

# UNIVERSITY EDUCATION: WHAT HAS GONE WRONG?

Amos Witztum

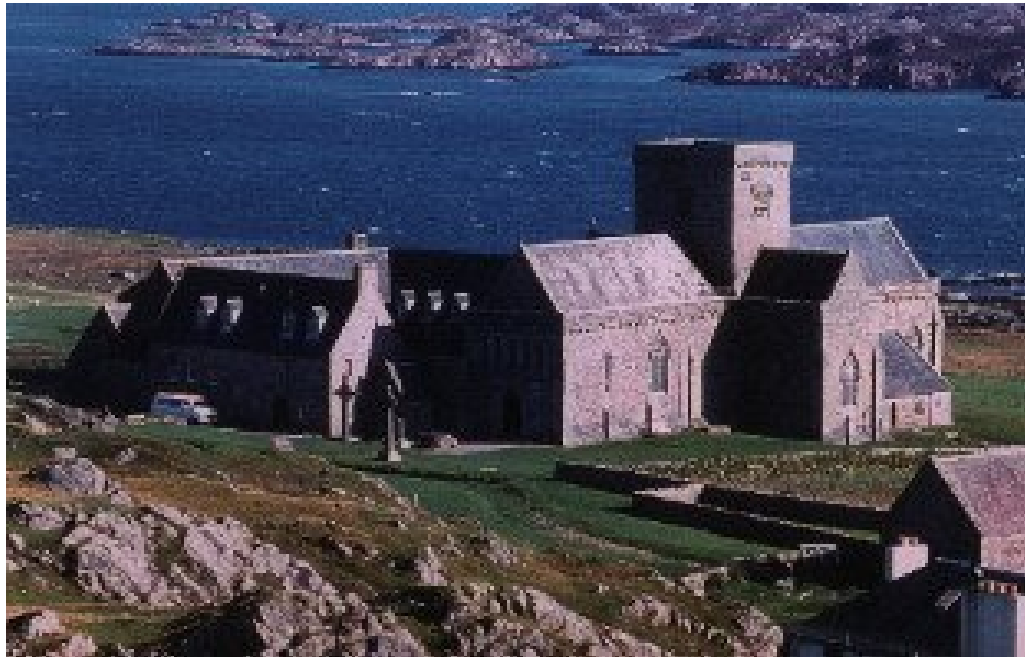
everything

# Prologue



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- A Place called Iona (Kenneth Clark).



# Prologue



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‘Fortunately in England, at any rate, education produces no effect whatsoever. If it did, it would prove a serious threat to the upper classes and probably lead to acts of violence in Grosvenor Square.’  
(Wilde, *The Importance of Being Earnest*)

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Thatcher saw “state-funded intellectuals” as an interest group whose “cloisters and common rooms” are used for denigrating the creators of wealth in Britain (Brain Harrison, (1994)).—reminiscent of Emperor Qin Shihuang (c220BC): intellectuals are a pain; you fund them and they produce idle and unproductive thoughts which are inevitably subversive.



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**Kill them.**

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**The schools of the twelfth century and the universities of the thirteenth century never set themselves the goal of providing the courts and municipalities with specialized experts. Nevertheless, the new social pattern which took form in the university was in part shaped by society, since it was the lively interest of wider social groups which made it possible for the higher schools to become enduring and independent institutions. From the very beginning, education was subject to the tension between the fundamental and primary impulse to seek the truth and the desire of many persons to acquire practical training. Conversely, without really wanting to do so, the schools formed the new academic stratum and changed the whole structure of society, enriching it and making it more complex.<sup>36</sup>**

Classes, P (1983) *Studium und Gesellschaft im Mittelalter*.

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What happens when the market is the authority? Can the market support its detractors?- Could the thinness of current social-economic-political debate be a result of a breakdown of the real university?

# Prologue



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Or, are we sufficiently arrogant to believe that we are, in fact, at the end of history?

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  - 2. There has always been a compulsory element in education;

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From Talmudic times through Plato, Aristotle and Luther, compulsory education spread in the world to finally (late 19<sup>th</sup> century) reach England.

# Prologue



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As in most cases it was less about being functional and more about connecting with the intellectual stock of society.

# Prologue

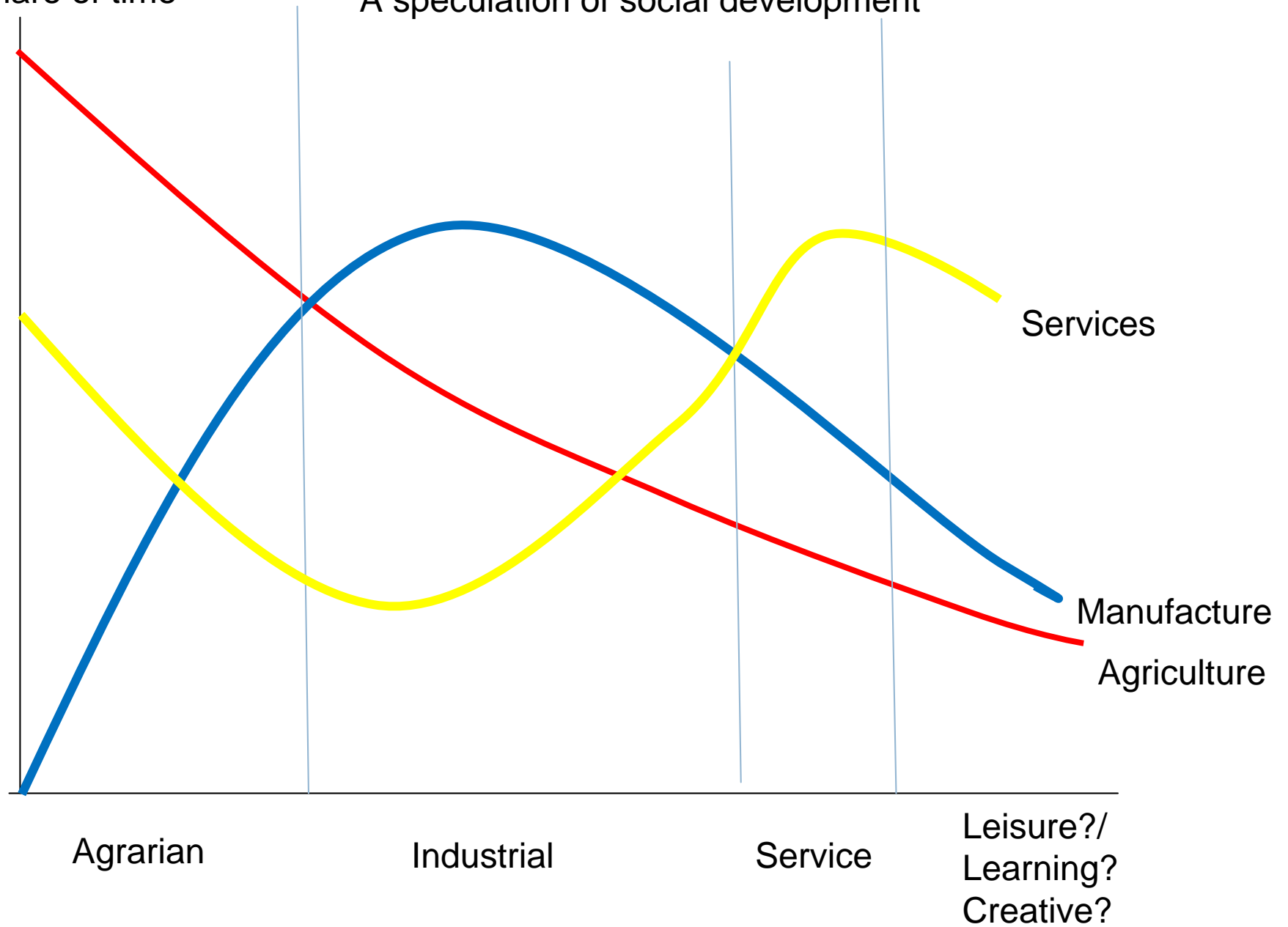


- ❑ The past is not just a matter of Nostalgia;
- ❑ Traditional economic thinking has always been characterised by a sense of evolving society.
- ❑ For classical economists, the commercial state has just begun but this does not mean that this is the final stage.



Share of time

A speculation of social development



Services

Manufacture

Agriculture

Agrarian

Industrial

Service

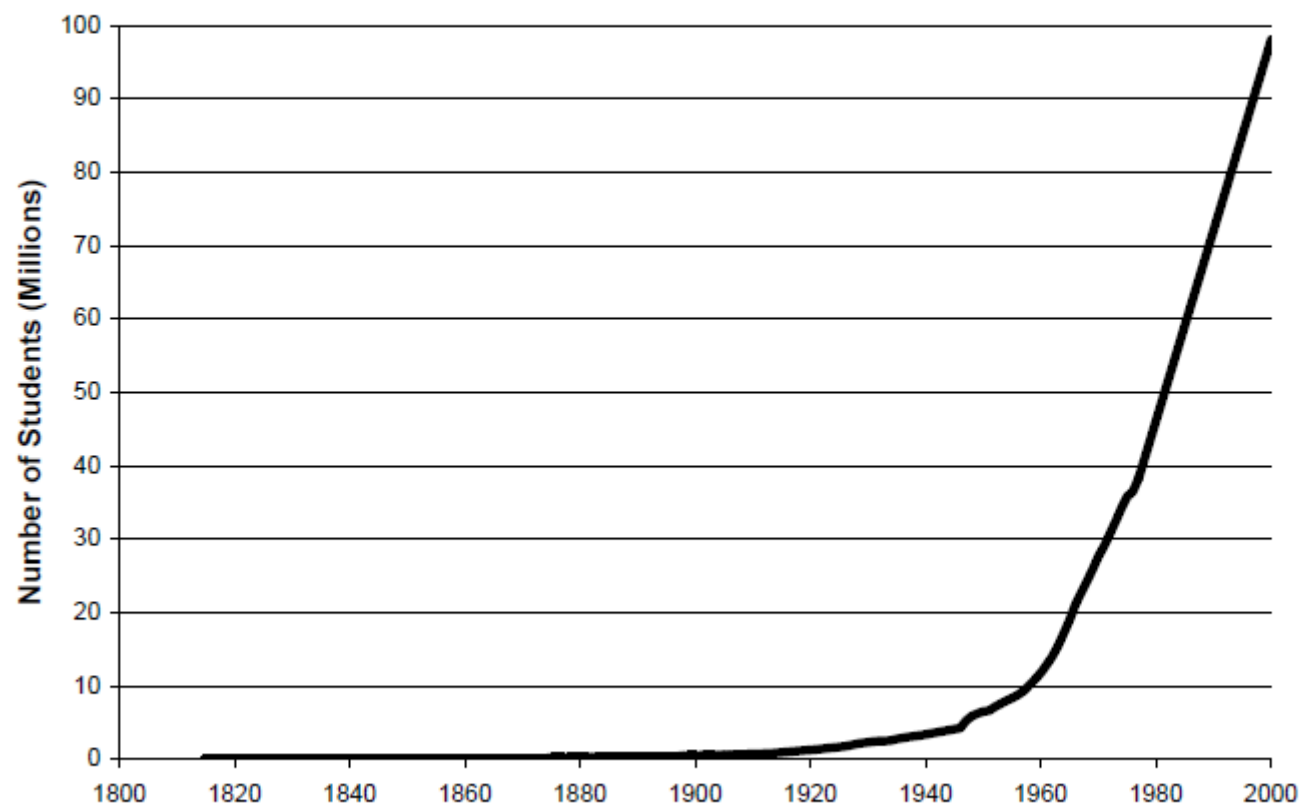
Leisure?/  
Learning?  
Creative?

# Act I: The State We are In



- There has been an enormous expansion in higher education:

Figure 1. World Tertiary Students, 1815-2000.

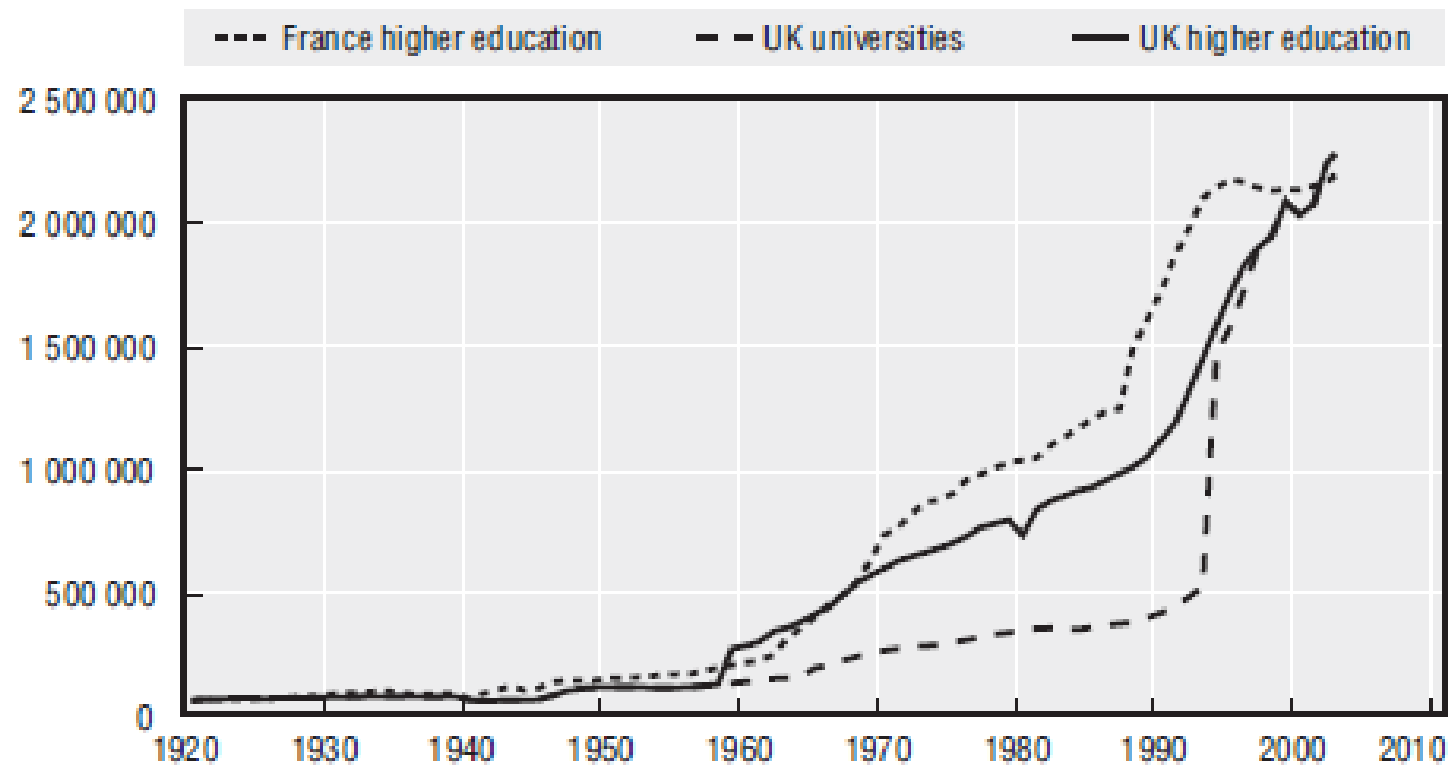


# The State We are In



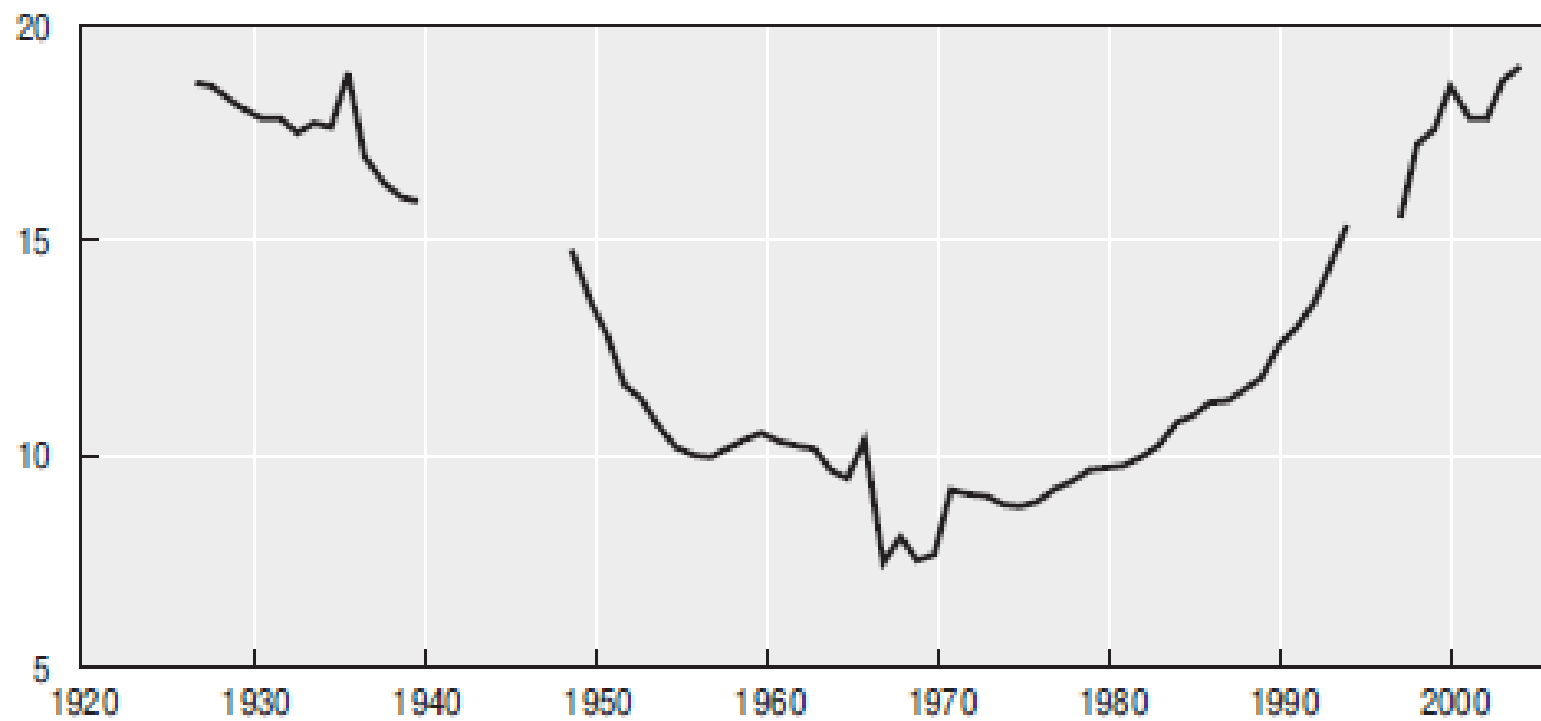
- In the UK this seems more clearly at the expense of quality:

Figure 2. Number of students, 1921-2003



Source: Carpentier (2004c).

Figure 8. Number of students per full time academic staff, United Kingdom, 1926-2003



Source: Carpentier (2004c).

# The State We are In



- There has been enormous expansion in higher education;
- There are also private returns to education:

# The State We are In

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- There are also private returns to education:

## % gain over 2-A levels

	Male	Female
OSSAH	10	33
COMB	20	33
STEM	25	38
LEM	33	42

Walker and Zhu 2010.



# The State We are In



- There has been enormous expansion in higher education;
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- Therefore, it is assumed that the expansion is driven by the market return and that in such a case, there is no reason why the provision of education should be public.

# The State We are In



- There has been enormous expansion in higher education;
- There are also private return to education
- Therefore, it is assumed that the expansion is driven by the market return and that in such a case, there is no reason why the provision of education should be public.
- This also means that curriculum design should be driven by demand and the teaching should be student-based.

# The State We are In



- As a result of this drive there has been a massive increase in administrators in higher education:

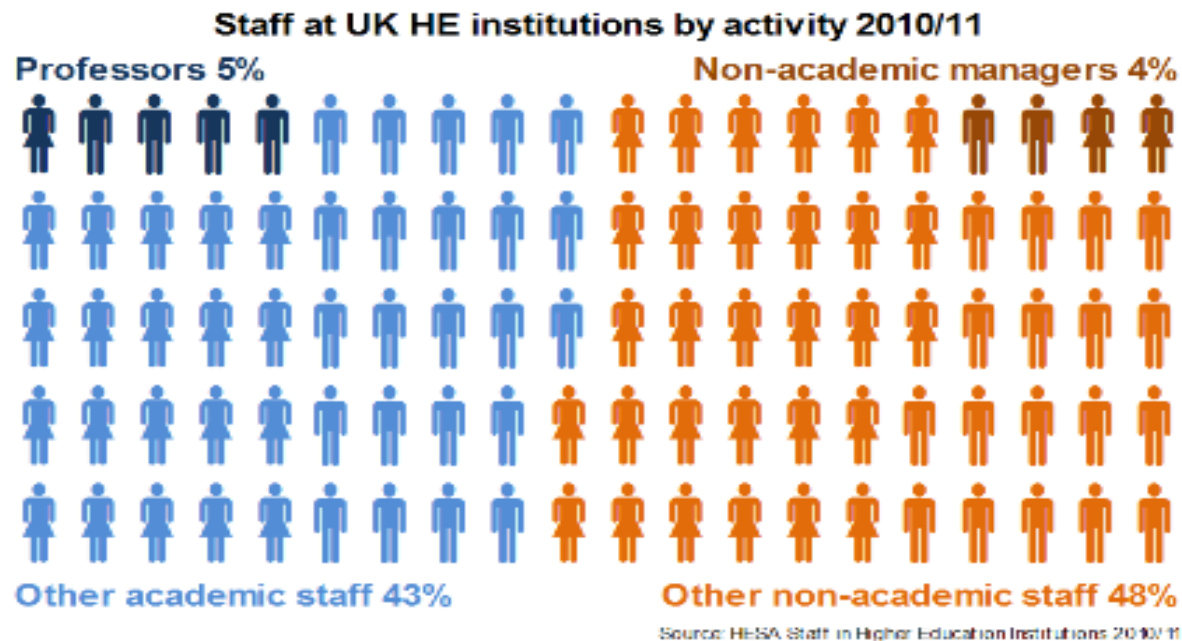
# The State We are In



- As a result of this drive there has been a massive increase in administrators in higher education:
  - ▣ Between 2003/4-2008/9 there was a 33% increase in managers, 10% in academics and 9% increase in students.

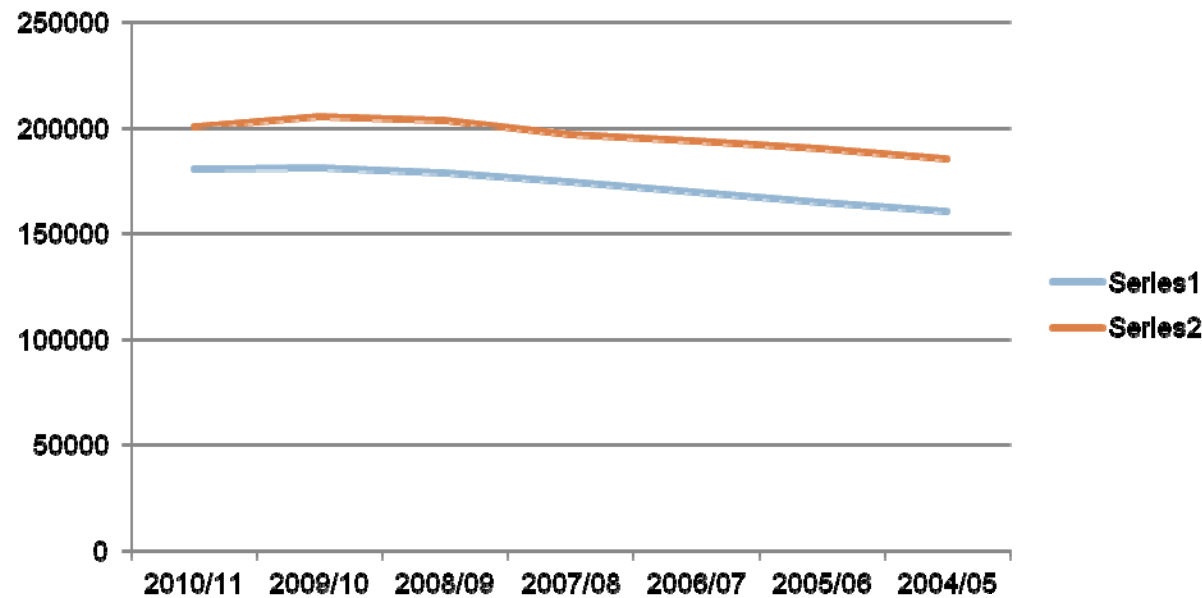
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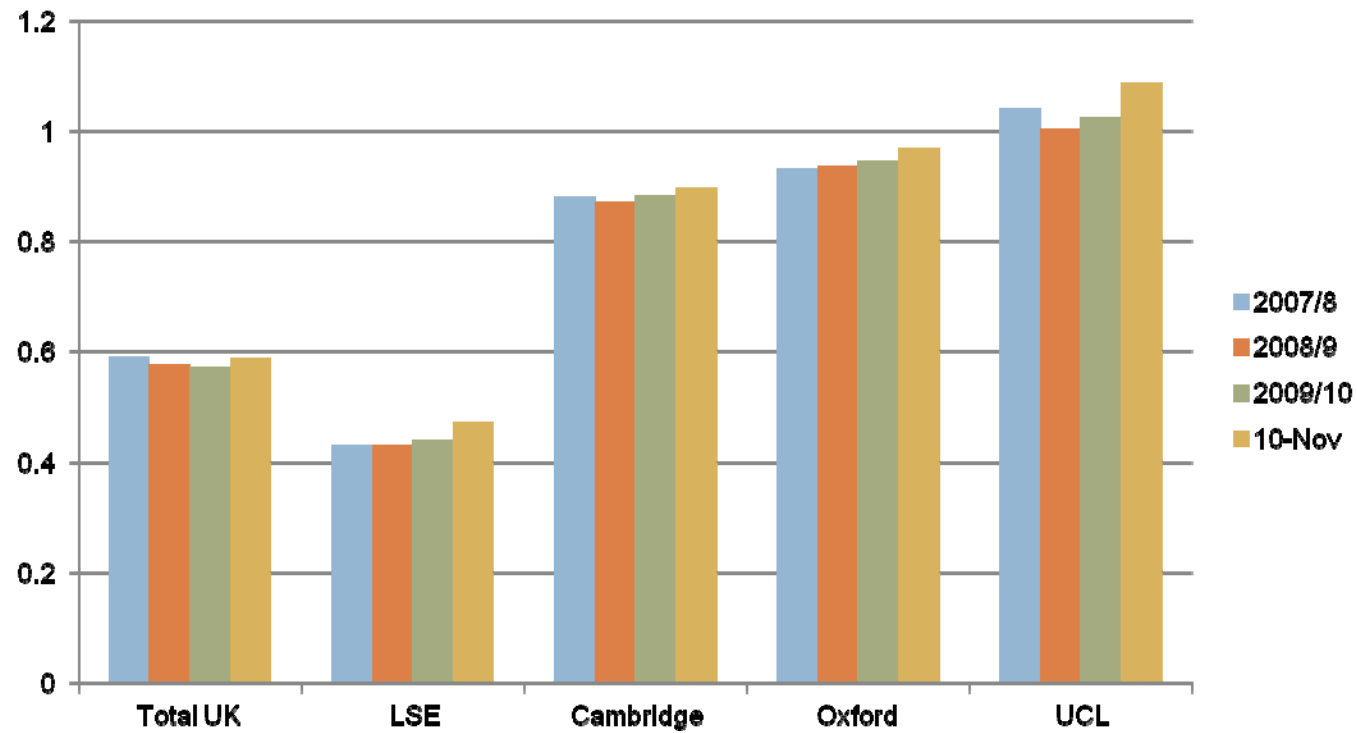
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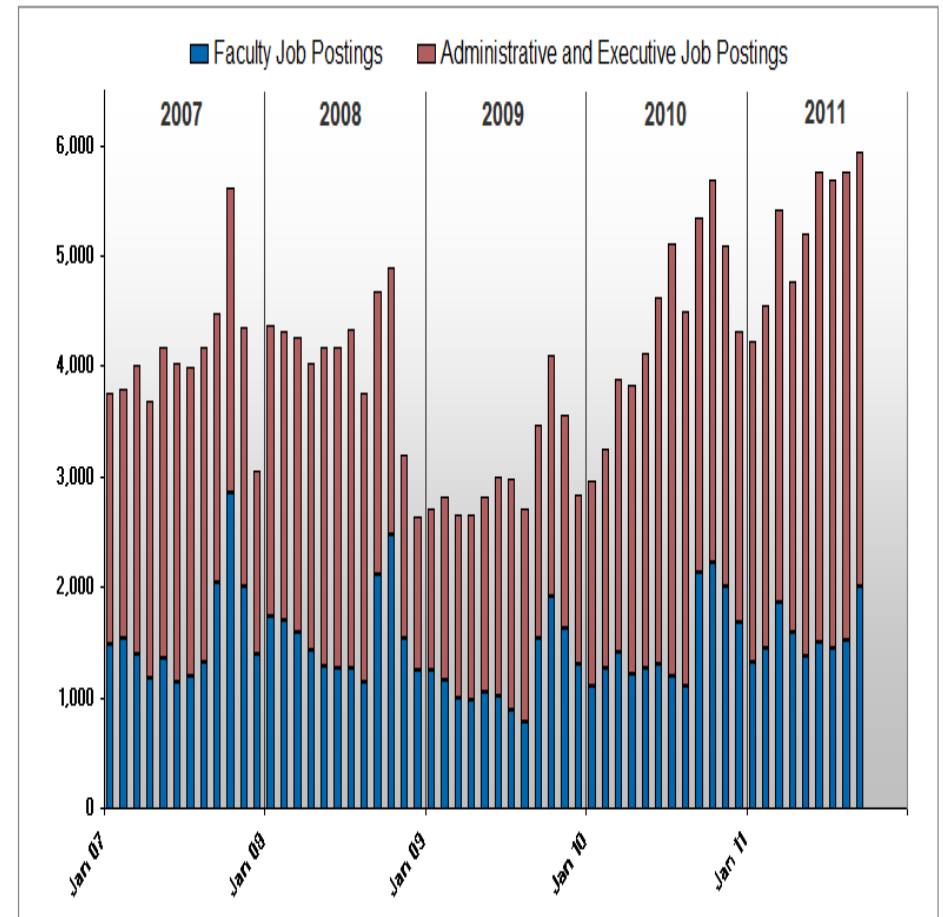
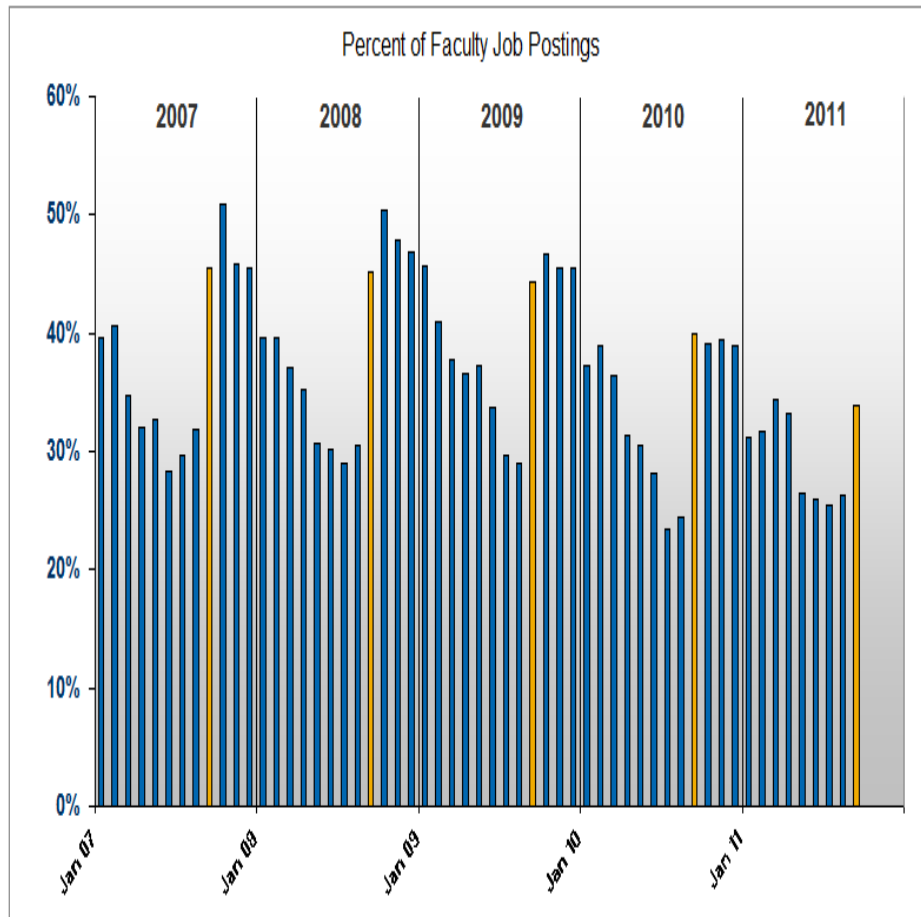
HESA: Series 1 Academics, Series 2 managers

## Ratio of full time academics to admin staff



Source: HESA

## Things are worse in the US





# The State We Are In



- But the effect of the move towards students-based (students' happiness) learning had an impact on quality too:

# The State We Are In



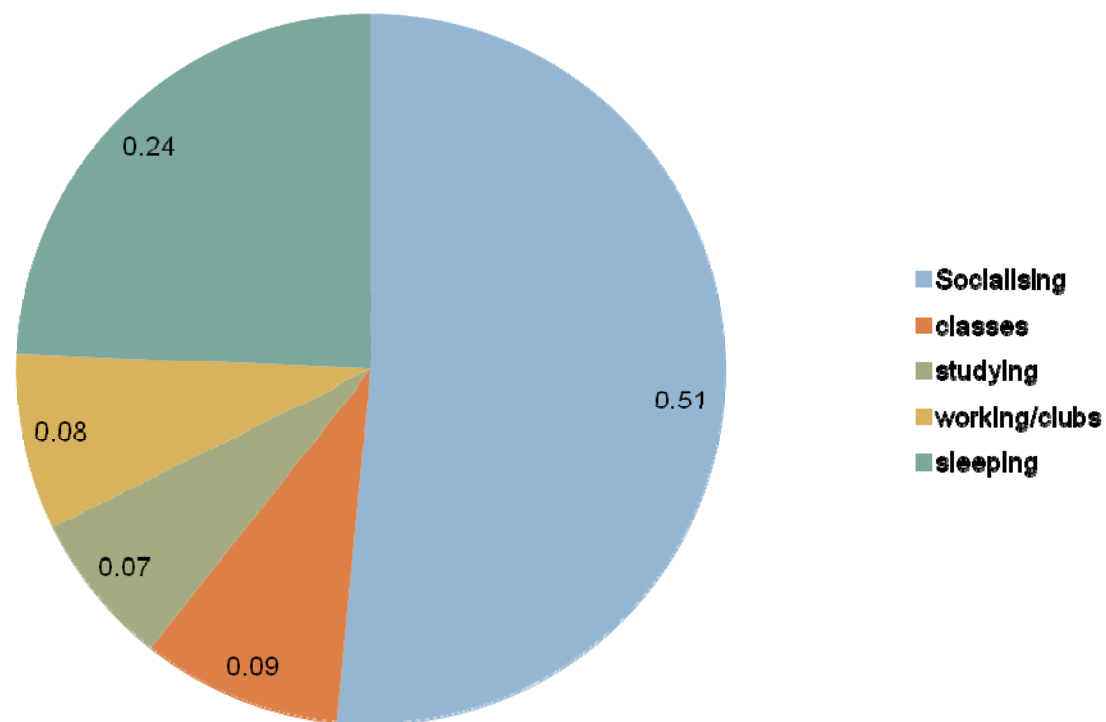
- But the effect of the move towards students-based (students' happiness) learning had an impact on quality too:
  - In a recent study in the US it was found that 45% of student had made no progress in critical thinking, complex reasoning and writing in their first two years (*Arum and Roksa 2011*).

# The State We Are In

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- But the effect of the move towards students-based (students' happiness) learning had an impact on quality too:
  - In a recent study in the US it was found that 45% of student had made no progress in critical thinking, complex reasoning and writing in their first two years (*Arum and Roksa 2011*).
  - Students reported spending 12 hours a week studying compared to 25 hours in 1961 and 20 in 1981.

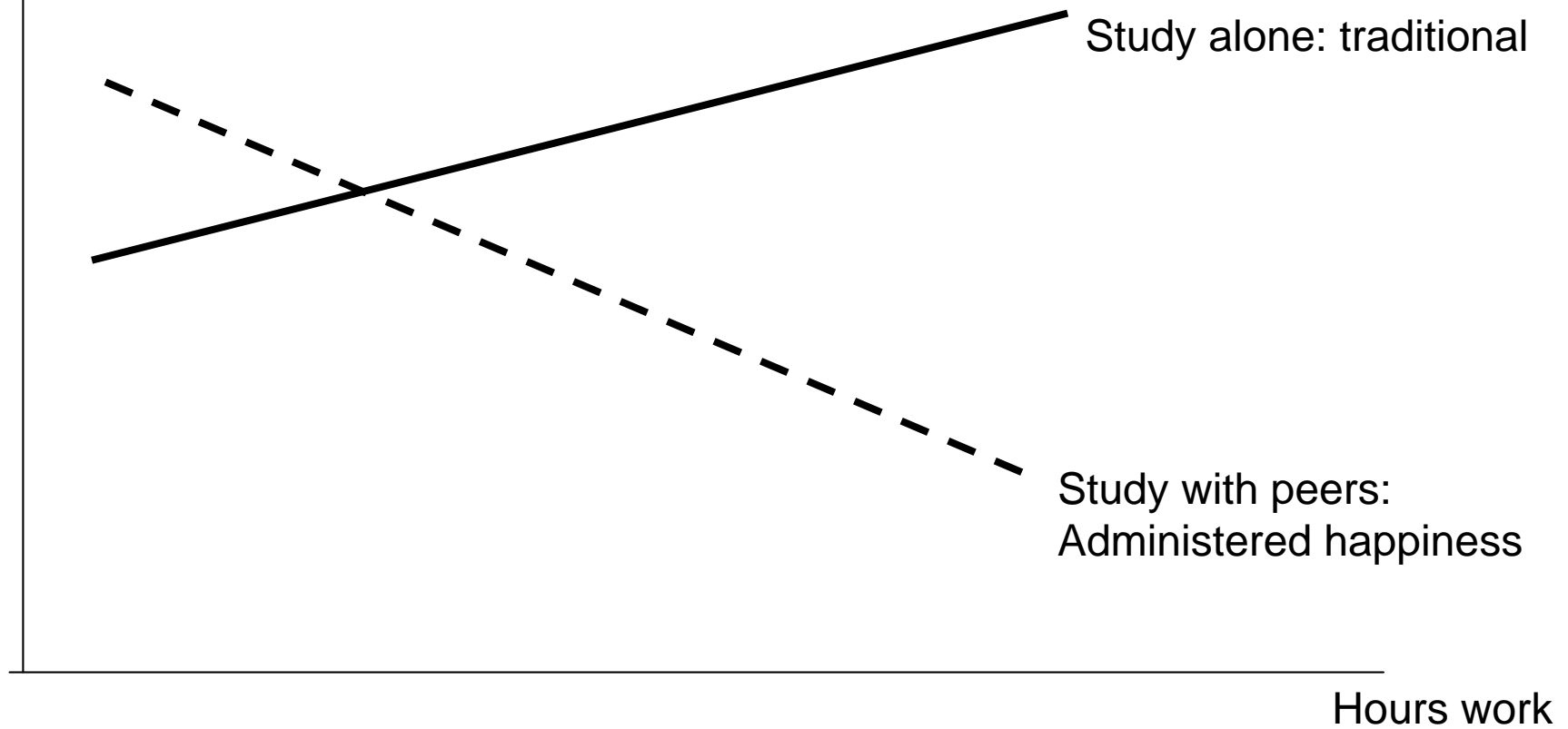
## Allocation of time among US UG students.



Source: Arum and Roksa (2011)

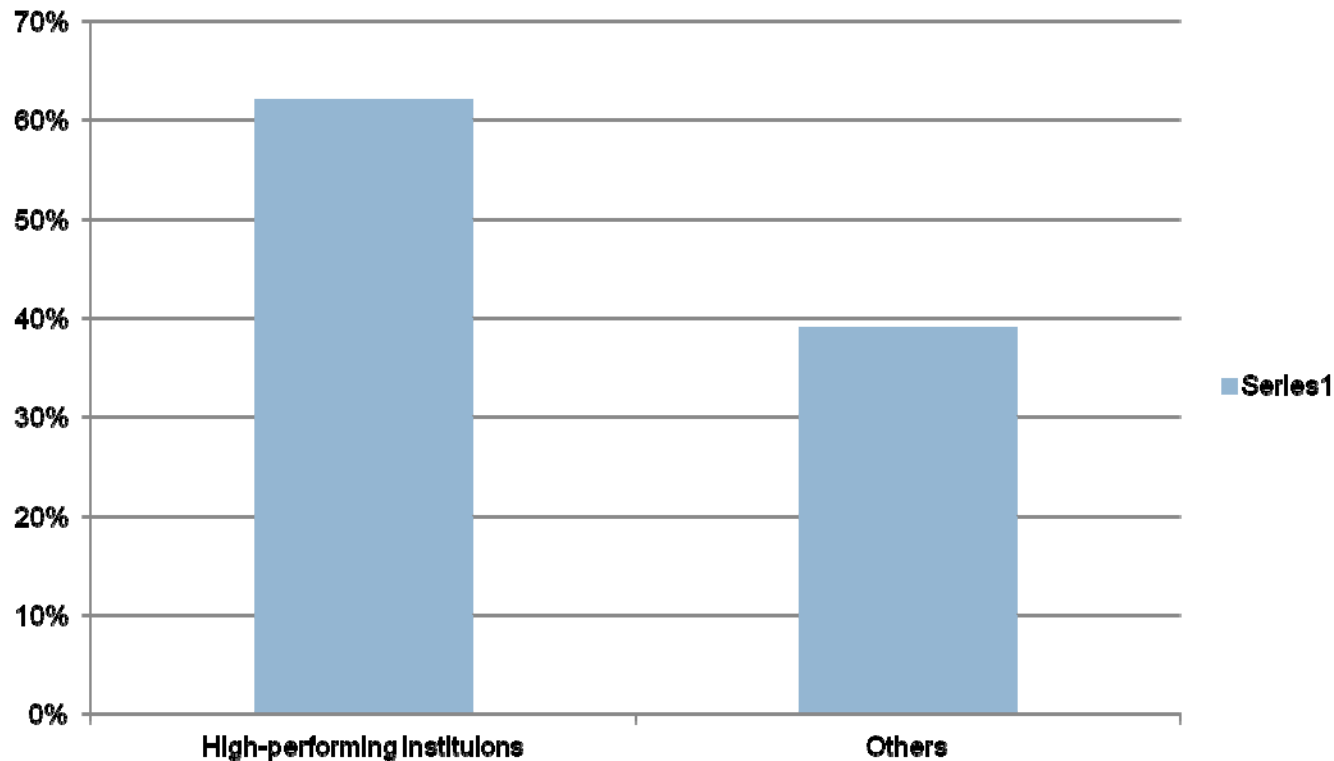
Scores at CLA:  
performance

But is time quality?  
Sociology of learning



Source: Arum and Roksa (2011)

But other traditional ways of studying matter too:  
% of students attending courses which require reading of  
more than 40 pages and writing of more than 20 pages in  
Institutions with high performance in the CLA



Market resilient ←————→ Market sensitive

Source: Arum and Roksa (2011).

# The State We Are In



- But there also seems to be a correlation between the way we study and ***what*** we study:

# The State We Are In



- But there also seems to be a correlation between the way we study and ***what*** we study:
  - ▣ Business/Management students scored the lowest; (most market-based)
  - ▣ Sciences and Humanities, the highest;
  - ▣ Students of Sciences and Maths scored 77 points higher than Business and management students.
  - ▣ Students of social sciences and humanities scored 69 higher.



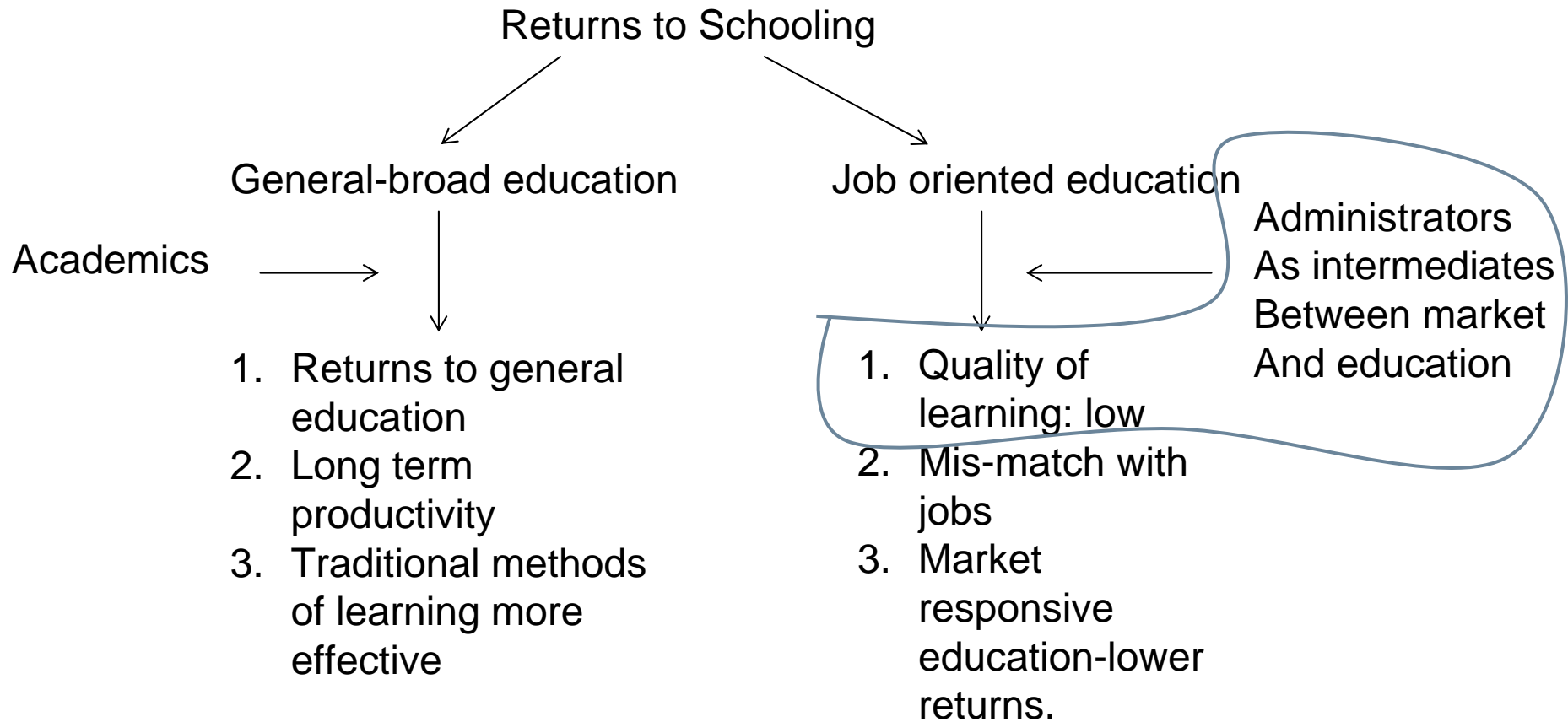
# Act II: The Economic Argument Revisited



# The Economic Argument Revisited

- The fact that there are returns to schooling does not necessarily mean demand based or student based learning.
- It depends on what exactly is the origin of the returns to schooling:
  - ▣ Signalling
  - ▣ Specific-industry oriented expertise
  - ▣ Externalities-general education.

## The problem with the economic argument



# The Economic Argument Revisited



- First of all, we note that the returns to higher education are not independent on whether one studies in a more market-responsive institution or a more traditional one:

A bar chart comparing the average individual starting salary (£/wk) for Male and Female across four categories: Russel, Old, New, and Other. The Y-axis ranges from 260 to 380 in increments of 20. The legend indicates that light blue bars represent Males and maroon bars represent Females.

Category	Male (£/wk)	Female (£/wk)
Russel	365	323
Old	345	310
New	327	312
Other	311	307

Source: HESA

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# The Economic Argument Revisited



- Secondly, we note that ‘training’ part of education seems increasingly irrelevant:

Table 1: The relationship  
between higher education and  
the first job after graduation (%)

Graduates considered their first job after graduation	Europe	UK
... required an education level below tertiary level	18	38
... did not require a particular field of study	13	35
... did not/hardly utilize(d) knowledge and skills	19	33

Arthur and Little (2010)

# The Economic Argument Revisited



- We also note a consist increase in the formal mismatch between people's education and jobs:



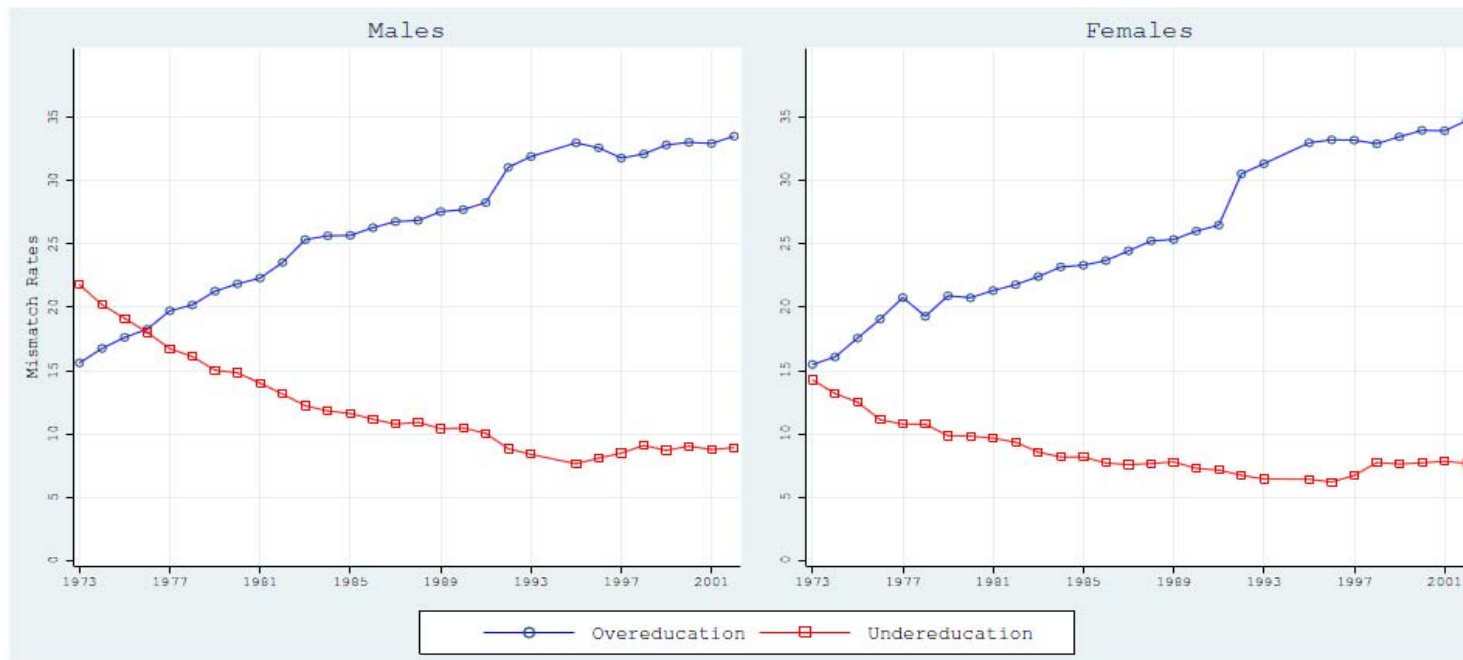
**Table 3 Education/Job Matching for Graduates, 1986-2006 (% of graduate employees)**

**a) Men**

	<b>1992</b>	<b>1997</b>	<b>2001</b>	<b>2006</b>
<b>Matched</b>	78.3	77	73	66.8
<b>Overqualified</b>	21.7	23	27	33.2
<b>Real Overqualification 1</b>	7.5	-	7.2	9.9
<b>Formal Overqualification 1</b>	14	-	19.8	23.4

Source: Green and Zhu (2007)

Similar trends can be found in the US



**Figure 4 – Mismatch Rates 1973–2002**

Source: Slonimczyk (2011)

# The Economic Argument Revisited



- The growing mismatch is also reflected in the job satisfaction literature.
- In 2010 it has been reported that only 45% of American and 37% of Britons were satisfied with their jobs.
- Over a life time the picture is not very happy either:

# The Economic Argument Revisited

- In a longitude study by Hammermash (2001):

	94	
84	yes	no
yes	28.3	18.3
no	19.7	38.5
	96	
90	yes	no
yes	25.43	17.63
no	17.52	39.42

# The Economic Argument Revisited



- Therefore, it is not obvious that higher education—when becoming more demand oriented and functional—is actually generating a higher private return.
- The association of returns with different types of institutions (and different approaches to higher education) seems to suggest that the more traditional approaches—non student oriented—generate higher returns.
- It also seems to be the case that old methods of learning are more effective in generating real learning.

# The Economic Argument Revisited



- This may imply that the higher private returns are mainly due to the externalities generated by higher education which seems to be associated with more traditional and non-functional aspects of education.

# The Economic Argument Revisited

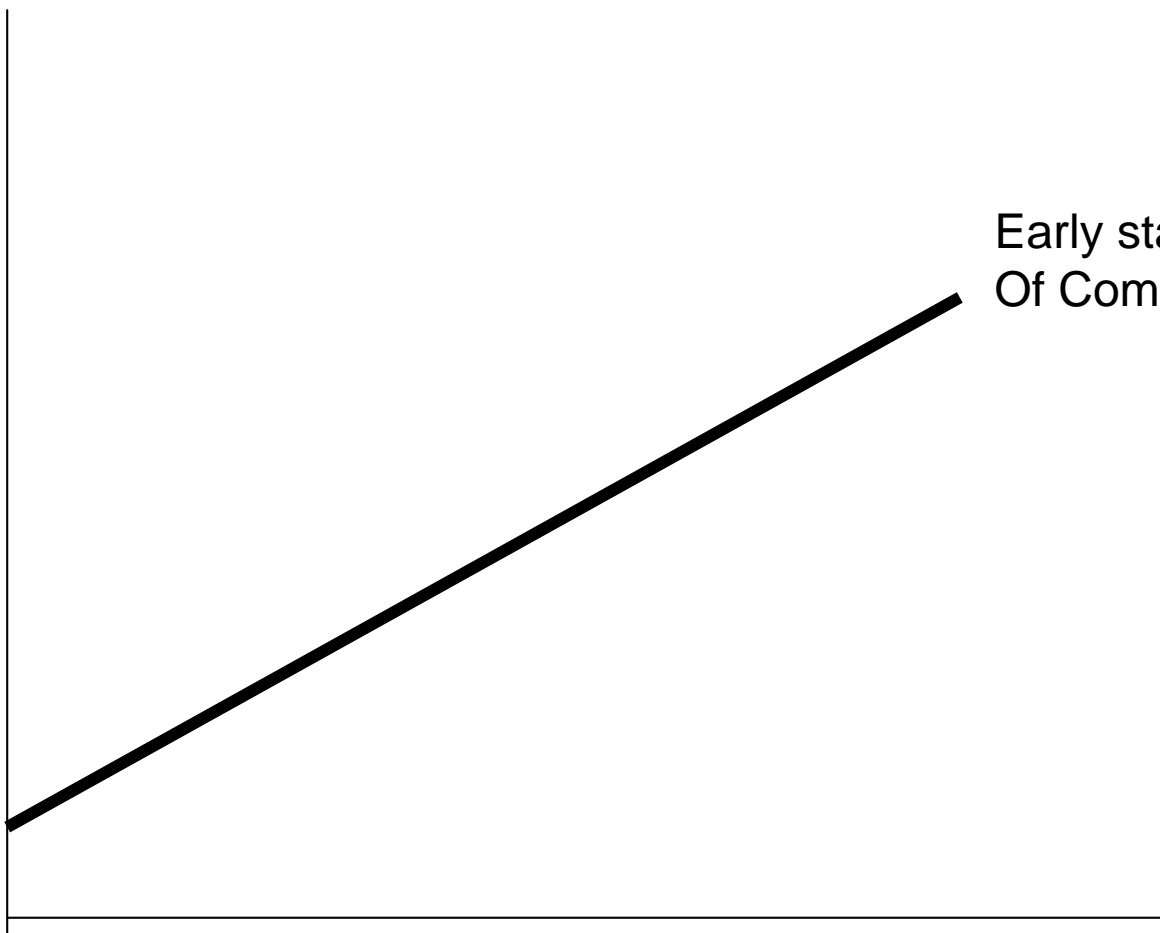


- The rise in over-qualification and job dissatisfaction may also suggest something about the nature of work which could pull the rug from under the training and demand based education.
- Smith and Mill had an interesting story to tell about specific and general education.

Specificity of  
knowledge

Early stages  
Of Commercial society

Productivity



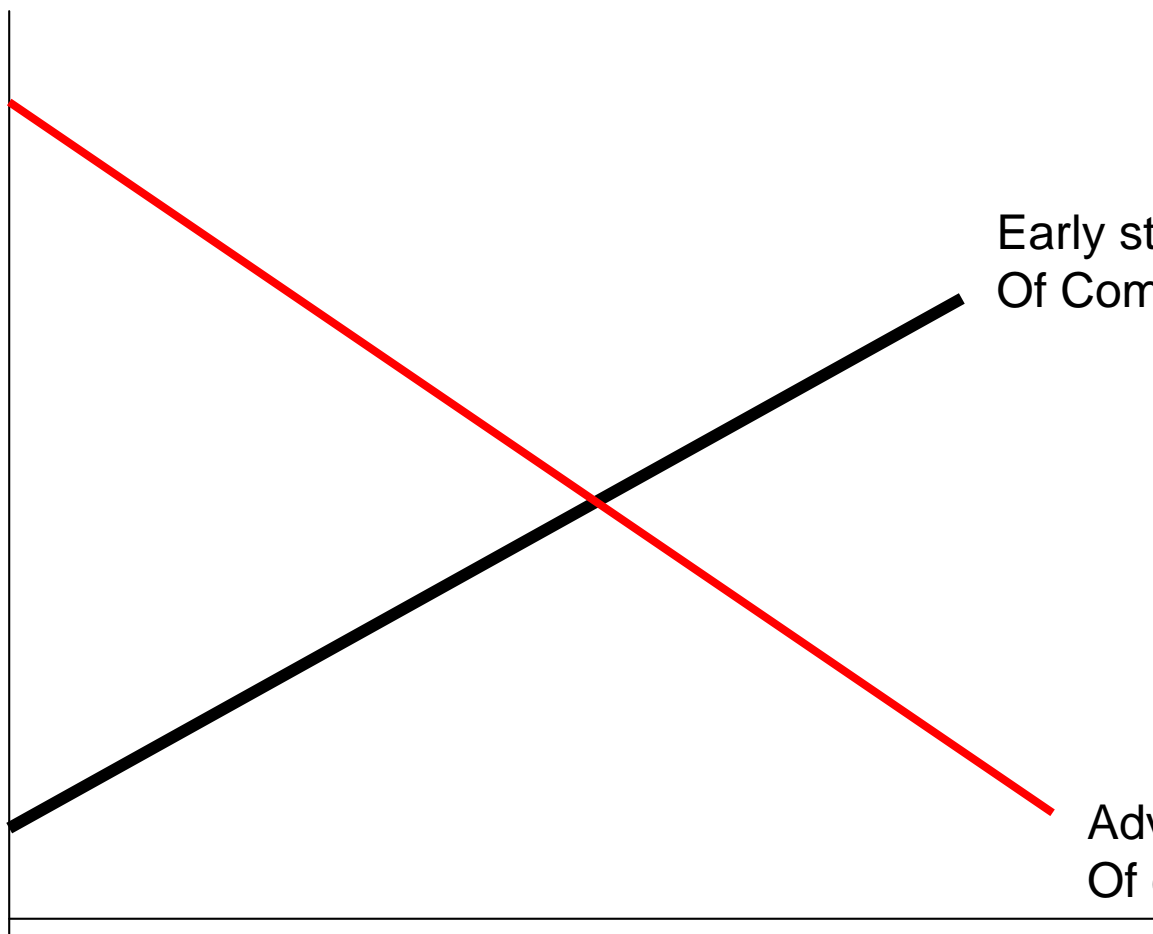


Specificity of  
knowledge

Early stages  
Of Commercial society

Advanced stages  
Of commercial society

Productivity

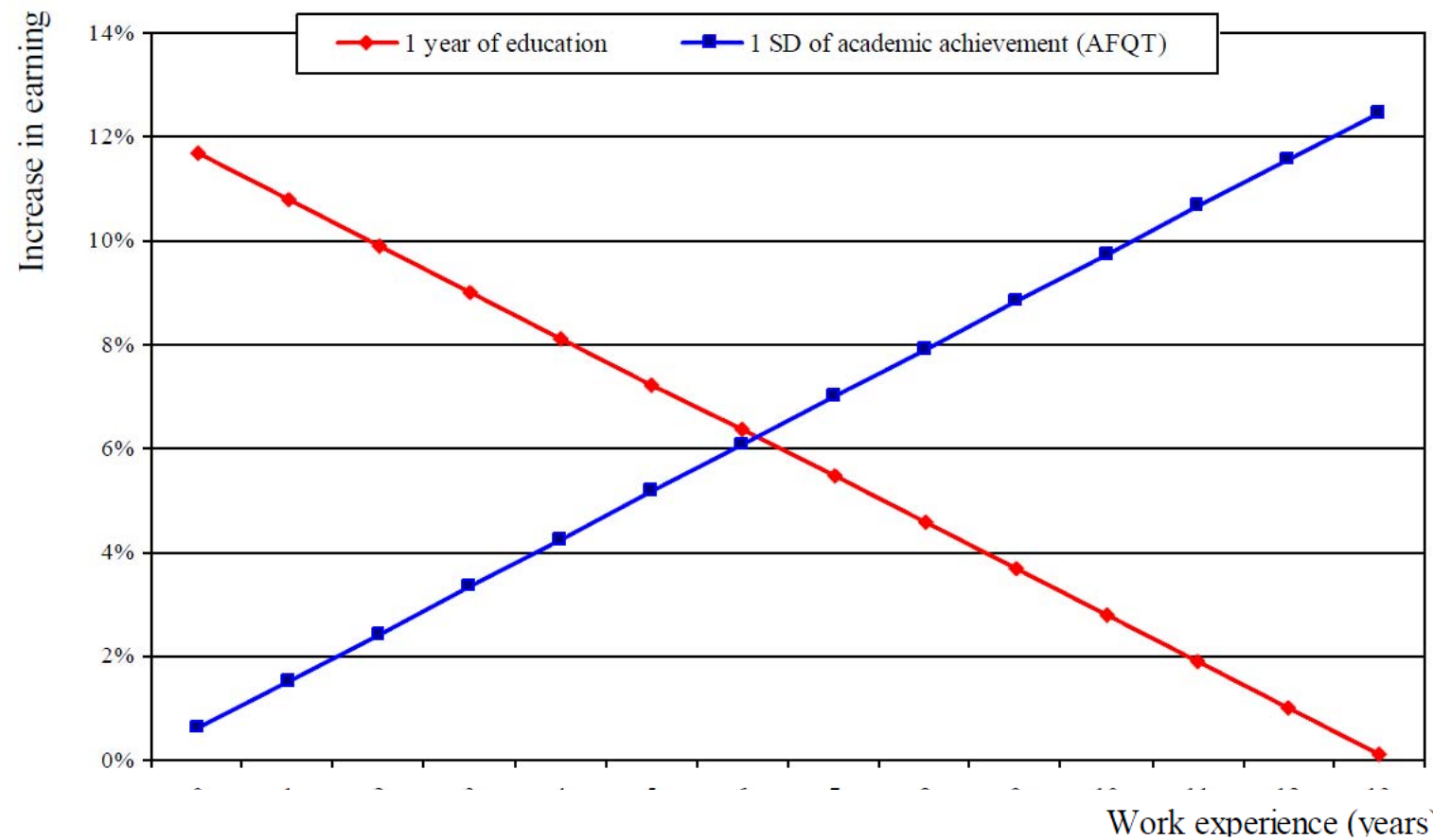


# The Economic Argument Revisited



- There seems to be evidence that ***general*** qualitative aspects of education seem to be the main source of reward.
- For instance, over time, there is a clear difference between the return to a year of education and a return to a SD from the mean:

**Figure 2.1: Returns to Observed Educational Quantity and Unobserved Educational Quality over the Work Life**



Notes: Based on data from National Longitudinal Survey of Youth (NLSY) and Armed Forces Qualification Test (AFQT).  
SD = standard deviation.

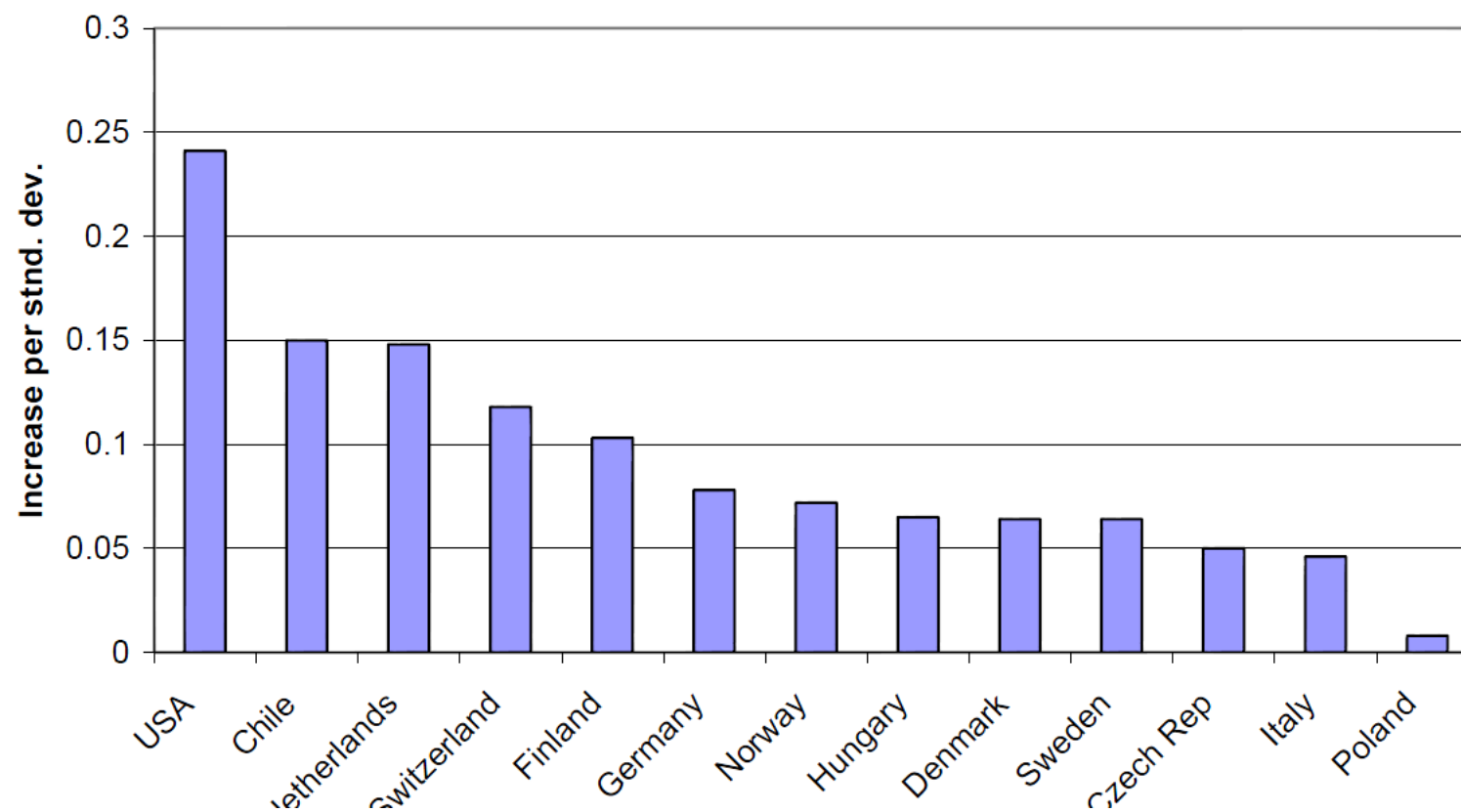
Source: Based on Altonji and Pierret (2001).

# The Economic Argument Revisited



- In terms of general returns there seems to be greater returns to ***quality of general education*** (as measured by SD of IALS):

**Figure 2.2: Returns to Cognitive Skills, International Adult Literacy Survey**



Source: Hanushek and Zhang (2006).

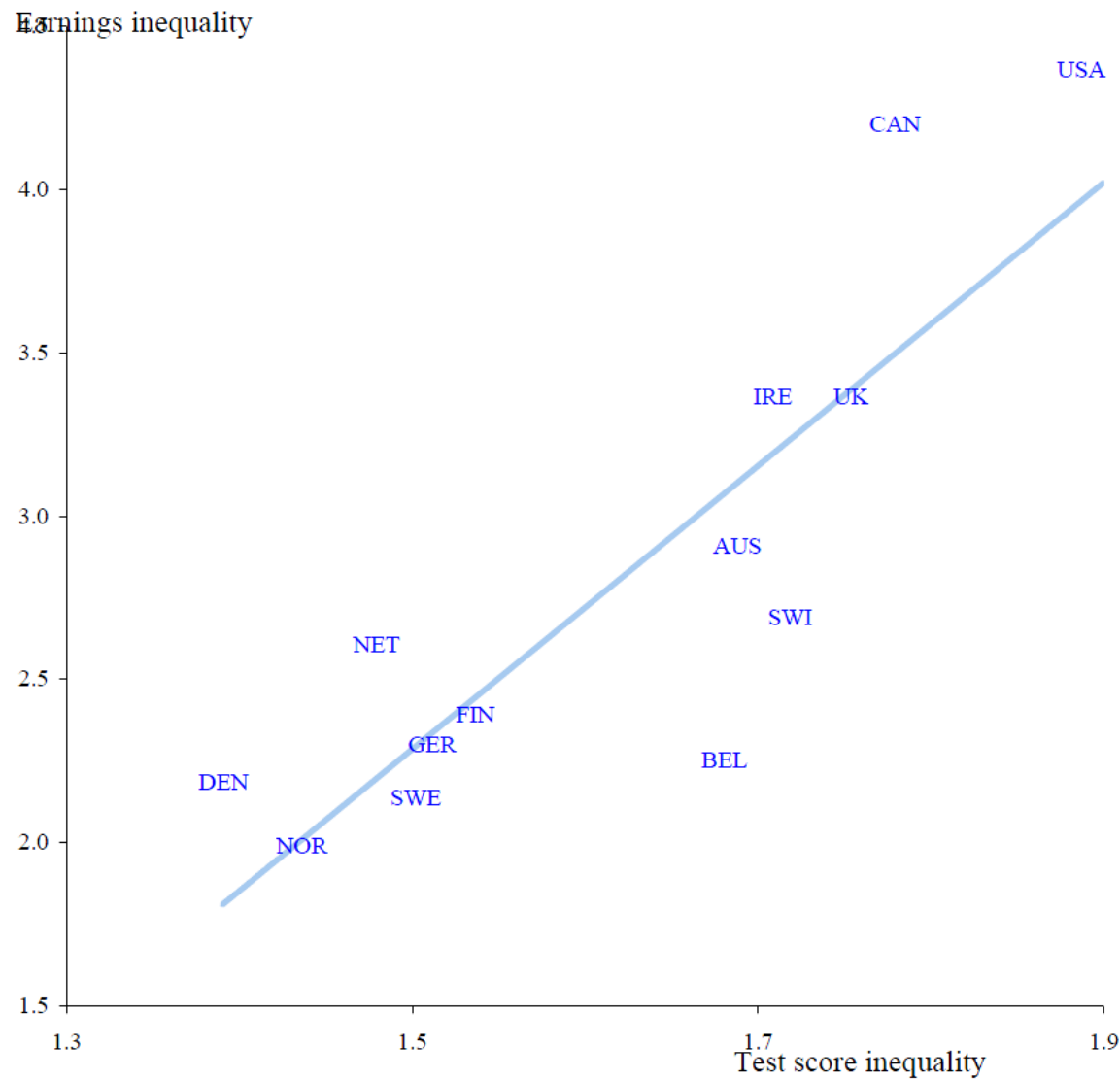
Mincer returns are lower

# The Economic Argument Revisited



- But not only that this basic measure of general quality generates real and higher return than a year of schooling, it also seems to be correlated with inequality:

**Figure 2.4: Inequality of Educational Quality and Earnings**



Note: Measure of inequality is the ratio of ninth decile to first decile in both cases; test performance refers to prose literacy in the International Adult Literacy Survey.

Source: Nickell (2004).

# The Economic Argument Revisited

## Intermediate Summary



- We have seen so far:
  - ▣ (a) The returns to education do not seem to be based on the match between the teaching programme and the job.



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# The Economic Argument Revisited

## Intermediate Summary



- We have seen so far:
  - ▣ (a) The returns to education do not seem to be based on the match between the teaching programme and the job.
  - ▣ (b) Traditional Quality seems to be the main contributor to the returns to education.
  - ▣ (c) This may suggest that the returns to education are associated with externalities rather than direct contributions.

# The Economic Argument Revisited

## Intermediate Summary



- We have seen so far:
  - ▣ (d) However, it seems that quality of education is not necessarily associated with the new trends in education (neither by way of curriculum nor by way of student-based learning).

# The Economic Argument Revisited

## Intermediate Summary



- We have seen so far:
  - ▣ (d) However, it seems that quality of education is not necessarily associated with the new trends in education (neither by way of curriculum nor by way of student-based learning).
  - ▣ (e) While this may not entirely remove the case for private funding, it does remove the case for market oriented provisions.

# The Economic Argument Revisited

## Intermediate Summary



- We have seen so far:
  - ▣ (f) To further this point: The growing mis-match between education and employment suggests that the nature of work may also be changing. This means that even if we want to be 'functional', the way about it is through general education

# Act III: The Social Dimension



# The Social Dimension



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- I mentioned at first the perceived role of universities as the home for radical and innovative social thinking.
- This means that when society is going through structural transitions, it is up to someone to be able to identify the coming change and to suggest remedies or adjustments.
- In my view, we are at such a crossing and the silence of academia is the best sign of the erosion of the social function of university.

# The Social Dimension



- We spent a lot of time talking about the returns to education and about its productivity, however, in so doing, we are missing important trends which may require radical new thinking.

# The Social Dimension



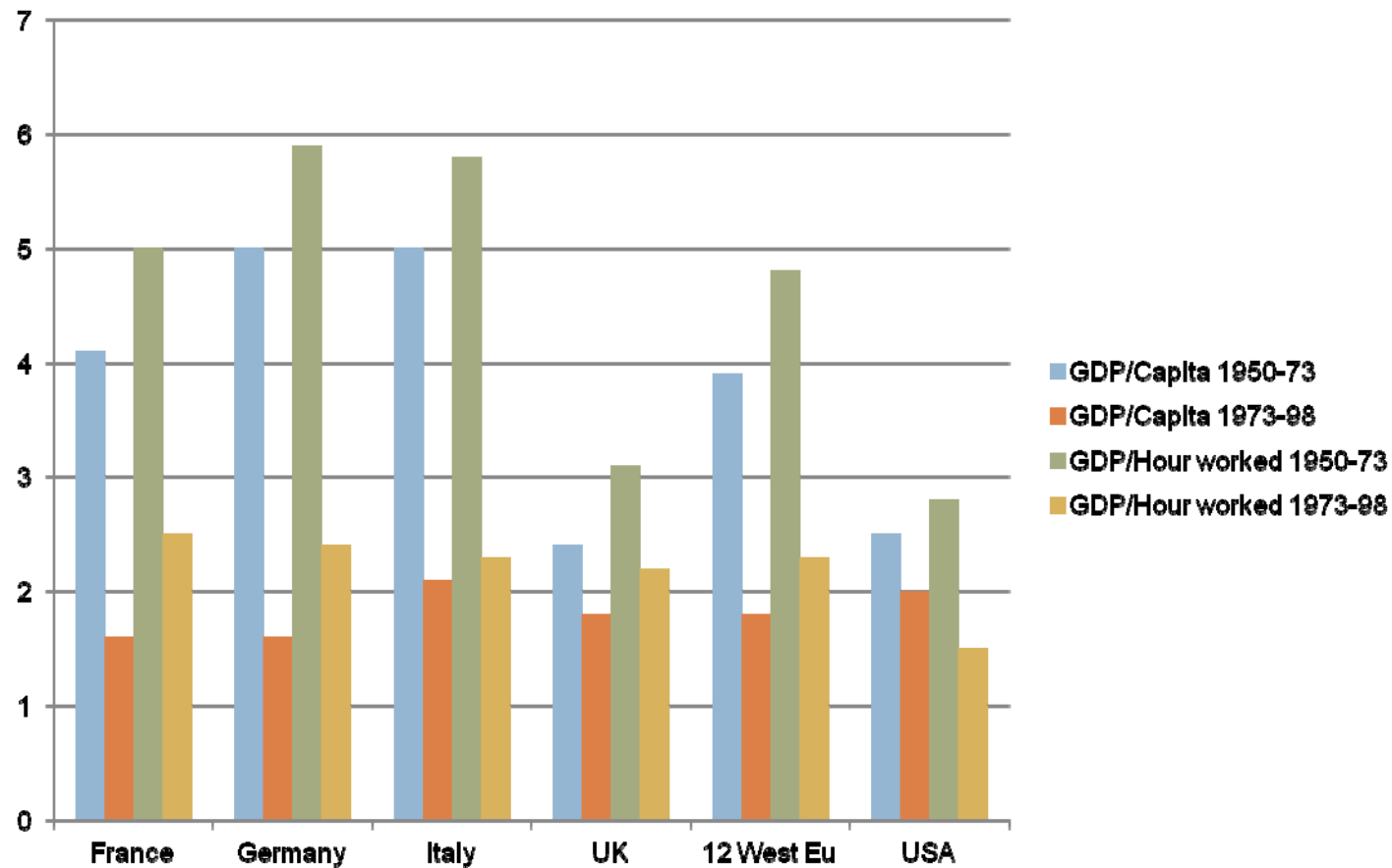
- For instance, while it is true that education may be productive, from a historical perspective this may not be such an interesting point.

# The Social Dimension



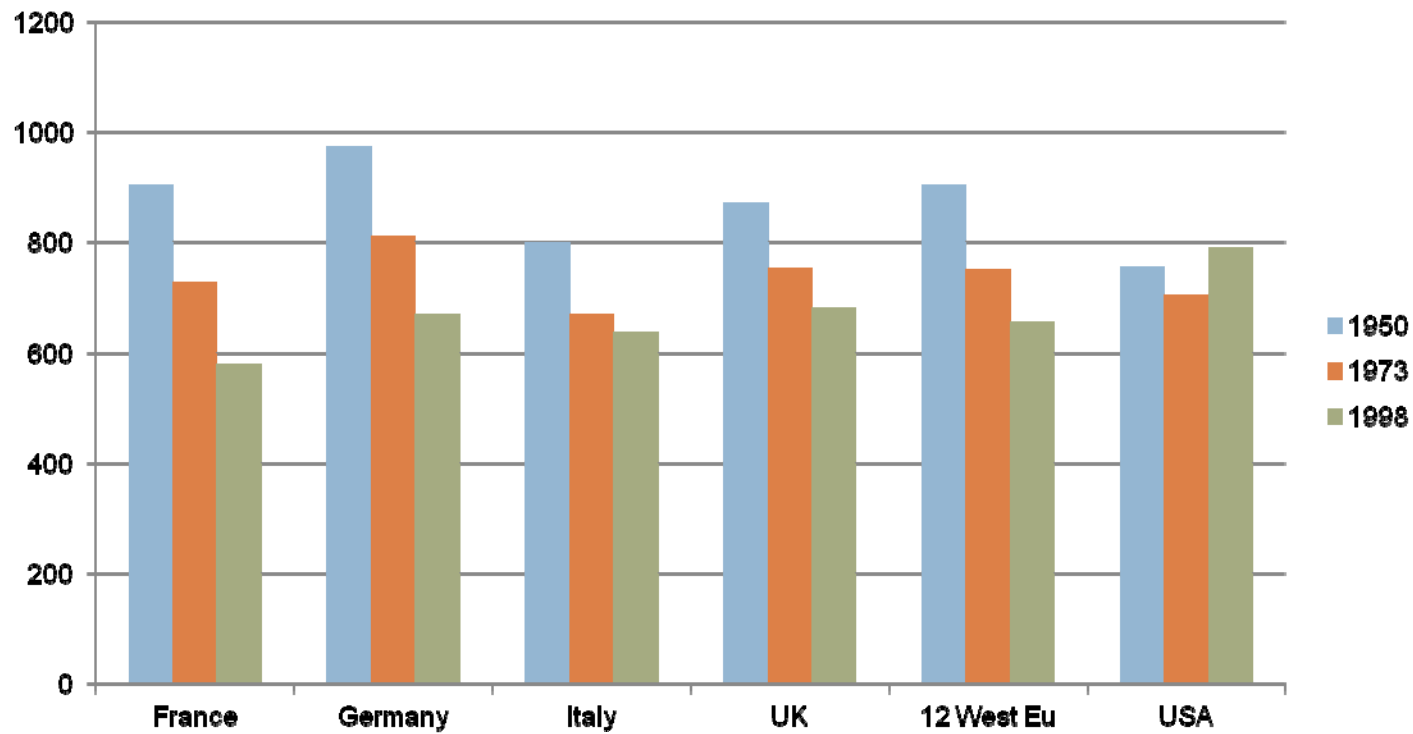
- For instance, while it is true that education may be productive, from a historical perspective this may not be such an interesting point.
- If we look at what happens to growth and productivity over a longer period of time we shall see that there is a general slowdown (among the developed countries, of course):

## Average annual growth rates of GDP per capita



Source: *The World Economy: A Millennium Perspective* (2006)

## Hours worked per person



Source: *The World Economy: A Millennium Perspective* (2006)

# The Social Dimension



- While the productivity for growth (as opposed to earnings) is clearly part of the social dimension of education, from a historical perspective this may not be relevant:
  - ▣ We note that growth of GDP per capita is, on the whole, falling;
  - ▣ We note that growth of GDP per hour worked is falling;

# The Social Dimension



- While the productivity of growth (as opposed to earnings) is clearly part of the social dimension of education, from a historical perspective this may not be relevant:
  - ▣ We note that growth of GDP per capita is, on the whole, falling;
  - ▣ We note that growth of GDP per hour worked is falling;
  - ▣ People work less and less (except the US).

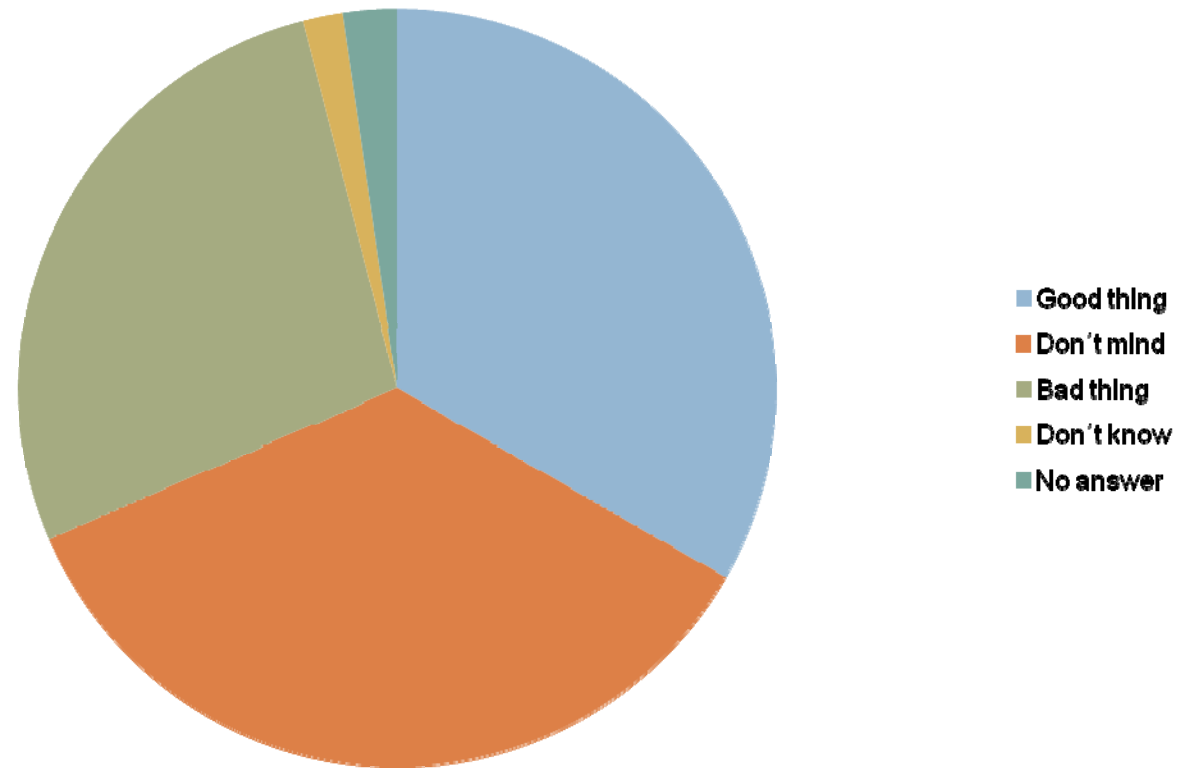


# The Social Dimension



- The implications of this are:
  - ▣ (a) The slowdown in annual growth rate of GDP per capita could be associated both with the limitation of technological development and with a choice which people make: to have more leisure.
  - ▣ (b) Growth may no longer be a social objective (or, it is not a sustainable social objective).
  - ▣ (c) The role of work in life should be re-examined.

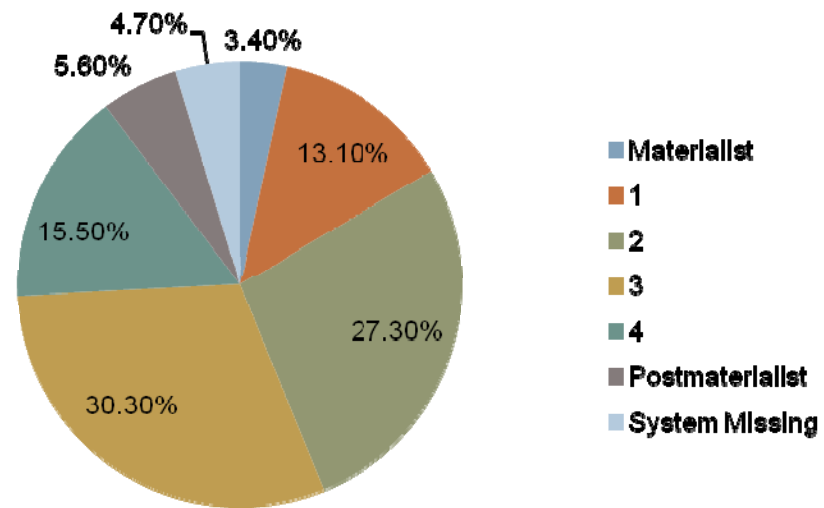
Future Changes: Less Importance placed on work  
(Anglo Saxon)



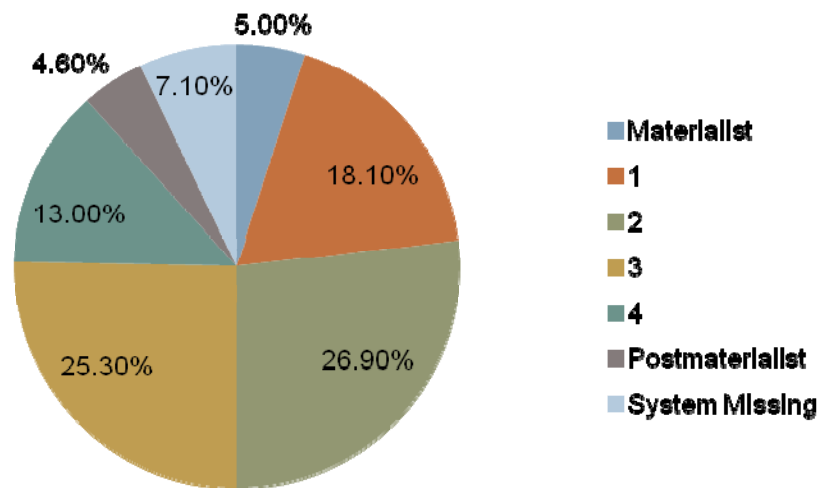
Source: WVS 2005

## Post-Materialistic Index

Continental



Anglo-Saxon



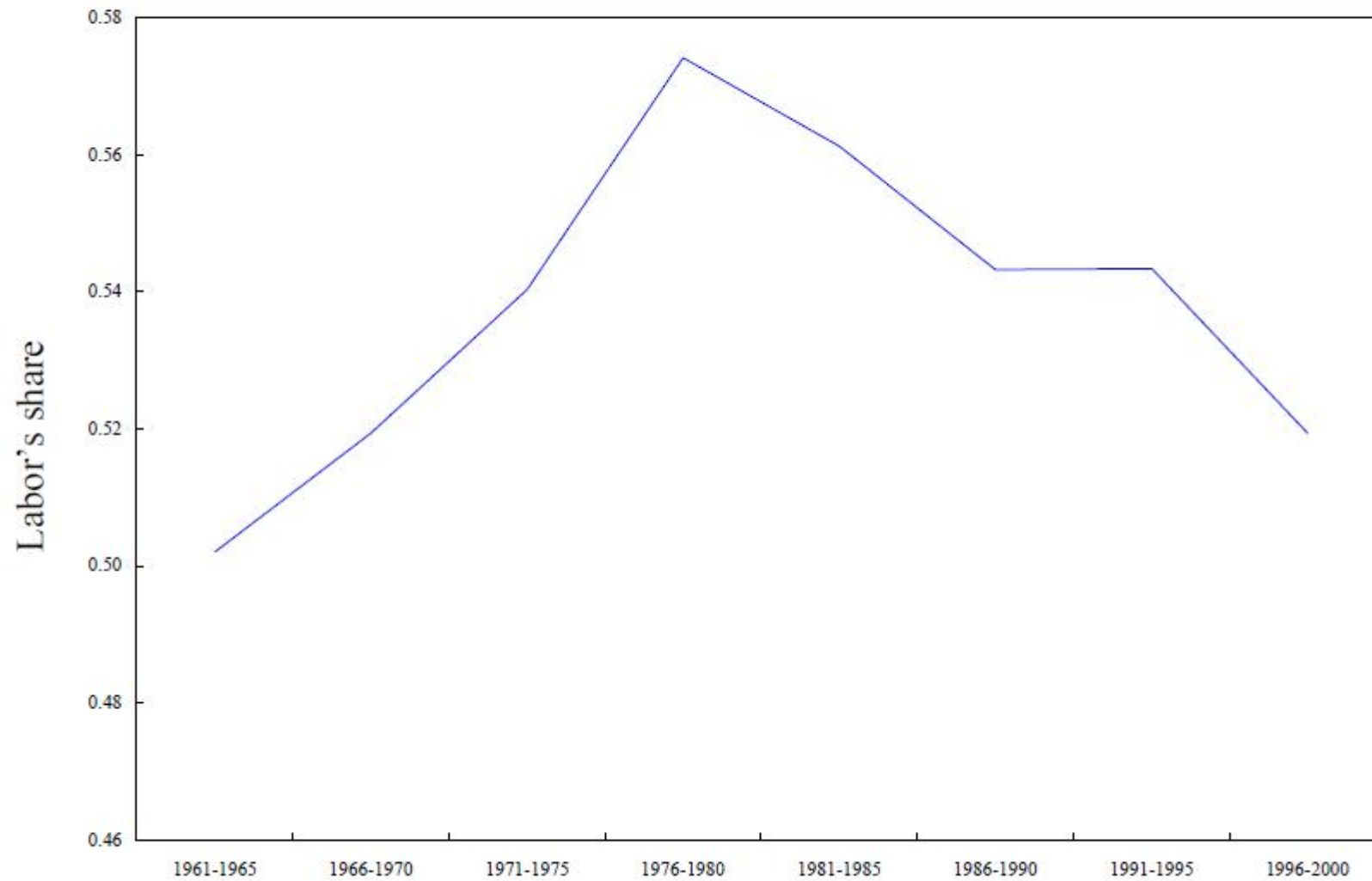
Source: WVS 2005

# The Social Dimension



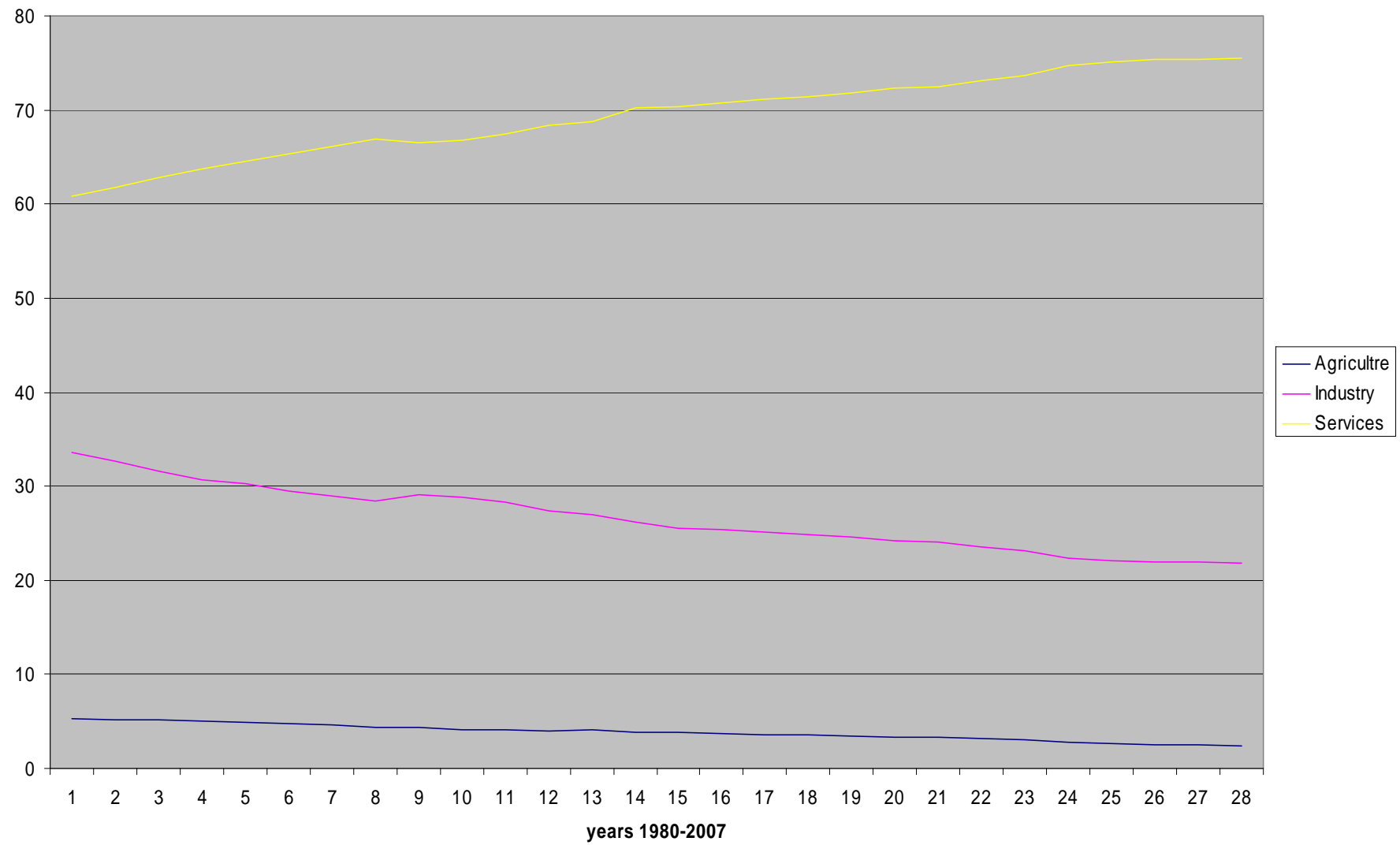
- But there maybe other—more pressing-- reasons why the role of work in our life needs re-examination:

**Figure 1. Cross-Country Average Labor's Share in National Income**  
(Ratio of labor income to national income)



Source: OECD, Structural Analysis Database.

Employment share by sector



# The Social Dimension



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- Therefore:
  - ▣ (a) the ability to access national income through labour is diminishing;
  - ▣ (b) labour may have nowhere to go beyond services other than personal services (a new class system) or riot in Grosvenor Square....



# The Social Dimension



- Therefore:
  - ▣ (a) the ability to access national income through labour is diminishing;
  - ▣ (b) labour may have nowhere to go beyond services other than personal services (a new class system) or riot in Grosvenor Square....
  - ▣ (c) and it is not clear why labour should be made to find way of accessing income: is it a repeat of the argument in favour of growth as a substitute for re-distribution?

# The Social Dimension





- So we are at the gate of an era where:
  - ▣ Markets may fail in using distribution for efficient allocation
    - Level of employments have not changed much and the rise of educated workforce led to rise in mis-match in jobs and increased job dissatisfaction.
    - Share of wage in national income is falling even though the access through capital has not really increased.
    - More importantly, people are clearly signalling that they want a different type of life.

# Act IV: Research and the Market



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- Research-led teaching is crucial in the provision of general education (or cognitive skills).
- But research too has been subjected to the idea of markets, or their more gruesome manifestation: relevance.

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- Research-led teaching is crucial in the provision of general education (or cognitive skills).
- But research too has been subjected to the idea of markets, or their more gruesome manifestation: relevance.
- I dare say that cognitive skill of someone who studied Pope would be much better than someone who studied the Beatles.

# Research and the Markets



- More importantly, the quantification of quality through RAEs or REFs create three major constraints:
  - ▣ Research is narrowly dictated by the opinions of a body of un-elected and unaccountable editors;
  - ▣ This leads to the rise of applied research at the expense of more fundamental and less immediate one;
  - ▣ It is the end of academic freedom.

# Research and Markets



- But it also does not seem to be very effective:
  - ▣ In a study of mathematics (where there is a unique data set based on all publications worldwide), we find that the share of publications in the US and the UK –countries which increasingly became competitive in research– fell from 54.9% to 40.9% between 1984 and 2006.
  - ▣ The main increase came from countries where academics are civil servants and where their position is not based on quantifying quality. (Spain, Italy, Germany, France, Japan to name just a few).

# Research and Markets



- But there is a much greater danger (captured in the 'impact' idea of the REF) which makes applied research more desirable:
  - ▣ It is easier to conceive;
  - ▣ It is easier to publish.

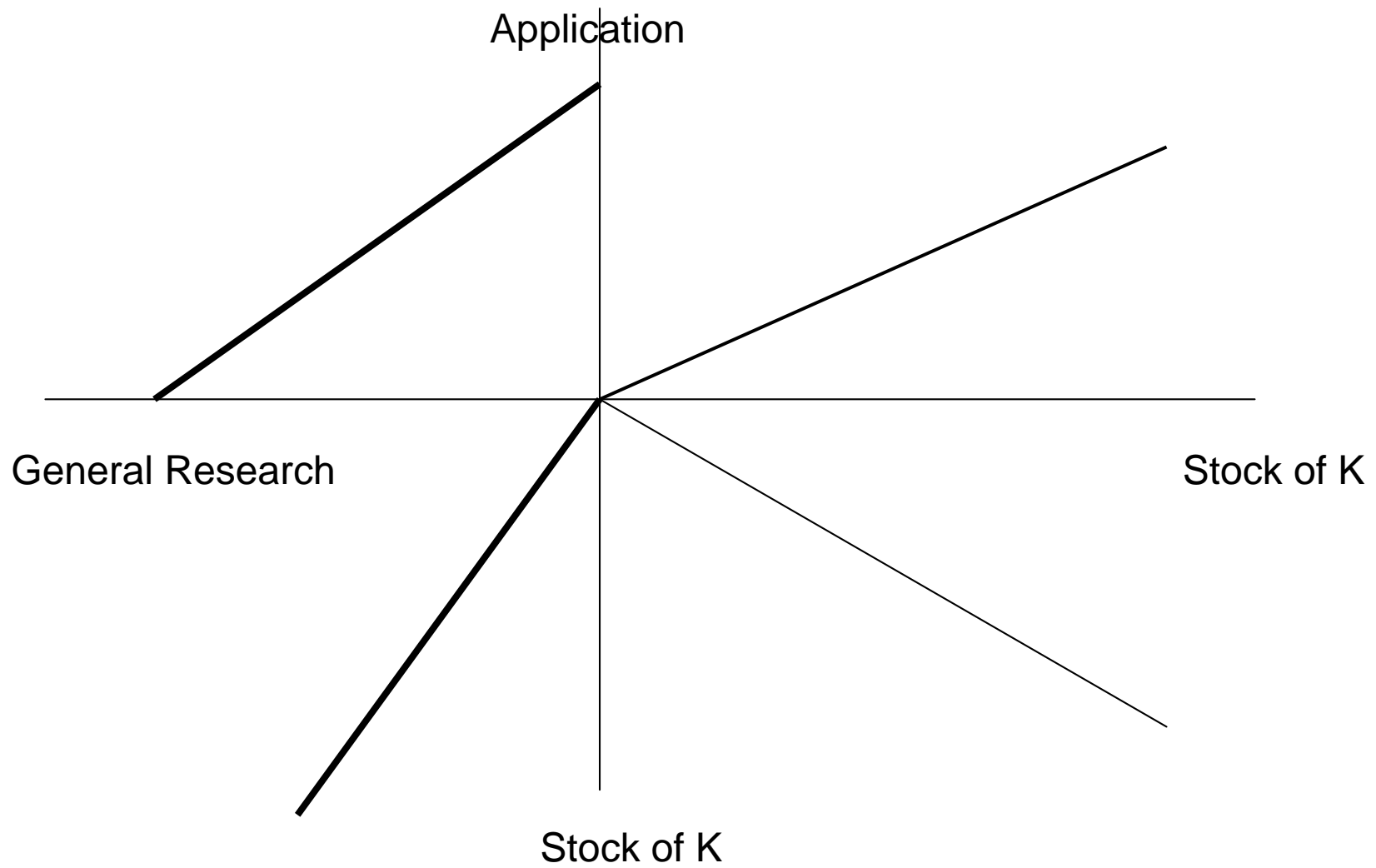


# Research and Markets

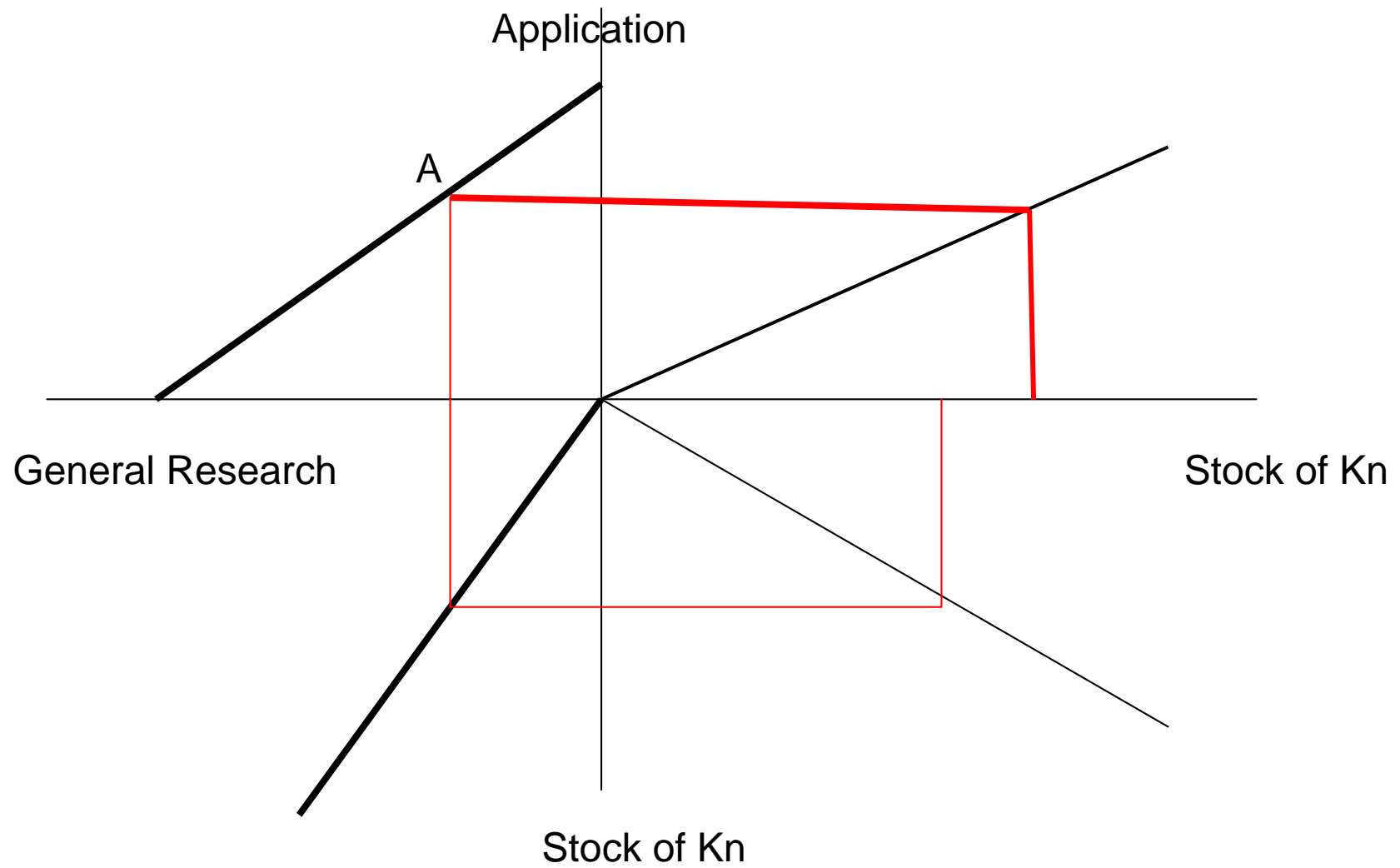


- But research is not conducted in this air:
  - ▣ At each point in time society commands and inherited stock of knowledge.
  - ▣ This can be used for applied research—which normally does not augment the stock-- or, to augments the stock directly through generalised research and the maintenance of the stock.

# The Tragedy of Market driven Research



## The Paradox of Market driven Research



# Research and Markets



- The stock of human knowledge forms the foundation of what one may describe as general education.
  - ▣ It is therefore the foundation of greater productivity and higher quality of life (in the Aristotelian sense: *Eudaimonia*)
  - ▣ It is also the foundation of real social thinking and innovation.

# Epilogue: Conclusions



- Therefore, the primary role of universities is that they are the ***guardians*** of society's inherited intellectual stock;
- Universities must therefore ***maintain*** this stock by keeping a balance between applied and generic research.
- Real liberal thinking would suggest that everyone has a ***right to be able to access this stock.***

# Epilogue: Conclusions



- Therefore, universities should be focused on generic research and generic teaching (cognitive skills).
- Teaching, then, must be teacher based and not be managed by intermediates (administrators) as there is no demand-side to it.
- This is more so as we observe the structural changes which society is going through.