

Haitian higher education, funding, and economic development: The missing links

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Abstract: *Despite the general consensus that higher education is essential for economic development, Haitian higher education has been woefully underfunded. This paper asserts that the reason for the lack of investment in Haitian higher education is two-fold: the inconsistency between international agencies' policy position statements and their actual investment record, and the lack of a compelling academic plan from the Haitian public higher education system. To support the first hypothesis, the paper takes the World Bank as an example and juxtaposes the Bank's policy positions on higher education and the Bank's actual performance at investing in higher education in terms of its impact on economic growth, ceteris paribus, for selected countries. For the second assertion, the paper reviews two recent Haitian higher education planning documents to evaluate their effectiveness at presenting an academic vision.*

Résumé: *En dépit du consensus sur le fait que l'enseignement supérieur est essentiel pour le développement économique, l'enseignement supérieur en Haïti souffre d'un sous-investissement chronique. Cet article suggère que la raison du sous-financement de l'enseignement supérieur en Haïti est de deux ordres: le manque de cohérence entre la politique des agences internationales et leur investissement réel et l'absence d'un plan académique convaincant de la part du système d'enseignement supérieur public haïtien. Pour supporter la première hypothèse, l'article prend la Banque mondiale comme exemple et juxtapose la politique de la Banque mondiale sur l'enseignement supérieur et l'impact de ses investissements dans l'enseignement supérieur sur le développement économique de certains pays, ceteris paribus. L'article soutient la deuxième hypothèse en analysant deux documents de planification récents sur l'enseignement supérieur en Haïti pour évaluer leur efficacité à présenter une vision académique.*

1. INTRODUCTION

Haitian university officials often attribute the lackluster performance of the sector to financial neglect by the Haitian government and the international community. The lack of funding for Haitian higher education is undeniable. The low levels of pay for faculty and administrators and the physical conditions in which the faculties of the State University of Haiti (UEH) are still functioning, two years after the earthquake, constitute prime evidence.

It is hardly a surprise that the Haitian government has not allocated much of a budget to Haitian higher education, given its high dependence on foreign aid just to support basic public services. Thus, a major investment in Haitian higher education would have to come from the international community. Yet, this funding has not been forthcoming. In fact, higher education has not been a prominent feature in the various economic development papers that

Haiti's "partners" have "helped" its government draft, both pre- and post-earthquake (International Monetary Fund, 2008; Government of the Republic of Haiti, 2010). Is this an oversight, or has the case not been made for the importance of higher education for Haitian economic development?

Using the World Bank as an example, this paper asserts that the reason for the lack of investment in Haitian higher education is two-fold: the inconsistency between agencies' policy position statements and their actual investment record, and the inability of the Haitian higher education sector, thus far, to present a compelling academic plan.

The paper is organized in four sections. First, a very brief review of the literature establishing the relationship between higher education and economic growth is conducted. Second, the simple strategy used to evaluate the relationship between the World Bank's investment in ►

education and countries' economic growth is explained. Third, the results of a simple OLS empirical analysis of the impact of the World Bank's investment record is presented. Finally, a brief review of selected Haitian higher education planning documents is undertaken.

2. HIGHER EDUCATION AND ECONOMIC DEVELOPMENT

Higher education is widely viewed as an essential agent for economic development (Ryan and Heim, 1997; Walshok, 1997; Wyman, 1997). Classical development economists such as Schumpeter (1934) and Solow (1957) contend that non-equilibrium and non-incremental growth – the kind of economic expansion that poor countries need in order to leap out of poverty – can only be achieved through the promotion of science, technology, and innovation. Moreover, in a study of 100 countries between 1965 and 1995, Barro (2001) established the positive relationship between secondary and higher education and economic growth, and inferred the role of innovation in that process, “given that workers with this educational background would be complementary with new technologies” (p. 16). In other studies, Barro and Lee (1993, 2001) further demonstrated the relationship between human capital, as measured by educational attainment, and economic advancement. More recently, economists, scholars, and policy makers have credited America's tremendous productivity growth in the past decades to scientific advances and technological progress originated through university research (Greenspan, 2000; National Academy of Sciences, 2006; Perkin, 2006).

The rest of the world is catching up fast, however (Friedman, 2005; National Science Board, 2008; Zacharia, 2011). Asian countries like China, India, South Korea and Thailand, which have increased their number of college graduates and their graduates in science and technology, in particular, have also experienced rapid economic growth. Other regions are following their example: Middle Eastern countries, for example, have devoted billions of dollars and are focused on recreating American style universities in the Middle East.

Higher education's impact on economic development is also relevant for the least advanced countries, where “the knowledge gap” with the rest of the world seems to be widening (The World Bank, 2000). The development of human capital through higher education is viewed as one way for the poorest countries to rise out of poverty (The World Bank, 2000; Zaglul et al., 2006). Developing countries are

asked to develop their own capacity and create their own technologies (Juma and Yee-Cheong, 2005) in order to solve developing world problems, which are no longer the concern of industrialized nations (Sachs, 2005).

In that context, the creation of practical knowledge that can be applied to local socio-economic problems is the first role of universities (Zaglul et al., 2006). Their second role is to partner with government and industry in a three-way partnership dubbed the *triple helix model* (Almeida, 2008; Etzkowitz and Leydesdorff, 2000; Razak and Saad, 2007; Saad, 2004). Several successful examples of this partnership have been reported in universities in Brazil (Almeida, 2008), Malaysia (Razak and Saad, 2007) and Algeria (Saad, 2004). More relevant to the poorest countries is the example of Tabeisa, a consortium of African and British higher education institutions in Ghana. Using prior research that it conducted on gender, poverty, and entrepreneurship, Tabeisa promoted entrepreneurship among women cooperatives to enhance the garment manufacture sector (Conlon and Humphreys, 2007).

3. METHODOLOGY

A mixed method is used in this paper. First, to evaluate the Bank's effectiveness at investing in higher education for development, World Bank data on selected countries' economic indicators as well as the Bank's investment in higher education projects were obtained from the Bank's website. Ordinary least squares (OLS) regressions were used to determine whether the Bank's investment in higher education projects in selected countries is a statistically significant predictor of these countries' GDP growth and to ascertain other variables that may have a statistically significant relationship with GDP growth. OLS regressions is a simple technique that helps to examine the relationships between independent and dependent variables, and predicts how variations in the independent covariates affect the dependent variable.

Second, a qualitative review of Haitian higher education planning documents was undertaken to examine their effectiveness at presenting a compelling academic plan.

4. THE WORLD BANK AND HIGHER EDUCATION

For most developing countries, those in the medium- and low-income categories, the World Bank is “a vital source of financial and technical assistance” (The World Bank, ►

2008a). In fact, it is often their only opportunity for debt-financing, given their compromised credits. The two institutions that compose the World Bank, the [International Bank for Reconstruction and Development \(IBRD\)](#) and the [International Development Association \(IDA\)](#), provide loans and grants as well as guidance on macroeconomic, financial, and development policy formulation to their client nations. The global influence and reach of the World Bank are therefore without questions.

The World Bank asserts that science, technology, and innovation policy is an important component of its work. It sponsored a global forum in February 2007 on building science, technology, and innovation capacity for sustainable growth and poverty reduction and commissioned a complete report on the issue in 2008. In the foreword of the resulting monograph, the Bank's Vice President for the Human Development Network stated that "the World Bank has a long history of helping countries build science, technology, and innovation (STI) capacity" (Watkins and Ehst, 2008).

What is the purpose of the Bank in promoting policy for science, technology, and development? Not surprisingly, the main goal of the World Bank's STI policy is sustainable economic development. The UN Millennium Development Goals (MDG), which the World Bank sets as one of its main targets, states that sustainable MDG-based strategies require the buildup of indigenous institutions and skills to advance science, technology, and innovation (United Nations Millennium Project, 2005). As a result, for the World Bank, poverty reduction is intricately linked with the promotion of science, technology, and innovation.

According to its 2008a document, the World Bank plans to accomplish its promotion of STI through four mechanisms: government policy making, training of the labor force, enterprise innovation, and education, training, research and development. That last policy mechanism is two-pronged: an educational system, especially at the tertiary level, and a network of research and development institutes. Evolving within this framework, the World Bank's STI policy efforts focus on several areas that it deems important: agricultural research and outreach, alternative energy, appropriate technologies, clean drinking water, and public health. The overarching goals are economic development, poverty reduction, and improvement in living conditions.

Though the Bank's stated policy position would lead to substantial investments in higher education, especially in the areas of agriculture, energy, and health mentioned above, the Bank's actual record of investment in general is

not consistent with those policy positions. The Bank tracks its education investments in projects related to the themes of "education for a knowledge economy", "tertiary education", and "general education". Table 1 shows the Bank's input for the year 2005. As can be noted, the 'tertiary education' funding was given to only 15 countries, covering a mere 17 projects, while funding for 'education in general' went to 62 countries and 89 projects.

Table 1 World Bank Education Investment, 2005

Theme	Amount		
	No of projects	No of countries	(in millions)
Education for knowledge	19	17	1,828
Education in general	89	62	6,845
Tertiary education	17	15	996

Source: The World Bank

To test whether there exists a correlation between the Bank's investment in 2005 and economic growth in 2006, a linear regression was performed using several independent explanatory variables, including the amounts invested in each country. The variables, which were selected from a list of World Bank countries' economic indicators, are expected to be associated with a country's economic growth, following the literature (e.g., Barro, 2001). They include trade volume, GDP, external debt, capital formation, and countries' exposure to technology (proxied by Internet usage). The dependent variable was country's 2006 GDP growth rate.

Nine countries were retained: Bangladesh, Costa Rica, Dominican Republic, El Salvador, Haiti, Honduras, Nicaragua, Rwanda, and Sierra Leone. It should be noted that the limited number of countries included in the sample reflects the fact that only few countries (15, per Table 1) had World Bank-funded projects in higher education. The number of such countries got further reduced because a few did not have data available for all the other variables included in the model.

Using a stepwise strategy, first, a regression was run including all the listed variables except for the Bank's investment in higher education-related projects into those countries. Second, the model got augmented with the Bank investment in higher education projects variable. Results are displayed in Table 2. As can be seen in Table 2, for the first model specification that does not include the policy variable of interest – the bank investment in higher education, ►

all variables are found to have a statistically significant relationship with a country GDP growth rate.

More precisely, the results in Table 2, as per the sign of the coefficient estimates, show that higher trade volume and GDP level of a country are positively related to GDP growth. The higher a country's external debt, the lower the growth rate of GDP. Higher capital formation is found to be negatively related to GDP growth, so is a country's exposure to technology as proxied by Internet usage. These last results, which are not expected, are probably due to the fact that the data analyzed is for 2006, a time that underwent a housing crisis, where countries with more capital/technology experienced generally slower growth.

Table 2 OLS Estimates of GDP Growth

Independent Variables	Without WB investments in higher education as a predictor	With WB investments in higher education as a predictor
Internet usage	-.220201** (.0582946)	-.1997264 (.0756635)
Trade volume	.1805894*** (.0296869)	.1613221** (.0481033)
GDP	.7267099*** (.0923409)	.6608099** (.1573536)
Capital formation	-.4502423*** (.0618647)	-.4494201*** (.0704163)
External debt	-.0021374*** (.0002883)	-.0018361* (.0006281)
WB inv. in higher educ.	-----	-.0028257 (.005022)
Adjusted R-squared	.9231	.9005

* indicates statistical significance at 10 %

** indicates statistical significance at 5 %

*** indicates statistical significance at 1 %

WB : World Bank
Number of observations : 9

In Table 2, in a second step, the Bank's investment in higher education projects was introduced in the model. Of importance, we note that the Bank's investment in higher education related projects is not found to have a statistically significant relationship with GDP growth rate ($p = 0.6 > 0.05$). Most other variables are again found to be statistically significant.

Finally, dropping all the explanatory variables, and retaining the main policy variable of interest to this paper, a

regression of the Bank's investment as a single independent variable did not produce a statistically significant relationship with the dependent variable, GDP growth rate (result of this univariate baseline model is not included in the Table).

Thus, this empirical analysis indicates that, although the World Bank's policy papers suggest that the Bank values higher education and the development of science, technology, and innovation, in particular, as an engine for economic growth, its investments in higher education projects, controlling or not controlling for other determinative factors, are not necessarily effective at promoting that growth for the sample of countries selected.

The result of this simple analysis is consistent with some previous findings which are based on analyses that use larger sets of countries (World Bank, 2008b). That is, although there are compelling reasons to believe that investment in education should yield economic growth, this has not always been the case. The results have been mixed at best. While Barro and Lee (1994) did find that investment in higher education is positive for growth, subsequently other studies by Behnabib and Spiegel (1994) and Pritchett (1996), for example, found that the impact of human capital investment on rate of economic growth is either insignificant or have a negative sign.

Closely addressing the question of this study, World Bank (2008b) conducted a review of studies that have analyzed many sets of countries and asked whether investment in education translated into economic growth. That analysis proceeded to test various explanations for their results of a weak or non-existent link between the two. Among a series of explanations, there are some that, instinctively, we could argue have compelling relevance for a country like Haiti. It is possible that growth opportunities may be determined to a lesser extent by educational investments than they are by having educated workers in jobs that capitalize on their skills. In other words, if in a country like Haiti the opportunities for educated workers to get a job are limited, this lack of opportunities reduces the probability that a more educated labor force will develop new technologies or new productive activities that are the engine of economic growth. In addition, another explanation is that the quality of the education matters, in terms of being translated to growth-enhancing productive uses. The distribution of education also matters – the impact of education investment is likely to be low if a large proportion of the population is still illiterate. ►

On a more subjective manner, it is also possible that the low level of actual funding in higher education would reinforce the impotence of such investment on economic progress.

5. LACK OF CONFIDENCE IN THE SECTOR IN HAITI

Notwithstanding international funding agencies' inconsistencies, and potential ineffectiveness of investment in higher education to transmit to growth enhancing mechanism, the main institutions in the Haitian education system have not been able to make a compelling case for themselves in promoting higher education investment in Haiti. Their approach thus far has exhibited two main deficiencies: lack of academic vision and lack of coordination. To support this assertion, we proceed with a review and assessment of two main documents that have established the needs and priorities for the Haitian higher education system and the State University of Haiti (UEH or *Université d'État d'Haïti*) in recent years.

In 2010, a presidential commission charged to make recommendations on the Haitian education system produced an impressive report. The document diagnosed very accurately several of the issues facing Haitian higher education, including the fact that the professoriate is composed in majority of part-time faculty members, of which only approximately 10% hold a master's degree (GTEF, 2010). It also identified the lack of coordination between the more than 170 institutions operating mainly in Port-au-Prince. However, that document's four main sets of recommendations are silent on the steps to take to create a full-time permanent professoriate or on means to create incentives for cooperation between institutions.

The second document reviewed is the proposal of the State University to obtain funding for the creation of a unified campus in Damien (*Université d'État d'Haïti*, UEH, 2010). The proposal presents a campus master plan with appropriate blueprints and budgets but without the accompanying academic plan. While the needs for a physical campus are well documented, in part with the pictures of destroyed UEH buildings, the people and activities which will inhabit these buildings were not mentioned. Usually, a campus master plan is informed by an academic vision that centers around a community of scholars: the faculty members who create and transmit knowledge and the students who learn and participate in knowledge creation. Given that an academic plan is a deliberate act of choice, it

delineates the type of knowledge that will be created and transmitted, and therefore the type of scholars that will be attracted to participate in this activity. The biggest missing element in the UEH master plan document is the people. The document did not address how the institution would solve the main problem identified by the GTEF: how to attract and retain a qualified, full-time professoriate.

Finally, these two documents and others have not demonstrated to would-be investors how an investment in one institution would serve others. In a relatively small system like Haiti where no institution has the resources needed to stand the basic infrastructure that a modern university requires, collaboration would seem like an effective strategy. This would manifest itself in joint proposals for libraries, laboratories, student information systems, or even training for faculty and staff. Yet, Haitian institutions have resisted to present multi-institution proposals or requests. Though a certain level of competition is healthy for the system, the main institutions' zero-sum game approach to grant writing and planning has not inspired much confidence in donors and funding agencies.

It should be noted that our analysis addresses only the public sector as well as the few private, not-for-profit institutions. The multitude of private, for-profit pseudo-universities (Altbach, 2001) that have mushroomed in Haiti would not be seriously considered for public funding or financing by the international community given their primary profit motive.

6. CONCLUSION

Despite the general consensus that higher education is essential for economic development, Haitian higher education has been woefully underfunded and it shows. Haitian higher education officials would tend to lay all the blame for this under-investment at the feet of the government and international funding agencies. It is true that neither the government nor international funding agencies have prioritized investment in Haitian higher education – even if they did, the impact of such investment would be limited in the face of other structural impotences. However, the higher education system must also take its part of the blame. It must look in the mirror and start by recognizing that it has thus far not presented a compelling academic plan that addresses the lack of a true professoriate and the inability to coordinate and take advantage of economies of scale. ►

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