



DLP

Policy and Practice for Developmental
Leaders, Elites and Coalitions

DEVELOPMENTAL LEADERSHIP PROGRAM

Research Paper **10**

Higher Education and the Formation of Developmental Elites

A literature review and preliminary data
analysis

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ACRONYMS

DLP	Developmental Leadership Program
ETSIP	Education and Training Sector Improvement Plan (Namibia)
GDP	Gross Domestic Product
GER	Gross Enrolment Rate
IBRD	International Bank for Reconstruction and Development (World Bank Group)
IDA	International Development Association (World Bank Group)
MDG	Millennium Development Goal
NUS	National University of Singapore
NTI	Nanyang Technological Institute (Singapore)
NTU	Nanyang Technological University (Singapore)
ODA	Official Development Assistance
SSA	Sub-Saharan Africa
UIS	UNESCO Institute for Statistics
UK	United Kingdom
UNAM	University of Namibia
US	United States
USAID	United States Agency for International Development
WGI	Worldwide Governance Indicators

Abstract

There is increasing recognition that overcoming the challenges of development will require leadership across the public and private sectors. But how do developmental leaders emerge and acquire the necessary skills and values to lead? How might higher education influence this process, and how can it contribute towards improved governance?

This paper addresses the hitherto neglected question of whether and how higher education may contribute to the emergence of developmental leadership. It undertakes data analysis mapping higher education gross enrolment rates (GERs) with a 20-year lag against the World Bank's Worldwide Governance Indicators, used here as a proxy for the existence of developmental elites.

The study explores the multiple purposes and broadening scope of higher education, its potential for improving governance, and the changing nature of national government and donor support. As well as analysis of global patterns and regional variations, the report includes country case studies from Singapore, Jordan, Namibia and Zimbabwe.

This first phase of research has identified a positive correlation between higher education and good governance. While at this stage no definitive causation can be established, a review of literature illustrates ways in which higher education can contribute towards the formation of developmental elites. The paper also suggests some themes for future consideration, both for the international community and in planning the later stages of this research.

Executive Summary

Does higher education have a role to play in facilitating the emergence of developmental leaders and elites? There is increasing recognition that overcoming the challenges of security and development will require leadership across the public and private sectors. But how do developmental leaders emerge and acquire the necessary skills and values to lead? How might higher education influence this process and how can it contribute towards improved governance?

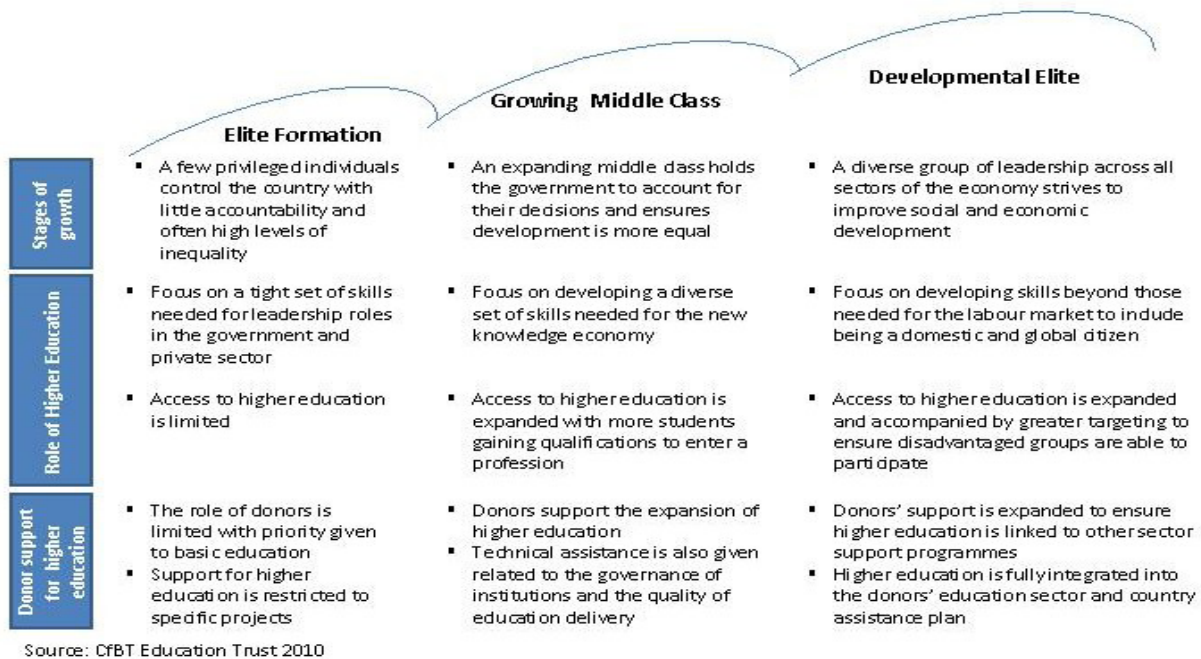
This paper is the product of the first phase of a Development Leadership Program (DLP)¹ research study exploring the hitherto neglected question of whether and how higher education may contribute to the emergence of developmental leadership. The paper undertakes data analysis mapping higher education gross enrolment rates (GERs) with a 20-year lag against the Worldwide Governance Indicators, used here as a proxy for the existence of developmental elites. This first phase of research has identified a positive correlation between higher education and good governance. While at this stage no definitive causation can be established, a review of literature has enabled the study to illustrate ways in which higher education can contribute towards the formation of developmental elites. It also suggests some themes for future consideration, both for the international community and in planning the next phase of this research.

Key findings

- **Higher education has multiple purposes:** from developing technical skills (in order to meet the skills needs of the economy) to influencing individual behaviours, values and attitudes. As a result, higher education is associated not only with the creation of a skilled workforce, but also with the creation of elites, a middle class, and individuals who are socially engaged. The literature also reflects that the purpose of higher education is not static, rather it is adaptive and changes according to the systems of provision and the vision of different institutes of higher education.
- **The purpose and scope of higher education** has broadened from an original focus on elite development to a system of mass or universal education in many Western countries, as the diagram below illustrates.

¹ The DLP is a multi-stakeholder initiative committed to expanding the evidence base on the role that leaders, elites and coalitions play in development, focusing on how they shape institutions and influence development outcomes. Further information can be found at: www.dlprog.org.

The role of higher education in supporting developmental elites



Developing countries are still mostly at the 'elite formation' stage, but have found their higher education systems largely under-funded, both nationally and by the international donor community.

- **Both the data analysis and literature review found evidence for a positive correlation between higher education and good governance.** Within the data analysis a general pattern of positive correlation was seen, indicating that increased levels of tertiary enrolment are positively linked with indicators of good governance. Whilst this pattern held true globally, there is some regional variation. Stronger positive correlation was seen in East Asia and the Pacific, whilst trends were sometimes negative in Central and Eastern Europe largely linked to countries where high levels of tertiary enrolment have not been associated with improved levels of governance. The data analysis also highlighted some countries where there had been significant improvements in tertiary enrolment, were not associated with changes in governance indicators. This suggests that **whilst tertiary education may be an influential factor in improving governance, the mechanisms through which any improvement takes place are complex, and are likely to be influenced by the political, economic and social context.** It is important to consider which other factors are influencing improvements in governance and/or driving improvements in higher education reforms.
- **Donor support for higher education has varied over recent decades.** During the 1960s, higher education was highly valued as an important driver of development and accompanied by significant levels of support. However, since the 1980s greater emphasis has been placed on other levels of education, most notably primary and basic education. This was originally linked to research demonstrating higher levels of social and economic returns for investments at primary level, and more recently has been reinforced by the Millennium Development Goals and the focus on universal primary education. Yet this has been countered by evidence emphasising the social returns of higher education and its importance in political and social development, as well as its contribution to economic growth. **In particular, research indicates that the norms, values and attitudes fostered within higher education are highly influential in the development of civil society, social cohesion and democratic reforms.**

- **Whilst higher education by itself may not be a sufficient pre-condition for democratic processes and improved governance, evidence does indicate that it is a contributory factor.** The extent to which higher education institutes achieve this 'value-added' is dependent upon their structure, teaching methods and curricula. Moreover, while such institutes are in a position to encourage the development of positive attitudes and values, this is not normally their primary function. However, they will play a role in developing a 'critical mass' of highly educated individuals who can support and encourage state-building processes and developmental outcomes.

Considerations for future developmental planning

The research identified four key areas in which higher education can be influential in the formation of developmental elites and improved levels of governance:

- (i) **Creation of a growing middle class**, that is better positioned to hold government to account and to shape the institutions that foster good governance. Expanding access to higher education and facilitating the growth of a middle class, and a network of professional associations commonly associated with it, helps to broaden civic participation, to consolidate democratic reforms and to promote economic growth.
- (ii) **Meeting the needs of the labour market.** Higher education will need to continue to change in order to meet the new demands of, and skills needed for, the knowledge economy and globalisation. There is increasing recognition that the role of universities in research, evaluation, information transfer, and technology development is crucial to national social progress and economic growth.
- (iii) **Focus on skills as well as increasing access.** It is important to recognise the role of higher education institutes in developing non-technical, cross-sectoral skills such as creativity, teamwork, problem-solving, adaptability, critical reasoning, perseverance, social ethics and service. Such skills help to develop individuals who are both better placed to meet the needs of the changing economy, and more likely to be engaged and responsible citizens.
- (iv) **Financial support to developing countries wishing to expand higher education opportunities is critical**, to enable them to address the three issues outlined above. This requires donors to recognise the significant external benefits of higher education.

Broader demands are being placed on higher education, with the expectation that it is no longer focused on the development of elites, but on creating a skilled workforce that can respond to the rapidly changing needs of the new knowledge economy and positively contribute to the societies in which it lives.

This does not mean that higher education no longer has a role to play in elite formation. Rather, that the nature of forming elites requires a two-fold strategy:

- firstly, to create the very small elite who will be the **strategic players at the top of society**;
- secondly, to create a **wider elite that occupies key positions** in the public, private and third sectors, and who constitute a growing middle class that has knowledge, skills and capacity to hold the smaller exclusive elite to account.

The emerging findings of this research, whilst still tentative, offer some strong indications on the potential role of higher education and the emergence of developmental elites. This paper concludes by identifying a number of ways in which this initial phase of the research programme can be built upon in later stages. In particular, it suggests further and more detailed country-level analysis to explore issues of causation

and the relationship between higher education and other factors affecting elite formation.

1. Introduction

Rationale for work

This research programme is part of a larger study by the Developmental Leadership Program (DLP)² to deepen understanding of the factors which promote the emergence of developmental leadership. This phase of the research programme focuses on exploring whether and how higher education may be a contributory factor to developmental leadership. To set the scene, a literature review is undertaken to understand the purpose of higher education and if/how this has changed over time. This builds upon a literature review undertaken by Nugroho (2009) on AusAID's behalf that presents evidence on the contribution of secondary and higher education to development. The research then looks at how the formation of elites has taken place in both Western countries and in developing countries, examining patterns of donor support for and prioritisation of higher education in these countries.³

Hypothesis

There is increasing recognition that overcoming the challenges of development will require locally legitimate institutions coupled with leadership, especially developmental leadership, in and across the public and private sectors. This paper sets out to test the hypothesis that there is a positive correlation between higher education and good governance. A review of the international literature is undertaken to see what (if anything) the academic and policy world says about any potential correlation. The research then uses data to see if there is any correlation between good governance (a proxy for the existence of developmental elites) and tertiary gross enrolment rates (GERs) for all countries in the world which have data. Given the time lag between when people complete higher education and when they are likely to enter elite positions (usually at least 20 years)⁴, two different data sets are compared and analysed to look for potential patterns and analyse any findings:

1. Governance data from 2008 against education data from 1988
2. Governance data from 1998 against education data from 1978

These datasets are then split into different regional sub-groups so that trends can be analysed both globally as well as by region.

Using national higher education GERs automatically excludes counting students studying in higher education in countries outside their country of origin. In some countries these student numbers are sizeable. However, it is beyond the scope of this phase of the research to search for data on all the different sources of overseas scholarships on an individual country basis, so these have been excluded in the analysis.

At this stage, no definitive causation is established, but the research is looking for correlation and under-

² The DLP is addressing an important gap in international thinking and policy about the crucial role played by leaders, elites and coalitions in the politics of development. See the DLP website for more information at: www.dlprog.org.

³ The authors chose not to analyse data on self-financing and scholarships within this literature review, based on an earlier literature review by Nugroho (2010) that explored the contribution of scholarship and fellowship programmes to development. Nugroho concluded that existing evidence from evaluations was too limiting to be able to decisively make conclusions on the contribution of these programmes to development.

⁴ This time lag is based on research undertaken by Appiah and McMahon (2002) who found time delays of 20 to 40 years before the full social and political effects of primary and secondary education were seen in a cross-section of countries from Sub-Saharan Africa.

takes some descriptive analysis to explain any correlation found, the potential reasons for any anomalies in the data, and whether the hypothesis of positive correlation between higher education and good governance holds.

Based on any correlation found from the data analysis, the report then explores the potential role higher education can play in promoting the formation of developmental elites in a changing global world that is increasingly focussed on the knowledge economy.

2. The purpose of higher education

There is no clear consensus on the overarching purpose of higher education with it being a “contested issue...because [it] underpins academic values” (Watty, 2006: 26). Kapur and Crowley (2008: 87) point out:

“Indeed, what is striking about higher education is the weakness of the analytical frameworks on even the most fundamental questions: what is the purpose of higher education? To train people for a labor force or train a labor force that is in turn trainable by employers? To create a middle class? Is the goal of higher education to provide a ladder for social mobility or create national elites? To influence and mould the minds of young people? The answer, “all of the above”, merely shifts the analytical burden.”

The foundational principles of higher education in the United States (US) were related to “public benefits and civic virtues, in addition to the economic gains achievable by individual students”. The founders of Yale University in the early eighteenth century saw their task as preparing youth for public employment in the church and the state. Thomas Jefferson in establishing the University of Virginia saw his task as training America’s aristocracy for national positions of leadership (Bloom, Hartely and Rosovsky, 2007).

Research undertaken by UNESCO poses the question:

“Is the role of universities limited to technical skills or do they have a role in shaping and modeling behaviour to shape particular student attitudes?” (Burnett, 2007: 288)

Heuser (2007) answers affirmatively. He believes that whilst there will be variation between different higher education institutes, all of them should place a priority on forming the “professional and attitudinal values” of students whilst they are pursuing higher education.

Barnett (2009a and 2009b cited in Watty, 2006) refers to dominant and marginal perceptions of higher education. The dominant perceptions are those that are systems-based with an external purpose focussed on the provision of skilled people for the labour market; whilst marginal perceptions look at the internal purpose of the education process focussing on the development of individual students’ attitude, values and behaviour:

Table 1: Dominant and marginal perceptions of higher education

Dominant perceptions	Marginal perceptions
1. Production of highly qualified manpower	1. Continuing learning process
2. Training of researchers	2. Development of personal autonomy and integrity
3. Efficient management of teaching provisions	3. Formation of intellectual abilities and perspectives
4. Extending life chances	4. Development of critical reasoning

Source: Barnett, 2009a and Barnett, 2009b cited in Watty, 2006.

Trow (2007) builds on the work of Brennan (2004) who breaks down higher education into three forms: elite, mass and universal. Trow argues that each of the three forms has a different purpose and different characteristics.

Table 2: The purpose and characteristics of different forms of higher education

Form of higher education	Purpose	Characteristics
Elite (a system focussing on 0-15% of the population)	Shaping the thinking and character of a ruling class and preparing people for elite leadership roles in the public and private sectors	Tutorials and seminars based on a personal relationship between the student and the professor to enable character development.
Mass (a system focussing on 15-50% of the population)	Preparing a broader group of students for a range of technical and economic elite roles by transmitting skills and knowledge	Large lectures given by lecturers, accompanied by seminars and tutorials given by part time lecturers or teaching assistants who may not have much institutional affiliation and who focus on skills training Some elements of distance learning and technology used
Universal (a system focussing on more than 50% of the population)	Equipping all the population to adapt in response to rapid social and technological change	Strong reliance on distance learning and technology so that students can receive a broad exposure to different perspectives

Source: Summarised from Trow, 2007.

This conceptualisation reflects the changing purpose of higher education depending on a country's form of higher education provision. It may also be that different higher education institutes in a given country have various 'forms' and thus higher education can cover all three purposes either within a given institute or across many institutes within a country.

3. The focus of higher education on elite formation

Who are the elites?

Many countries in the past have seen higher education's purpose as developing only the elites. In this research, elites are not defined narrowly as the small group of rich and powerful who may dominate a society. Instead,

"the term denotes the usually very small group of leaders occupying formal or informal positions of authority or power in public and private organizations or sectors, at national or sub-national levels. They generally take or influence major economic, political, social and administrative decisions in those spheres and often also use their power to influence decisions beyond such spheres." (Developmental Leadership Program, 2010: 1).

Elites can be broadly characterised as:

"the people who make or shape the main political and economic decisions: ministers and legislators; owners and controllers of TV and radio stations and major business enterprises and activities; large property owners; upper-level public servants; senior members of the armed forces, police and intelligence services; editors of major newspapers; publicly prominent intellectuals, lawyers and doctors; and – more variably – influential socialites and heads of large trades unions, religious establishments and movements, universities and development NGOs ... In most developing countries, governing elites tend to be especially powerful. They often command a particularly large slice of the national income, and the influence that goes with it." (Hossain and Moore 2002: 1)

Political elites have traditionally controlled resources including access to higher education in order to secure a broad base of supporters that can be 'influenced' through a political distribution of these resources. This is particularly evident in Africa (Hyden, 2006). This results in predatory elites who do not display the characteristics of developmental leadership.

The formation of elites in Western countries

During the Middle Ages, the church ran the higher education system with the purpose of searching for theological truth. Secular universities gradually took over non-theological subjects and designed curricula with the purpose of training individuals for civil service posts. This meant that the main purpose of secular universities was to educate elites (Göztepe and Zimmer, 2003).

There was a significant difference between European continental universities and those in Britain. Whilst both focused on training a relatively small group of society's future leaders, those in Britain focused on training academic staff for universities, upper secondary schools and the church, whilst those on the continent focussed on training students for future posts in the civil service, politics and the learned professions (law, medicine and theology). In Britain, preparation for the learned professions generally took place via apprenticeships. However, a core similarity between the two and with the American higher education system, was that there was a strong focus on the relationship between the student and the professor with the aim of showing the student "how to live" (in Britain it was referred to as "the education of a gentleman") rather than training them for a specific profession which was assumed could be picked up on the job (Trow, 2007).

The formation of elites in developing countries

In developing countries, in the 1940s and 1950s, higher education existed for a very small elite who were trained for administrative posts in the colonial civil service, often in institutes of higher education abroad. The 1960s was a period when many countries declared independence from their colonial ties. Higher education was seen as an important driver of development in these newly formed countries through the production of trained individuals and knowledge for key positions pertaining to national development. As a result, a significant amount of donor support was provided (Boeren, 2005; Kapur and Crowley, 2008). Higher education and training also provided opportunities for the formation of political and social networks and international links.

The growing concern about equity and the resultant change in donor policy and support

However, by the 1980s, partly due to a seminal journal article by a World Bank staff member on rates of return (Psacharopoulos, 1985), donors began to focus more on an 'economic perspective'. The evidence presented in the journal article stated that economic rates of return for higher education were much lower than those for primary education thus investments in higher education were seen to be regressive. This coupled with the concern about brain-drain resulting in economic losses for developing countries gave donors justification to shift financing towards primary education. This trend continued throughout the 1990s, justified by the clear gains in social equity of pursuing primary over tertiary education.⁵ The 1990 World Conference on Education for All in Jomtien also highlighted the importance of primary education resulting in some donors more or less drying up their support to higher education.

"The World Bank drew the conclusion that its lending strategy should emphasize primary education, relegating higher education to a relatively minor place on its development agenda. The World Bank's stance has been influential, and many other donors have also emphasized primary and, to some extent, secondary education as instruments for promoting economic and social development." (The Task Force on Higher Education and Society, 2000: 39)

The World Bank's position was reflected in its financial commitment to tertiary education which dropped from an annual average of US\$103 million from FY90-FY94 to an annual average of US\$30.8 million during FY95-FY99 (World Bank 2009). Between 1985 and 1989, the World Bank spent on average 17 percent of its education allocation on higher education. This dropped to just 7 percent between 1995 and 1999 as a result of the increasing focus on primary education after the 1990 Jomtien World Education Conference (Bloom, Canning and Chan, 2005).

The change in World Bank policy is even more evident and took place slightly later in Sub-Saharan Africa. Data show how the share of World Bank financing for tertiary education was still increasing until the early 1990s when it dropped from 51 percent of total education aid in 1992 to a low of 7 percent by 2000, before it started to rise again (see table 3 below).

⁵ This trend and the implications for higher and secondary education is discussed in Nugroho (2009).

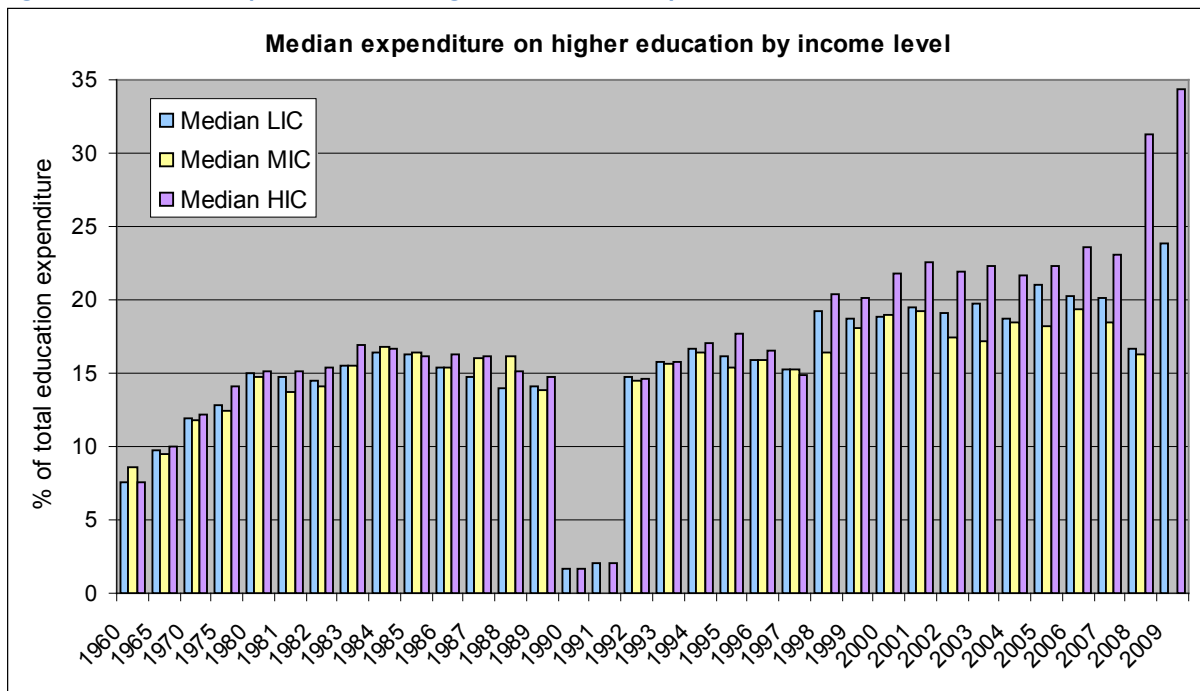
Table 3: World Bank financing for education in Sub-Saharan Africa, IBRD and IDA new commitments FY1990–FY2008 (US\$ millions)

	1990	1992	1994	1996	1998	2000	2002	2004	2006	2008
Education (total)	310.2	324.11	268.48	194.64	400.03	189.77	472.61	362.91	339.26	373.00
Tertiary education	119.72	163.75	69.94	41.76	46.00	13.95	69.48	45.93	29.07	105.00
% share	39%	51%	26%	21%	11%	7%	15%	13%	9%	28%

Source: data taken and manipulated from Table I.1 in World Bank, 2009: 4.

The neglect of higher education investment by donors was coupled with limited national budgets, leaving little opportunity for developing country governments to invest significantly in domestic higher education systems.⁶ This is illustrated in Figure 1, which shows the proportion of education budgets allocated to higher education. This shows a step increase in the proportion of education expenditure allocated to higher education from 1999 following decades of relatively consistent levels of higher education expenditure.

Figure 1: Median expenditure on higher education, by countries income level, 1960-2009⁷



Source: UIS database

In 2000, the World Education Forum in Dakar produced the Dakar Framework for Action which focused on primary education and world leaders signed up to the Millennium Development Goals (MDGs), of which two goals refer to education with a specific focus on primary education. This gave further rationale for donors to continue to neglect higher education with the World Bank's support to higher education remaining more or less constant in the first five years of the new century (World Bank, 2009).

Bilateral donors have been a bit more mixed in their support to higher education. Robust internationally comparable data on donor support to higher education was not available before 1995, when it is

⁶ In some countries this was accompanied by a rapid expansion of the private higher education to help meet demand unmet by the public sector: See Sawyerr (2004) for further discussion of this issue.

⁷ Note that there was a lack of data available for 1990 and 1991 and the break in trends is indicative of changes in data reporting rather than a significant fall in funding during these two years.

likely that those donors following the World Bank's lead would have already started to decrease the percentage of education aid given to higher education.

Table 4: Average percentage of donors' education aid spent on higher education 1995-2009

Donors	95-99 average	00-04 average	05-09 average
<i>All countries</i>	<i>13.4%</i>	<i>17.0%</i>	<i>19.8%</i>
DAC countries total	17.4%	21.3%	25.0%
Australia	74.2%	19.5%	19.8%
Austria	64.4%	48.8%	61.0%
Belgium	23.0%	41.9%	26.8%
Canada	14.2%	0.9%	4.4%
Denmark	7.8%	2.6%	2.5%
Finland	1.5%	1.3%	1.1%
France	9.0%	49%	73.8%
Germany	23.0%	47.2%	27.2%
Greece		48.9%	68.9%
Ireland		4.2%	2.6%
Italy	50.6%	14.1%	6.5%
Japan	6.2%	31.7%	15.8%
Korea			43.9%
Luxembourg			0.6%
Netherlands	8.9%	1.3%	10.6%
New Zealand	52.6%	56.6%	43.0%
Norway	24.1%	23.87%	33.3%
Portugal	42.9%	50.3%	46.6%
Spain	23.4%	20.0%	7.7%
Sweden	21.3%	9.7%	29.4%
Switzerland	30.3%	2.1%	19.4%
United Kingdom	2.3%	3.8%	3.3%
United States	8.9%	1.8%	9.6%

Source: OECD DAC CRS database

However, what is noticeable from this data is that there are a few smaller donors, such as Austria, Greece and Portugal that give generously to higher education from their education official development assistance (ODA). However whilst a large proportion of this aid goes towards higher education,⁸ in terms of volume other donors provide more aid to higher education. Other more significant donors such as Australia and New Zealand have substantially prioritised higher education, though Australia in a less dramatic way since 2000. France is the world's largest bilateral donor to higher education and has provided an increasing share of its education ODA to higher education. In 2007, it gave around US\$1,361 million to support higher education in developing countries with an estimated 50 percent of this supporting scholarships, mostly at postgraduate level in France. France's flagship higher education project in Africa is the 2iE project in Ougadougou, Burkina Faso where it is supporting the International

⁸ It is noteworthy that a majority of this aid goes to countries where donors have geopolitical ties and is likely to go towards scholarships. For example, the largest recipient of Greek higher education aid is Albania; Austria gives generously to Turkey, Bosnia-Herzegovina, Serbia and increasingly China; whereas Portugal's giving is concentrated in her former colonies, namely Cape Verde, Sao Tome and Principe, Mozambique and Angola.

Institute for Water and Environmental Engineering bringing researchers together from seven French universities and six African universities. This project (around US\$8 million) has supported the training of more than 3,000 technicians and managers for the government and the private sector (Lewis, 2009)

Two other significant education donors – the US and the United Kingdom (UK) have placed much less importance on higher education with the US averaging less than 10 percent of its education ODA on higher education since the mid-1990s and the UK less than 4 percent. Both of these trends are indicative of the focus placed by donors on achieving the MDGs, with primary education funding dominating education aid budgets. However, the US did have some significant higher education programmes from the 1960s through to the first few years of the new millennium. It supported USAID's African Graduate Fellowship Program from 1963 to 1990 which was then replaced with the Advanced Training for Leadership and Skills project from 1991 to 2003. These two programmes supported more than 3,200 African students to study undergraduate and postgraduate courses at around 200 US universities with a budget of US\$182 million. Between 85 and 90 percent of all students returned to their countries after completing their studies. Since 1987, USAID has run a Higher Education for Development programme which has sponsored more than 300 partnerships between the US and developing country universities in around 60 countries in Asia, Latin America and Africa (Lewis, 2009).

4. The role of higher education in creating developmental elites and contributing to good governance

“Higher education is no longer a luxury: it is essential to national social and economic development.” (The Task Force on Higher Education and Society, 2000: 14)

There is increasing recognition of the benefits of developmental elites over predatory ones and of the supportive role higher education might be able to play in contributing to developmental leadership and the building of more stable states and societies through a widening middle class.

“*Developmental leadership* is a political process that takes different forms in different contexts. It involves the capacity to mobilise people (including, but not only, followers) and resources and to forge coalitions with other leaders and organisations, within and across the public and private sectors, to promote appropriate local institutional arrangements that enhance sustainable economic growth, political stability and social inclusion.”⁹

“The norms, values, attitudes and ethics that tertiary institutions impart to students are the foundation of the social capital necessary for constructing healthy civil societies and cohesive cultures—the very bedrock of good governance and democratic political systems. . . . Through the transmission of democratic values and cultural norms, tertiary education contributes to the promotion of civic behaviours, nation building and social cohesion.” (World Bank, 2002: 5, 31)

Analysis of the returns to higher education has identified a number of social benefits and outcomes that are also likely to yield positive effects with regards to political and civic involvement.¹⁰ The benefits include: increased tax revenues, more entrepreneurship and job creation, increased civic engagement, increased charitable giving and community involvement and social cohesion (Bloom et al., 2007; Heuser, 2007; Kellogg and Hervy, 2009). All of these can be seen to have a positive impact on governance, either directly via increased civic engagement, or indirectly through improved social cohesion or increased levels of taxation which improve accountability between tax-payers and the state. Similarly, McMahon (2004) also found that education through its contributions to economic growth has a significant influence on long-term transitions of democratisation, greater respect for human rights and more economic and political stability.

Generally higher education is seen to encourage more pluralistic, open societies (The Task Force on Higher Education and Society, 2000). Empirically this can be seen through the data retrieved via the World Values Survey, which shows that whilst globally nationality is fundamental in shaping values within countries, higher education can have a significant effect on changing values (Welzel and Inglehart, 2010). This is based on the premise that teaching methods encourage debate, critical thinking, meritocracy, and a diversity of views which will broaden horizons, encourage tolerance and help develop positive leadership skills (Bloom et al., 2005; Heuser, 2007). It is thought that higher education institutes help instill values of good governance and democracy in students promoting positive citizenship. Education is thought to have this effect by improving individuals’ economic means and cognitive skills, whilst broadening their values and social connections (Welzel and Inglehart, 2008).

Additionally it is argued that universities provide a centre through which ideas about society, ethics, and political systems can be formed and locally interpreted (The Task Force on Higher Education and Society, 2000). Universities also have a role in conducting research and analysis to help inform and improve the

⁹ <http://www.dlprog.org/contents/about-us/our-core-focus/key-concepts.php#developmentalleadership>

¹⁰ It should be acknowledged that overall the social returns from education are higher at primary and secondary levels, with higher education yielding greater private returns (Psacharopoulos and Patrinos, 2002). However, it is difficult to fully capture the social benefits of education within rates of return analysis.

effectiveness of social policy and governance.¹¹ United Nations Secretary General Kofi Annan stated that universities can “strengthen domestic institutions; [and] serve as a model environment for the practice of good governance, conflict resolution and respect for human rights” (cited in Bloom et al., 2007: 300).

The ability to instill such values and attitudes is dependent upon the appropriateness of courses and curricula to meet these anticipated needs; the teaching methods used and quality of the programme; links between the higher education institute and the society and economy in which it is situated; the level of priority placed on social and cognitive development as well as acquisition of skills and knowledge; and the degree to which the institute reflects the desired skills it wishes to impart within its own management and operations (Heuser, 2007). Inconsistency in these elements of delivery and operation may hinder the emergence of non-predatory elites.

However, it should be remembered that while higher education institutes may encourage the development of social attributes and concerns, this is not their primary function and they should not be judged as such. They can, however, play a role in developing a “critical mass” of individuals who can support and encourage state-building processes and developmental outcomes (Holtland and Boeren, 2005). This has been seen in Europe and the US where the creation of a middle-class was vital in the creation of state institutions and the consolidation of democratic processes (Kapur and Crowley, 2008). Thus whilst higher education by itself may not be a sufficient pre-condition for democratic processes and improved governance, evidence does indicate that it is a contributory factor.

Some academics have contested the notion that higher education institutes will necessarily instill positive values and attitudes with regards to democracy and good governance (Kapur and Crowley, 2008). Rather, they point to evidence which suggests that the internal management and operations of higher education institutes may actually contradict these values and positive examples of leadership skills, so that the practical education experience does not align with the ideals taught (Heuser, 2007; The Task Force on Higher Education and Society, 2000). Governance issues within higher education institutes (including meritocracy, shared governance, transparency and accountability, and academic freedom) are highly influential in the formation of graduates who may internalise and reflect these characteristics in their political, social and economic behaviour beyond higher education.

To a large degree, higher education institutes will be a reflection of the society in which they are situated (The Task Force on Higher Education and Society, 2000). For example, a university situated in a society in which corruption has become endemic is unlikely to remain immune to corrupt practices. This may be countered by the development of regional or bilateral links between higher education institutes that have the potential to facilitate the transfer of values and practices. Studying abroad, either through exchanges or full time programmes can also provide a mechanism to experience different forms of governance.

More generally, it should be recognised that higher education may also have a negative effect on governance. Another result of higher education is reduced reliance on the state for the provision of public goods and services (Bloom et al., 2007). As individuals reduce their consumption of government services (such as schools and health centres) in favour of private providers, this will also reduce their incentives to intervene to improve the quality and breadth of state provision. They will lack the personal motivation to demand that governments improve state provision of services that they can privately consume, and they therefore may not prioritise such issues when voting. Higher education may also afford opportunities for cronyism and elite networks to develop, particularly as individuals from high-income house-

¹¹ Programmes such as the Partnership for African Social and Governance Research (PASGR) have sought to improve this capacity and strengthen the ability of universities to influence policy (www.pasgr.org).

holds, who may be part of overlapping social, political and economic networks, are disproportionately represented in higher education institutes (The Task Force on Higher Education and Society, 2000). This may mean that there are increasing levels of private gains from higher education, potentially leading to a more unequal society and elite capture of development gains. Conversely, networking within institutes of higher education can be a positive influence, with the potential to facilitate the emergence of developmental coalitions who seek to transform their society for the better. This has been seen in developmental states such as Japan, South Korea, Botswana and Mauritius.

5. The correlation between higher education indicators and “good governance”

Data overview and description of trends

The data analysis set out to explore the potential linkage between levels of enrolment in higher education and different indicators of good governance as a proxy for developmental leadership. It looked at the strength of correlation between education and governance variables at isolated points in time, and with 20 year time lags (1978-1998 and 1988-2008) during which it was hypothesised that tertiary graduates would potentially become developmental elites and be in a position to influence governance challenges within their context.¹²

As hypothesised, a general pattern of positive correlation was seen in the data analysis, indicating that increased levels of tertiary enrolment are positively linked with indicators of good governance. This pattern held true globally when undertaking time-lag analysis comparing education data from 1988 and 1978 with governance data from 2008 and 1998 respectively.^{13,14} Other research on the correlation between levels of enrolment in higher education and good governance indicators largely confirms these results, finding significant and positive results for over 100 countries in both 1990 and 1995 when compared to governance indicators for corruption, rule of law, administrative quality, ethnic tensions, upholding of contracts by government and risks of expropriation (Bloom, Hartley and Rosovsky, 2004).

The World Bank’s Worldwide Governance Indicators (WGIs) were used to provide a cross-section of different elements of governance. These include:

- **voice and accountability:** captures the extent of civil liberties, ability to participate in political processes, human rights and freedom of the press;
- **rule of law:** capturing levels of confidence in the judiciary system, enforcement of contracts, and property rights;
- **regulatory quality:** captures perceptions of the government’s ability to generate and implement policies and regulations, providing a framework for investment and growth;
- **political stability and absence of violence:** captures the likelihood of social or political unrest, risks of terrorism and violent protests;
- **government effectiveness:** captures perceptions of the quality, effectiveness and independence of the civil service, satisfaction of the delivery of basic services and commitment to policy;
- **control of corruption:** captures perceived levels of the prevalence and severity of corruption within the state.

Tertiary GERs were mapped against each of these composite indicators in order to identify any significant relationships. Whilst generally a positive correlation was seen across all indicators at a global level, this same pattern did not hold true at individual country level or sometimes at regional level, as seen in Table 5 below. For example, Belize had very low levels of tertiary enrolment (just 1 percent GER in 1988), and generally scored negatively on governance indicators, with the exception of voice and

¹² The data analysis initially also included comparison of public expenditure on higher education and governance indicators; however whilst in some instances there was a weak correlation between investment in higher education and positive governance indicators, overall the analysis did not yield any significant results. Whilst providing financing is critically important to improve access and the quality of education provided, a number of factors influence the level of expenditure, which may help to explain why the correlation is not stronger. These factors include: national policy and prioritisation of higher education, the number and perceived quality of private institutions, differing unit costs and funding approaches, and levels of public subsidisation of costs. In addition evidence does not always suggest that additional spending will yield proportionate social benefits (Kapur and Crowley, 2008) as was found when looking for correlation between higher education spending and governance. Rather, the returns from expenditure will be dependent upon their allocation.

¹³ Data was available for 146 countries for 1978/1998 comparison and 164 countries for 2008/1998 comparison.

¹⁴ Given the similarity of findings between the two data sets, we have chosen to report only on the 1988 and 2008 data sets in this report.

accountability and political stability. A similar pattern can be seen in Ghana over this period.¹⁵ Regionally mixed results were seen for South, West and Central Asia although this may have been due to the smaller number of countries within these groups influencing the strength of correlations.

Table 5: Tertiary GER in 1988 and links with 2008 governance indicators¹⁶

	Voice and accountability	Political stability and absence of violence/terrorism	Government effectiveness	Regulatory quality	Rule of law	Control of corruption
World	Positive Correlation	Positive Correlation	Positive Correlation	Positive Correlation	Positive Correlation	Positive Correlation
Arab States	Positive Correlation	Weak positive correlation	Positive Correlation	Positive Correlation	Positive Correlation	Positive Correlation
Central Asia	Negative correlation	Weak negative correlation	Positive Correlation	Weak positive correlation	Positive Correlation	Positive Correlation
Central and Eastern Europe	Strong negative correlation	Weak negative correlation	Negative correlation	Strong negative correlation	Negative correlation	Negative correlation
East Asia and the Pacific	Strong positive correlation	Positive Correlation	Strong positive correlation	Strong positive correlation	Strong positive correlation	Strong positive correlation
Latin America and the Caribbean	Positive Correlation	Positive Correlation	Positive Correlation	Positive Correlation	Positive Correlation	Positive Correlation
North American and Western Europe	Weak positive correlation	Weak negative correlation	Positive Correlation	Positive Correlation	Positive Correlation	Weak positive correlation
South and West Asia	Negative correlation	Strong positive correlation	No significant correlation	Negative correlation	Weak negative correlation	No significant correlation
Sub-Saharan Africa	Weak positive correlation	Weak positive correlation	Positive Correlation	Positive Correlation	Positive Correlation	Positive Correlation

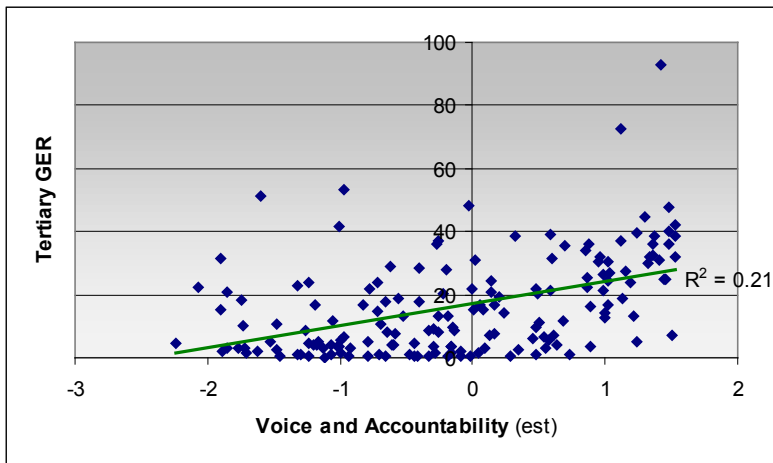
The following graphs show a breakdown of the correlation between tertiary GERs in 1998 and the six different governance indicators in 2008. Whilst the correlation is positive for all six indicators, it is interesting to note the slight variations between them. For example, the more diverse spread of countries scoring negative values for governance, but with relatively high GERs for voice and accountability, control of corruption and rule of law.

¹⁵ NB The data comparison here is higher education GER in 1998 against governance indicators from 2008 and is very much a snapshot in time. It does not take into account the significant improvements in higher education GER in countries like Belize and Ghana since 1998.

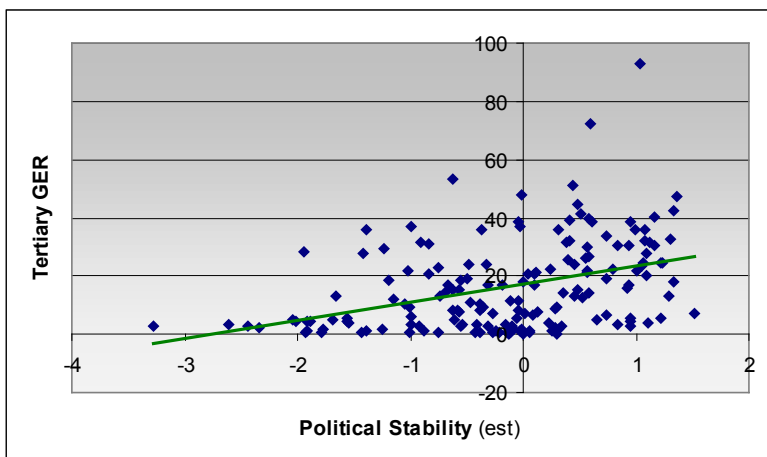
¹⁶ A version of this table for comparing tertiary gross enrolment in 1978 with governance indicators in 1998 is presented in Annex 3.

World graphs

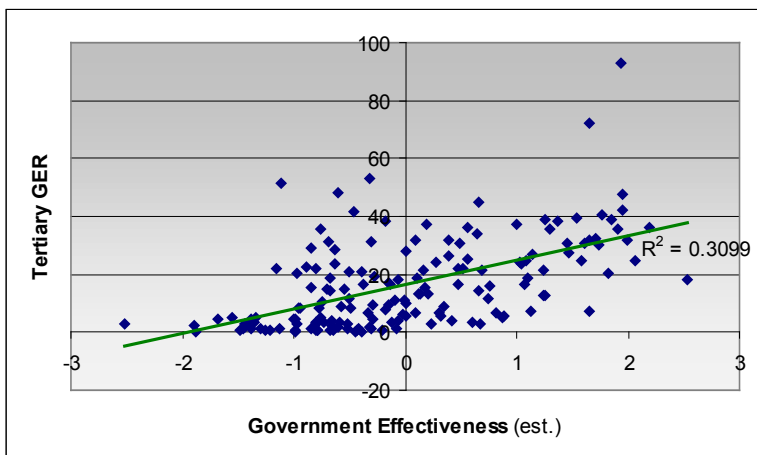
Voice and accountability



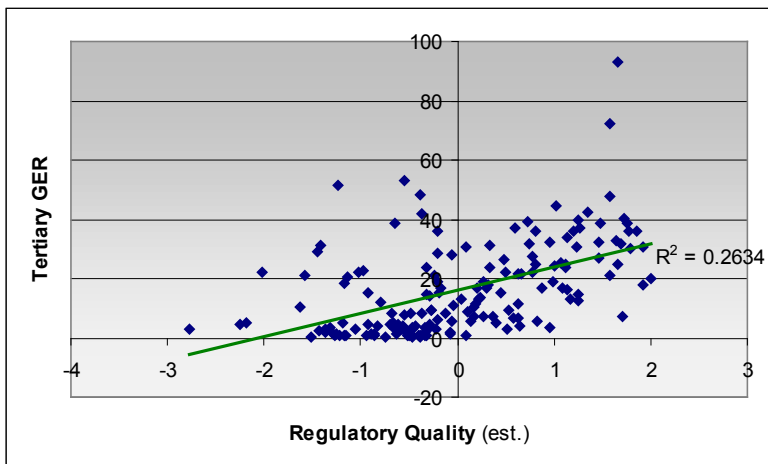
Political stability and absence of violence/terrorism



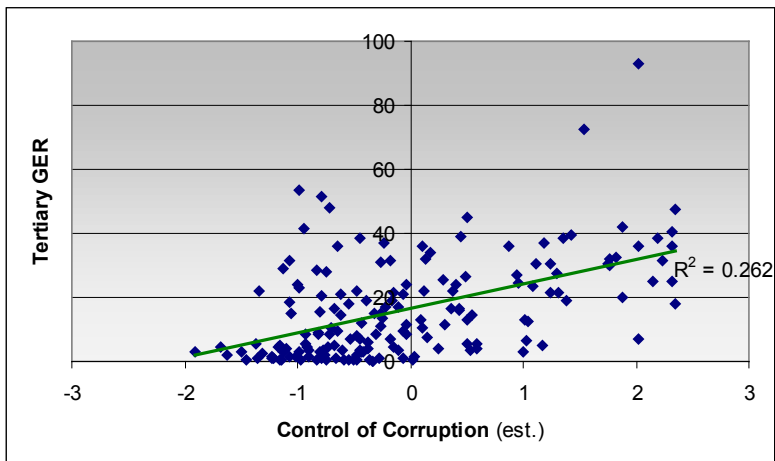
Government effectiveness



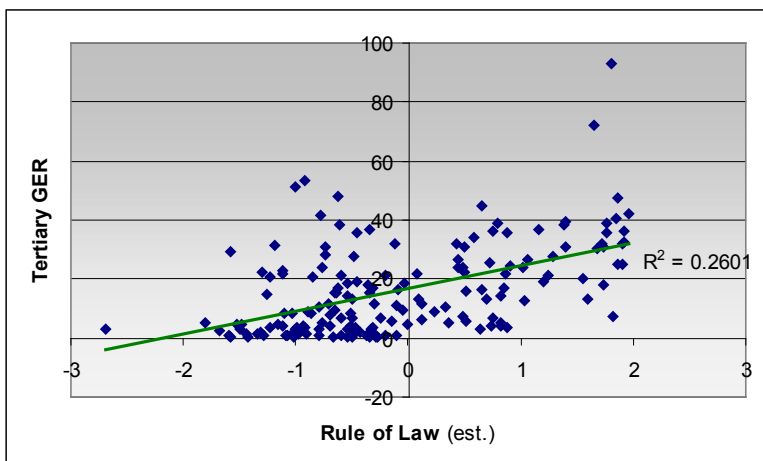
Regulatory quality



Control of corruption



Rule of law



Within the data analysis a few interesting features arose when the data was broken down by region.¹⁷

¹⁷ A more comprehensive regional analysis is provided in Annex 2.

Sub-Saharan Africa

- Correlation between governance and tertiary enrolment was typically weak in Sub-Saharan Africa.
- Variation in governance indicators tended to be greater than variation in tertiary enrolment.
- With the exception of South Africa (who had a GER of nearly 12 percent) no countries within the region had a GER exceeding 6 percent in 1988 and a third of all countries within the region had a GER lower than 1 percent.¹⁸

North American and Latin America and the Caribbean

- There are some notable outliers within regional groups, for example the USA and Canada within North America and Western Europe, and Cuba in Latin America who all have comparatively high tertiary enrolment rates.

East Asia and the Pacific

- The most **significant positive correlations were seen by countries in East Asia and the Pacific**, with the results showing strong relationships between the education and governance variables.
- The strength of the correlations between tertiary enrolment and governance indicators in East Asia and the Pacific is probably linked to the diversity of countries within this region, which demonstrate an array of income levels, and countries with different prioritisations of education and political regimes.¹⁹
- However, within some countries of this regional group there has been a significant growth of higher education, significant economic growth and also political reform. For example Singapore received the highest value for government effectiveness in 2008, and has also seen tertiary enrolment rise by nearly 30 percent since 1970.
- The relationship between higher education and governance in Singapore is explored in further detail in the case study later in this section.

Central and Eastern Europe

- Interestingly the data showed a **negative correlation between tertiary enrolment in Central and Eastern Europe** in 1988 and current levels of governance; this was particularly true for Belarus, Russia and the Ukraine.
- This negative correlation was strongest for indicators relating to voice and accountability, corruption and rule of law; and can be seen in the scatter diagrams on the previous page in the cluster of countries to the left of the trendline with negative governance scores.
- This unexpected relationship indicates that other economic, political and social factors are influential in providing the framework for reforms and governance, and may outweigh the effects of significant investments in higher education and high levels of access.
- This possible explanation is reinforced by the comparison of education and governance data after the end of the Cold War, with comparisons in 2008 showing a positive correlation between higher education and governance indicators.

The data analysis highlighted many countries where there had been significant improvements in tertiary enrolment over recent years (with growth in GER up to 10 percent over 20 years), but where this increased access to higher education had not been accompanied by significant improvements in governance. This was seen in El Salvador, Kyrgyzstan, Lebanon, Libya, Malaysia, Saudi Arabia and many more countries. This suggests that whilst tertiary education may be an influential factor in improving governance, the mechanisms through which any improvement takes place are complex, and are likely to be influenced by the political, economic and social context. Research undertaken using the World Values

¹⁸ Tanzania, Mozambique, Comoros, Rwanda, Malawi, Guinea-Bissau, Mali, Chad, Burkina Faso, Niger, Burundi, Angola and Ethiopia. Countries are listed with lowest GER first.

¹⁹ The regional group includes Australia, Cambodia, Hong Kong, Indonesia, Japan, New Zealand, Malaysia, Myanmar, the Philippines, South Korea, Singapore, Thailand, Timor-Leste, Vietnam and many small island states.

Survey data highlights the effects of “blocking factors” and “threshold effects” which can both hold back or facilitate change (Welzel and Inglehart, 2010). Thus, it is important to consider which other factors are influencing improvements in governance and also those that are driving improvements in higher education reforms.

The influence of these other factors is perhaps best seen through the comparison of countries within the same region which had similar levels of tertiary enrolment in the 1980s, but have since performed very differently economically, politically and with regards to governance. For example Zimbabwe and Namibia had similar levels of tertiary enrolment in 1980s (just over 5 percent), yet Namibia consistently ranked higher on governance indicators. By 2008 Namibia’s tertiary education had grown with enrolments exceeding 8 percent, whereas Zimbabwe’s had fallen to below 4 percent.

To further explain the mechanisms through which tertiary education may influence governance it is necessary to explore not just access to higher education, but also the value-added being provided through these institutes – the types of skills, attitudes, knowledge and networks being formed during higher education and implications for the types of students produced (Kapur and Crowley, 2008). Increased expenditure and access will not necessarily result in greater numbers of democratically-minded development elites. A focus is also needed on the content and delivery of tertiary education and the society in which it is based to fully comprehend the extent to which tertiary education may influence the development of elites.

Country case studies²⁰

The ability to leverage higher education to support the creation of development elites varies widely between countries. There are sustained success stories such as the case of Singapore; other emerging success stories, and a few examples of backwards progress.

Case Study: Singapore

1950s-1970s

These decades saw the creation of three main higher education institutes: Singapore Polytechnic in 1954, Nanyang University in 1955 and the University of Singapore in 1962.

1980s

The Government of Singapore recognised the need for higher education given the country’s newly industrialised status and the need for highly qualified people to support this status. The 1979 *Dainton Report* describes the role of higher education in meeting the needs of Singapore through the provision of “highly qualified people to man and lead the wealth-creating industries in a highly competitive world” (1979: 527) mentioning both technology-based commercial enterprises alongside service sectors and public administration. Additionally a strong emphasis is placed on the role of transferable problem-solving skills, stating that the aim of higher education “should be not only to equip each graduate with the necessary skills and cultivate a lively curiosity and draw out his or her talents of intellect and personality but also to encourage adaptability and a willingness to tackle new problems which cannot be foreseen” (1979: 527). The Report’s recommendations led to the merging of the University of Singapore and Nanyang University to form the National University of Singapore (NUS) in 1980. Nanyang Technological Institute (NTI)

²⁰ The rankings referred to within the case studies are indicators of countries’ comparative performance and whether or not they have scored better or worse when compared globally. It should be noted that these rankings may be affected by events taking place in a specific year; particularly elections, and that a decline in percentile ranking may not be mirrored by a proportionate decline in governance score; rather other countries may have achieved greater gains in their governance score.

was also established in 1981. The NUS saw rapid growth with student enrolment increasing from 8,600 to 13,000 by 1984 coupled with a doubling of academic staff. By comparison, NTI students were around 2,000 (Goh and Tan, 2008).

“Many observers pointed to three reasons for the university’s rapid growth: intellectual quality of its staff, community’s support of higher education, and the government’s recognition of the university’s role in national progress.” (Goh and Tan, 2008: 152)

NTI although not growing so rapidly, also received accolades for providing strong, practical training and the skills necessary to support Singapore’s industries.

1990s

With the move towards a knowledge-based economy, Singapore recognised the need to have an adaptable workforce with appropriate and flexible skills to ensure that the country remained competitive in global and regional markets (Goh and Tan, 2008). Economic development policy focused on developing high technology skills, growing high technology industries, and encouraging industries to exploit and apply new advances in technology. In order to do this, a larger pool of graduates was needed. This led to the amalgamation of NTI with the National Institute of Education to form Singapore’s second university, Nanyang Technological University (NTU). The two universities actively competed for students and research grants. They also worked closely with industry, revamped the curriculum and introduced new courses to meet the needs of the economy. The government focused not only on universities but also used polytechnics to up-skill the workforce to actively participate in the new economy.

“Polytechnics were geared toward providing cutting-edge mid-level technical, management, and service skills, while the universities were tasked with training in high-level skills for both the public and private sectors. Polytechnics graduates who performed well academically were also given the opportunity to progress into NUS and NTU.” (Goh and Tan, 2008: 153)

By 1997, there was a need to establish a business-focussed university, Singapore Management University which was partnered with the Wharton School of the University of Pennsylvania, a prestigious US business school.

This focus on higher education resulted in Singapore’s higher education GER growing from 6.1 percent in 1970 to 43.8 percent in 1997 (World databank).²¹

2000s

The new millennium saw continuing expansions in university enrolments. In order to ensure higher education continued to support economic development a number of new initiatives were introduced including:

- The establishment of global and external campuses (including India, China and the Silicon Valley) to ensure cross-boundary learning and tapping into global ICT advances.
- Quality teaching programmes focussed on multidisciplinary learning so as to produce graduates with broad outlooks.
- Cutting edge research institutes encouraging a vibrant culture of research.
- Strong connections to industry and international academic institutes through a strategic

²¹ No data was available in the World databank for Singapore after 1997.

external relations programme.

Governance

Singapore, like other Commonwealth countries, inherited the British model of governance. It is a country that is widely known for efficiency, competence and economic growth, having averaged an economic growth rate of 9.8 percent in the 1970s and 8.2 percent in the 1990s. In the decade from 1988, GDP more than doubled; it was a country known as being friendly to business, and in 1994, its per capita GDP was higher than Australia, Canada and the UK (Menon, 2007).

Since independence in 1959, Singapore has followed a parliamentary form of government ruled by the People's Action Party and has implemented significant governance reforms (Haque, 2004). These have included the establishment and coordination of development-related institutions such as the Housing and Development Board, the Port of Singapore Authority and the Development Bank of Singapore; as well as the government created Temasek Holdings Ltd which controls most of the significant government-linked companies in Singapore's corporate sector (Low and Haggard, 2000; LaMoshi, 2002). Until the 1990s, the government played a strongly interventionist role in the public sector to ensure the realisation of rapid industrialisation and the country's global competitiveness in light of a weak private sector (Lam, 2000). This focus on rapid industrialisation was reflected in its targeted interventions in higher education. Since the 1990s, Singapore has opened up its markets to allow national and foreign private companies to compete against state monopolies (Shameen, 2000). This has resulted in a slight shift in the public sector towards a more supporting and enabling role for the private sector to flourish even though the public sector still remains quite dominant (Lim, 1996; Haque, 2002). This has been coupled by the government taking on a more consultative and less interventionist role especially under the leadership of Prime Minister Goh Chok Tong (Lam, 2000).

Singapore's good governance is widely recognised in its generally very high and improving WGI rankings between 1996 and 2009 except in the case of voice and accountability, where Singapore's position has dropped (World Bank, 2010a).

- For voice and accountability, Singapore has dropped from just above the 40th percentile to just above the 30th percentile;
- For political stability and absence of violence, Singapore has moved from just above the 70th percentile to the 90th percentile;
- For government effectiveness, Singapore has moved from around the 96th percentile to the 100th percentile;
- For regulatory quality, Singapore has consistently been between the 98th and 100th percentile;
- For the rule of law, Singapore has consistently remained around the 90th percentile; and
- For control of corruption, Singapore has moved from the 96th percentile to the 99th percentile.

Implications and lessons learned from Singapore

- Singapore is a prime example of a country that has given deep and careful thought what it wants from its higher education system in order to respond to its economic dreams.
- It has successfully followed a consistent policy towards higher education to ensure that this

dream has become a reality.

- It has ensured that it has made and maintained strong links between education and the economic needs of the country that will be met through the labour market.
- It has focussed on high quality in its staff and students and has given significant financial support to the higher education sub-sector.

Jordan started out at a similar point to Singapore in the 1960s and has followed a similar higher education trajectory but a less successful governance trajectory. This highlights the point made earlier in this section that whilst tertiary education may be one factor that helps improve governance, there are other factors that may be stronger in their influence in a given context.

Case Study: Jordan

1970s-1990s

The University of Jordan, Jordan's first public university, opened in 1962. This was followed by Yarmouk University in 1976 and six more public universities since then. In 1989, a government policy drawn up by the Council of Higher Education paved the way for the establishment of private universities, with Amman University being the first private university to open in 1990. Since then, a further 12 private universities have opened. The existing Teacher Colleges were expanded in 1981 and renamed as Community Colleges with a focus on training students for specialised middle-level professions. These Community Colleges are affiliated to Al-Balqa Applied University (a public university) (Abu-El-Haija, undated).

Over the past two decades, Jordan has focused more on basic education than higher education to match with the country's aim of universal enrolment in basic education. Given this focus, less than 25 percent of the education budget has been allocated to higher education.²²

2000s

Despite this focus on basic education, the higher education GER rose from 27 percent in 2000 to 41 percent in 2008, meaning that Jordan has one of the highest higher education GERs in the Arab world (World databank).

The World Bank (2010b) states that although Jordan's higher education system has made considerable progress, it still faces a number of issues:

- It is not evolving quickly enough to respond to the needs of the rapidly growing knowledge-based economy;
- Increasing demand is driving the system rather than managing supply;
- There are financing constraints on the sub-sector due to the Government's strong prioritisation of basic education;
- Quality has not been a priority for public financing in higher education;
- Community colleges will need to remain relevant to respond to the diversification and growth of the country's economy; and
- The cost of higher education is creating inequity with students from the richest income quintile being three times more highly represented than those from the poorest income quintile.

22 <http://www.kinghussein.gov.jo/resources3.html>

Governance

There are many political parties in Jordan with freedom for citizens to join any party, but a lot of these parties are ineffective and the election law needs amending to give more consideration to all groups of the population. Jordan is considered to have a good degree of democracy although female participation in political processes remains weak and civil society is not as active as it could be. Human rights are generally well supported. Economically, Jordan has well developed infrastructure throughout the country and became more integrated into the global economy during the 1990s, joining the World Trade Organisation and establishing free trade areas with Arab neighbours, the European Union and the US (ODI, 2007).

By 2009, aggregate WGI rankings for Jordan had either remained stable or slightly decreased compared to 1996 levels, apart from control of corruption where there was an improvement (World Bank, 2010c):

- For voice and accountability, Jordan's position dropped from just below the 40th percentile to around the 25th;
- For political stability and absence of violence, Jordan moved from just below the 50th percentile down to just below the 40th;
- For government effectiveness, Jordan has remained reasonably stable around the 65th percentile;
- For regulatory quality, Jordan has remained reasonably stable moving from just below the 60th percentile to just above it;
- For the rule of law, Jordan's position has dropped slightly from just below the 70th percentile to just above the 60th; and
- For control of corruption, Jordan has improved from being at the 50th percentile to being near the 65th percentile.

Implications and lessons learned from Jordan

- Despite an increase in the higher education GER, apart from the control of corruption where there has been a sizeable improvement, there has been little other positive change in Jordan's governance indicators, and in the case of voice and accountability and rule of law, there has been a worsening of Jordan's governance indicators.
- This shows that countries that start out on a similar trajectory of growth in higher education (e.g. Jordan and Singapore) are not guaranteed to end up in the same place in terms of their governance trajectory.

Namibia and Zimbabwe were at a similar place in terms of their higher education systems in the 1990s, but Namibia has made progress whereas in Zimbabwe, there has been a decline in the higher education GER since the late 1990s coupled with a decline in the governance indicators.

Case Study: Namibia

Pre-Independence through to the 1980s

The first higher education institutes in Namibia opened in the 1980s. These included an Academy for Tertiary Education (with courses on teacher education and secretarial skills) and later another academy for post-secondary training and technical skills. Prior to this, students wishing to progress to higher education studied in South Africa or other countries.

1990s

Not long after independence, President Nujoma established a Special Commission for Higher Education, which led to the establishment of the University of Namibia (UNAM) in 1992, and the transformation of pre-existing higher education institutes into the Polytechnic of Namibia in 1994 (StateUniversity, undated). This was accompanied by a growth in tertiary enrolment, with the GER peaking in 1996 at 8 percent (World databank). President Nujoma's²³ vision for the University of Namibia at the time was "a centre of higher learning served by dedicated men and women of quality, and producing graduates to uplift the standards of living of the Namibian people" (SARUA, 2009).

2000s

The University of Namibia remains the only state-run university enrolling over 8,000 students, across 10 campuses, with 8 faculties and departments for distance education and continuing education (SARUA, 2009; UNAM, 2010). In addition to UNAM and the Polytechnic of Namibia, two private universities have been established. The tertiary GER has remained between 5 and 9 percent, averaging around 6 percent, although latest figures from 2009 indicate a tertiary GER of nearly 9 percent (World databank). Student enrolment has increased two-fold over this time period from fewer than 10,000 students in 1994 to 20,000 by 2008. Approximately 15 percent of Namibia's education budget is currently spent on higher education (SARUA, 2009). Financial assistance is available in the form of student loans and needs-assessed grants.

Within government policy documents,²⁴ a significant emphasis is placed on the development of a knowledge-based economy, and the role of education is to develop the required skills-set to improve growth and productivity (Republic of Namibia, 2007).²⁵ The current Education and Training Sector Improvement Plan (ETSIP) includes plans to create a Centre for Innovation, Entrepreneurship and Technology as well as expanding research capacity within education. The ETSIP also includes specific objectives to improve the quality and relevance of tertiary education, addressing both institutional capacity and financing mechanisms (Republic of Namibia, 2007).

Approximately half of Namibia's population rely on agriculture for their livelihood. In line with this need, there is a bespoke agricultural campus at UNAM. Yet in 2007, just 205 (less than 3 percent) of the 8,378 students enrolled were studying agricultural science (SARUA, 2009). At UNAM, the largest faculties in terms of student enrolment are the faculties of business, management and law, and humanities and social sciences (SARUA, 2009); sciences, agriculture and health attract far fewer students.

Governance

Namibia's independence in 1990 was accompanied by a number of political reforms, including the country's democratic constitution that provides a framework for political institutions and procedures, rule of law, and economic and individual rights (KaaPama, Blaauw, Zaaruka and Kaakunga, 2006). Political processes allow wide participation, and surveys indicate that society is largely supportive of state institutions, the constitution and mechanisms for political decision-making (ECA, 2004). Since independence, Namibia has been predominantly peaceful and

23 Who is also the Chancellor for the University of Namibia.

24 Key documents include: 1998 Higher Education Policy, 1994 Vocation Education and Training policy, the Education Training Sector Improvement Plan (2006-2011), the Research, Science, and Technology Act, and Vision 2030.

25 http://www.op.gov.na/Decade_peace/h_edu.htm

politically stable, as reflected in the latest WGI rankings from 2009 as compared to the earliest recordings of 1996 (World Bank, 2010d):

- For voice and accountability, Namibia has dropped slightly from around the 65th percentile to just below the 60th percentile;
- For political stability and absence of violence, Namibia has increased from just above the 60th percentile to around the 75th percentile;
- For government effectiveness, Namibia has fallen from just above the 70th percentile to just above the 60th percentile;
- For regulatory quality, Namibia has only moved slightly from just below the 50th to around the 55th percentile;
- For the rule of law, Namibia has remained around the 60th percentile; and
- For control of corruption, Namibia has moved from just below the 80th percentile to around the 65th percentile.

Despite positive progress in terms of legislative framework, constitutional rights and democratic institutions and processes, Namibia faces some challenges to effective governance going forward. The political system remains dominated by the South West Africa People's Organisation which has held power since independence. The party obtained a clear majority in 2009 elections, which were also declared transparent, peaceful and fair.²⁶ The lack of significant political opposition has been linked to a general weakness of civil society and concerns that there have been insufficient political challenge and debate to consolidate democratic processes (KaaPama et al., 2006; ECA, 2004). However, overall Namibia has been relatively successful in encouraging respect for democratic political processes, including free media, respect for the constitution and rule of law, helping it achieve political stability and good governance (KaaPama et al., 2006).

Implications and lessons learned from Namibia

- Since independence, Namibia has remained politically stable, as reflected in the relatively constant governance indicator rankings. The only indicators which declined in rankings were for government effectiveness and control of corruption, which may be linked to rising expectations of society with economic growth and stability.
- Whilst tertiary enrolment has increased significantly since independence, it is worth noting that the majority of today's political and economic elites were educated either in South Africa or abroad elsewhere.
- It is also perhaps too soon to evaluate the effect of tertiary education within Namibia on the development of elites. However, policy movements since independence suggest a drive towards expanding access and recognition of the importance of tertiary education in developing a knowledge-based economy. It is yet to be seen whether this will also have a positive effect on governance processes in addition to economic growth.

Case Study: Zimbabwe

Pre-Independence through to the 1980s

The first university opened in Harare in 1957 (Kariwo, 2007). By 1975, Zimbabwe had a higher education GER of 1.6 percent (World databank). At independence in 1980, there was one university, two polytechnic colleges and five teacher training colleges. A decade later, there were 8

26 http://news.bbc.co.uk/1/hi/world/africa/country_profiles/1063245.stm

polytechnic colleges and 14 teacher training colleges as well as 2 new vocational training centres.

1990s

The 1990s saw significant educational reforms which focused on quality and relevance with a particular emphasis on science, technology, skills and teacher education. In 1991, the National University of Science and Technology was opened in Bulawayo as well as the Zimbabwe Open University (SARUA, 2010). The majority of funding for higher education came from the government with students only paying nominal fees (Government of Zimbabwe, 2010). As a result of this increasing prioritisation and financing of higher education, the higher education GER grew rapidly to 5.3 percent by 1990 and then peaked at 6.7 percent in 1997 (World databank).

2000s

The new millennium saw the creation of other new public and private universities and colleges (SAURA, 2010). By 2010, Zimbabwe had 12 universities (of which 4 were private), 8 polytechnics and 10 teachers colleges (of which 3 were private) (Government of Zimbabwe, 2010). However, this was also a period of political and economic downturn for Zimbabwe. As a result of the declining economy, the government moved away from providing grants and introduced loans to cover the costs of tuition and living (Kariwo, 2007). Since the economic collapse of 2008, students and their families have largely financed the costs of higher education themselves (Government of Zimbabwe, 2010) and whilst there has been overall growth in student numbers in universities, there has been a significant drop in enrolments in teacher training colleges and polytechnics since 2000. The drop in enrolments in teacher training colleges is due to the degraded status of the teaching profession (Chung, 2010).

Governance

In 1996, Zimbabwe's governance rankings for the WGI were between the 20th and 50th percentiles (World Bank, 2010f). However, the late 1990s then saw a deterioration in Zimbabwe's political economy. This started with legislation backing the seizure of farms in 1995 and was followed by parliamentary and presidential elections which were not seen to be free and fair and which resulted in the abolition of the Senate and the creation of appointed seats in the House of Assembly. This was coupled with a steady decline in the economy due to hyperinflation, sustained negative GDP growth, devaluation of the currency, food shortages and rising food prices (Government of Zimbabwe, 2009). There were also accusations of the government's misuse of funds. In 1999, the World Bank suspended its operations due to Zimbabwe being in arrears on its borrowing (Government of Zimbabwe, 2008). The economic and political crisis negatively impacted the state's ability to provide financial support to education and reversed the progress made in higher education. This resulted in the higher education GER plummeting to between 3 and 4 percent in the following years despite the opening of new institutes, with the latest data being from 2003 when it stood at 3.8 percent (World databank).

The challenging political and economic situation in Zimbabwe has resulted in significant brain-drain of academic staff with emigration to South Africa and Botswana as well as students going overseas for higher education study (Kariwo, 2007). This has produced large turnover and vacancy rates in higher education institutes in Zimbabwe (Government of Zimbabwe, 2010).

By 2009, aggregate WGI rankings had plummeted compared to 1996 levels (World Bank, 2010e):

- For voice and accountability, Zimbabwe moved from the 30th percentile down to below the

8th;

- For political stability and absence of violence, Zimbabwe moved from the 25th percentile down to the 9th;
- For government effectiveness, Zimbabwe moved from the 45th percentile down to under the 2nd;
- For regulatory quality, Zimbabwe moved from the 25th percentile down to the 1st percentile;
- For the rule of law, Zimbabwe moved from the 20th percentile down to the 1st percentile; and
- For control of corruption, Zimbabwe moved from being near the 50th percentile down to under the 4th.

These low rankings reflect the recent political events in Zimbabwe with the March 2008 presidential and parliamentary elections which resulted in political stalemate for six months and eventually resulted in a power-sharing agreement, the Global Political Agreement, being signed between the two main political parties in late 2008 and being implemented from February 2009 with the formation of a new Inclusive Government.

Implications and lessons learned from Zimbabwe

- The volatility of a fragile political context can impact negatively on national higher education investment and enrolment.
- Growth in the higher education GER does not necessarily result in better governance and can quickly be reversed if a country finds itself in challenging economic times with little foreign investment or aid flows and a rapidly diminishing national economy with very limited funds for domestic expenditure.

This confirms what has been alluded to in the literature review that higher education by itself may not be a sufficient pre-condition for democratic processes and improved governance.

6. The widening of access to higher education

Given the correlation seen above, it is pertinent to ask what potential role higher education has in promoting developmental elites, especially given that in many countries higher education systems are moving away from being focussed on elite formation towards a more mass or universal education goal. How then can higher education shape the emergence of positive change and development within countries? This final section explores key areas in which higher education can be influential.

Creating a growing middle class

Education is one of the key determinants in the creation of a middle class, alongside job opportunities (Asian Development Bank, 2010). In particular access to higher levels of secondary education and post-secondary education are seen as critical in the sustenance of the middle class, as it enables individuals to access and retain stable, well-paid jobs. However, education's role in the emergence of a middle class goes beyond its economic contribution. Since the beginning of the new millennium, the world has begun to recognise the wider social benefits of education, particularly the role it has in the process of democratisation.

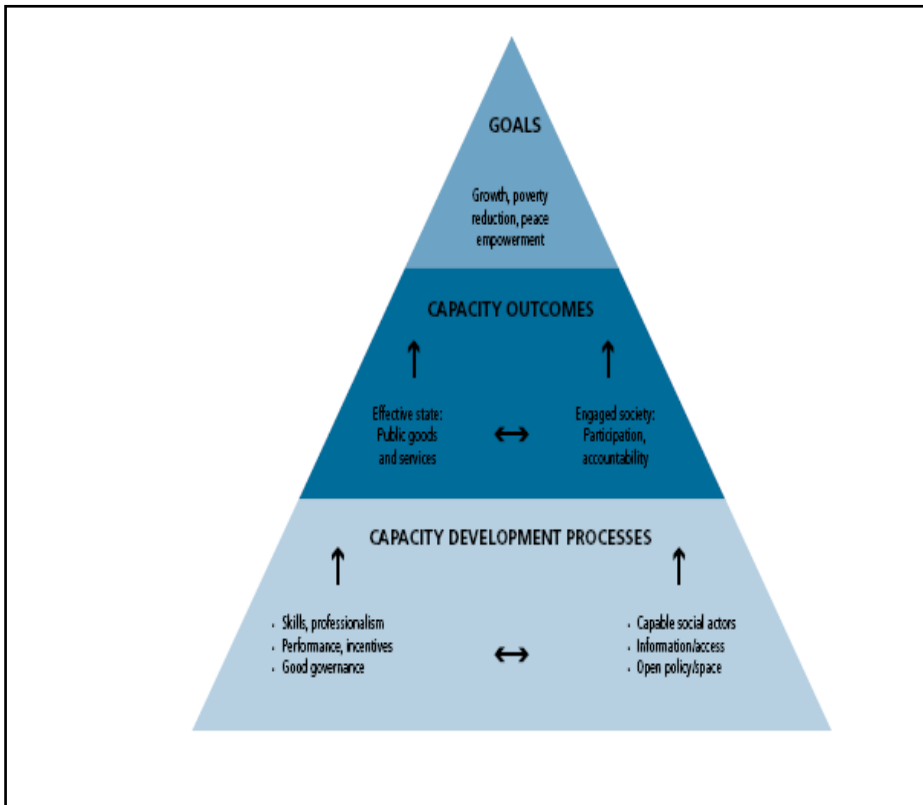
“Schooling teaches people to interact with others and raises the benefits of civic participation, including voting and organizing. In the battle between democracy and dictatorship, democracy has a wide potential base of support but offers weak incentives to its defenders. Dictatorship provides stronger incentives to a narrower base. As education raises the benefits of civic engagement, it raises participation in support of a broad-based regime (democracy) relative to that in support of a narrow-based regime (dictatorship). This increases the likelihood of successful democratic revolutions against dictatorships, and reduces that of successful anti-democratic coups.” (Glaeser, Ponzetto and Shleifer, 2007: 1).

Broad civic participation requires the involvement of a growing proportion of society. A diverse middle class ensures sustainable institutions and promotes economic growth. This growth is then leveraged by society at large rather than narrow elite groups. In some developing countries especially in Africa, the middle class remains relatively small leading Ravallion (2009) to conclude that this results in exposure to slower rates of economic growth than in those countries with a larger middle class. Birdsall (2010: 1) also emphasises the need to develop the middle class stressing that:

“the concept of inclusive growth should go beyond the traditional emphasis on the poor (and the rest) and take into account changes in the size and economic command of the group conventionally defined as neither poor nor rich, i.e., the middle class.”

Effective states require within them citizens to demand change and hold governments accountable for this change. The state's effectiveness strongly depends on individual and organisational capacity. The ability to hold government to account is more robust where there is a larger middle class. Creating these middle-class professionals is essential for any higher education system. Education helps provide individuals with the resources and values to effectively lobby elites, helping to stabilise and embed democratic processes (Welzel and Inglehart, 2008). Middle-class professionals can play a role both in government and in civil society organisations that demand good governance and hold the government to account. Such organisations can include parliaments and their committees, professional associations, advocacy and consumer groups, and local governments and communities (World Bank, 2005). Therefore, in expanding access to higher education, attention needs to be paid to whether or not this is inclusive and enables a broader cross-section of society to access tertiary education, or if networks remain narrow and exclusive.

Figure 2: Capacity development goals, outcomes and processes



Source: World Bank, 2005: 3.

Expanding higher education to meet the needs of the labour market

In order to compete, developing countries must actively participate in the growing knowledge economy.

“The ‘knowledge revolution’ has seen exponential and continuing increases in knowledge in advanced countries since World War II.” (World Bank, 2000: 17)

Following this increased need for highly skilled workers, advanced economies rapidly started to expand access to higher education. The higher education system in the US grew rapidly in the first half of the century from around 4 percent of high school graduates attending college in 1900 to 15 percent by 1940. It then tripled in size again between 1940 and 1970. By the end of the century, over 60 percent of high school graduates were attending college (Bloom et al., 2007).

In Europe, enrolments in higher education remained constant at around 3-5 percent of the age group during the first half of the century. Significant growth then took place with a doubling of enrolments every five years in many countries during the 1960s, and a further doubling in 7-10 years by the middle of the 1970s. By the end of the century, around 30 percent and increasing of the age cohort was enrolled in higher education in the majority of European countries (Trow, 2007), accompanied by significant increases in the proportion of education expenditure being devoted to tertiary education, as already seen in Figure 1. Similar trends have been seen in Asia (for example in Hong Kong, Japan, Korea and Singapore) and Latin America (in Bolivia, Brazil and Colombia) who have all experienced rapid growth in enrolment over the last few decades and now all have tertiary GERs exceeding one third of the population and increasing.

Since the 1990s the knowledge economy has continued to progress. This growing importance is shown

in both the increasing enrolments in higher education as well as in the increases in the number of new patents, databases, journals, research and development expenditures, the use of the internet and other communication technologies and demand for high-skilled workers (World Bank Institute, 2007). Evidence indicates that higher education has a specific role to play in developing “collective entrepreneurship” but not only imparting technical skills, but also general skills that facilitate productive interactions between individuals that can result in innovation (Lundvall, 2007).

The knowledge economy has impacted all industries and emphasises the need to continually develop knowledge in order to compete.

“Nearly all industries have been affected, from biotechnology to financial services, with the nature of economic growth changing since ‘tinkerers’ and craftsmen guided the early technology of the industrial revolution. Systematic knowledge has gradually replaced experience in furthering technology, with sophisticated and theoretical knowledge now the predominant path for technical progress. The world’s Silicon Valleys are pushing the technological envelope; they are doing so by building on a thorough understanding of the underlying science.” (World Bank, 2000: 17)

The new knowledge economy combined with the financial crisis has provided new opportunities for developing countries. Growth in emerging and developing countries has been positive whilst advanced economies have experienced negative growth. By 2015, the average growth rate for emerging and developing economies has been projected as 6.7 percent, 2.2 percent higher than the world average and three times higher than the growth rate of advanced economies (IMF, 2010).

Table 6: Projected GDP changes

% Change in GDP (constant prices)	2009	2015
World growth	-0.6	4.5
Advanced Economies growth	-3.2	2.3
Emerging and Developing Economies growth	2.4	6.7

Source: IMF, 2010.

Developing countries, even more so than advanced countries previously did, will need to increase access to higher education in order to continue to actively compete. This will require a realisation that higher education institutes will not just foster elite formation but also a skilled labour force for the new knowledge economy.

“Higher education is increasingly exposed to strong external expectations to be more visibly useful for economy and society, to create stronger incentive-based internal regulation, to identify and meet the needs of perceived ‘market forces.’” (Brenan, 2008: 4)

“Quality higher education and training are crucial for economies that want to move up the value chain beyond simple production processes and products. In particular, today’s globalizing economy requires economies to nurture pools of well-educated workers who are able to adapt rapidly to their changing environment. The importance of vocational and continuous on-the-job training, neglected in many economies, cannot be overstated, as it ensures a constant upgrading of workers’ skills to the changing needs of the production system.” (World Economic Forum, 2009: 5)

The World Bank’s Education for the Knowledge Economy Programme outlines the role of higher education in building national innovation systems through both the provision of highly-skilled people

and as centres of research (World Bank, 2010b).²⁷

The need to change the skills set as well as increasing access

It is therefore important to ensure that developing countries develop the skills needed to sustain this growth and to continue to compete in this new economy. Gardner (2007: 3) insists that in order to actively participate in this new economy, citizens will have to develop five minds for the future:

- Disciplined mind: has mastered at least one way of thinking – a distinctive mode of cognition that characterizes a specific scholarly discipline, craft, or profession.
- Synthesising mind: takes information from disparate sources, understands and evaluates information objectively, and puts it together in ways that makes sense to the synthesizer and also to other persons.
- Creating mind: breaks new ground. It puts forth new ideas, poses unfamiliar questions, conjures new ways of thinking, arrives at unexpected answers.
- Respectful mind: notes and welcomes differences between human individuals and between human groups, tries to understand “others,” and seeks to work effectively with them.
- Ethical mind: ponders the nature of one’s work and the needs and desires of the society in which one lives. This mind conceptualizes how workers can serve purposes beyond self interest and how citizens can work unselfishly to improve the lot of all.

Hargreaves and Shirley (2009: 85) go further and insist that:

“Creativity, innovation, intellectual agility, teamwork, problem solving, flexibility and adaptability to change are essential to the new economy. But if these skills are all there is to 21st century schools, they will convert personalization into mere customization in a fast-forward world of temporary teamwork and swift solutions. Twenty-first century schools must also embrace deeper virtues and values such as loyalty, perseverance, courage, service, and sacrifice.”

Higher education has had to change and will need to continue to need to change in order to meet the new demands and skills need for the knowledge economy and globalisation. There is increasing recognition that the role of universities in research, evaluation, information transfer, and technology development is crucial to national social progress and economic growth. Trow (2007) predicts that higher education in the future will be provided on a much larger scale and with greater diversity due to increasing demand; it will need to give students the ability to adapt; industry will become more interested in supporting its employees in continuous professional development forging links with both the public and private sector providers of higher education; and there will be reduced government financial support for higher education as the system expands although the government will continue to support certain aspects of higher education. Similarly a UNESCO conference in 2008 called for a shift in the ways universities are perceived, so that whilst they remain centres of excellence and research, they also encourage the generation and use of knowledge for social change via stronger networking and collaboration with industry, communities and civil society both locally and internationally (UNESCO Bangkok, 2008).

Trow (2007) also argues that elite higher education is no longer focussed on the same intensity of developing personal and moral character with professors having significant authority over students’ lives, but instead it focuses on technical skills and knowledge but with the strong message of “ambition” being conveyed to students:

²⁷ <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/0,,contentMDK:20161496~menuPK:540092~pagePK:148956~piPK:216618~theSitePK:282386,00.html>

“that they can accomplish large and important things in the world, that they can make important discoveries, lead great institutions, influence their country’s laws and government, and add substantially to knowledge.” (Trow, 2007: 250)

He goes on to argue that elite organisations that focus on encouraging ambition “are disproportionately successful in the competition for positions of leadership in the larger society” (Trow, 2007: 251) and that this is what differentiates them from other often denominational organisations which focus on the development of moral character and close relationships between a student and his or her professor.

In order to continually develop these skills there is a growing recognition of the need to link secondary and other learning routes including higher education institutes. This will ensure alignment and that skills are continually built to ensure individuals can actively participate in the 21st century economy and become active citizens.

“Investment in secondary education in Sub-Saharan Africa will provide countries with critical higher level skills and knowledge for advanced learning and training of technicians, scientists, entrepreneurs, and yields considerable social and private returns. Secondary education plays a crucial role in preparing for higher education and for work, for youth and in a life-long learning perspective.” (World Bank, 2008: 2)

Donors’ recognition of the need to invest in higher education

Two major World Bank publications have helped put higher education and research back on the agenda: Higher Education in Developing Countries: Peril and Promise (The Task Force on Higher Education and Society, 2000) and Constructing Knowledge Societies: New Challenges for Tertiary Education (World Bank, 2002). The former publication criticised the “narrow” and “misleading economic analysis” of the earlier rates of return analysis (The Task Force on Higher Education and Society, 2000: 10). The latter outlined the significant changes in societies towards knowledge societies and recommended that developing countries spend a benchmark of 20 percent of their domestic education budgets on higher education whilst still prioritising basic education. The report created further momentum for supporting higher education recognising the significant external benefits of higher education rather than only looking at the old rates of return analysis.

Between 1990 and 1999, official development assistance to tertiary education in Africa averaged US\$110 million a year rising to US\$515 million a year during 2000-2005. Over this same period, World Bank support for higher education averaged between US\$31 million and US\$36 million per year over the decade from 1995 to 2004 and then increased to an annual average of US\$83.9 million from FY05-FY08 (World Bank, 2009).

The Commission for Africa Report recommended that donors invest in building the capacity of Africa starting with higher education and specifically focussing on science and technology. It recognised the crisis of higher education systems and called on the international community to commit US\$500 million annually to strengthen the higher education institutes and up to US\$3 billion over the following decade to develop centres of excellence in science and technology (Bloom et al., 2005). By 2007, there was recognition of the need for greater prioritisation of higher education in Africa:

“A more knowledge-intensive approach to development is not an option for African countries. It is the only path which is likely to lead to sustained outward oriented development given the evolving circumstances in Africa and in the global economy. This report maintains that a knowledge intensive strategy requires a greater focus on tertiary education and on research.” (World Bank, 2007: 52 cited in Kapur and Crowley, 2008: 82)

A 2009 World Bank Report Accelerating Growth: Tertiary Education for Growth in Sub-Saharan Africa recognised the need to update the World Bank's position on tertiary education particularly in light of new evidence around increasing social returns to higher education and economic growth providing:

“a justification for African and donor investments in tertiary education within the context of a globally competitive knowledge economy, and suggests likely focus areas for this financing.” (World Bank, 2009: 5)

The report recognised that for the last twenty years, education ODA generally overlooked post-basic education in Sub-Saharan Africa (SSA) which also led governments to do likewise. Whilst it acknowledged that UPE is still very important, it also pointed out that:

“neglecting tertiary education could seriously jeopardize longer-term growth prospects of SSA countries, while slowing progress toward MDGs, many of which require tertiary-level training to implement.” (World Bank, 2009: xxi)

Private foundations have begun to play a significant role in supporting higher education. The Bill and Melinda Gates Foundation provides support to the US National Academy of Sciences to build the capacity of African national science academies to prepare scientists who can inform and government policy in an evidence-based way. Several US foundations have established the Partnership for Higher Education in Africa which spent over US\$150 million between 2000 and 2005 on building the research and leadership capacity of African universities and supporting special initiatives especially in information technologies. They have since committed a further US\$200 million to this.

7. Conclusion

This phase of the research set out to explore what the literature says about the purpose of higher education and discovered how the original purpose of elite formation has now been opened up to become a more mass or universal system in many Western countries. Developing countries are still mostly at the elite formation stage but have found their higher education systems largely underfunded both nationally and by the international donor community.

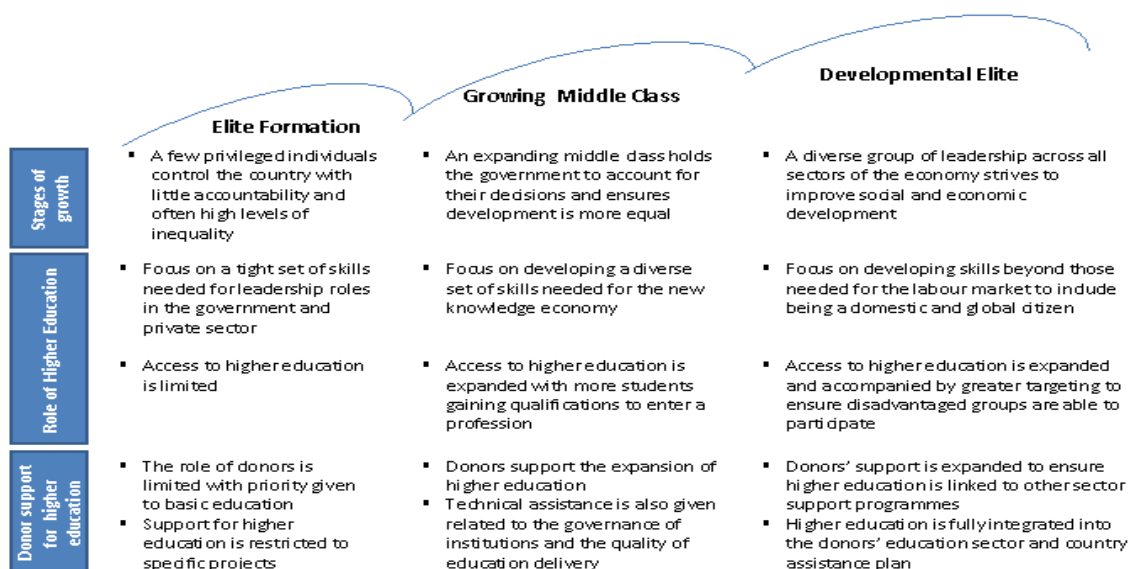
The research found support in the literature for a positive link between higher education and good governance. Analysis of data mapping higher education GERs with a 20-year lag against the WGI also found a positive correlation globally and in most regions of the world.

Higher education is in a situation where due to the opening of its gates to more young people, it is no longer predominantly about elite formation. Rather it is more about creating a skilled workforce to respond to the changing needs of the new knowledge economy. In order to compete in the global economy, developing countries will need to ensure that their higher education systems do not remain purely as elite systems, but also help to develop the skills needed in the labour market.

This does not mean that higher education no longer has a role to play in elite formation. Rather the nature of forming elites requires a two-fold strategy: firstly, to create the very small exclusive elite who will be the strategic players at the top of society; and secondly, to create a wider more inclusive elite that occupy key positions in the public, private and third sectors, and who constitute a growing middle class that has knowledge, skills and capacity to hold the smaller exclusive elite to account.

Thus, higher education plays an important role in countries making the transition between different stages of growth – from elite formation, to growth of middle class within society and the emergence of developmental elites, as illustrated in Figure 9 below. Understanding the sequencing of this transformation and the processes behind it is of great significance to countries seeking to strengthen their institutions. Concurrent to this transition, donors have a role to play in supporting the expansion of provision of tertiary education, strengthening the links with other levels of education provision and encouraging improvements to the governance of higher education institutes and the quality of education provided.

Figure 9: The role of higher education in supporting developmental elites



Source: CfBT Education Trust 2010

8. Gaps and possible strands of research for future phases

This phase of the research sought to give an overview of the literature around higher education and good governance. Whilst the literature provides a good analysis of the changing nature of the purpose of higher education, it is less clear about which types of institutes, degrees, and approaches to teaching provide the best preparation for elite formation. There is also little evidence on how to distinguish between the two main tiers of elite formation. These are areas that need further investigation. In particular, exploring the effects of interventions such as exchanges and studying abroad on the development of elite networks, leaders and in influencing values.

The data analysis in this phase of the research looked only at establishing correlation. It did not consider causation. However, the correlation analysis did suggest that a number of political, economic and social factors influence the relationship between higher education and governance. Further and more detailed analysis at country level of the order of governance reforms and higher education policy and strategy changes may help to look at whether higher education is contributing to better governance; whether improving governance is contributing to greater prioritisation of higher education; or whether both factors are intertwined and causation is cyclical. These issues will be explored in the consequent stages of the research programme through in-depth case studies.

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Annex 1: Data methodology

Data analysis within this research sought to identify if there is any correlation between good governance (a proxy for the existence of developmental elites) and tertiary gross enrolment rates (GERs) for all countries in the world which have data. Given the time lag between when people complete higher education and when they are likely to become elites (usually at least 15-20 years), two different data sets were compared and analysed to look for potential patterns and analyse any findings:

1. Governance data from 2008 against education data from 1988
2. Governance data from 1998 against education data from 1978

Data sources

The data analysis within this report relies upon data from the following sources:

- Data on tertiary enrolment, GERs and government expenditure was retrieved from the World Bank's World databank.
- Data on Worldwide Governance Indicators (WGIs) was retrieved from the World Bank's Governance database as this had the most comprehensive set of data for a range of different governance indicators.
- The Organisation for Economic Cooperation and Development (OECD) Development Assistance Committee (DAC) Creditor Reporting System (CRS) for Official Development Assistance (ODA) data.

Governance and education data

When comparing time lags (between 2008 and 1998, and 1998 and 1978), if data was not available for the chosen base years, data for the most recent year was chosen instead. If data was available from two years equidistant from the base year, e.g. 1989 and 1990, the most recent year was always chosen. If the most recent year for which data was available was greater than 5 years from the base year it was excluded from the analysis.

Aid data

Data on aid flows to higher education was downloaded from the OECD-DAC CRS database. The OECD-DAC considers higher education to consist of the following components:

- Higher education: degree and diploma programmes at universities, colleges and polytechnics; scholarships.
- Advanced technical and managerial training: professional-level vocational training programs and in-service training.

All data shows donors' commitments, priced in constant US\$.

The data obtained has not been adjusted to compensate for any additional flows financed through general budget support. Whilst it was recognised that budget support is a further channel for aid financing of higher education, this analysis chose to focus on levels of aid specifically focusing on the higher education sector.

It was not possible to obtain data prior to 1995 to provide a more historical analysis of donor trends, as data reporting earlier than 1995 is less reliable with under three-quarters of aid commitments being reported.

Regional groupings

The datasets were split into different regional sub-groups so that trends could be analysed both globally as well as by region. The regional groupings used are those applied by the UNESCO Institute for Statistics (UIS), which are broken down as follows:

Arab States: Algeria, Bahrain, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, West Bank Gaza, Yemen

Central Asia: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan, Turkmenistan, Uzbekistan

Central and Eastern Europe: Albania, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Kosovo, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Turkey, Ukraine

East Asia and the Pacific: American Samoa, Australia, Brunei, Cambodia, China, Fiji, Guam, Hong Kong, Indonesia, Japan, Kiribati, North Korea, South Korea, Laos, Macao, Malaysia, Marshall Islands, Micronesia, Myanmar, New Caledonia, New Zealand, Palau, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, Thailand, Timor-Leste, Tonga, Vanuatu, Vietnam

Latin America and the Caribbean: Antigua And Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bermuda, Bolivia, Brazil, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, St. Kitts And Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela, Virgin Islands (U.S.)

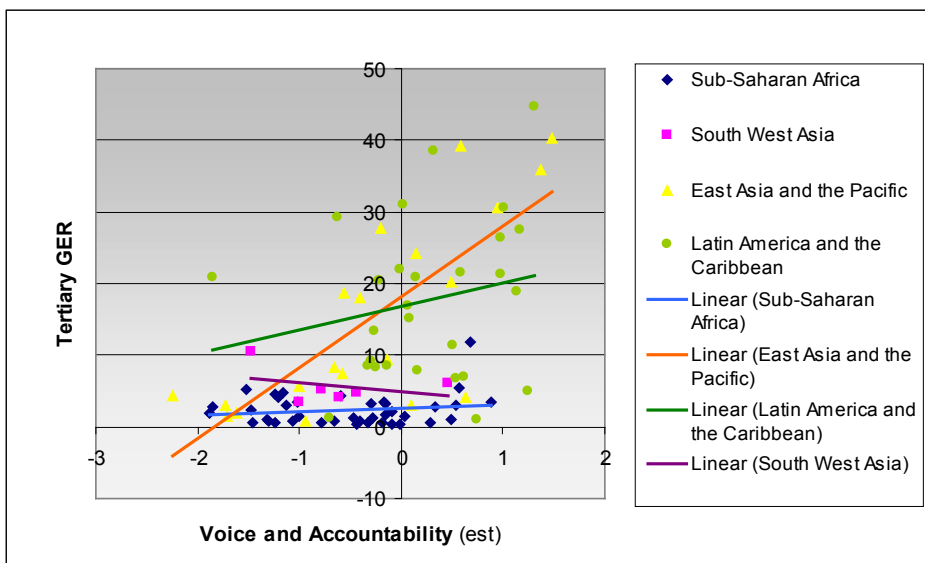
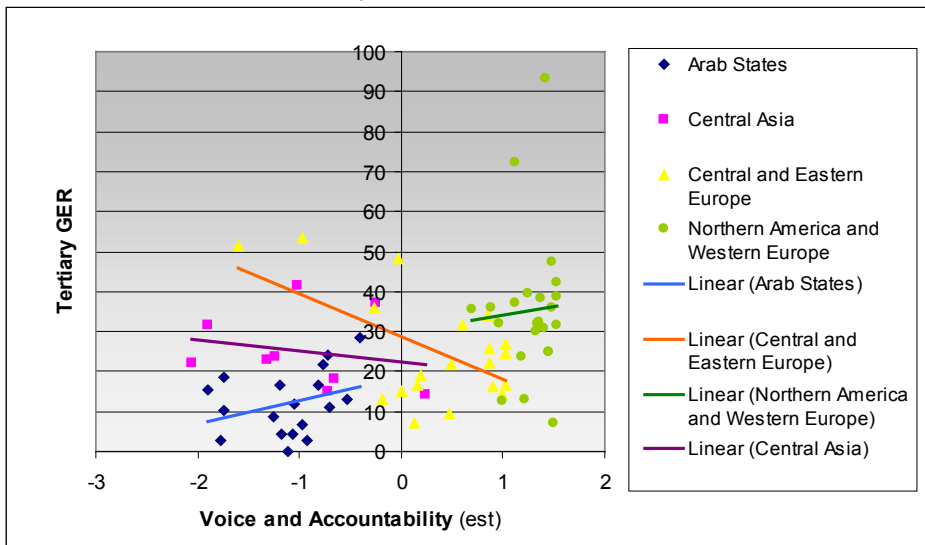
North America and Western Europe: Andorra, Austria, Belgium, Canada, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Liechtenstein, Luxembourg, Malta, Monaco, Netherlands, Norway, Portugal, San Marino, Spain, Sweden, Switzerland, United Kingdom, United States

South and West Asia: Afghanistan, Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan, Sri Lanka

Sub-Saharan Africa: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Republic of Congo, Cote d'Ivoire, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe

Annex 2: Additional data – regional breakdown of correlation between tertiary GER in 1988 and governance indicators in 2008

Voice and accountability

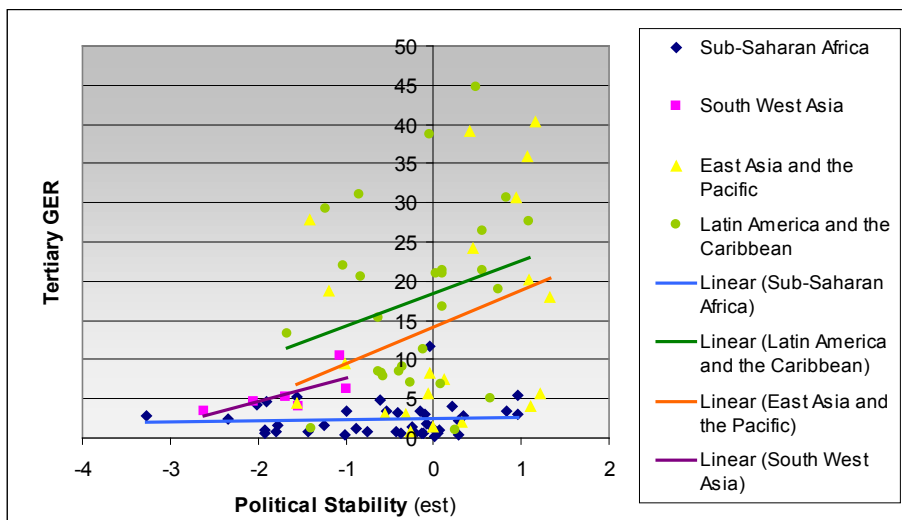
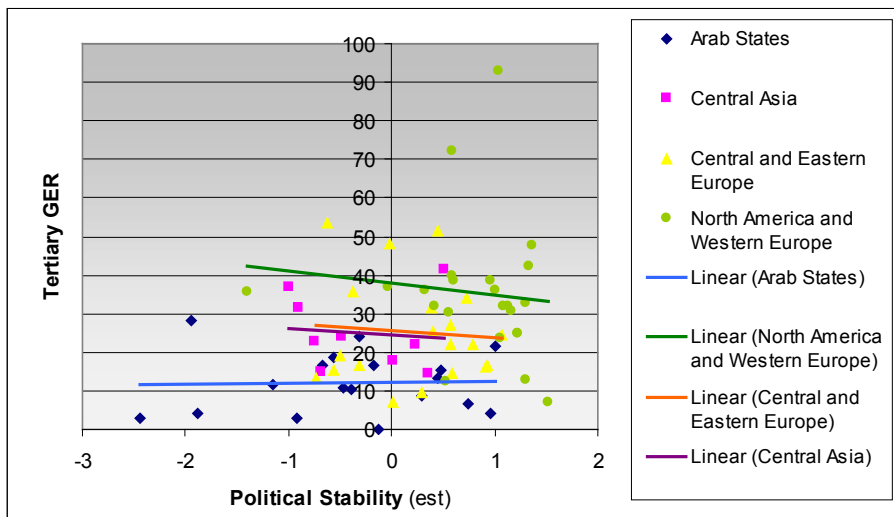


Distinctive trends:

- Strong negative correlations in Central and Eastern Europe, largely due to the influence of Belarus, Moldova, Russia and the Ukraine, where high tertiary GERs in 1998 are associated with negative scores for voice and accountability.
- Slight negative correlation in South West Asia due to the effect of Iran.
- There is no significant correlation between voice and accountability (and other governance indicators) and tertiary GER in Sub-Saharan Africa. With the exception of South Africa (which had a GER of nearly 12 percent) no countries within the region had a GER exceeding 6 percent in 1988 and a third of all countries within the region had a GER lower than 1 percent.
- Values for North America and Western Europe are highly concentrated with positive estimates for voice and accountability; however, the US and Canada are consistent outliers within the regional group with extremely high tertiary GERs.
- Values for the Arab states are also clustered, showing some positive correlation but only achieving negative values for voice and accountability.

- Cuba is a notable outlier within Latin America and the Caribbean with a relatively high GER but a negative voice and accountability score.
- Strong positive correlation in East Asia is representative of the diversity of countries within the region; with high GER and positive governance values seen in Australia, Japan and New Zealand, whereas Cambodia, China, Laos and Vietnam all have GERs below 3 percent and negative governance values.

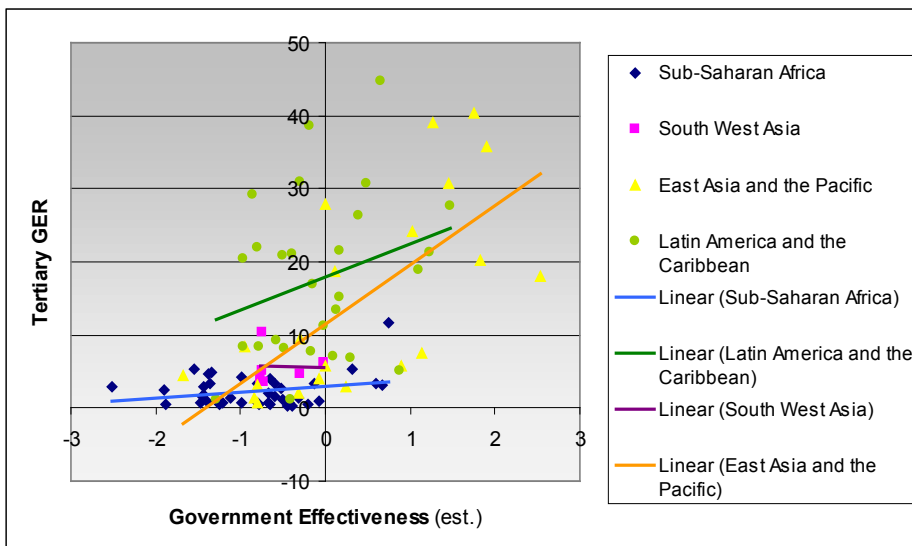
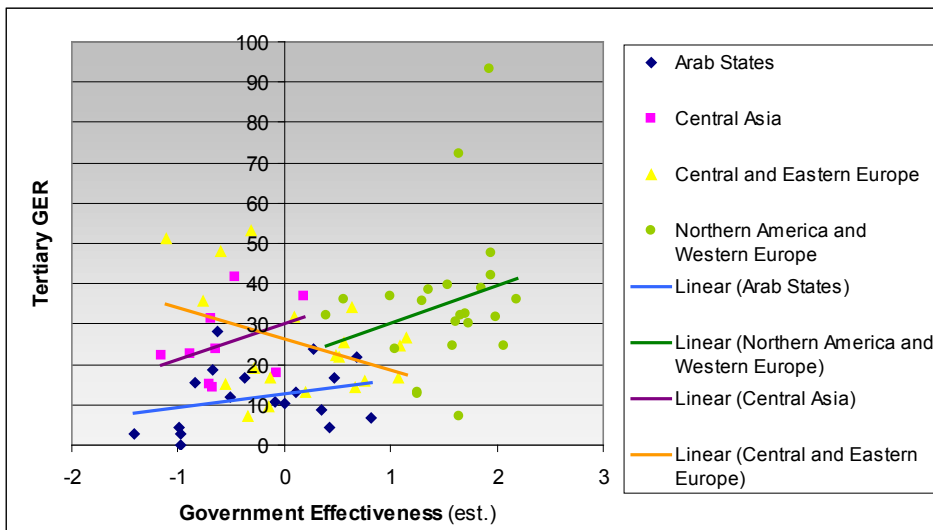
Political stability and absence of violence/terrorism



Distinctive trends:

- There is a lack of significant trends for Arab States, Central Asia, Central and Eastern Europe and North America and Western Europe, although all of the above (with the exception of Arab states) show a slightly negative correlation. There is also a striking similarity between the trend lines for Central and Eastern Europe and Central Asia.
- The values for Latin America and the Caribbean, and East Asia and the Pacific are relatively dispersed, particularly above the trend line. For example Bolivia, Peru and Cuba have GERs above 25 percent but scored negatively for political stability. Conversely Samoa, Brunei, St. Lucia, Botswana, Namibia and Mauritius all have GERs of 5 percent or below but are comparatively stable with low levels of political unrest and violence.

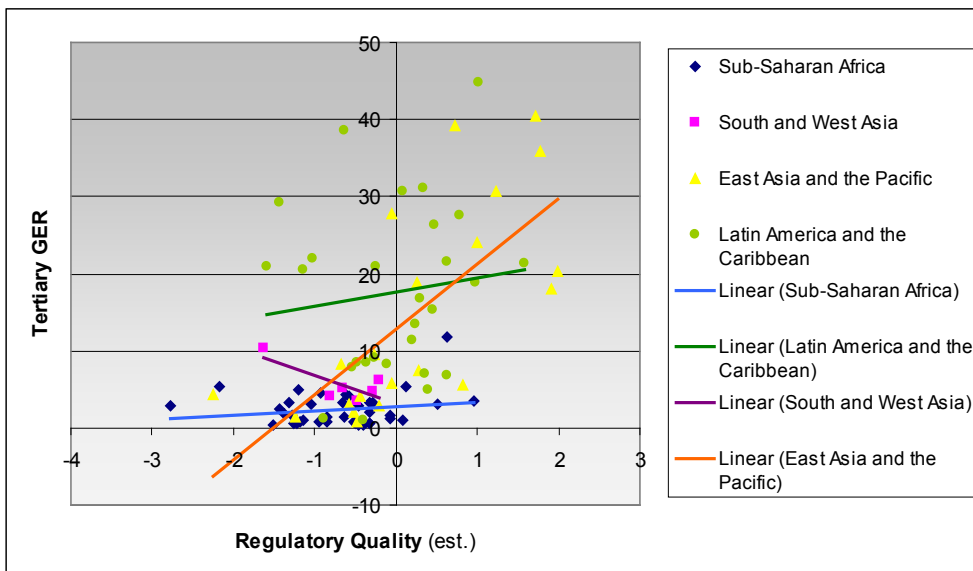
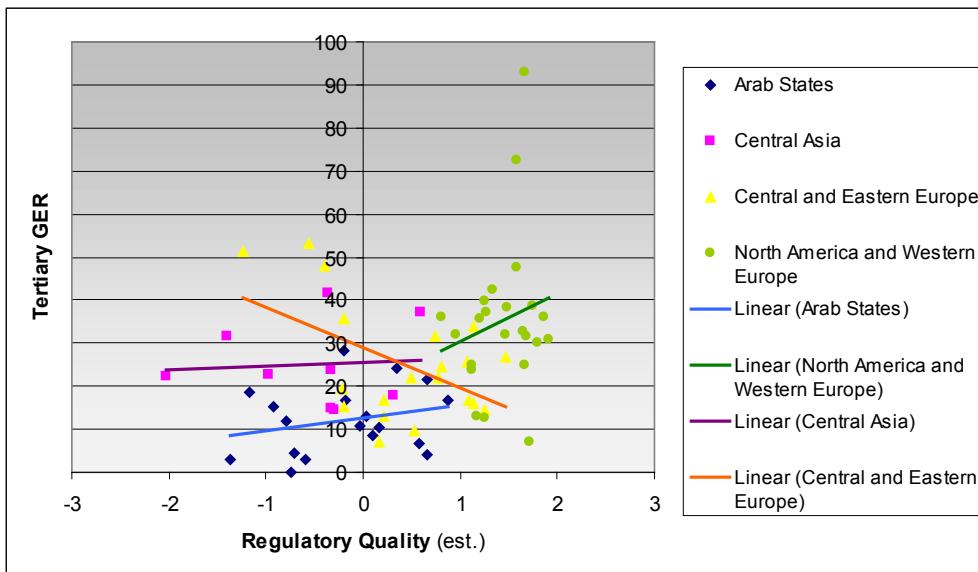
Government effectiveness



Distinctive trends:

- In Central Asia the trend is positive, but only Georgia received a positive estimate for government effectiveness.
- Again Belarus, Moldova, Russia and the Ukraine are significant outliers within the Central and Eastern Europe group influencing the negative correlation seen.
- Within the East Asia and Pacific region two sub-groups can be defined: (i) those with GERs greater than 15 percent with positive estimates for government effectiveness and (ii) countries with GERs lower than 10 percent and relatively weak government effectiveness estimates. All countries within the first group are high-income countries, with the exception of the Philippines and Thailand. Indeed the only non-high income country within the region not in this group is Brunei.

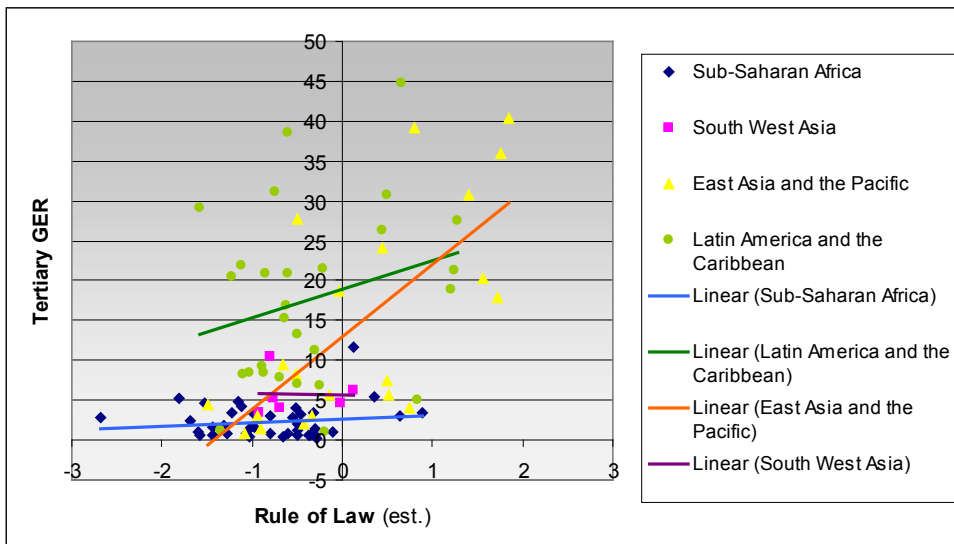
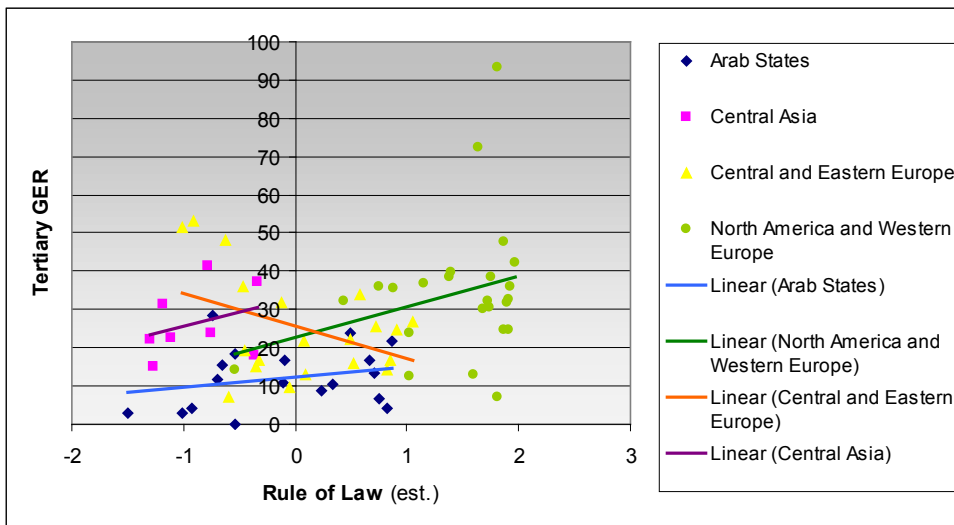
Regulatory quality



Distinctive trends:

- Within South and West Asia there is a strong clustering of countries with the exception of Iran which had the highest tertiary GER in 1988, but the lowest score for regulatory quality.
- Within Latin America and the Caribbean, Argentina, Puerto Rico, Venezuela, Belize and Haiti appear as outliers (with the former three showing high tertiary GERs in 1988, whereas the GERs in Belize and Haiti were comparatively low).
- Within Central Asia, there is relatively wide dispersal of governance results, for example Azerbaijan, Tajikistan and Turkmenistan all had GERs between 22 and 24 percent in 1998 yet they show distinctive variation in the levels of regulatory quality in 2008.

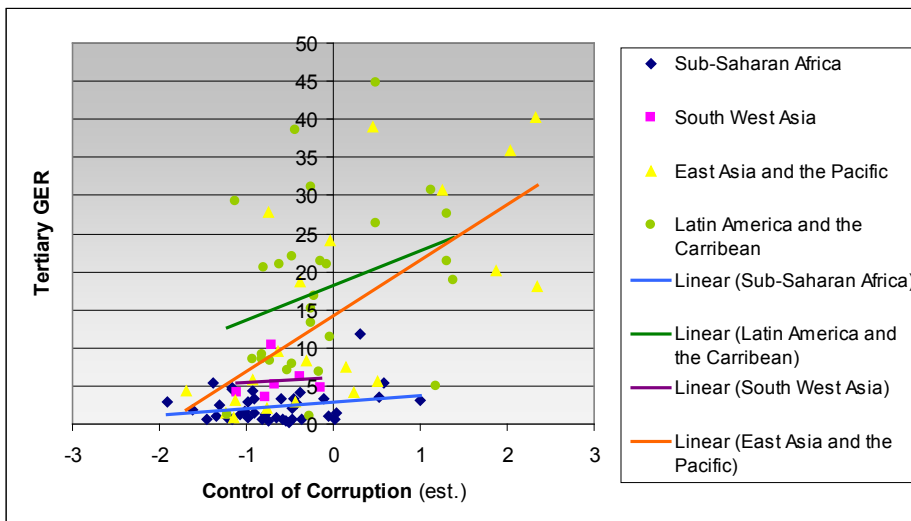
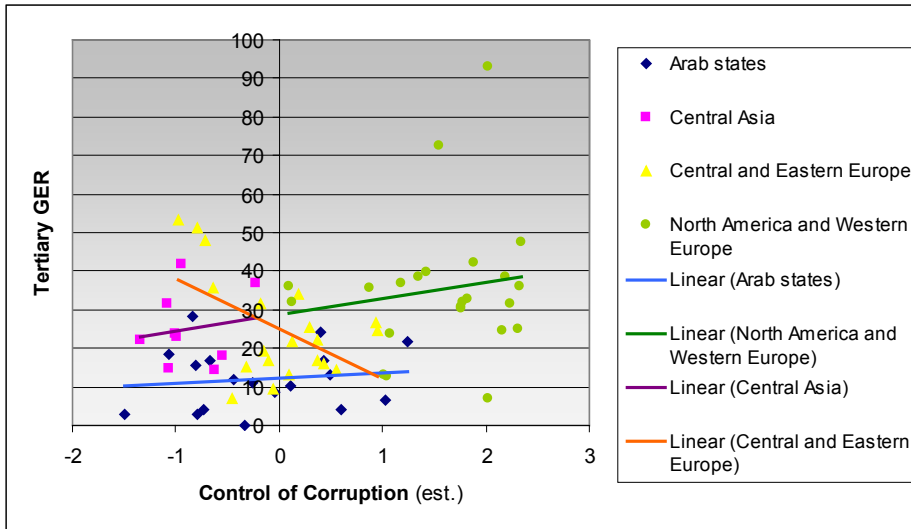
Rule of law



Distinctive trends:

- In East Asia and the Pacific the distinction between the regions two sub-groups again emerges. Notably within the region Brunei, Malaysia and Samoa all had GERs below 8 percent but scored positively for rule of law, whereas Myanmar with similar levels of tertiary enrolment in 1988 has significantly poorer rule of law in 2008.
- Within North America and Western Europe and the Arab states, there is broader dispersal of governance values than has been seen for other indicators. For example Yemen and Oman both had tertiary GERs of around 4 percent in 1988 yet their rule of law estimates in 2008 vary from nearly -1 to nearly +1 respectively.

Control of corruption



Distinctive trends:

- There is a strong correlation between tertiary GER and control of corruption in East Asia and the Pacific. Noteworthy within this group is the Philippines and South Korea who both have a lower governance estimate than may have been expected for their tertiary enrolment levels in 1988.
- Conversely, control of corruption within St. Lucia and Luxemburg appears to be strong, despite tertiary GERs of 5 percent and 7 percent respectively in 1988. It is notable that both of these are small states.
- Again, the results for Arab states are dispersed, and Lebanon with the highest tertiary GER in the region in 1988 (28 percent) has a comparable level of control of corruption as Libya, Mauritania and Yemen whose GERs were 15 percent, 3 percent and 4 percent respectively.

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