Jawaharlal Nehru University, 11 January 2017

**The growing role of higher education: The world-wide trend to high participation systems in higher education**

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***[Introductory slide]***

In the last twenty years higher education has been shaped by three broad tendencies combine in various ways. The first tendency is mass scale growth, or ‘massification’. The second is the intensification of competition between institutions and the adoption of business-like features, ‘marketization’, under the influence of neo-liberal policies. The third is the partial global integration and convergence between national systems, or ‘globalization’. More is written about globalization and marketization than massification. Yet massification is monumental in scale and the most universal of the three. Global convergence touches some national systems more than others, though many are part of the global science system and global comparison and ranking. Marketization has reshaped higher education in English-speaking countries and Eastern Europe but in many European systems tuition remains free and business models there play a more modest role. However, nearly *all* systems in which annual GDP per head exceeded $5000 USD, about 10 per cent of per capita income in the United States have undergone massive growth.

***Gross Tertiary Enrolment Ratio (GTER, %): World, North America/Western Europe, Central/Eastern Europe, 1971-2012***

The worldwide tendency to high participation in higher education began in the United States. By 1971, the United States enrolled 47 per cent of the school-leaver age cohort in ‘tertiary education’, programs of two-year full-time equivalent or more, the definition used by UNESCO and the OECD. At that time only 15 per cent of countries had more than 15 per cent of their young people in tertiary education. Fast forward to 2012. Across the world there were 58 systems, one third of all countries, in which the enrolment ratio exceeded 50 per cent what Martin Trow in 1973 referred to as ‘universal’ higher education, and I refer to as High Participation Systems. More than 50 more countries had enrolment ratios of between 15 and 50 per cent, what Martin Trow in 1973 called mass higher education. All over the world, higher education is becoming a central institution of human society. Yet most of the vast growth occurred only in the last two decades, from 1997 onwards. At the world level participation is now expanding at 1 per cent per year, 20 per cent in twenty years. Across all countries one in three young people now enter higher education, and more than three in four across Europe and North America.

***Regional GTERs (%), 1970-2013***

The large scale higher education systems which began in North America, Western Europe, Russia and Australia have now spread across Eastern Europe, East Asia, Latin America and have begun to emerge in South Asia in India. Between 1992 and 2012 the GTER increased markedly in each world region except Central Asia. In or prior to 2012 it exceeded 50 per cent across all of Western and Eastern Europe, North America, much of Latin America, and all East Asia except China. The nations with GTERs above 50 per cent in 2012 were not all wealthy. They included Albania, Armenia, Barbados, Bulgaria, Iran, Jamaica, Kazakhstan, Kyrgyzstan, Mongolia, Palestine, Serbia and Thailand. Between 2000 and 2012 the GTER rose by at least 18 per cent in 32 countries. In some countries the increase has been quite extraordinary. In Turkey the GTER rose from 25 to 70 per cent in 12 years. Other large increases in the same time period included Albania 42 per cent, Cuba 41 per cent, Belarus 37 per cent and Chile 36 per cent. In demographic terms the most important event is the fact that rapidly growing educational participation is now rooted in three of the world’s four most populous countries, China, India and Indonesia.

***Growth in Indonesia, China and India***

There are still gaps. In countries with very low per capita incomes, states mostly lack the necessary capacity and time horizon to mount large-scale tertiary systems. Between 1992 and 2012 the GTER in Sub-Saharan Africa doubled but in 2012 it was below 15 per cent in all systems for which data were available except Mauritius. In South Asia, Pakistan and Bangladesh remain well under the 15 per cent mark though even in those countries in the last 20 years the rate of growth in student numbers has been very rapid.

International policy agencies such as the Organization for Economic Cooperation and Development (OECD) advocate open-ended growth. Few governments now set firm limits on the level of inclusion, despite fiscal constraints. Notions that only some people are capable of higher education are fading. It seems that in the longer run the concerns about ‘over-education’ and graduate unemployment that recur in many nations do not halt growth. When systems reach GTERs of 50 per cent or more they keep growing towards 100 per cent. Until recently the GTER in the US exceeded 90 per cent and South Korea’s tertiary participation rate is close to the 100 per cent mark. The tendency to HPS does not mean all students receive learning and credentials of high value. There’s great variation in quality, within and between countries, with the extent to which quality is stratified within countries also subject to variation. But the point is that HPS of higher education are becoming common to societies across the world, like hospitals, bureaucracy and police, transport and communications, piped water and electricity. It is likely that in a generation’s time a majority of all working people, everywhere, will have experienced tertiary education.

Today I will reflect on this remarkable change in the role of tertiary and higher education. First, I’ll look at the possible drivers of growth, by discussing the different explanations that have been advanced, with varying degrees of rigour. Second, I’ll reflect more briefly on other features of high participation higher education, while noting that it varies significantly between countries in its character.

**Drivers of growth**

First, then, what drives this ubiquitous expansion of participation in higher education? In both public and scholarly discussion of higher education it is often assumed simply that the answer is ‘government’, states. The number of higher education students is determined by state policy and regulation. It is true that in most systems, governments control the number of subsidized places in public higher education institutions, and sometimes also the number of places in private sectors. And government policy and funding are often very visible at the time when national systems start building higher education on a mass scale, and governments emphasize their commitment to building higher participation, and world-class universities, as contributions to the global competiveness of the nation.

***37 systems have a GTER of 50% plus, and at least one top 500 research university in ARWU***

But does the state continuing to determine numbers as systems grow from 15 to 50 per cent and beyond? And could it reverse the growth of high education? Probably not. Examination of the UNESCO data for participation in each national system around the world shows that significant falls in participation rates are unusual, and that *nowhere* in the world, once the HPS dynamic has been released, does any state move to secure a lasting reversal of growth—despite the cost pressures created by expansion. (Though note, however, that there are many cases of states shifting part of the cost of growth to families and students). It seems that the state role in kick-starting the growth of mass higher education is more instrumental than the state role once participation has begun to grow significantly.

***21 systems have GTER above 50% but no WCUs***

Here it is necessary to distinguish the formal policy rationales of governments from the political imperatives that shape them. Though states have autonomy, they also respond to citizen demands for opportunities. If state intervention at times appears to be purposely driven and based on clear-cut economic or social agendas, it is also expedient for states to foster higher education as an opportunity framework. It broadens their legitimacy and political base; though they claim the expansion of higher education is their contribution to social inclusion and justice, and to national economic growth and global competitiveness.

Of course, the public policy world favours explanations in which educational states routinely facilitate the economy. In the standard policy narrative about higher education, expansion is shaped by government and/or market forces in response to the need for educated human capital. Higher education expands in step with growing demands for graduate knowledge, skills and certified professional competences. Economic demand is signaled in the labour markets by the wage returns to marginal productivity. Students focus on expected graduate wages and employability. People (or governments on their behalf) invest in education, in terms of time, income forgone and tuition, to the point where the lifetime returns to degree holders equal the costs of investment.

***World GDP, population and tertiary enrolment, 1970-2012***

Since the 1960s the human capital theorization, the subject of tens of thousands of empirical studies, has held centre stage. Economists acknowledge that higher education can lag behind economic need; or it can over-provide graduates; but they believe that higher education generally tends to equilibrium with economic demand. If it does not, then there must be a flaw in higher education or government enrolment policy.

However, sociologists who look closely at the motors of participation are not persuaded. In an historical review Schofer and Meyer note that ‘the rapid expansion of higher education in the 1960s does not coincide with especially large historical changes in occupational structures, job skill requirements, or labour market demands that would create a need for massive expansion of higher education’. Further, since the 1960s, the apparent association between economic growth and the growth of participation has been weaker than in that first human capital decade.

***GDP and GTER, 2013 or nearest year***

A comparison across countries of the respective growth rates in the economy and in participation in tertiary education suggests a moderate association between economic growth and the growth of student numbers but this does not mean that the expansion of higher education is driven by the economy: the causality could be reversed. And the surge in participation is associated with a broad range of economic patterns. For example, just looking at the countries where the participation rate expanded by more than 18 per cent between 2000 and 2012 ,economic growth spans from China at 10.1 per cent per annum where the GTER rose 18.9 per cent over 2000-2012, to Portugal at 0.2 per cent per annum where the GTER rose by 21.3 per cent. Advanced rates of growth are found in a very broad range of countries with different rates of growth and industry configurations, for example the size and character of manufacturing and services industries. The only economies where rates of participation are low and often also slow to grow are those with a high proportion of labour in agriculture. These tend to be low income economies, often with less than $3000 USD a year.

Of course, this is not to say that economic conditions are irrelevant to rates of participation. Very poor countries have neither the state capacity nor the community resources to build mass higher education. Economic growth increases the size of the middle classes, enhancing both the demand for education and the capacity to pay for it though taxation and/or tution fees. However, the point is that other factors are also at work, as well or instead of national economic investment and labour market demand for graduate jobs. Ulrich Teichler is one of the scholars who makes the point that when ‘graduate jobs’ is not a constant. When the number of graduates grows more quickly than professional jobs, the role of graduate labour changes, graduates move down the occupational scale. After a career researching the education/labour market interface, he emphasizes that ‘a “match” between the number of graduates and the corresponding positions, or between the competences acquired during study and job requirements, cannot be expected.’

It is clear higher education is often associated with social advantage. The question is the extent to which the link between higher education and social advantage takes the form imagined in human capital theory in economics. Many studies of the graduate labour market, including some in a human capital framework, suggest that while most students expect that their degrees will become associated with better earnings than if they had not studies, the actual patterns of productivity and earnings cannot alone provide a sufficient instrumental explanation for demand for higher education.

What about the counter explanation, credentialism—which often draws on similar rates of return data to human capital theory. In the counter narrative the economic role of education is not to impart useful skills but to function as a sorting or screening system for employers. Here the growth of participation is the outcome of growth in the number of people who use credentials as signs of employability, combined with the vested interest of institutions in multiplying and elevating educational programs and credentials to cater for this behavior, if not fostering such behavior in their own interests.

Now it is true that social competition and the sorting role of credentials are readily identified in the transition from higher education to work, and many HEIs and systems desire to extend their social reach. However, there are counter-factuals to the credentialism narrative, at least as a universal explanation for the expansion of participation. First, higher education is not the only determinant of social allocations. Family background plays a key role. Second, occupational licensing and credential structures, and the extent they are autonomous, vary greatly between countries that nevertheless share similar participation levels and the common dynamic of growth. There is also the question of proportionality. The credentialism narrative emphasizes the agency of HEIs at the expense of the agency of the families and students that use them, who (like employers) are seen as blind followers in a game controlled by educational institutions for their own benefit. This is questionable. Self-building HEIs alone cannot explain a social tendency as powerful as HPS. Credentialism is more likely to be an opportunistic follower of educational expansion than a leader of it. But if neither the combined economic demand of thousands of employers in the labour market, nor supply side revenue building or empire building by hundreds of HEIs, are sufficient to drive the remarkable spread of higher education, what is the other factor?

This brings social demand into the picture. Do the families that want higher education do so because they are permitted to want it by governments, or told to want it by credentials educational institutions? What role does their agency play in expansion?

***The growth dynamic***

In 1973 the Berkeley sociologist Martin Trow published *Problems in the Transition from Elite to Mass Higher Education*. Many of you will be familiar with Trow’s argument. Trow stated that when higher education expands from an ‘elite’ system to a ‘mass’ system educating at least 15 per cent of the youth cohort, and then to a ‘universal’ system at 50 per cent, quantitative growth is associated with qualitative change. For example, the purpose of higher education shifts from ‘shaping the mind and character of the ruling class’ (elite), to preparing a larger group in professional and technical skills (mass), to preparing the whole population in ‘adaptability’ to social and technological change (universal). Access shifts from a privilege (elite), to a right (mass), to an ‘obligation’ (universal) for middle class families. Trow understood his three stages of higher education as Weberian ideal types, imagining them both as historical stages, and also as differing practices in the present. Historically he developed prescient narratives about the change, such as the passage of student selection from academic merit (elite), to programs designed to create social equality of opportunity (mass), to open access (universal), ‘because social inequalities show everywhere a stubbornly persistent effect on educational achievement’ (p. 24). By also understanding elite/mass/universal as differing practices in the present, he explained how elite HEIs continued to flourish alongside mass and universal higher education.

Trow also explained the ubiquitous tendency to growth of participation of higher education, before it had spread across the world. He noted the expansion of the economy and the increased demand for skilled work in the contemporary United States but found these were not principal drivers. The motor, according to Trow, was family aspirations to maintain and improve social position. This led Trow to two crucial insights. First, there was no natural limit to aspirations for social betterment through education. It was not subject to economic scarcity. And this meant that higher education would just keep growing. There will be ‘continued popular demand for an increase in the number of places in colleges and universities’, he stated. ‘It seems to me very unlikely that any advanced industrial society can or will be able to stabilize the numbers’ (Trow, 1973, p. 40).

Despite ‘loose talk about graduate unemployment or of an oversupply’, argued Trow, ‘it is still clear that people who have gone on to higher education thereby increase their chances for having more secure, more interesting, and better paid work throughout their lives.’ As more people enter higher education, it becomes ‘a symbol of rising social status’ (p. 41). It becomes quasi-compulsory. Non-participants have less life options. In the universal phase, participation over 50 per cent, emphasis shifts from participation for upward social mobility to participation as a defence against declining social position. Like Teichler later, Trow found that graduate unemployment was not a problem because of the ‘educational inflation of occupations’. Graduate jobs are not fixed but move down the occupational scale. As the number of graduates grows, they displace those without college, sometimes using their educated capabilities to enrich the jobs. ‘What mass higher education does is to break the old rigid connection between education and the occupational structure’ that prevents graduates from taking what were non-graduate jobs, he said.

Trow’s second insight was that once a mass system had been built, public policy followed social demand for higher education, not vice versa. Government would be under ongoing pressure, especially from middle class families, to facilitate the growth of higher education until saturation was reached, using both an expanded supply of student places in HEIs and financial support for participation. This was plausible in early 1970s California with its politically responsive governor and congress. Trow’s prediction that participation would expand without limit in other jurisdictions was bolder, given that many were not democratic polities responsive from below, and most states were enamoured of ‘manpower planning’, as it was then called, using rates of return and employment data to plot a rational fit between education and the labour markets, or so they hoped.

Yet in the long run Trow has been proven right. Whether in multi-party or single-party polities, it seems that all states now facilitate social demand for higher education. And as educational aspirations become normalized in the middle class, everywhere they spread from the articulate middle class to the population as whole, which increases the political pressure on government to facilitate opportunity (and claim the credit for doing so). Trow’s argument that growing, aggregated social aspirations drive the state-sanctioned expansion of the sector has a more general applicability than arguments based on economic demand.

Social demand is not an abstraction. It is rooted in human agents, who are stratified, segmented and localized, with variable resources. Here national middle classes are always the key group. Trow observes that ‘almost everywhere’ the middle classes are the first to take advantage of increases in educational opportunities of every kind and at every level’. The wealthy have less need for the status and economic benefits offered by higher education; while lower class people are often under-prepared for higher education and lack the economic means. Middle class people want their children to be upwardly mobile or to hold their position, and they have the discretionary income to finance those aspirations through tuition or taxation.

***Proportion of population living in urban areas (%) and Gross Tertiary Enrolment Ratio (%), world’s largest nations by population, arranged in order of intensity of urbanization, 2011***

Now where is the middle class found? Mostly it is found in cities. The aggregation of the middle class in cities builds a critical mass of upper secondary students, and concentrates political pressure for expanded higher education provision, while enabling economies of scale. Higher education infrastructure is concentrated in cities because of size and cost factors. This is not to say that all people in cities are middle class, but because it is concentrated in cities, higher education becomes visible to many other aspiring families, and this catalyses the spread of aspirations down the social structure to wards universality .

The graph lists 20 large countries by population in 2014, arranged in order of the extent of urbanization in 2011. It compares each nation’s rate of urbanization the proportion of people living in cities, to its UNESCO gross enrolment ratio, the proportion enrolled in tertiary education. With exceptions in Korea, USA, Russia and Thailand, the rate of urbanization exceeds that of tertiary participation. Enrolment ratios are well below the level of urbanization in the poorest countries: Congo, Pakistan and Bangladesh. However, the line of best fit suggests a strong association between urbanization and the GTER. This does not mean urbanization ‘causes’ participation. Rather, the expansion of the cities and growth of middle classes are both sourced in capitalist development, and growing urban middle classes primarily sustain growth in the social demand for higher education.

From 1970 and 2010 the urban proportion of the world’s population rose from 37 to 52 per cent. In South America it climbed from 60 to 83 per cent, in China from 17 to 49 per cent and in Indonesia from 17 to 50 per cent. It grew in India but more slowly, from 20 to 31 per cent. Nations undergoing large scale movement from the countryside to the cities engage in a dynamic process of modernization with common features in urban landscapes, industrialization, energy, transport and communication, and also functions of government and education. Higher education is a dynamic part of the modernization process. Mostly, growth in urbanization precedes growth in tertiary enrolment but the two move in tandem.

***GTER and urbanization in Indonesia 1990-2013***

For example, the next graph sets out the situation in Indonesia between 1990 and 2013. It traces the historical connections between the declining share of agricultural labour, the growing share of the national population living in cities, and the concurrent increase in the national Gross Tertiary Enrolment Ratio.

In a study for Brookings and the OECD, Homi Kharas and colleagues define a middle class person as someone living on $10-$100 USD per day in Purchasing Power Parity terms. On this basis 1.8 billion persons were middle class in 2009, 28 per cent of world population, and a further 2 per cent were ‘rich’. Thus 30 per cent of all persons were middle class or above, a level similar to the world GTER of 28 per cent in 2009. The authors also find that ‘over the coming twenty years the world evolves from being mostly poor to mostly middle class’. The middle classes rise from 1.8 billion persons in 2009 to 4.9 billion in 2030. Most of the growth is in Asia-Pacific, from 0.5 to 3.2 billion, principally in China and India. Using a more restricted definition of middle class, the World Bank expects its share of global population to more than double by 2030 (p. 6). Even on the basis of the more modest estimate, this expected growth in the middle class appears to have major implications for the further expansion of participation in higher education. As India’s urban population grows the inexorable pressure to grow higher education must keep on following.

**National variations and social equity**

Having talked in largely general terms, in the final part of this talk let me turn now to reflect briefly on three features of high participation higher education systems. First, in nearly all growing systems we see not only growth itself, there is another structural feature. That is growing importance of the large comprehensive multiversity-style HEI, comprehensive in its missions, disciplines, stakeholders and social roles. In most countries institutions are becoming larger and more comprehensive, and in that respect, more like each other, with more internal diversity but with less external diversity of shape and size and mission. It is counter-intuitive, because in growing systems you would expect more external diversity, but the main trend is towards this common template. Here the massive growth of small private colleges in India is an unusual pattern in world terms. In some systems the multiversity is the majority form, and nearly everywhere it is more important than at earlier times, while in most systems the role of non-university and specialist HEIs is diminishing.

***Social inequality in achieved college degrees, USA 1970/2013***

Second, having emphasized this dominant structural pattern, let me also emphasize that national variation remains very important. A few systems are unitary, with one mission, the research and teaching university. There are ordered binary systems with two missions, as in Germany and the Netherlands, and in Australia and UK which couple higher education with further education without building a system architecture between them. There are large countries with a complex pattern of institutions of differing designations, sizes, missions and funding bases, as in India and the United States, and to a lesser extent China, Russia and Mexico. Some systems use classifications to sort different missions, as in the United States and China. Private sectors play various roles with no dominant pattern (OECD, 2014, p. 425).

In some systems private institutions are the main medium of growth: for example Brazil, India and the Philippines. There may be a quality constraint on growth here. Lower quality private sectors in the sense of low status positioning produce credentials of negligible value, as the experience of the US for-profit sector has shown, and negligible value is a break on growth because it cannot begin to meet popular aspirations, and has a limited capacity to funnel and magnify those aspirations. It is not yet clear that a country in which the majority of enrolments are concentrated in the private sector can achieve 50 per cent participation unless, like Japan and South Korea, the private sector is regulated so closely that to all intents and purposes it is a second public system, and it is underpinned by levels of private investment even by poorer families that are found only in East Asia.

There is also major divergence between countries in tuition arrangements. In some systems, such as the Nordic systems and Germany, tuition is free and financed from general taxation. Average fees exceed USD $10,000 per year in English-speaking countries but are below $2000 in most of Europe. In East Asia, a universal culture of educational achievement sustains majority private costs in Korea and Japan. Governments vary greatly in their use of financial incentives and regulatory arrangements to foster the extension of participation to marginal, indifferent and/or under-represented or excluded social groups. Differences between systems in institutional mission, classification and financing mostly also have implications for variation in the extent and forms of stratification within systems, meaning vertical differences in the status and resources of institutions.

***What happens to social equity when higher education systems grow to 50% and beyond?***

Third, in high participation systems there are changes in the politics of social equity in higher education. As they grow all systems retain a continuing elite sub-sector, and the binary structure, the distinction between participation and non-participation on which much of policy turns, becomes a ternary structure, divided between (1) high value inclusion, (2) low value inclusion, (3) continuing exclusion. As systems grow towards universality, the question about equity begins to shift from *access?* to *access to what?* and stratification may become the burning question. But that political transformation still has some way yet to run; and there are marked differences between high participation national systems in the extent of stratification, from the modest differentials of the Nordic countries, in which all degrees have value, to the high inequalities in value characteristic of the United States, or Russia, or the form that would be taken by a high participation Brazil.

What is now clear is that expansion alone in higher education does not trigger growing social equality, in education or in labour markets and careers. Social inclusion is one, important, form of social equity at play, but participation in a high participation system does not in itself trigger redistribution of opportunities. In fact as systems grow, the proportion of places that are elite places shrinks, intensifying competition for those places, which favours the upper middle class bet equipped to compete for those places.

***Conditions that enhance the stratification of value, ‘stretching’ national systems vertically***

Empirically, across the world, research on the growth of participation have found that as systems expand, social inequalities in access to elite universities and career outcomes have not been reduced. As Shavit and colleagues put it in their 2007 study of stratification in higher education, as systems expand, ‘qualitative differentiation replaces inequalities in the quantity of the education obtained’. Stratification effects trump the equalization of educational quantity through growth, except when the rapid expansion of the middle class is driving high social mobility, as in the US in the 1960s/1970s, and China in the last twenty years. More commonly, as higher education expands, affluent families tend to dominate the elite institutions, while newly participating social layers are largely confined to the sub-elite institutions where participation alone is not enough to generate strong social outcomes.

Nevertheless, despite varied policy assumptions, financing, structural forms and stratification, participation everywhere advances. This suggests not simply that there is a single process at work in these discrete national systems, but also that relationships between system structure and participation, and private costs and participation, are not subject to universal laws alone, but are also system-specific. High growth is the common feature but countries facilitate it and adapt to it in variable ways. Having said that, the common fact of high growth remains striking. For example, the fact the English-speaking countries have dramatically stepped up private costs without permanently reducing total participation confirms Trow’s point that as participation reaches majority levels it becomes quasi-compulsory. Middle class families cannot absent themselves because of the social and economic costs of non-participation. This suggests that as systems expand, the elasticity of student demand falls, and governments can more readily impose higher tuition regimes on their populations, though there will still be marginal groups for whom subsidization of participation is essential. But this equation between growth and elasticity is likely to be nationally variable, and the problem requires further empirical test.

The spread of high participation systems to one third of the world’s nations, and the likely extension of HPS to at least another third of the nations, lifts the level of social inclusion in countries. Yet it does not in itself expand the number of social rewards connected to higher education, in the form of professional careers and stable employment opportunities. This creates a challenge for states, sharpening the choice between on one hand high participation education that is highly competitive, stratified and produces a relatively small number of clear-cut winners, many losers, and many more in an uncertain middle ground; and on the other hand, high participation education that is provided on a Nordic common good basis, in which participation and quality are both high, differentials of value are modest, and all places and all degrees have value, and higher education contributes to strengthening of social solidarity and universal capability.

Only a small number of countries clearly practice this kind of higher education, but it is what we all want.