
Formal Training	2.1	1.5	1.8	6.0	4.7	5.4	3.3	2.4	2.8
Non-formal training	6.0	2.8	4.4	7.7	3.4	5.7	6.5	3.0	4.8
Any Training	**91.9**	**95.8**	**93.8**	**86.3**	**91.8**	**88.9**	**90.2**	**94.6**	**92.4**
No Vocational Skill	**8.1**	**4.2**	**6.2**	**13.7**	**8.2**	**11.1**	**9.8**	**5.4**	**7.6**

Source: Author's calculations based on NSSO (2008)

Table 4

Proportion of Youth not attending Educational/Training Institutions – 2007-08

Gender	***Rural***	***Urban***	***All***
Male	79.9	73.5	78.0
Female	87.7	76.2	84.5
All	83.8	74.8	81.1

Source: Author's calculations based on NSSO (2008)

Table 5

Employment Status of Youth – 2009-10

	Rural			*Urban*			*All Male*	*All Female*	*All*
Category	***Male***	***Female***	***All***	***Male***	***Female***	***All***			
Regular Worker	9.0	6.5	8.4	41.1	42.2	41.3	18.0	13.9	17.1
Casual Wage Labour	41.8	41.6	41.8	20.5	15.4	19.6	35.8	36.2	35.9
Self-employed	43.7	45.3	44.1	30.5	25.1	29.5	40.0	41.2	40.3
Productively Employed	**94.5**	**93.5**	**94.3**	**92.1**	**82.8**	**90.4**	**93.8**	**91.3**	**93.2**
Unemployed	***5.5***	***6.5***	***5.7***	***7.9***	***17.2***	***9.6***	***6.2***	***8.7***	***6.8***

Source: Author's calculations based on NSSO (2011)

Table 6

Educational Level of Youth Workers – 2009-10

Category	***Illiterate***	***Literate below Pr***	***Below Sec***	***Sec & HSec***	***Diploma***	***Graduate & above***	
Regular Worker	5.0	4.3	30.2	28.1	5.1	27.4	100.0
Casual Wage Labour	43.3	0.5	0.0	0.3	21.4	34.6	100.0
Self-employed	15.9	7.7	42.9	27.1	0.9	5.5	100.0
Productively Employed	***21.1***	***5.0***	***28.4***	***20.0***	***7.4***	***18.2***	***100.0***
Unemployed	***4.4***	***3.3***	***27.7***	***32.1***	***6.0***	***26.5***	***100.0***

Source: Author's calculations based on NSSO (2011)

Table 7

Unemployment among Skilled/Trained Youth – 2009-10

Type of Skill/Training		***Unemployed***	***Self-employed***	***Casual Worker***	***Regular Salaried***
Degree	**Tech/Med/Agri**	12.9	9.7	3.5	73.9
Undergraduate Diploma	**Agri etc**	23.1	17.4	7.9	51.6
	Engg/Tech	25.8	15.5	6.4	52.3
	Medicine	34.1	20.9	1.6	43.5
Post-graduate Diploma	**Agri etc**	14.1	5.5	4.1	76.3
	Engg/Tech	35.4	5.4	4.4	54.8
	Medicine	20.3	28.2	0.0	51.5
All Skilled/Trained		***22.4***	*12.8*	*5.4*	*59.5*
Unskilled		***6.2***	*41.3*	*37.0*	*15.5*
All Total		***6.8***	*40.3*	*35.9*	*17.1*

Source: Author's calculations based on NSSO (2011)