

## **Clark Kerr, the Master Plan and the Evolution of the California Higher Education System:**

Implications for the United States and for China

Tsinghua University, Beijing, 3 November 2016

---

### **[Preliminaries]**

#### **Idealism of the American 1960s**

The later 1950s and the 1960s were an extraordinary time in the United States. The period climaxed in the explosion of ideas, identities, popular culture and political rebellion in the second half of the 1960s. That great outpouring of civil energy in America, brilliant and sustained, has tended to block from view the decade before, which was marked by rising expectations and all-round creativity in many spheres, including universities, research, ideas, and government itself. Government was the site of positive action for the public good, the collective well-being of society. Government did not carry the stigma it later acquired in the United States. It was the time of the civil rights movement and the time of Lyndon Johnson's Great Society. Both government and critics wanted to make a better world. Both believed that this was possible. In higher education there was the 1960 Master Plan in California.

In his historical account of economic and social inequality, *Capital in the Twenty-first Century* (2014), Thomas Piketty shows that special circumstances after 1945 in the modernized industrial countries opened the way to greater social mobility and a larger role for social allocation via higher education. Before World War I, inherited wealth and capital incomes had retarded the potential for upward social mobility through work and education. However, the world wars and the 1930s depression evacuated many of the great fortunes, and this partial emptying out of the upper echelon of society provided more space for social mobility after 1945. Progressive income tax, capital taxes and inheritance taxes, which had been used to mobilize resources for the war effort, continued into the postwar era, reducing inter-generational transfer and creating more room for the expansion of the middle class.<sup>1</sup> The top tax rate was high and managers' salaries were restrained, compared to later experience. In the United States between the 1940s and the 1970s, savings from labour were the main source of wealth, rather than capital incomes, and facilitated the spread of home-ownership by what Piketty calls the 'patrimonial middle class'. As has been the case in the last two decades in China, but will not always be the case, in 1960s America there was more room for upward movement to the top of society and (partly because of that) more room opening up in the middle. The long thirty years of economic growth between 1945-1975 drove the expansion of both public and private sector employment and further enlarged the scope for merit. This, together with its role in science and technology, brought higher education into a more central role in American society. It was the pathway to the future for families, the economy and the nation. As in China today, it was a great engine room for the growing middle class.

---

<sup>1</sup> Piketty 2014, p. 374.

### **[California and Clark Kerr images]**

Nowhere in the world was higher education practiced on a larger scale, and with more original thought and far-reaching innovation, than in fast growing California, the largest American state. The central figure in fashioning higher education in California was Clark Kerr, Chancellor of the University of California at Berkeley from 1952 to 1957, and President of the University of California from 1958 to 1967. Kerr was the principal architect of the 1960 Master Plan, the best known of all blueprints for system organization, one that helped to shape higher education across the country and across the world, and the author of what is still the best and most influential book on modern research universities, *The Uses of the University* (2001/1963).

Clark Kerr was the principal architect, instigator, negotiator, advocate and public face of the California Master Plan for Higher Education. The immediate conditions for a plan were clear. There was a growth crisis in California. There was unregulated sprawl and competition between sectors of education, with no clear division of labor; and the state had enough money to finance an expanding higher education system. The question was, what plan or rather, whose plan?

### **The Master Plan negotiations in 1959**

Kerr 'realized that the University needed to take the lead in building a consensus, particularly if the University wanted to maintain its unique role in the tripartite system.'<sup>2</sup> The Plan was not so much a system blueprint as a hard-negotiated bargain between contending parties.

In the hard bargaining Kerr and the University of California came out on top. In the outcome, though the colleges gained coherence and autonomy as a sector, they were unable to secure the research role and doctoral degrees that they wanted. California already had nine per cent of the nation's population but 15 per cent of its elite research universities, argued Kerr.<sup>3</sup> It did not need more research universities. Kerr worked hard to ensure the University would protect its near monopoly of research, holding his nerve as the deadline for final agreement was approached.

### **The Master Plan for Higher Education**

The hallmark of the Master Plan was that it combined the principles of excellence and access. Until 1960 these had been largely seen as opposing principles but Kerr and the Master Planners showed that it was possible to have both within a single system. The Master Plan established a three-tier structure to achieve both principles.

The elite University of California secured its role as 'excellent' by monopolizing the public investment in research and recruiting only from the top 12.5 per cent of the high school graduate cohort. The UC was separated from the two-year community colleges by the middle sector, the state colleges, that provided four-year degrees to the top 33.3 per cent of school graduates. Without research and doctoral training, the colleges were positioned as the top tier of mass higher education. below them were the volume building open access community colleges where most of the enrolment was concentrated. The downward segmentation of opportunity, with firm barriers to upward academic drift by both the two-year and four-year institutions, was to be

---

<sup>2</sup> Douglass 2000, p. 248.

<sup>3</sup> *ibid*, p. 184.

softened by guaranteed upward transfers between tiers. Given that most enrolments were to be located in the bottom tier, if the Plan was to sustain and expand equality of opportunity, much depended on the transfer function, and on the capacity of the school system to adequately prepare students from all districts, and all social and ethnic backgrounds, who would be able to move successfully upwards.

At the time, the revolutionary change was open access. The Plan ‘guaranteed that there would be a place in college for every high school graduate or person otherwise qualified who chose to attend,’ as Kerr put it. In 1960, 45 per cent of California’s college-age population matriculated to a higher education institution. The national average was about 25 per cent. The Master Plan promised to keep California ahead of the country. It endorsed the continued growth of participation, in response to both economic need and popular demand, which were not distinguished. It proposed a tripling of the enrolment by 1975. It appeared to suggest that with access barriers gone and upward mobility secured, there would be social equality of opportunity through higher education. The promise of access is now a policy commonplace in many countries. But it was the 1960 Master Plan in California that started this.

While universal access was attractive, in fiscal terms it was not as lavish as it might appear. For the first 15 years the Master Plan promised to save money by shifting part of the expected growth from four-year to two-year institutions.<sup>4</sup> Community colleges were to be established within commuting distance of almost every resident in the state but they were less expensive than research universities.

### **The public mission**

The California Master Plan tell us much about the commitment of then Californian society, and perhaps American society, to the collective public good, that sense of social solidarity that always sustained American democracy, often hidden beneath an individualist veneer, expressed by the great system builders in American higher education—some in the states and some in the federal sphere. Clark Kerr’s mentality was very different to the neoliberal mindset, with its veneration of the blind justice of the economic market, that later came to dominate much of American public life. It was public vision and public dollars that built the California system (just as it is the nation-state that has built modern higher education in China). If California had left the task of building to the market, the state would still be waiting.

The Master Plan was quintessentially public in its commitment to universal access, and in its systemic character, in the organizing of three sub-sectors on the basis of a division of labour. All three tiers embodied the public good mission and its ideas of democratic openness and service to all citizens. The Plan also was structured collectively; it embodied the idea of higher education as more than a set of individual institutions. These were inter-dependent institutions operating within the framework of common public structures and committed to a single set of planning ideas. Institutions, and within them individual schools and research groups, competed with each other, but within structured limits. It was a major departure from the idea of university as stand-alone firm which was then influential in the American private sector, and is more dominant in much of the thinking about higher education today.

---

<sup>4</sup> Douglass 2000, pp. 287-289.

The Plan also did something else of interest to universities everywhere. It sustained the long-term autonomy of higher education in a highly politicized state. It meant that provided all sectors kept to the rules, higher education could more or less regulate itself. The constituent campuses of the University of California were protected by the Office of the President from the direct interference that plagued public universities in other states. Legally, the UC campuses were not owned by the state government, or the people of California, but by the regents. It was a formal independence unusual in the university world, though the funding relationship with the state underpinned continuing ties.<sup>5</sup> The state colleges, later the California State University, were likewise sustained by a new Board of Trustees which also ensured that they no longer competed against each other without constraint. Instead of an overarching governing board, there was a low-key coordinating council to ensure cooperation between the sectors.

The autonomy of the institutions did not necessarily contradict the public character of the Master Plan. Californian higher education was positioned as a kind of public civil society, universal but separate from government. The public connectivity of the institutions was sustained through both their relations with their boards and their direct dealings with the world but they could choose the ways in which they would be socially responsive. This was a different kind of 'public' to that of direct government administration: democratic in purpose, access and transparency, and in the range of social engagement, but closed to electoral contest or political capture.

Yet institutions could not retreat too far from public responsibility. The trust inherent in the Master Plan rested on the capacity of universities and colleges to identify and meet emerging social needs on a voluntary basis, to listen to vocal groups, and to also keep on persuading them that higher education for all was the California way. They had to become advocates for access and excellence. In this gift economy, what the higher education institutions offered to the public, jointly and severally, were the gifts of mass education, meritocracy, discovery and intellectual leadership. The two-year colleges provided an open door to all comers, undertaking to provide for the literacy of California as well as its social opportunities. The elite UC campuses were committed to providing all of scientific infrastructure, general disciplinary education and professional training at the highest possible level.

In the public non-market form production there is no natural limit to the volume and quality of outputs. There are merely opportunity costs, when within a bundle of finite resources one course of action is chosen over another. There are also limits to the imagination, but this is less of a constraint in research universities with scope for bright people to take decentralized initiatives. In return the UC campuses gained the freedom to accumulate resources, and local, national and global power, on a secure basis—providing the public subsidies continued to flow. In charge of their own destiny, they could become institutionally distinctive and creative. This freed the research multiversity to do public good, and to be itself, while holding it at the pinnacle of the higher education system, the crown of the modern secular order. Public education and science, not banks or battleships, was the higher public good.

---

<sup>5</sup> Rothblatt 2007, p. 258.

### **The excellence objective**

How then did the different components of the California Master Plan fare after 1960? Our imagined social forms never shine as brightly, in practice, as their ideal version would suggest. Large-scale and far-reaching constructions fail more than most. All the same, there are no iron laws. The distance between idea and reality, the extent of the failure of the plan, varies from case to case. In the case of Californian Higher Education, the political, fiscal and social conditions are now very different to those of 1960. There is continuing commitment to some aspects of the vision but not others. Despite this, the division of labour between the three sub-sectors has proven stable, more so in many other countries which have seen upward 'academic drift' from the lower tiers. In California the multiversity has travelled better than has the overall system design. The goal of excellence has been realized more completely than access. Equality of opportunity through public education seems a long way off.

The University of California has sustained unquestionable research excellence across all campuses, except UC Merced, founded in 2005, which is still emerging. In the Shanghai Academic Ranking of World Universities (ARWU), focused solely on research, seven UC campuses were in the world top 60 in 2016. UC Berkeley was third behind Harvard and Stanford Universities, and ahead of the University of Cambridge in the UK, Princeton, Oxford and Caltech. UC Los Angeles was twelfth and San Diego was in fourteenth place, followed by San Francisco (21), Santa Barbara (42), Irvine (58), Davis (75) and Santa Cruz (83). Riverside was in the first 200.<sup>6</sup> If science is one of the hopes of the world, much of that hope is invested in California.

The University of Leiden Centre for Science and Technology Studies (CWTS) provides detailed comparisons of high quality university research output. It lists the number of high citation journal papers, in the top 10 per cent of their field by citation rate, from each university. In the 2011-2014, 20.9 per cent of Berkeley papers were high citation papers. There were 2669 of such papers in the four years, behind only Harvard, Stanford, and the much larger public universities of Toronto in Canada and Michigan in the US. This is a good indication of Berkeley's total scientific firepower. Berkeley did this without a medical school and the associated research in clinical medicine. The nearby medical school to Berkeley is UC San Francisco, which had 1990 high citation papers in 2011-14. Together Berkeley and San Francisco had 4659 such papers, 45 per cent more than local rival Stanford. In the Leiden field-specific measures, UC Berkeley was first in the world in high citation papers in Physical Sciences and Engineering, a field in which Tsinghua was third. UC Davis was first in the world in Life and Earth Sciences with UC Berkeley third. UC San Francisco had the fourth largest number of high citation papers in Biomedical and Health Sciences. In Mathematics and Computer Sciences, Berkeley was sixth. Note that in this field, Tsinghua was world number one and Nanyang University of Technology third.<sup>7</sup>

Despite this stellar achievement, state funding cuts, especially after the 2008-2009 recession, mean that the UC has become less competitive viz a viz Stanford in competition for top-end global research talent. UC tuition has been pushed up for the

---

<sup>6</sup> ARWU 2015.

<sup>7</sup> University of Leiden 2015.

growing number of out-of-state students, helping to keep the in-state price down, but there has been ever more nimble footwork with tuition discounts and student aid.

### **It is possible to sustain equality of opportunity in elite universities**

Moving from the excellence objective to the access objective, the picture is more mixed. The UC campuses still make a good contribution to access. The lower tiers did for the first 25 years of the Master Plan, but since then their contribution has faltered.

The UC campuses—including Berkeley, Los Angeles and San Diego—take in more students from socio-economically disadvantaged backgrounds than do almost any other leading research universities, anywhere in the world—far more than Oxford and Cambridge in the UK, and, I suspect, Tsinghua and PKU in China. In total, 42 per cent of all UC students receive federal Pell Grants, allocated to families with incomes of \$44,000 a year or less, enabling significant social mobility. UC Berkeley and UC Los Angeles together enroll more Pell Grant students than the leading *sixteen* private universities in the United States. All student aid in the University of California is needs-based. Under Berkeley's progressive tuition regime, 40 per cent of students pay no tuition and are financed by tuition from higher income families.

However, the UC takes in a relatively small minority of the age cohort. It cannot on its own sustain a successful equality of opportunity regime across Californian society. The outcomes from higher education as a whole have been less favourable. This has been due to problems were both internal to the Plan and external to the Plan.

### **[map of California]**

Internally, the Plan under-estimated growth, and the effects of growth on the balance between tiers. After the 1960 the Californian population grew more rapidly than predicted, and the growth of social demand for higher education outstripped demographic growth. The Plan itself lifted aspirations. However, the continued scope for egalitarian access depended on the capacity of the schools to bring students from all Californian communities and social groups to the starting gate for higher education, on the capacity of community colleges to bring students through to successful completion, on the scope for upward transfer from the community colleges through to the CSU and the UC, and on a proportional expansion of the UC and CSU in line with the growth in the bottom tier sector, the community colleges. In turn each of these positive developments depended on the maintenance of the necessary public resources, and continued no or low tuition, in schooling and in all three tiers of higher education. In other words, a primary difficulty was that the resource needs of the expanding system were much greater than envisioned in 1960, especially after 1980. This made the Master Plan especially vulnerable to changes in state finances.

The growing costs also locked in the balance between sectors. As planned in 1960, growth was concentrated in the community colleges. The CSU and UC systems were not expanded in proportion. Direct opportunities for social mobility were attenuated. In most other nations that provide research universities the proportion of young people entering those institutions has expanded markedly in the last forty years—through growth of the institutions or more often, the opening of new research universities. This expansion helps to broaden the highways for mobility into the professional and managerial occupations. But in California the research university

sector remained confined to the top 12.5 per cent of school leavers. This was a flaw in the original system design. It placed too much pressure on the transfer function. Transfer between institutions in a vertical hierarchy is always a second best form of social access because it requires in students a greater stamina of aspiration.

### **The access objective**

The external factors within California were the state's changing ethnic demography, growing inequality, fiscal politics, and growing social and economic inequality in the country as a whole. In 1970 California was 77 per cent white, 12 per cent Latino, 7 per cent Afro-American and just 3 per cent Asian or Pacific Islander. This distribution changed dramatically. In 2010, 40 per cent of California was white, 38 per cent was Latino, many first generation migrants, 13 per cent Asian-Pacific, and 6 per cent African-American, with a high white concentration in the wealthiest part of the population. The Latino population was much younger than the white population: 51 per cent of Grade 6 in the public schools was Latino, only 27 per cent white, 11 per cent Asian/Pacific and 7 per cent African-American. Though Latinos were 43 per cent of high school graduates in 2009 they were just 28 per cent of students in public higher education, and 16 per cent in the University of California. In the UC the white proportion 38 per cent, Asian-Pacific a high 33 per cent, and the African-American 4 per cent; though the ethnic distribution in the CSU and community colleges was closer to the population averages than in the UC.<sup>8</sup>

Latino and African-American school populations, like most ethnic groups, have mixed class origins, but they are disproportionately concentrated in under-funded schools in poor communities. In 2012 just 79 per cent of the high school students who started in 2008-09 had graduated, with 8 per cent still at school. Latinos had a school graduation rate of 73 per cent, and African-Americans students only 66 per cent.

Graduation and transfer rates in the community colleges mirror the regional and ethnic inequalities apparent in the school system. Access, retention, graduation and transfer all sharply favor the white middle class. It is far from the 1960 promise of equal opportunity. By 1995 upward transfer rates from community colleges to the CSU and UC systems ranged from 8 per cent in Southern California to 50 per cent in the San Francisco Bay Area—a small group of community colleges play a prominent role in access to UC Berkeley and other UC campuses. 15 years later just 22 per cent of commencing community college students transferred to a four-year degree.<sup>9</sup> Transfer was much lower among African-American and Hispanic students than white or Asian students.<sup>10</sup> Community colleges were pulled between immediate graduate employability and the academic requirements of transfer, which focused on the liberal curriculum,<sup>11</sup> but they were not fully funded to play either role well. The labour market standing of two-year diplomas fell further from the 1960 position and this probably contributed to low completion. Tuition increases were needed but threatened to reduce enrollment. In the Californian State University campuses, also

---

<sup>8</sup> Callan 2012, pp. 74-75.

<sup>9</sup> Douglass 2011b, p. 22.

<sup>10</sup> Rothblatt 2007, p. 268.

<sup>11</sup> Hansen 2011, pp. 42-43.

increasingly under-resourced, transfer again varied by institution and region. Current completion rates are low at about 45 per cent, compared to 90 per cent in the UC.<sup>12</sup>

However, ethnicity and poverty in California became associated not just with inequality in education but with the fracture of the social and political consensus on education as a public good that underpinned taxpayer support for the Master Plan.<sup>13</sup>

### **The importance of taxation**

In 1978 the anti-tax movement in California secured a ballot majority for Proposition 13, which sharply reduced property taxes, the main source of income for local counties and school districts. When the state moved to protect schools, cities and local communities, this placed the rest of the budget in jeopardy, including higher education. A host of further tax cutting and tax-related measures followed. In 1988, partly to compensate for Proposition 13, California adopted Proposition 88, which allocated 40 per cent of state income to schools and community colleges. After all the spending mandates and tax limitations had been accounted for, only 15 per cent of the budget was unallocated. The three public higher education systems were funded out of that 15 per cent. Proposition 13 and the tax revolt showed that the ageing white middle class was unwilling to resource schooling of good quality across all districts, for all citizens and non-citizens, including legal and illegal migrants.<sup>14</sup>

The full impact on higher education was not felt immediately. It accumulated. Periods of growing state revenue alternated with funding cuts that were not fully restored. From 1990 it was apparent that California could no longer fully support the Master Plan. Then the 2008-2009 recession triggered a massive fiscal decline that was passed on to all three systems. Much of the reduction looks to be permanent.

Given the ideals the animated the American 1960s, the most significant change is that public higher education in California no longer provides for universal access. The community colleges first began to turn away students in bad budget years in the 1980s. At least 200,000 potential students each year now miss out on a place. CSU enrolment was first reduced by 50,000 in the early 1990s, and since the 2008-2010 recession again they have been unable to accept all eligible students.<sup>15</sup> Across the world, a growing number of national systems provide near universal access to higher education. California created universal access, and lost it. It is no longer the model. In 1960 state participation was double the national average. In 2010 California was 43<sup>rd</sup> state of the 50 in the proportion of 18-24 years olds with Baccalaureate status.

Clark Kerr would have been only half pleased at the outcome of his work. For 55 years the Master Plan has functioned well in the research multiversities, providing for excellence limited only by the imagination, and combining elite academic entry with high social access. It has failed across higher education as a whole to provide universal access or to sustain the quality of mass higher education amid expanding participation. In the end the execution of the Master Plan faltered where the original Plan was strong—in the big picture, in the economics and politics. California has lost

---

<sup>12</sup> *ibid*, p. 27.

<sup>13</sup> *The Sacramento Bee* 2013.

<sup>14</sup> Pelfrey 2012, p. 70.

<sup>15</sup> Douglass 2013, p. 10; Callan 2012, p. 71.



the public values that sustained the 1960s belief in universal social advance through higher education, and understood taxation as a shared asset that is used for the common good of each and all, rather than as a reduction in individual freedoms.

### **The ‘greed is good’ American 1980s**

But *why* did support for the common public good deteriorate in California and in the United States? The ideas underpinning the tax revolt began in Cold War strategic circles in the United States. In 1951 defence intellectual Kenneth Arrow published a paper on ‘Social choice and individual values’, which inquired into whether it was possible to derive collectively rational decisions from the aggregation of individuals’ preferences. Arrow used set theory to prove that when two or more individuals were making decisions over three or more alternatives, it was logically impossible to derive collectively rational group decisions from the individual preferences, whether through voting, social welfare policy or markets. There was no prospect of achieving a common decision consistent with every person’s individual preferences. In instances of collective decision-making, one or the other assumption would have to give way—either the outcome of individual preferences would not be collectively rational, or individuals would lose their freedom to determine personal ends. There could be no such thing as ‘the public good’ without violating individual freedoms.

This became known as the ‘impossibility theorem’. Crucially, it was grounded in Arrow’s starting position: that methodological individualism prevailed, meaning that all goods were individualized, there were no collective social goods distinct from the aggregation of individual goods;<sup>16</sup> that individuals made rational decisions based on utility; that their preferences were unrestricted and inviolable; and these preferences were incomparable.<sup>17</sup> The impossibility theorem assumed that autarkic individual freedom was absolute. The shared conditions enabling that freedom to be exercised and enjoyed were taken for granted—despite the fact that such social conditions would be fatally undermined when all persons pursued their absolute self-interest without regard for others. However, the pure logic of Arrow’s ultra-individualist rejection of Soviet collectivism appealed to many in the United States.<sup>18</sup> Arrow’s ideas were taken further by James Buchanan, the principal creator of public choice theory. Buchanan opposed himself to what he called the ‘normative delusion’ that ‘the state was, somehow, a benevolent entity and those who made decisions on behalf of the state were guided by consideration of the general or public interest’.<sup>19</sup>

Ideas matter. With Ronald Reagan, the public choice theorists had a president willing to put their arguments into action. Reagan’s 1980 campaign slogan stating that government was not the solution, it was the problem, was the exact reversal of the Kennedy campaign of 1960, and Johnson’s Great Society, which raised expectations of government and drew public support for large collective solutions. In setting himself against the notion of a common public interest, Reagan reduced taxation on high incomes and capital gains, reduced spending on social programmes, including federal education funding, and weakened unions in the workplace, opening a surge in

---

<sup>16</sup> Lukes 1973; Amadae 2003, p. 122.

<sup>17</sup> Amadae 2003, p. 84 and pp. 103-104.

<sup>18</sup> *ibid*, p. 106.

<sup>19</sup> Buchanan 1997, p. 85.

executive incomes. The top tax rate fell from 70 per cent to 28 per cent. The increase in measured income inequality in the United States dates from 1980.

### **Income shares top 1% and bottom 50%**

Since 1980 there has been extraordinary growth in the inequality of private incomes and wealth, freed up by the evacuation of the public good. Growing inequality has reworked the conditions, character and potentials of public higher education, pulling it away from the world of Roosevelt's New Deal, Kennedy and Lyndon Johnson's Great Society, the world that Clark Kerr and his colleagues also inhabited and served.

In the Anglo-American countries, the concentration of wealth and income in hands of each of the top 10 per cent, top 1 per cent, top 0.1 per cent and top 0.01 per cent (one in every ten thousand persons) have risen very considerably since 1980, especially at the very top.<sup>20</sup> Between 1980 and 2010 in the US the income share held by the top 0.1 per cent of the income distribution rose from 2 per cent to nearly 10 per cent. Piketty finds that income from labour in the United States is now 'about as unequally distributed as has ever been observed anywhere.'<sup>21</sup> Eduardo Saez (2013) notes that the top 1 per cent of income earners in the United States captured 95 per cent of the income gains made in the recovery after the recession, in 2009-2012.<sup>22</sup> At the other end of the scale, between 2000 and 2010 the average income of the poorest 10 per cent of Americans fell by 15 per cent in real terms, according to the OECD.<sup>23</sup> The tables puts American inequality in comparative context. In the Nordic countries in the 1970s, the most equal modern societies, the top 1 per cent received about 7 per cent of all income. In Europe in 2010, the top 1 per cent received 10 per cent, in the United States 20 per cent, same level as in the aristocratic societies of late nineteenth century Europe (Table 3.2). However, the more modern form of salary-based inequality is legitimated by an element of merit. It is seen as the product of hard work, not just property and capital, though as the role of networks in elite graduate recruitment shows, competition for high labour incomes is not a level playing field.

### **The new 'meritocratic hierarchies': The case of the United States**

Piketty calls the United States 'a "hypermeritocratic society"'—or at least, 'a society that the people at the top like to describe as hypermeritocratic... a very inegalitarian society, but one in which the peak of the income hierarchy is dominated by very high incomes from labor rather than by inherited wealth.'<sup>24</sup> The argument that wage inequality in the US is primarily driven by technological change has fallen from favour. Most industrialized countries have similar technological change but divergent income patterns.<sup>25</sup> American inequality is centered on top end managers, especially in finance and business services.<sup>26</sup> Two thirds of the top 0.1 per cent are managers.<sup>27</sup>

---

<sup>20</sup> Piketty 2014; Stiglitz 2013; Dorling 2014; OECD 2014c.

<sup>21</sup> Piketty 2014, p. 319 and p. 256.

<sup>22</sup> Saez 2013, p. 3.

<sup>23</sup> OECD 2014c, p. 1.

<sup>24</sup> *ibid*, pp. 264-265.

<sup>25</sup> Milanovic for IMF 2011, p. 8; Piketty 2014, p. 304 and p. 321; Stiglitz 2014, p. 243.

<sup>26</sup> Autor et al 2008, e.g. p. 318; Mouw and Kallenberg 2010; Wolff and Zacharias 2013, pp. 88-90.

<sup>27</sup> Piketty 2014, pp. 300-301.

In the United States, as in the rest of the English-speaking world, the rapid growth of economic and social inequality is occurring in societies in which formal participation in higher education is at or near an historic high. According to UNESCO data, in 2013 the Gross Tertiary Enrolment Ratio in the United States was 89.1 per cent.<sup>28</sup>

According to human capital theory, education produces human capital, which determines marginal productivity, and marginal productivity determines rates of return to graduates. This suggests that growing income inequality is grounded in a corresponding growing inequality of skills and productivity. Yet US higher education, while highly stratified, with the leading private universities dominated by affluent families, seems to be largely decoupled from the surge in top incomes since 1980, which is shaped by tax policy and by salary determination at work.<sup>29</sup>

### **Access to U.S. higher education hierarchy is income-stratified**

Education and growing income inequality are joined in ways other than the human capital equations, through the process of social reproduction. The intrinsic limit to equality of opportunity, in any era, is the persistence of irreducible differences between families in their economic, social and cultural resources. The growing inequality of incomes and wealth in the United States magnifies the effects of unequal social backgrounds on educational outcomes. In turn educational inequality tends to reproduce and enhance prior social and economic inequalities. In the highly stratified American higher education system these reproductive effects are further enhanced.

At the bottom end, low income recipients, accessing low value colleges in the educational hierarchy, find that as inequality increases higher education becomes both more expensive and less useful as a means of occupational and social mobility. Both the social and economic value of mass public higher education, and the capacity and motivation of its users both tend to become emptied out. The participation rate in US higher education long was the highest in the world but is now falling.

### **Social inequality in achieved college degrees, USA 1970/2013: Bachelor degree by age 24, family income quartile**

In 2013, a near-universal 77 per cent of persons in the top family income quartile in the United States had completed a Bachelor degree by age 24 years. In this quartile the graduation rate had almost doubled since 1970, increasing from 40 to 77 per cent in 1970. In the bottom family income quartile, the graduation rate had again risen, but from 6 per cent in 1970 to only 9 per cent in 2013. In the second bottom quartile the graduation rate was 17 per cent in 2013.<sup>30</sup> Thus the overwhelming majority of the bottom half of the population in income terms had not achieved graduation by age 24 years. However, the overwhelming majority of top quartile people had done so.

These national patterns better explain the faltering of institutional funding and quality in California since the 1980s, and the attenuated completion and transfer rates in the community colleges and the California State University. In *Degrees of Inequality* (2014), political scientist Suzanne Mettler find: 'Over the past thirty years ... our system of higher education has gone from facilitating upward mobility to exacerbating social inequality.' Higher education fosters a society that 'increasingly

---

<sup>28</sup> UNESCO 2015.

<sup>29</sup> Piketty 2014, p. 315.

<sup>30</sup> The PELL Institute 2015, p. 31.

resembles a caste system: it takes Americans who grew up in different social strata and it widens the divisions between them and makes them more rigid'. Higher education 'stratifies Americans by income group rather than providing them with ladders of opportunity.'<sup>31</sup> In this setting the Master Plan's access mission had to falter. At the same time, the failure of the Plan was accentuated by its structural limitations.

### **Number of science papers 2005-2014: USA, China, other East Asia**

Although the Master Plan faltered in California, its influence has spread across the world. Amid rising participation and greater policy emphases on basic science and research-led innovation, the comprehensive research multiversity that Clark Kerr described in *The Uses of the University* (1963) is now more clearly paradigmatic in higher education everywhere. This is apparent in three ways. First, a growing proportion of science is located in comprehensive research universities rather than separated academies. Second, in some though not all countries, non-university second sectors, institutions that specialize in a narrow group of disciplines, and institutions offering elite teaching and professional training without research, have been folded into research universities.<sup>32</sup> Third, many governments have implemented funding and performance management policies designed to elevate the globally-referenced research outcomes of designated elite institutions ('World-Class Universities')<sup>33</sup>

Higher education in China has many features in common with California—the use of classifications to manage a firm hierarchical division of labour between types of institutions; a steep hierarchy, in terms of institutional status and resources; the creation of a layer of leading global research multiversities; and extensive financial aid in the leading universities, which nonetheless are largely dominated by affluent families. China has a stronger vocational sector than the United States.

The Californian model was very dynamic during its most rapid development. The Post-Confucian model of China has been at least equally dynamic since the late 1990s. In China R&D spending rose from 0.91 per cent of GDP in 2000 to 1.31 per cent in 2005, and then to 2.02 per cent of a much larger GDP in 2013,<sup>34</sup> an increase of almost 0.1 per cent a year. The policy target is 2.5 per cent of GDP. At this rate China's total investment in R&D will pass that of the United States within five years. In the last 15 years China's annual output of journal papers has grown by 15 per cent a year. The improvement in quality has been equally dramatic. For example, in the year 2000, in Chemistry, China's produced 0.6 per cent the top 1 per cent papers, the papers with the very highest citation rates. By 2012 that 0.6 per cent had become 16.3 per cent. There are similar figures in Engineering and Computing.

### **California and China**

The dynamism of the 1960 Master Plan was sustained by economic growth; by consensus about the familial and national benefits of higher education, and by consensus about the public good benefits of expanding opportunity on an accessible basis. There was high dependence on public money but at first enough resources to

---

<sup>31</sup> Mettler 2014, pp. 4-5, p. 8.

<sup>32</sup> Salmi 2009; Huang 2015.

<sup>33</sup> An exception is the ranking developed by Scimago, based on the Elsevier Scopus journal collection. The main Scimago (2015) listing combines universities and non-university research institutes.

<sup>34</sup> OECD 2015.

support low tuition and infrastructure. The institutions managed their own evolution in response to need, within the systemic plan. The dynamism of the Post-Confucian Model is sustained by economic growth, and is also rooted in Confucian educational cultivation and ambition in the home, consensus about the familial and national benefits of higher education, and a modernizing state determined to direct priorities and sustain the momentum of progress. There is somewhat more private funding than in 1960 US public education but less dependence on the autonomous institution. The East Asian state is busier than its 1960 Californian counterpart. These features of the Post-Confucian Model are found in mainland China, Singapore, Taiwan, and Korea.

What are the lessons for China in the successes and failures of the Master Plan and higher education in California? In the long run the quality of mass higher education is as important as the quality of WCUs, in a different way. As in California, the capacity of higher education to broaden opportunity and even enhance social equality will be constrained by forms and degree of inequality in the larger social environment, affected by the quality of schooling, and articulated by the steepness of the hierarchy in higher education. California shows that when the hierarchy is steep that puts too much pressure on the transfer function. As the growth of the middle class slows, equitable structures are more essential in sustaining consensus. It is crucial to maintain broad taxpayer support, though the idea of higher education for the public good is likely to prove more robust in China than it was in California.

The main question is what happens when conditions change: when economic growth slows and especially if government becomes less firmly focused. Under the present settings, government commitment to higher education and science is crucial, for more than funding: China depends on the state as motor of institutional evolution. Because the universities are less autonomous than their Californian counterparts, without continued close engagement by the state, some may falter—unless a greater scope for institutional initiative can be built into system design.