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**The Dynamics of Massification:  
A Comparative Look at Higher Education Systems in the UK and California<sup>1</sup>**

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**Abstract**

*US higher education and distinct state systems such as in California offer comparative models for UK higher education. This essay provides an comparative analysis of US and UK higher education, followed by a description of the development, and contemporary structure of California's system. California offers a broadly accessible network of colleges and universities that are highly differentiated, and that collectively offers multiple routes to a higher education program and degree. It has also proven highly efficient in costs to taxpayers and students. This model provides a lens for a brief evaluation of the strengths and weaknesses of UK higher education, and in particular the highly decentralised systems in England and Wales. But in looking to California for possible inspiration, a few words of caution are offered. California may provide ideas about differentiation, access and cost containment. It does not, however, offer much in regard to the difficult process and politics of reorganising or modifying significantly developed higher education systems like that in the UK.*

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Comparative higher education models provide guideposts and occasionally ideas for reform, and perhaps even a few thoughts on the end game: what should higher education systems accomplish and how might they be constructed to serve the public good over time. Over time is the operative word. While societal needs inevitably change at a seemingly increasing rate of speed, nation/state systems of higher education need to have a sufficiently stable organisational structure and funding to support and sustain high quality academic programs and services.

Yet these systems must also have sufficient organisational flexibility to meet new and expanding societal demands, and to on occasion anticipate them. One might argue that the contemporary proliferation of higher education reforms by nation-states seeks this equilibrium, conditioned by their historical mix of tertiary institutions, their contemporary political culture, and, increasingly, international models.

In the following, I attempt to offer a sense of California's higher education system as a comparative resource for the UK. It can be argued that California has nearly reached this equilibrium and offers an international model in regards to differentiation, quality, access, and cost containment. It should be kept in mind that the United States has in effect fifty different systems. These state systems share attributes, but they also have different mixes of public and private institutions. This is because the establishment, development, and regulation of education in the US is not the responsibility of the national government.

Rather it is the duty of state governments to charter, organise, fund, and plan higher education systems. The contemporary role of the federal government is almost exclusively limited to: a) student aid focused on grants and primarily loan programs for students to attend public or private accredited institutions; b) funding of academic research; and c), the evolving and contested legal structure related to civil rights and access to higher education.

Recognising this American construct, there are advantages at looking at the structure, the triumphs and the woes of a single state as a source of comparative analysis with the UK. In this analysis I offer a general review of participation rates and the structure of American higher education. California's system then provides a source for investigating the contrasts

and similarities with the UK system. No other state has steadfastly developed a differentiated and affordable network of public colleges and universities, many of which are of world-class quality.

There are interesting comparisons between the UK and California. While the UK has around 55 million people, California now has 35 million. Yet both have higher education systems of approximate size in enrolment, about 2.1 million in the UK and 2.7 million in California. This includes all tertiary education. In the case of the UK this enrolment figure includes HE enrolment in both Further Education (FE) and universities in England (1.7 million students), Scotland (180,000), Wales (114,000) and Northern Ireland (46,000).

Both the UK and California systems have been heavily reliant on declining government funding and have been indecisive on the level and appropriate structure of student fees and student aid. At the same time, both have undergone large-scale expansion of their systems over the last ten years. Student-to-faculty ratios have shot up and average spending per student has declined precipitously, particularly in the UK.

The Labour governments recent White Paper (*The Future of Higher Education*) offers a framework for financing and fees that may finally alter this disturbing pattern -- although the devil is always in the details. (SSES, 2003) In California, massive budget deficits mean real budget cuts of ten to fifteen percent for public higher education, perhaps more.

And both systems are now confronted by the prospect of large increases in enrolment growth – in California as the result of significant population growth, and in the UK by the pronouncements of the Labour government anxious to expand access. An unprecedented wave of new enrolment demand is projected for California's system. In the short term, this will likely include an increase of over 600,000 students in public institutions over the next decade. (CPEC, 2002) Projected enrolment growth in the UK, according to the most recent announcements by the Labour Government, could be over 350,000 over ten years. A significant portion of this increase is projected to occur in the FE sector. (Newby, 2002)

As discussed in this paper, California may not provide a direct model applicable to the circumstance and culture of UK higher education. But it does offer ideas about key areas of policymaking such as financing, fees, governance, mission differentiation, costs containment, and the mutual challenge of expanding enrolment capacity and programs. The following focuses on the structure, dynamics, and problems of California's system, and then offers a series of observations on HE in England.

### **A. Contrasts in US and UK Mass Systems**

What are mass systems of higher education? A paradigm offered by Martin Trow in the early 1970s generated a simple definition based on the percentage of the "college aged" population (18 to 24 year olds) participating in tertiary education. If only 15 percent or less participated, then it was elite; if some 16 to 30 percent participated, then it was a true mass system; and if participation of the assigned cohort was over 50 percent, then it was "universal" in its character. (Trow, 1974)

Trow originally offered this paradigm simply as a way to gauge the significant shift in access to higher education. Under these terms, most of the United States had developed mass higher education systems by 1955, and many states approached "universal" access by 1980. A state like California created a mass system as early as 1950, and approached a universal system by 1965. The UK, in contrast, entered the realm of mass systems not until

1992 and had only about 10 percent of 18 to 21 age cohort in tertiary education (all forms) as late as 1965. (DFEE, 2001; Parry, 1997)<sup>2</sup>

A further exploration of the character of mass systems might include other variables related to the perceived demand for higher education and supply. On the demand side, one could analyse three general factors: social and political expectations of the population; perceived labour needs and other products of higher education (e.g., knowledge production and societal and economic benefits of science and technology); and broader ideas on the role of higher education in democratic participation and self-enlightenment.

The supply side variables are rather simple, essentially the organisational structure that might meet demand: institutional infrastructure; system governance; and funding capabilities and mechanisms. In the case of England, one might postulate that the intended to create a mass system began in 1963 with the Robbins Report, yet the institutional infrastructure took some three decades to build.

In a rudimentary manner, these variables offer a framework for analysing the character of mass higher education systems, and the match between demand and supply. To some extent, the US has been progressive in both developing demand and creating the appropriate infrastructure to meet this demand—to varying degrees a mix of public and private institutions. Indeed, an interesting dynamic is how much supply (e.g., in the form of low fees, financial aid programs, and local or regional access to colleges and universities) drives demand.

Particularly in the post-World War II era, generating demand became a major element in government policymaking, typified by new aid programs for students such as the GI bill. In states such as California, the post-war era meant not only a surge in enrolment demand generated by both returning veterans and general population increases.

The state also consciously made large investments in expanding the enrolment capacity and location of public higher education to encourage demand for two reasons: one, to improve the quality of the labour pool for long-term economic development; and two, to provide a mechanism to lower an anticipated surge in unemployment rates following the boom of the war-time economy.

In the following brief exploration of the US system, I focus on patterns of student enrolment as indicators of demand and supply. However, as a prologue three important differences in the UK and American systems are briefly explored. There are some important differences within the UK, particular in regard to Scotland and Northern Ireland. Most of the following discussion is focused on England and Wales which, combined, enrol 89 percent of student in the UK.

### **1. A Holistic Versus Bifurcated View on What Constitutes Higher Education**

There are major differences in the perception of what exactly constitutes higher education in the UK and American systems. This is manifested in a number of important structural mismatches. In the US, post-secondary education is deemed as beginning at age 18, and normally following graduation from high school. Tertiary education in all its forms is historically viewed as part of the higher education system.

One might label this a *holistic* view, lumping a great variety of post-secondary institutions and programs under the label of higher education. This is in part reinforced by the highly mobile nature of students: they may start in a community college, but end up a university student. The result is a strong sense of mutual interests among tertiary institutions, shared

accreditation processes, professional associations, lobbying efforts, and a reasonably coherent approach to data collection and analysis of higher education systems.

Certainly there exist different academic statuses for each type of institution and their faculty. No sensible structure of higher education can forgo some sense of a caste structure. Within the American market, the *zeitgeist* proclaims that different institutions can excel in their own particular and publicly appointed niche. Among academics and generally among Americans, this notion mitigates and qualifies the general sense of a hierarchical structure of institutions.

In the UK, higher education also begins at 18. But there is a *bifurcated* view that clearly marks the difference between university education and the vocational orientation of the Further Education (FE) sector—in culture, in data collection and analysis, and in parallel networks of faculty and administrators. This is in part influenced by a more rigorous idea of higher education. Universities are engaged in advanced learning and research, and FE colleges are not. There are students who are university bound, and also a large portion whose education begins and ends in the FE sector.

But an equally important factor in the segregation of FE is the sector's significant role in educating students in the 16 to 18 year old cohort—the age equivalent of the last two years of secondary schooling in the US. Some 90 percent of students who complete compulsory schooling that ends at age 16 in the UK go on to some form of education or training, many into the FE sector. Some observers equate the academic experience of UK students in the sixth form as equal in academic rigor to the first two years of college (post-secondary) education in the US.

While the sixth form is generally a more rigorous and specialised curriculum, it is arguably not the same—particularly if one looks at the curriculum, the academic abilities and aptitude of students at selective colleges and universities in the US. Further, international standards developed by the OECD and UNESCO do not count the sixth form as tertiary. (OECD, 2000) More importantly for this discussion, this FE hybrid (an institution providing both formal secondary schooling, vocational programs, and higher education courses, henceforth defined as tertiary education beginning at age 18) simply does not exist in the US.

There is a relatively new initiative to significantly expand the role of the FE sector in providing post-secondary and advanced courses and degrees funded by the national government. (NCIHE, 1997) Of the total of 3.1 million students in the FE sector, only 241,000 (7 percent) were enrolled in courses leading to higher education qualifications in the 2000-01 academic year. Most colleges continue to focus on vocational education and to a much less extent preparation for the AS and A2 Levels for university admissions. (HESA, 2002; DFES, 2002)

The 1997 Dearing Report ventured to claim the 430 FE colleges and the approximately 50 higher education institutions that offer FE courses as a central part of the higher education system, and announced their primary role in widening higher education participation. (NCIHE, 1997)<sup>3</sup> Before, such courses in most FE institutions were viewed as ancillary. To encourage growth in tertiary programs, the Higher Education Funding Council (HEFC) for England subsequently funded higher education courses, and these colleges were appointed as the primary engine of short-cycle higher education.

Government plans suggest that over half of enrolment growth in England should be in FE institutions. Much of this is expected to be services through the new “Foundation Degrees”—a post-secondary, vocational or professional 2-year program offered by FE but awarded by partner UK universities. (DFES, 2001)

The university and FE partnership programs have grown over the past decade and appear to have promise for significantly expanding access. (Abrahmson, Bird and Stennett, 1996) Current HFCE funding schemes provide financial incentives for expanding these partnerships and, it is hoped, expanding access and enrolment numbers. But thus far the interest of universities and most FE in these type of relationships is relatively small. Just as important the demand for FE higher education programs in general appears weak, perhaps for two reasons. First, students intent on a university degree still do not see FE higher education programs as a stepping stone to a bachelors degree. And second, students do not see the advantages of the Foundation Degree for entering the job market.

There are also problems in generating new partnership programs in an environment of extreme budget decline and general policy uncertainty. Although some 20 of these colleges have long experience in offering significant post-secondary courses, the majority do not. Most FE colleges appear to see higher education and the targets of government as marginal to their core purpose. (Parry and Thompson, 2002)

The perception of prospective students, and most importantly the academic culture of the UK, remains comfortably fixated on segregating FE colleges as something apart from the higher education system. The ambiguous role of the FE colleges presents a significant policy dilemma. As Gareth Parry and Anne Thompson note in a recent report, not only are there the “unstable, uncertain and unfavourable conditions for colleges to deliver growth,” there are also the “asymmetries of power and interest expressed in a dual [national] system of tertiary education.” (Parry and Thompson, 2002)

It is perhaps both a political and functional mistake to distance the FE and university sectors from one another. They have much in common organisationally, functionally, and politically. New Labour’s edict to substantially increase higher education participation in the UK, for one, requires substantial co-ordination between the two major HE providers. In short, each sector has a huge stake in the pattern of development (funding, costs, and programs) of the other.

But a natural question is whether the current organisation of the FE sector makes sense as an effective and popularly accepted provider of HE: might a number of existing institutions be reorganised in their governance, and funding, to focus entirely on higher education programs? Put another way, is the current organisation of the two major sector fit for the purpose of appropriately expanding access to higher education in the UK, and in particular England? (Ramsdan, 2001; Watson, 2002)

## **2. *Differing Opportunities for Matriculation***

The differing paths open to students in their transition from secondary to tertiary education offer another important contrast. In simple terms, there are large differences in the timing of decision-making by students and the choice of institutions. The US system tends to be more flexible and pushes decision-making by students later in their lives. There is a relatively uniform secondary education program that ends at age 18—although there exists, as in the UK, wide discrepancies in the quality of secondary education. At this point, students decide whether to apply and possibly enter a tertiary institution. They potentially have multiple points of entry to different types of institutions—some liberal arts, some vocational, some with a mix of programs, and often with the option to transfer mid-stream in their tertiary career.

Beyond the age of 18, there are other multiple opportunities to enrol in not just vocational programs but courses that lead to a bachelor’s degree. In the US, for example, there is a

vast network of community colleges that offer a two-year post-secondary program. This includes vocational courses leading to credentials—not unlike the Foundation Degree. Other lead to an Associate of Arts (AA) Degree. This qualifies a student to enter a college or university at the junior year (3<sup>rd</sup>) of a four year program leading to the Bachelor's.

Many post-secondary graduates go into community colleges and then matriculate. But there is also a large number of students who enter the job market, and then return to a community college or a state university to complete their bachelors. Some then matriculate to graduate education.

In contrast, in the UK, in particular England and Wales, a university or vocational track is a decision made at the age of 16 for the vast majority of students. Once made, there are few options. Recent figures by the OECD point to the significant problems in the UK educational ladder. Through the age of 16, the UK has an extremely high average number of years of formal education. Arguably the new national curriculum provides a solid base for encouraging students to continue their education. While many students go on to a FE institution, the overall drop out rate at age 17 is extremely high, placing the UK 20<sup>th</sup> among the 24 OECD countries.

At age 18, the UK rates a poor 22<sup>nd</sup> against its OECD competitors in the number of students still engaged in formal education—whether it be vocational or university bound. The result is a much smaller pool of potential higher education students in the UK when compared to the US. The percentage of the entire population that attains a secondary education at age 18 provides one indicator of this dynamic: in the US the percentage is 88 percent, while in the UK it is only 63 percent—close to the OECD average (OECD, 2002)

The self-selected UK cohort seeking a higher education in state maintained comprehensives, in the FE, or in the independent school sector, enters a focused and a generally more rigorous two-year program when compared to their American counterparts. But they are generally a smaller group relative to the population. The high A-Level success rate by this cohort may indicate that the test is getting easier; but it also demonstrates that this group is a select pool. The subsequent high degree completion rates thus correlates with not only the quality of the academic programs offered by UK universities, but also the lowered risks of a rather narrow path for access to higher education—although clearly this path has been significantly widened since 1980.

### **3. Differing Undergraduate Education Structures**

A third and related difference is the structure of academic degree programs offered by the respective tertiary systems. In the US, colleges and university courses leading to a bachelor's degree are almost exclusively four-year program; Those who enter a liberal arts program generally do not know what area they will specialise in, and most will not decide until their junior (3<sup>rd</sup>) year. They generally apply to liberal arts institutions based on their academic accomplishments in a wide area of required courses, and standardised test scores focused on general knowledge and skills.

In the UK the bachelors degree is usually a three year program with a number of important exceptions. Most science courses, such as Physics and Chemistry, and engineering are four year programs. The entire university program is highly specialised in a specific field of study. The UK's focus on a more select college tracked program between the ages of 16 and 18 allows for the historical paradigm of students taking subject specific exams, and applying for entrance to discipline specific courses.

**Figure 1**  
**A Comparative View of US and England/Wales Higher Education Structures**

	<i>US</i>	<i>UK</i>
<i>Pipeline: Secondary Systems</i>	Largely Public/Significant Private Sector Institutional Types: 4 Year Public/State High Schools 4 Year Private/Independent High Schools	Largely Public/Significant Private Sector Institutional Types (Eng, Wales, NI): State Comprehensives/Special (to age 16) State Comprehensive (to age 18) Further Education Colleges (Ages 16-17) Independent Schools and Colleges
<i>Access/ Undergraduate Admissions</i>	Open Access Age 18>: Community Colleges Selective Colleges and Universities: High School Diploma (Age 18) plus Standardised Test Scores (Age 17-18)	Open Access Age 16>: Further Education Selective Universities: GCSEs Exam (Age 16) plus A-Level Exams (Age 17-18)
<i>HE Institution and Systems</i>	Largely Public/Significant Private Sector Institutional Types: 2-Year Community Colleges Teaching Colleges and Universities Research Universities	Public/No Major Private Sector Institutional Types: Further Education Research Universities
<i>Academic Programs</i>	2 Year AA degree (Liberal Arts) & Vocational 4 Year BA/BS Professional Degrees Masters and Ph.D.	Further Education/Vocational 3/4 Year BA/BS Professional Degrees Masters and Ph.D.

## **B. US and UK Patterns of Participation and Enrolment**

The United State and the United Kingdom, and most of the European Union, share a great national interest creating widely accessible higher education systems. The UK and many EU countries are now approaching higher education participation rates found in the US, particularly in the traditional age cohort. The UK has around 30 percent of the 18 to 24 year olds in some form of higher education. In the US the number is around 36 percent, and states like California have around 38 percent.

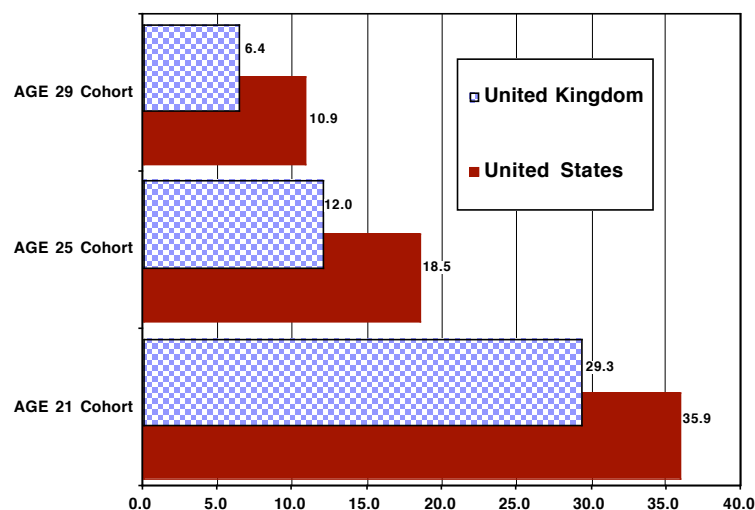
But there are some important differences in participation and degree completion. In the US, the surge of post-World War II enrolment growth began with large scale increases in the traditional college age cohort. More recent trends, however, show moderate increases in participation among students under 24 years of age. This age cohort remains the largest single market in American higher education.

But between 1970 and 2000, the most rapid increase in participation has been among part-time students over the age of 30 years—an indicator of the essential role of life-long learning in post-modern economies. (USDE, 2002) In the UK, most growth over the last decade has been among the 18 to 24 year old cohort, and almost all as full-time students.

To help illustrate the difference in the pattern of participation between the two countries, Figure 2 offers recent data on three age-cohorts at what are key points in the career of an individual: age 21 when most students in the UK and the US are enrolled in a Bachelors degree program; age twenty five when students are either engaged in a normal bachelor's program (a sizeable proportion in states like California), or in vocational training, or in graduate programs; and age 29, when most students are in continuing education programs to either switch careers or attain further accreditation and skills.<sup>4</sup>

**Figure 2**  
**UK and US Students Enrolled in Tertiary Education**

### By Three Age Cohorts: 1999



Note: Tertiary is defined as post-Secondary in the US, and in the UK post-sixth form, ages 18 or older and enrolled in FE or HEI.

Source: Organisation for Economic Cooperation and Development, Education at a Glance, August 2001; U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, 2002.

In each age-cohort shown in Figure 2, participation in the US is substantially higher than in the UK. But interestingly the relative proportion of each age-cohort to total participation in each nation is similar. At the 21 age-cohort, the difference between the UK and the US is 6.6 percent, while the difference at ages 25 and 29 are 6.5 and 4.5 respectively. This indicates that there is a similar dispersion of societal demand. While one might ask if there is an appropriate match of demand and supply in the US, one might also ask the same of UK higher education. Specifically, are the relatively lower enrolments in the UK due to a lower societal demand for participation, or is the structure or funding of institutions non-conducive to participation?

The net effect is that the US continues to lead most countries in both access to higher education, and in the percentage of its population with a bachelor's degree, although countries like the UK are making rapid progress. Some 30 percent of all 25 to 34 year olds in the US have completed a higher education degree; in the UK the number is closer to 20 percent. (OECD, 2002).

Between 1989 and 2001, participation in the UK by this cohort has increased from approximately 15 percent to 33 percent. This is a dramatic increase in such a short period of time. But can this pace be continued? There is a sense among many higher education analysts that demand has stabilised. While there is the question of how adequate resources can be generated to continue the New Labour drive toward higher participation rates among 18 to 30 year olds, there are some critics who sense that market demand is nearly quenched. Why?

Pundits postulate a number of factors. One conjecture is that savvy consumers (students and their families) see the limits of a higher education as a vehicle for employment in the current economy, and weigh the loss of income in pursuing full-time further education and university degrees. The push for wider participation by New Labour is, in the view of critics like Alison Wolf, a myopic and politically driven policy full of clichés regarding the

'knowledge economy'--an unknowing oversell of the relevance of higher education degree in the current and future job market. (Wolf, 2002)

Yet one might argue that the larger reason why the market demand for higher education in the UK may have stabilised is more related to the structure of UK higher education which, thus far, affords few options beyond a formal three to four year residential university education. As noted, the FE sector has yet to develop as a widely perceived route to a higher education degree. There are also inordinately high costs associated with the UK network of residential university campuses that stand in contrast to state's like California. Although the number of regional students living at home and attending UK universities is growing rapidly, the systems appears to be more national in character.

In the US, there are many regional based public colleges and universities offering four-year bachelor's degree programs. The majority of the student are local, living at home or under other living arrangements that effectively lower their overall costs, and make higher education affordable. Even major public universities with state-wide missions often have regional mandates that compels them to draw significant numbers of students from local communities.

This brings us to a discussion of the providers of higher education. There are great differences in the organisation of the higher education systems in the UK and the US. It is widely understood that the US system offers a mix of public and private institutions, and a greater variety of institutional missions, while the UK has a binary public model of FE institutions and universities, with the added element of the distance-learning model of the Open University.

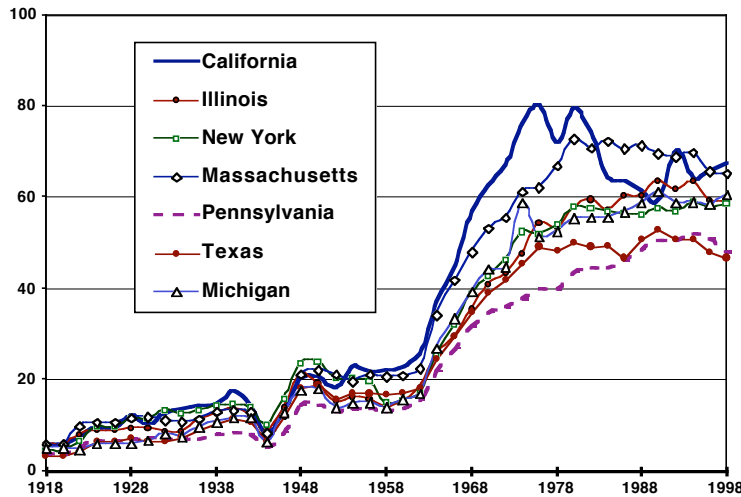
Desegregating the US approach, however, reveals a strong geographic relationship to state approaches and their public/private mix. This is direct outgrowth of different patterns of state-building related to the western expansion of the US to the Pacific Ocean. There have been significant differences in political culture and economic development between, for example, the east coast and the western states—to some degree like the differences between England, Scotland and Wales, only arguably much more exaggerated and complex. Most states along the eastern seaboard and centred in the Northeast first developed private institutions. The institutions still remain as major providers—some times the dominant source--of higher education.

While the nation as a whole enrolled more students in public institutions by 1945, in these north-eastern states private education remains the primary source of enrolment. In the American South, institution building was slow, and participation rates have historically lagged behind the nation as a whole. In the Midwest, a vibrant mix of public universities and small denominational colleges emerged by the late 1800s, and that mix remains. In the expansive west, as territorial governments vied for statehood they developed schemes to invest almost exclusively in public higher education institutions, and they sought their rapid development to encourage economic development and socio-economic mobility.

This diverse pattern of systems noted, Figure 3 provides a general indicator of participation relative to population within seven major states that are dispersed within the geographic expanse of the US. There is a relative uniform pattern of increases in participation, and particularly for the period 1918 to approximately 1968. In part this was serviced by the tremendous growth of public state universities, and to a lesser extent public teachers colleges. One might surmise that the dispersion that follows after 1960 is due to a number of factors: for example demographic changes such as the ageing of the nation's population,

large increases in the number of immigrants, and economic shifts that influence the market of educational services.

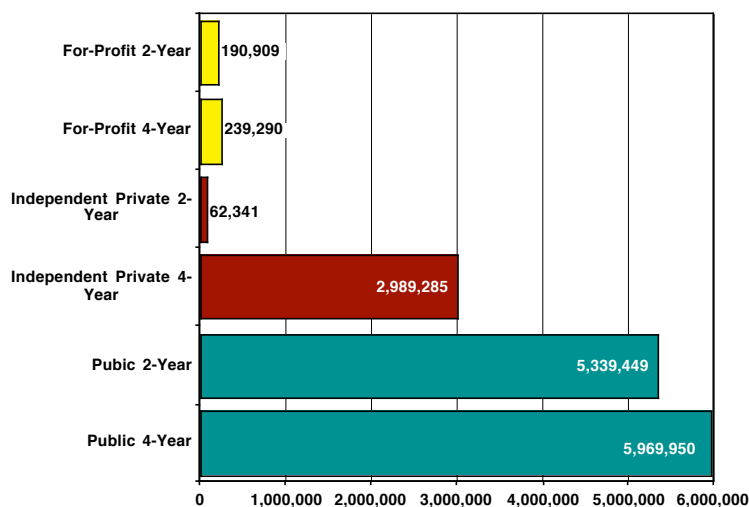
**Figure 3**  
**Higher Education Enrolment Per 1,000 of Population**  
**In Seven Major US States**



Source: US Census, table and data set developed by author.

Each of these seven states provide a mix of public and private institutions. For example, Massachusetts has a large proportion of students in private institutions, and many from out-of-state. In states like California and Texas, nearly 90 percent of all enrolment in degree granting institutions is in the public sector. The vast majority of students are state residents. Almost all public universities give priority to state residents—in part because their families pay state taxes that fund public higher education, but also for nurturing the local labour pool and to encourage socio-economic mobility of residents. That is why most state’s charge a premium to out-of-state-students, a cost that is usually more than twice the tuition paid by state students.

**Figure 4**  
**US Higher Education Enrolment by Sector: Accredited Degree**  
**Granting Institutions: 1999**



Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, 2002

Figure 4 provides a summary of enrolment within all fifty states by the undergraduate degree program--two year institutions or four year institutions, most of which also provide graduate programs--and by their status: for-profit, independent or private, and public. This glimpse of the market demonstrates the dominance of the public sector in providing both two year college and four year university programs. Approximately 76 percent are in the public sector. The independent sector, accredited institutions such as Stanford and Harvard and a vast array of small colleges, is focused almost exclusively on the four-year sector and enrolls approximately 20 percent of all students in the US.

For-Profit institutions with accreditation, like the University of Phoenix, are a growing sector, yet they remain a relatively small in the overall enrolment when compared to the public and independent sectors. They account for only 4 percent of all enrolment in degree granting institutions. These institutions are also largely focused on niche markets of vocational and professional programs that are relatively low cost to operate, and for which moderate to high fees can be charged. Thus far, these providers have not significantly influenced the market for public institutions, in part because the market for educational services is growing rapidly.

There is another small but significant area of the tertiary market in the US. These are both public colleges and universities and a growing number of For-Profit institutions that offer non-degree granting programs. These providers also focus on largely vocational courses focused on technical training, or professional advancement programs—for example, required continuing education programs for lawyers.

### **C. California's System: Institutions, Access, and Costs**

California offers an interesting model for massification for three major reasons: one the early innovation of a coherent public higher education system; two, an aggressive effort to expand access while also building generally high quality academic programs; and three, the dynamics of continues population growth and increasing demand for higher education programs, research, and public services. A long-term commitment to broad access and the productivity of California's higher education has bolstered socio-economic mobility, and is a integral reason for California's emergence as the sixth largest single economy in the world.

#### *Differentiation of Missions*

As early as 1920, the state developed three distinct and geographically dispersed and multi-campus public segments, each linked by matriculation agreements. In most other states, the proliferation of public and private institutions failed to generate a broader vision of how these institutions would relate to one another or collectively serve the social and economic needs of their people.

By most measures and when combined with a relatively small but high quality group of private colleges and universities, California's higher education system has been a dramatic success. Over much of the past century, the state often led the nation in the number of students who graduated from high school and then enrolled in postsecondary education. The public tripartite structure also proved tremendously cost efficient. The cost to taxpayers has historically been around the national average, even as the system has undergone a series of major expansions in enrolment, new campuses, and program growth.

Equally important, the tripartite system consists of some of the highest quality public institutions in the nation, indeed the world. Today, this public structure includes:

- The University of California (UC): a semi-autonomous and constitutionally protected 'public trust' (not unlike UK universities), governed by the Board of Regents, with nine campuses and a tenth under development. UC is *state-wide* in its mission, providing a broad range of undergraduate programmes and advanced graduate and professional education degrees, and is the state's primary research and public service institution. In total, the UC system operates on a budget of over \$13 billion a year, with much of these dollars generated by research activity, and \$3.2 from the state of California for core operating costs and faculty salaries. This is a figure roughly equivalent to all expenditures in the UK for higher education.
- The California State University (CSU): a set of twenty-four primarily *regional* campuses under a Board of Trustees, CSU also provides undergraduate education leading to bachelor's degrees, and has primary responsibility for instruction up to master's level and for teacher training. CSU does not have the authority to grant doctorates. CSU's operating budget is approximately \$4.8 billion, with \$2.5 coming from state coffers.
- The California Community Colleges (CCC): With 107 campuses, these 'open door colleges' serve *local communities*, providing primarily two-year, lower-division undergraduate liberal arts degrees for students planning to matriculate to UC and CSU, plus a broad array of vocational and adult and workforce-related courses and certificate programmes. The community colleges do not offer bachelor's degrees. The CCC has a number of similarities with the FE sector in the UK. In 2001-02, the CCC operated on a yearly budget of approximately \$4.9 billion, with almost all funds (some \$4.5 billion) from local and state government sources.

Each segment also has its own governance structure, with differing degrees of autonomy, and differing admissions policies—with UC being the most selective, CSU less so, and the Community Colleges open to all who can benefit from its programs. This division of labour has provided flexibility in meeting the varied and changing needs of California, allowing each segment to grow and focus on its mission, and thereby avoiding the trap of an institution attempting to be all things to all people. Figure 5 provides an outline of the mission, governance, enrolment, and budget of each segment.

Under this structure, the local Community Colleges with overall the lowest operating costs service the vast majority of students in public higher education; the CSU system, with its regional mission, is the next largest in enrolment. UC has the smallest number of students—about eight percent of the total public enrolment. Only UC has a significant residential component. This has important implications for both public taxpayer costs, and the affordability of higher education for students and their families.

In contrast to the UK, California has also invested in a relatively small number of public research universities, a total of nine University of California campuses plus a tenth planned in the Central Valley. This relatively small caste enrolls only 8 percent of the total public higher education enrolment. In England, universities with a claim on a major research function enrol nearly 78 of all students—although there is a decipherable differentiation in the level of research activity among these institutions.(Parry, 1997)

In California, CSU is not excluded from research, and indeed many of its 24 campuses are highly productive centres of research activity. But the state does not provide significant funding for facilities, and purposely requires a relatively high teaching load for CSU faculty: around 9 courses a year versus about 4.5 for UC faculty. They are free to compete for federal and other extramural research funds, but without the advantages of state funding found in the UC system.

To emphasise the primary role of undergraduate teaching at CSU, courses taught by faculty in this segment have relatively small numbers of students (often 25), while UC tends to have much larger courses taught in a lecture format. Campuses of both UC and CSU also tend to be, on average, much larger in their enrolment than the vast network of UK universities. The investment pattern has been to concentrate these campuses in major population centres of the state, and to then widely disperse the Community Colleges.

**Figure 5**  
**California's Public Tripartite Higher Education System: 2000-01**

The University of California

- Governance: Board of Regents (26 members, 18 app. by Governor)
- Admits from the top 12.5% of high school graduates
- Bachelor, Masters, professional degrees and Ph.D.
- Primary research and public service role
- Secondary role in teacher training
- 9 campuses (developing 1 additional campus by 2004)
- 178,000 Students (8% of Tripartite system total)
- Annual total budget: \$12.7 billion\* (\$3.4 billion from state government)
- \* Not including Department of Energy National Laboratories

California State University

- Governance: Board of Trustees (24 members appointed by Governor)
- Admits from the top 33.3% of high school graduates
- Bachelor, Master's, some professional degrees
- Primary role in teacher training
- Secondary role in research and public service
- 24 campuses (developing 2 new campuses)
- 380,000 students (19% of Tripartite system total)
- Annual total budget: \$4.8 billion (\$2.5 billion from state government)

California Community Colleges

- Governance: Board of Governors (16 members appointed by Governor)
- 72 local Community College District boards
- Open Door: provides access to "all who can benefit from higher education"
- Two-year liberal arts degree (AA)
- Primary role in vocational and adult education
- 107 campuses
- 1.6 million students (73% of Tripartite system total)
- Annual total budget: \$4.9 billion (\$4.5 billion from state and local government)

*Student Matriculation Agreements*

Most important is the formal relationship between the various public institutions. Depending on ability and interest, students can enter one institution (e.g., a community college in Sacramento) and then matriculate to a professional or graduate program (e.g., UC Davis). The meritocratic aspect of this so-called "transfer function" gives students, at least in theory, access to any academic degree available in the system on the basis of scholastic achievement. This is a powerful idea that, in essence, makes California's tripartite system greater than the sum of its individual parts. Californians widely perceive their higher education system as broadly accessible.

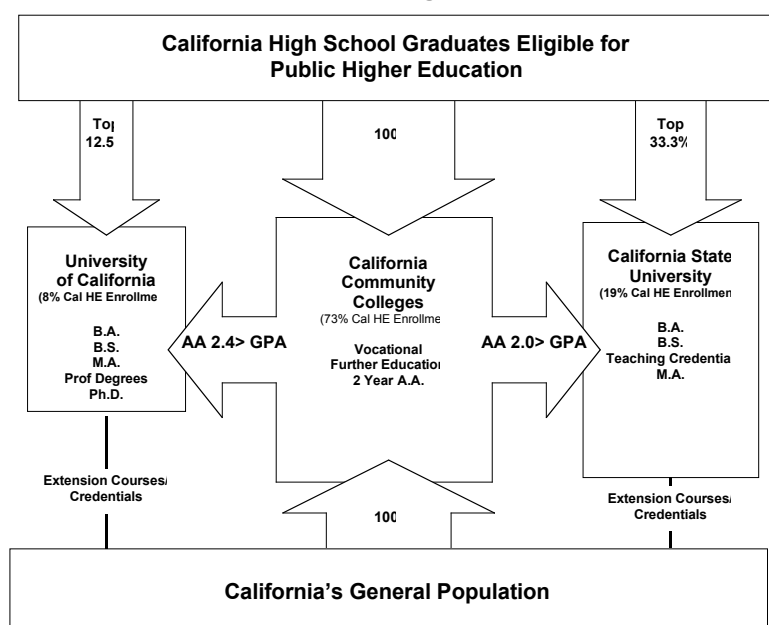
Figure 6 Illustrates the alternative admissions policies and matriculation agreements as revised in 1960. This general pattern of eligibility and transfer functions dates back to before 1920. As early as 1910, graduates of a new set of junior colleges were guaranteed admission to the UC Berkeley campus; and in the 1930s, some 40 to 50 percent of all

admissions to both Berkeley and what became UCLA were transfer students from local community colleges.(Douglass, 1999)

In addition, both the University of California and the California State University offer “Extension” courses to the general public. At UC, these programs date back to 1900 and were focused on providing courses for farmers on ways to improve productivity.

Today, some 500,000 courses a year are provided by UC through Extension in a vast array of subjects. But it is an adjunct function of the university: almost all courses are taught by adjunct faculty and temporary instructors. Combined, the patterns of access to university and college programs illustrated in Figure 6 have profoundly shaped upward socio-economic mobility in the state.

**Figure 6**  
**1960 Master Plan Revision on Student Admissions and the Transfer Function to Public Higher Education Institutions**



Note: Grade Point Average (GPA) is on a 4 point scale in required secondary courses. These are minimal requirements guarantying access to UC or CSU, but not necessarily to the first choice campus or major of a student.

The scale of California’s higher education enterprise is huge, boasting the largest single-state network of such institutions and enrolling over 2.7 million students in accredited colleges and universities—twice the size of the next largest states, Texas and New York. Out of that total, some 2.4 million are in the public sector. Approximately 11 percent are in private institutions.(CPEC, 2000)

California’s community colleges are the largest single network of 2-year institutions in the nation. The heavy dependence on public institutions—in particular the Community Colleges--became more pronounced in the post-World War II era, and as part of a dramatic effort by the state to expand educational opportunity. Similarly, the California State University is the largest 4-year higher education system in the country, and the University of California is the largest research university.

### *The Public and Private Mix*

While California's higher education system is heavily dependent on the public sector in enrolment, it is important to stress the vital role of private institutions. Accredited independent/private colleges and universities include not only campuses such as USC, Cal Tech, Stanford, and Pomona, but also a variety of relatively new institutions such as the University of Phoenix. As market demand has escalated, these institutions have increased in importance.

Figure 7 offers an indication of the productivity of the independent/private segment and how the public/private mix appears to meet a broad range of needs. While representing less than 9 percent of all undergraduate enrolment in the state, private institutions produce 21.1 percent of the state's B.A. degrees.(CPEC, 2001)

These institutions also produce the second largest number of master's degrees and doctorates. The high number of master's and professional and other degree programs reflect a substantial service in the areas of adult education. The majority of these programs are in areas such as business. In large part because of the private/independent segment and the state's community colleges, the number of 25- to 44-year-old students in California enrolled in some form of higher education is among the highest in the nation: some 4.3 percent, ranking tenth among the states.

**Figure 7**  
**Degrees Conferred by Four Accredited Segments of California Higher Education: 1998-99**

	<b>CCC</b>	<b>CSU</b>	<b>UC</b>	<b>Private/ Independent</b>	<b>% Private/ Independent</b>
Associate of Arts	64,046	-	-	8,696	11.9
Bachelors	-	54,814	31,166	22,800	21.1
Masters	-	13,688	6,279	16,872	45.8
Doctorate	-	37	2,632	2,492	48.3
Professional/Other	32,444	-	671	13,251	28.6

Source: California Statistical Abstract (2000).

### *Participation Rates and Efficiencies*

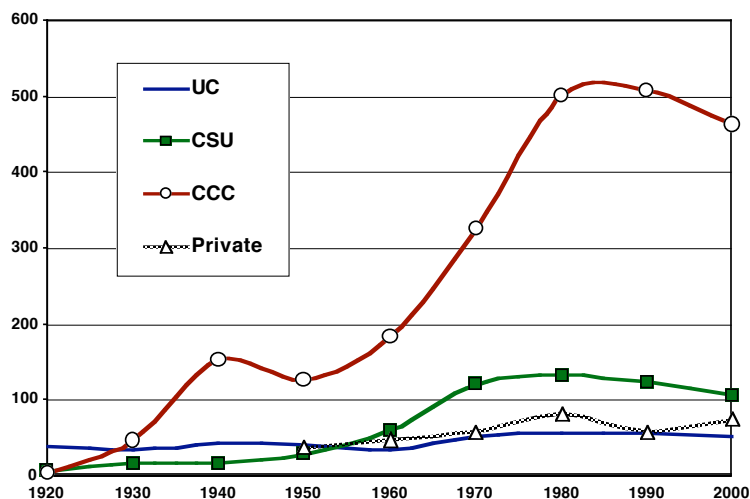
UC became the first multi-campus state university in the nation with the inclusion of a "southern branch" in Los Angeles in 1919--what became UCLA. The first campus in Berkeley had already surpassed the University of Michigan in enrolment in 1910 to become America's largest university. By 1950, the system had grown to four campuses with plans for further expansion. But the path to large scale increases in access to tertiary education in California came through the innovation of the community college.

California was the first state to develop the public community college, passing legislation in 1907 for their creation as an extension of public high schools. From 1910 until 1970, almost two new community colleges were established each year in California. Today, three out of four students in the public higher education system are enrolled in the Community Colleges. Figure 8 provides evidence of both the rapid expansion of educational opportunity after 1920 and the market share of each of the three public tripartite segments.

The CSU system was slower in their growth pattern. Not until the 1950s, and following a significant period of public debate over their role as regional institutions and the appropriate breadth of their degree programs, did this segment grow substantially in enrolment. After gaining authority to offer the master's degree in 1948, and with new undergraduate education in fields such as engineering, the CSU system rapidly grew. In 1953, this segment surpassed UC in total enrolment.

Historically, UC's market share has remained remarkably consistent, essentially admitting the top 15 percent of high school graduates at the freshman level for most of the past century. It also maintained a robust junior year transfer function. As early as the 1930s, both Berkeley and what became UCLA admitted nearly as many transfer students as freshmen. And in the immediate post-World War II period, and bolstered by the GI Bill, more than half of all undergraduate admissions to these two campuses were at the junior year (3<sup>rd</sup>).

**Figure 8**  
**California Higher Education Enrolment Per 10,000**  
**State Population: 1920 - 2000**



Source: Douglass, *The California Idea*, (2000, p. 358); CPEC *Student Profiles, 2000*; California Statistical Abstracts (1970).

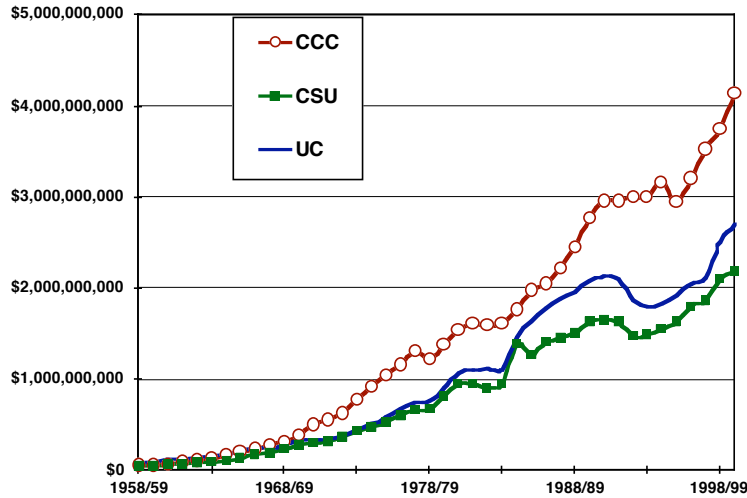
### *Operational and Capital Investment*

The idea of the tripartite structure was, in part, to create efficiencies and a robust higher education system that California's state and local government could afford. California policymakers recognised that there should be lower costs for operating a junior college, higher unit costs for regional colleges, and higher costs yet for UC with its broad mission (i.e., an equal focus on teaching and research and an important service role for local economies).

Figures 9 and 10 provide the cost to California taxpayers by segment from 1958 to 2000. Fluctuating funding levels reflect shifts in California's economy, related changes in taxation and revenue, and the shifting priorities of lawmakers in making allocations. Evident in Figure 10 is a sharp decline in funding to UC and CSU in the early 1990s. The community colleges had some protection in their funding levels due to state legislation that recognized the pivotal role of the colleges for providing access.

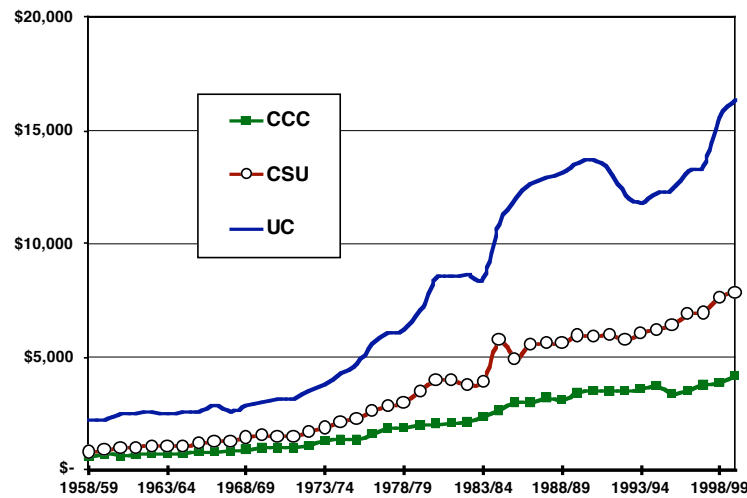
Although funding cuts in the midst of continued growth in enrolment demand were evident for all three public segments, UC and CSU coped with this decline in their state budgets in different ways. UC historically has had a stronger diversity of funding sources and financial options. In reaction to an approximately 20 percent decline in state funding between 1990 and 1994, this segment initiated a series of early retirement programs and sought other sources of funding, including raising student fees. CSU had fewer choices because of its high dependence on state funding.

**Figure 9**  
**California Public Higher Education: Total State and Local Funding Provided for Each Segment: 1958 - 2000**



Source: William Pickens (1995), "Financing the Plan," California Higher Education Policy Center; CPEC, *Fiscal Profiles 2000*.

**Figure 10**  
**California Public Higher Education: State and Local Funding Per FTE Student, 1958 - 2000**



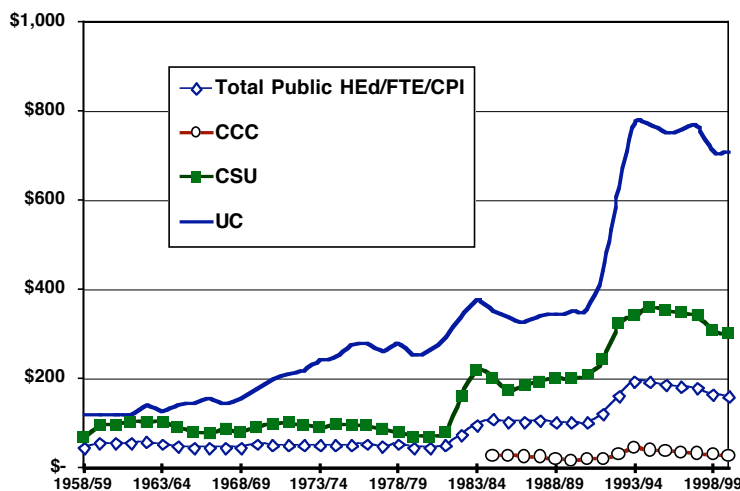
Source: William Pickens (1995), "Financing the Plan," California Higher Education Policy Center; CPEC, *Fiscal Profiles 2000*.

Even though CSU also increased fees, this segment was forced, like the community colleges, to dramatically increase the number of part-time lecturers. And for the first time, CSU implemented limits on enrolment increases. The objective was to constrain costs and to mitigate inevitable increases in student-to-faculty ratios. The result, however, was an erosion in educational opportunity in the state—a trade-off that lawmakers and CSU leaders were willing to accept on a short-term basis and after much debate.

### Shifts in Fee Policy

One major consequence of budget cutting in the early 1990s was the first official sanction by lawmakers and the public segments of tuition for California residents (i.e., fees for core instruction and research costs, including faculty salaries). Previously, “fees” were charged but were slated almost exclusively for student services and subsidising financial aid programs. The purpose of avoiding tuition was to reduce economic barriers to access. The severe budget crunch of the early 1990s ended that long-standing egalitarian policy. It died with little fanfare, strategic thinking, or discussion regarding its implications.

**Figure 11**  
**California Public Higher Education: Student Top-Up Fees**  
**Per FTE Adjusted for Inflation, 1958 - 2000**



Source: William Pickens (1995), "Financing the Plan," California Higher Education Policy Center; CPEC, *Fiscal Profiles 2000*.

Figure 11 provides an illustration of the relatively consistent fee policy for students during the immediate post-1960 Master Plan period and until the late 1980s. Adjusted for inflation, these data include all fee and tuition income, with the vast majority coming from in-state undergraduate enrolment.

In real dollars, fees grew most rapidly at UC with the major increase coming in the early 1990s. In recent years, buttressed by an improved economy, lawmakers decreed that no additional fees be charged to students. Indeed, in recent years budget allocations from the state required a reduction in fees/tuition at UC and CSU. This was part of a budget negotiating process reflecting more the interest of lawmakers and their short-term politics than a long-term vision for the role of fees and tuition to adequately fund public higher education.

Even with the relatively sharp increases between 1988 and approximately 1994, overall top-up fees today for both undergraduate and graduate courses within the tripartite system are well below those at other comparable public colleges and universities in the US. Yearly tuition at the undergraduate level in the University of California for state residents are approximately \$3,900 in current dollars (or £2,520); at CSU \$1,830 (or £1,180), and only \$330 per student at the California Community Colleges (or £213). (CPEC, 2002)

In each case, comparative institutions in the US charge approximately 50 percent more on average at the undergraduate level. Highly selective public institutions such as the University of Michigan and the University of Wisconsin have tuition fees of approximately \$8,000

dollars. And all public universities, as noted previously, charge additional fees for out-of-state students (both domestic US and foreign). And in contrast to the UK, it must be remembered that most students in California's public higher education system attend local or regional institutions and live at home; hence, they do not have the residential costs associated with many UK universities—although this dynamic is also changing in the UK toward greater regionalization. (HESA, 2002)

California's experience with raising fees in the early 1990s did not result in a reduction in demand, or in a discernible decline in access by lower income groups. (UCOP, 2000) In part, this is because for each dollar raised through fees, 35 cents was placed into an expanded financial aid program. (The average among US universities is about 25 cents for each dollar of fees.) But it also relates to the elasticity of pricing: research on costs and access to higher education indicates that there is a range in which fees can be charged with limited impact on access, and on the actual costs to students from lower income groups—the cohort most affected by the net cost of attending a HEI. (Kane, 2001; Connor, 2001)

Much more research on the impact of fees and access is needed, particularly on the relatively new dynamic of fee increases in public systems. However, there are a few general observations that have emerged. For one, the key variables seem to relate to the funding levels and transparency of financial aid programs, and the relative real costs of higher education (fees and where applicable room and board) to family income. (Johnstone and Shroff-Mehta, 2001)

If priced correctly and by income and socio-economic background, the real and perceived socio-economic gains of a higher education, particularly by high quality providers, makes such an investment appear reasonable and affordable to students and their families. A UK survey in 2000 of students who either qualified or could potentially qualify for entrance into a UK university, the major reasons for not entering was the prospect of a delay in income, and not the specific cost of the newly imposed fees. (Conner, 2001)

Creating a logical fee and financial aid structure, however, also requires a phased policy approach that is consistent and avoids wild fluctuations in the rules. Contemporary research on access and higher education fees indicates that changes in fees prices and student aid programs need to be done gradually, and with significant investment in academic advising mechanisms. An increase of \$1,000 in tuition in a single year, for example, may result in a 5 percent or more reduction in enrolment by lower income students according to recent studies on US public higher education. (Kane, 2001; Johnstone and Shroff-Mehta, 2000)

The experience in the UK appears to confirm this. The introduction in 1989 of fees had an initial if marginal impact on access and on overall enrolment demand—even though the net cost to lower income groups was covered by government grants. The shock of the new price and need to learn the new financial aid rules took a toll. Since then, and under the revised financial aid program, socio-economic diversity has increased and application rates are again growing. (CVCP, 1999; HESA, 2002)

Another critical factor is the availability of alternative enrolment paths for students, and choices in the costs they will bear. In California, for example, the ubiquitous community colleges provide a lower costs option from that of UC or CSU, and a method to later matriculate to these higher cost institutions. This diversity of institutions and costs, in essence, offers a way to mitigate increases in fees at the university level. This is a dynamic that generally does not yet exist in the UK.

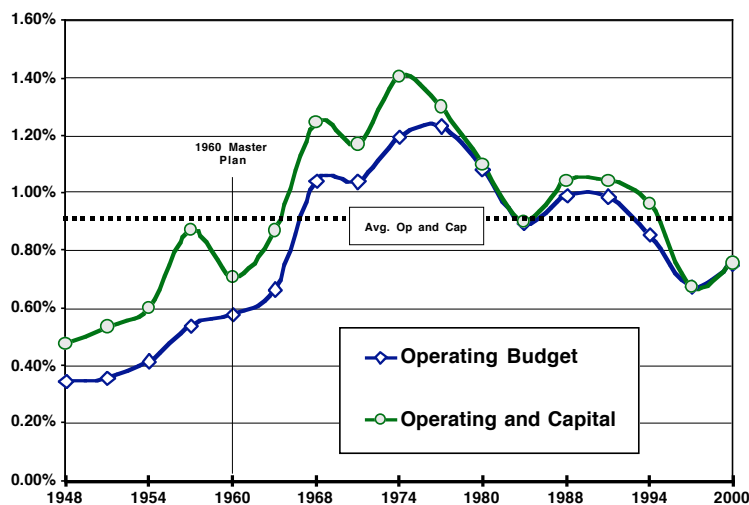
Beyond calculating an acceptable price, there are larger questions regarding the proper mix of public tax-payer financing, the appropriate contribution of students toward the cost of their education, other sources of income required to sufficient to maintain high-quality academic programs, and the role of revenue sharing among other public higher education institutions.

In California, as well as the UK, one needs to approach fees as part of an overall systematic approach to funding higher education systems, not just individual institutions. In these scheme, low fees can have a beneficial impact on lower income students; but they can also represent an inordinate subsidisation of students from wealthy families—a cohort that is more likely to be admitted and enrolled in a selective public university.

Arguably, California's network is not priced appropriately. Indeed, the extremely low price of attending a community college, to cite one example, contributes to extremely high attrition rates. Fees are so low at these local colleges where admission is open to virtually anyone that students see no opportunity costs at dropping-out of courses in mid-stream. Fees can be too high, but they can arguably be too low.

Now that the historic commitment to a no-tuition public system has ended with no prospect for resurrection, California, like the UK, needs to create new and coherent policies for a new moderate fee and expansive financial aid structure. This is essential for three interrelated reasons: it is absolutely key for generating sufficient funds for expanding physical enrolment capacity and academic programs; this in turn is a prerequisite for any significant broadening of access; and it is vital for building and maintaining high-quality academic programs.

**Figure 12**  
**California State and Local Public Higher Education Funding as a Percentage of State Personal Income, 1948 - 2000**



Source: Douglass, *California Idea* (2000); Restudy Report (1955); Master Plan for Higher Education (1960); California Statistical Abstract (1970); William Pickens (1995), "Financing the Plan," California Higher Education Policy Center; CPEC, *Fiscal Profiles 2000*.

Rising costs, diminishing state investment, and the difficult politics of raising fees has led to increasing interest in seeking private funding sources. But an equally significant result is the diversion of capital funds to mitigate contemporary drops in operating expenses. In California, the result of this short-term approach has been a dramatic deterioration in the physical facilities of higher education, many of which were poorly designed and constructed during the boom building years of the 1960s. (Douglass, 2001)

Figure 12 illustrates this pattern by tracking state and local funding for California higher education as a percentage of total state personal income. Between 1960 and 1974, California embarked on the nation's largest program of enrolment growth and campus construction. Yet since then, investment rates in operating funding have declined, and capital expenditures are now a relatively small part of overall spending.

#### **D. California as a Model?**

The power of the *California Idea* is the distinct role of each of the three public “segments,” their formal links, and the collective understanding of their role in a massive higher education system. California has not only led the movement toward mass higher education. It has done so while growing in enrolment at an unprecedented rate, in part simply to keep up with the spectacular population growth—a state that is now twice the size of New York and represents the fifth largest economy in the world. (Douglass, 2000)

Differentiation, a relatively stable policy environment, and a long-term commitment of public funding, and not coincidentally a vibrant economy in part fuelled by the higher education system, have made all the difference in the world. But equally important, the public tripartite structure is generally well understood by Californians, and by lawmakers. The system is relatively transparent and exudes the values of America's middle and professional classes.

Because of its rationality, and the structure of segmental governance and leadership, state government has shown little interest thus far in elaborate quality assessment schemes or financial models to shape the behaviour of institutions. Indeed, it should be noted that no state system higher education in the US is both as decentralised and burdened by centrally imposed assessment exercises as in the UK—an assessment protocol that lumps a wide number and variety of institutions into a single framework. The “evaluative state” that has risen so prominently in the UK relates in part the lack of coherent organisation and governance of higher education institutions. (Henkel and Little, 1994; Neave, 1998)

#### *Process of Policymaking and Comparative Models*

But in looking to California for possible inspiration, a few words of caution are offered. California may provide ideas about differentiation, access and cost containment. It does not, however, offer much in regard to the difficult process and politics of reorganising or modifying significantly developed higher education systems—like that in the UK.

California's system grew out of major policy decisions taken during the first two decades of the twentieth century. The early invention of the tripartite structure very much reflects an earlier era of innovative political reform steeped in a faith in public institutions as engines of social progress and Taylorite visions of specialisation and efficiencies. From this seminal era, the system grew in the number of campuses in each segment. There were relatively minor shifts in their respective missions. Indeed, mission creep was largely contained despite the desire to the contrary among many institutions and their supporters—in large part because of the vested interest of the University of California, historically a powerful political player in the state, to maintain the system and avoid competitors for its programs and claim on state funds.

In the 1940s, for example, there were failed efforts by local communities to expand a number of community colleges into four-year institutions. And in the late 1950s, attempts to merge the missions of CSU and UC to create a bevy of research universities were rebuffed. The famed 1960 California Master Plan for Higher Education brought an end these forays. Despite popular belief, the Master Plan was more important for what it prevented (the desire of key lawmakers for a mass merger and uniform missions) than what it created. The plan

projected enrolment growth and offered a listing of new campuses to be built. Related legislation placed into a single statute the largely existing missions of the three public segments and modified governance of the CSU system. One of the most important parts of the Master Plan was the reduction in access to UC and CSU. California shifted even more students to the community colleges, largely to reduce future costs.

Arguably, this points to one of the most significant problems facing nation-states: Not only is there the difficult question of what is a logical network of institutions, public and private, that, for example, fits the needs of British society. There are the logistics of imagining a political process that navigates the treacherous waters to make it a reality. In the UK environment of relative non-differentiation and equality (which has advantages), there are powerful forces against any new notions of differentiation. And there is no natural constituency for relatively new institutions, like a community college network.

#### *Attrition Rates and Degree Productivity*

While there is much beauty in California's system, it also has major problems. Among these is not only the usual condition of declining public funding and the difficulties of imagining alternative resources (e.g., a logical system of moderate fees and high financial aid remains out of reach for the moment in California as well). California is good at high access. While no longer in a leadership position among the some fifty higher education systems in the US, California ranks tenth among the states in the number of 18 to 24 year olds who are also undergraduates students: over 38 percent, compared to a US national average of 34.3 percent. Before large shifts in demographics, California boasted a participation rate closer to 43 percent. (Douglass, 2002)<sup>5</sup>

But unlike UK's system, degree completion rates are extremely low. US Department of Education statistic show that the number of bachelors degrees awarded per 1,000 students enrolled in undergraduate programs in the state is a dismal 68.8, placing California nearly dead last among the states. (USDE, 2001)

California also lags substantially in the production of the BS degree, despite the high demand for labour in technology fields.(CCSE, 2002) Projections by the U.S. Department of Labor (1998) state that by 2006, nearly 70 percent of all the new jobs generated by the economy will require some form of postsecondary education, and that approximately 50 percent will require a bachelor's degree.(UCDL,2000)

This poor performance relates in part to California's perhaps over dependence on funnelling students to the lowest cost institutions, the community colleges where, as noted, attrition rates are unacceptably high. The reasons for this are multiple and complicated: changing demographics, a significant decline in the quality of public schools, more part-time students and academic staff in the community colleges and rising student to faculty ratios, extremely low fees meaning no real cost for dropping out, and a decline in the quality of many colleges burden by declining funding and multiple demands of local communities.

One significant consequence is that a once robust transfer system (of students entering a community college and then going to UC or CSU) has declined. Community colleges are still vital and viable, but they are not quite the route to socio-economic mobility they once represented. Such attrition rates are extremely costly for taxpayers and individuals alike, and for the morale of community college faculty.

If the UK higher education system is perhaps overly selective, funnelling a self-selected group of high achievers through university programs who then graduate, the system in California may be on the other extreme: broad access without demanding appropriate

academic preparation. California's system also requires, and has acquired, a vast and costly administrative structure to provide services (e.g., academic advising, tutoring) intended to improve retention and degree attainment.

But there is another problem. National studies in the US demonstrate that students who enter four-year degree programs, versus two-year AA programs with the intention to matriculate, are nearly twice as likely to graduate with a Bachelors degree.(Kane and Rouse, 1995)

Historically, this was not always the case, in California and nationally. The multiple missions of the community colleges seem to pull resources and effort toward local vocational needs at the expense of liberal arts programs and preparation for the university. The UK may not have a proper mix and balance of institutional types and degree programs, but arguably California's system is weighted too much toward two-year degree programs even if it was properly funded—perhaps a warning for large scale plans for FE enrolment growth.

### *The Issue of Student Diversity*

Student diversity is another major issue in California, as in the UK. In terms of the economic background of students, California's public system is highly inclusive and seemingly much more so than in the UK. General patterns of family income among the California population are reflected not only in Community Colleges. One sees a relatively healthy proportional representation also in the CSU system, and to a lesser but still significant degree in the most selective segment: the University of California—the segment with the highest student fees.

Families with incomes below \$30,000 (approximately £19,300) represent 36 percent of the California population. Over 30 percent of the first year student entering the UC system in 1995 were from this cohort. In total, over 75 percent of the students at UC are from middle and lower income families—mostly earning \$60,000 (£38,000) or less.(UCOP, 1997) Both Berkeley and UCLA, the two largest campuses, have the highest rate of students with federal Pell Grants (federal grants for lower income students) in the nation, public or private.

In the area of racial diversity, the story is very mixed and troublesome. The public tripartite system as a whole reflects the general ethnic diversity of the state. But at UC, again the most selective, there is a significant under-representation of Chicano-Latinos—the fastest growing minority group in California and representing nearly 30 percent of the state's population. At the same time, a campus like Berkeley, the most selective of the eight undergraduate UC campuses, has more minority students than Euro-Americans enrolled. Over 50 percent of the student body is now Asian-American.

Recent data indicates that some 60 percent of all students at Berkeley have at least one parent who is an immigrant. Hence, UC is extremely diverse in the economic, social and racial mix of its students. But their remain large disjunctures in participation rates rooted in the larger problems of society that are difficult to ameliorate and pose a major challenge for California higher education.(Flacks, Thomson, Douglass, 2002)

### **E. A Few Preliminary Observations on the UK System**

In looking at the highly structured approach of California, and the post-Bologna Agreement shifts in much of the EU, does the UK offer a unique “third way”—essentially a decentralised market and network of universities and FE colleges, shaped by government incentives?(Palfreyman, 2002) One sees great strengths and a vibrancy in the vast number of universities and the network of further education colleges. (Brown, 2002) One can gauge this vibrancy in an often cited list of accomplishments:

- Rapid expansion of access to higher education
- Wide recognition of research quality
- Reputation in the international market
- A highly efficient rate of degree completion—in the HE sector over 80 percent
- High rates of student satisfaction
- And healthy rates of employment of graduates

### *UK Maladies*

But add to this list a generally widely recognised series of maladies and one gains a more complete environmental scan:

- Declining government budgets relative to enrolment
- Vague New Labour goals regarding access and substantial enrolment increases
- An ambiguous role for Further Education in the higher education market—institutions that are arguably already burdened with multiple missions and unclear priorities
- A funding and regulatory path that encourages institutional isomorphism, yet maintains a rhetorical goal of fostering a diverse set of universities
- Confusion regarding potential financial models
- An increasing labyrinth of national quality assessment mechanisms related to teaching and the funding of research
- And questions regarding the A-Level admissions system

Beyond these specific problems lies a crucial question previously noted in this essay: is the UK system fit for the purpose of additional large scale increases in access? In part because of its coherent organisation and the general political consensus regarding its viability, California appears to be positioned relatively well to meet future enrolment growth over the next decade. As noted in the introduction to this essay, the state has seemingly reached an equilibrium between ever changing societal demands and the structure of its higher education system. The primary problem is funding expansion and innovations at the margin. In the UK, however, one might argue that substantial organisational changes and shifts in policy and behaviours will be required—prerequisites to both expand access, and for orchestrating and fund large increases in the overall enrolment capacity of the system.

If one is to take a broad historical viewpoint, the contemporary difficulties are not entirely unexpected. The UK, like the other members of the European Union, are in the midst of a large scale conversion of their higher education systems that is ambitious, exciting, and inherently lengthy. Simplistically, this entails the forced transformation of a formerly elite network of institutions and the addition of new institutions to create mass higher education system. But where is the UK in this path?

### *A California Lens*

Assessing the contemporary UK system through the lens of the California system, and its success and failures, a few additional observations are offered (some of which are summarised in Figure 13). First, the organisation of higher education in the UK, and particularly in England and Wales, is remarkably decentralised. The autonomy of institutions as chartered corporations stands in sharp contrast to the segmental organisation in California.

In the UK, there is no formal or informal leaders or I dare say effective forum for generating systemwide initiatives, or for negotiating with the government. University UK offers ventures toward providing this forum. But even here there appears to be no collective idea of purpose. Why should there be in light of the legal status of each university, and a national policy framework that encourages the milieu of over one hundred independent operators?

The current debate over top-up fees is a case example: who is negotiating with who in this process? Ministries and prime ministers seek autonomy in their shaping of the higher education system, and indeed see the higher education community as largely intransigent. Taken as a whole, the UK system seems much less than the sum of its parts—in its bifurcated and decentralised organisation of FE and independently chartered universities, in the lack of a collective sense of purpose, and in its rather weak political clout.

Further, and after much progress, access and the organisation of academic programs remain heavily class bound. The secondary education system and the early tracking bias of students into vocational and higher education subjects, in comparison with the American model, appears as a legacy of England's class riddled school system. Append to this the rigid divide between FE and universities, and the corresponding lack of multiple matriculation paths. The result is a structure that severely impedes further expansion of access to higher education, stifles socio-economic mobility, and long-term economic development.

Despite major important reforms and remarkable improvements in access over the past two decades, the UK system is probably still losing a large segment of the population who could benefit from non-vocational tertiary education. Arguably the existing system is not suited to increasing participation in a manner that will effectively meet the needs of individuals and society.

**Figure 13**  
**A Comparative View of California and UK Public Higher Education Systems**

	<i>California</i>	<i>UK</i>
<i>HE Institution and Systems</i>	Largely Public/Significant Private Sector Public Tripartite Segments: UC, CSU, CCC Differentiated Missions Highly Structured/Integrated Consensus on Social Contract Greater Than The Sum of Parts	Public/No Significant Private Sector Bifurcated Tertiary: Further Ed, Universities Competing Missions Unofficially Stratified/Autonomous Debate on Social Contract Less Than The Sum of Parts
<i>Undergraduate Admissions/Access</i>	Avg. Grade in Courses/Standardised Tests Inclusive/Multiple Entry Points Race Structured Problems/High Diversity Conducive to HE Student Transfer High Access/High Attrition/Low Degree Output	A-Levels/Interviews Selective/ One Entry Point Class Structured Problems/Moderate Diversity Not Conducive to Student Transfer Modest Access/Low Attrition/High Degree Output
<i>Higher Education Leadership</i>	Academic Voice: Segmental Leadership Modest Adversarial Relationship with Govt.	Academic Voice: Disparate High Adversarial Relationship with Govt.
<i>Regulatory Structure</i>	Broad Mandates/Segmental and Institutional Accreditation: Professional Associations Research: Self-Regulated Quality	Increasing Central Controls/National Accreditation: Ministry of Education/QAA Research: National Evaluation/RAE
<i>Costs/Funding</i>	Enrolment Driven/Distribution by Segment Highly Cost Efficient Relative to Enrolment Extremely Low Uniform Fees UG	Enrolment Source and Research Evaluation Modest Cost Efficient Relative to Enrolment Extremely Low Uniform Fees UG
<i>Policymaking Environment</i>	Relatively Stable/Marginal Reforms Projected 2010 Growth: 600,000 New Students Planning: Lacks Finance Plan	Volatile/Multiple Major Reforms Projected 2010 Growth: 350,000 New Students Planning: Lacks System/Enrolment and Finance Plan

This implies the need for significant structural change. Yet the ability to make such changes appear limited. There is not only the structural biases of the secondary system, and the cultural divide between the two main providers of higher education, the FE sector and the universities. There is also a lack of cohesion in the university sector. Many cite the collapse

of the binary structure in the UK and the market force predilection of contemporary government as a major turning point. The result is a vast network of over 110 institutions that claim the title of a research university—a costly proposition. They compete for resources seemingly as independent enterprises, sharing little or no vision of their purpose within the larger UK higher education system. (Kogan and Hanney, 2000) It is no small wonder that debate on a particular reform issue is normally neglectful of its implication on the entire tertiary system.

One can identify countervailing forces: government often professes a desire for a larger structural approach and occasional floats and implements reforms. However, politicians and academic institutions find advantage in desegregating and isolating policy issues, particularly in an environment in which there is little consensus. Government ministers talk of “re-engineering” funding models to “encourage, rather than discourage, a greater diversity of mission within the sector.”(Newby, 2002)

But they admittedly see no clear answer on the end game and seek marginal and sometimes contradictory changes. Thus far they are wedded to two powerful contemporary notions: one, government can create elaborate regulatory structures for funding higher education based on quality assessment schemes; and two, evolutionary change will follow, naturally creating greater logic and efficiency in the system, and all largely dictated by the market reactions of individual institutions. This model seems unlikely to create coherent systemwide differentiation—at least in the near term. In contrast to the California system which is overt and transparent, the UK system is ambiguous and in a Darwinian process of perhaps one day creating order.

The issue of top-up fees, and the current DFEE study on financing UK higher education, may prove an important benchmark: it may encourage resource differentiation (not program differentiation) by advocating open market pricing by individual institutions (those with the best market position); or it may seek a revenue sharing scheme (a systems approach that raises all boats); or it simply may avoid the potential divisive issue of fees and leave the current tuition rates (with moderate increases, perhaps) in place.

Another policy context for the UK and other members of the EU is the globalisation of the higher education market, the potential transformative power of instructional technologies (although perhaps romanticised), and the spectre of new regional and world-wide policy regimes, like the EU “higher education area” sought by the Bologna Agreement, and the General Agreement on Trade and Services (GATS). The implications of each are not entirely clear. Certainly one can assume an emerging if marginal role of For-Profit and international providers of higher education in the UK—probably a healthy development.

When combined with the decentralised organisation of UK higher education, these forces of globalisation, offer the spectre of yet another long period volatile policymaking. The Labour government’s recent report *The Future of Higher Education* (January 2003) offers an interesting case example of the difficulties of this era. On the one hand, it offers a framework focused on financing, and promises to encourage greater access through institutional collaborations. It is an important step intended to provide some form of financial stability. One might argue this is a prerequisite for encouraging innovation.

Yet there appears a studious avoidance of the admittedly politically difficult goal of seeking overt mission differentiation—arguably the key for focusing institutional activity, improving quality, and containing costs.

There also remains the difficulties posed by a network of HEI's that have little understanding of their role in England's HE system, beyond their own personal development. And from this outsiders viewpoint, the anointed role of FE colleges and expansion of Foundation Degrees seems problematic. The FE sector includes institutions that arguably already have too many missions. They may be an impractical or perhaps poor provider of mass higher education, and may prove for some time a marginal route to a higher degree.

In the void of a more coherent network of HEI's, a condition exacerbated by the post-1992 reform of the university sector, Whitehall has increasingly relied on two levers to encourage national goals: incentive funding and an expanding cadre of regulatory tools. While the language of current and recent governments espouses the ideals of market models, it is in fact highly interventionist -- at least in contrast to the model offered in a state like California where institutional and segmental mission provides a buffer to regulatory constructs like the QAA.

In other words, the lack of differentiation and focused mission, and multi-campus governance structures, invites greater and in some ways more elaborate and subversive government schemes. As higher education grows in its importance to national development and economic competitiveness, one can imagine increasing efforts by government to shape and intervene in the activities of UK HEI's. New Labour may espouse simplification of accountability measures, but as the recent White Paper shows, there are new and added regulatory measures in the works.

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<sup>1</sup> This essay reflects a presentation made at the conference "New Government, New Labour, New Direction: Is UK HE a Viable Third Way?" Oxford Center for Higher Education Policy Studies, New College, University of Oxford, September 2002.

<sup>2</sup> According to DFEE data, the participation rate of students under 21 years of age in higher education in Great Britain rose from approximately 12 percent to 15 percent from 1980 to 1989, and then increased rapidly to 35 percent by 2001 with the inclusion of the polytechnics in the higher education system and rapid expansion.

<sup>3</sup> In 2000/01, the further education sector comprised 405 FE and sixth form colleges, incorporated under the *Further and Higher Education Act 1992*, and 14 institutions designated under the Act as eligible to receive support from funds administered by the FEFC

<sup>4</sup> It should be noted that comparative data collection on national higher education systems has some problems. Put simply in this case, data in the US is biased toward counting and all tertiary education; data collected in the UK tends to exclude some forms of post-secondary vocational courses. Yet it is reasonable to assume that these comparative figures are reflective of comparative enrolment.

<sup>5</sup> Note that UK participation data tends to look at the 18 to 21 year old age cohort.

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