

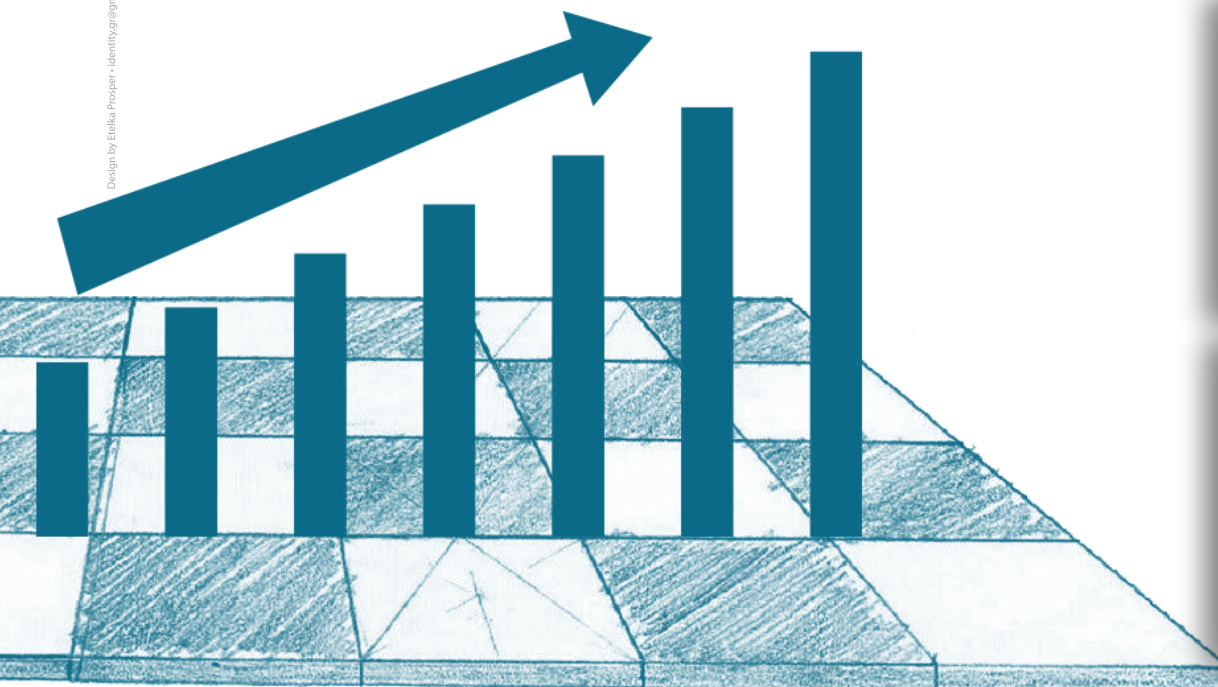
Riphard Serent, MPA

Economist and Professor
Universite Quisqueya and Radio Vision

Benefit-Cost Analysis

**Cost benefit analysis of
a **wage increase** and the **introduction**
of a performance-based **payroll program**
in the public service**

Design by Etika Prosper - identity.g@gmail.com



COST BENEFIT ANALYSIS OF A WAGE INCREASE AND THE INTRODUCTION OF A PERFORMANCE-BASED PAYROLL PROGRAM IN THE PUBLIC SERVICE

Haiti Priorise

Riphard Serent, MPA

Economist and Professor

Universite Quisqueya and Radion Vision

Working paper as of April 19, 2017.

Translated from French by Nastasia Boulos, professional translator.

© 2017 Copenhagen Consensus Center

info@copenhagenconsensus.com

www.copenhagenconsensus.com

This work has been produced as a part of the Haiti Priorise project.

This project is undertaken with the financial support of the Government of Canada. The opinions and interpretations in this publication are those of the author and do not necessarily reflect those of the Government of Canada.

Canada

Some rights reserved



This work is available under the Creative Commons Attribution 4.0 International license ([CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)). Under the Creative Commons Attribution license, you are free to copy, distribute, transmit, and adapt this work, including for commercial purposes, under the following conditions:

Attribution

Please cite the work as follows: #AUTHOR NAME#, #PAPER TITLE#, Haiti Priorise, Copenhagen Consensus Center, 2017. License: Creative Commons Attribution CC BY 4.0.

Third-party content

Copenhagen Consensus Center does not necessarily own each component of the content contained within the work. If you wish to re-use a component of the work, it is your responsibility to determine whether permission is needed for that re-use and to obtain permission from the copyright owner. Examples of components can include, but are not limited to, tables, figures, or images.

Disclaimer

The views and opinions expressed in this research paper are those of the author and do not necessarily reflect the views of the Copenhagen Consensus Center. The institute cannot be held accountable for anything presented here.

The work was done under the guidance of chief economist Brad Wong, Ph.D., following guidelines of the institution.

The ideas expressed in the document are those of the author, except for those for which a source has been cited.

Abstract

This paper estimates the costs and benefits of raising salaries and implementing a performance-based pay program in the public service, with a view to improving public services in Haiti. Experiences in countries such as Indonesia and Ghana show that raising wages in the civil service has not produced the expected results. On the other hand, experiences in Brazil and Mexico show that a wage increase in the civil service generates positive impacts in improving public services. This paper assumes that the median effect of these studies is null. This leads us to conclude that the cost-benefit ratio (CBR) is equal to 1 in such policy initiative. Thus, based on the experiences of these countries, the paper estimates that the CBR is 1 for any 10% increase in salaries in the public service in Haiti and that such a policy will not prevent public servants beneficiaries, especially those who earn less than 30,000 gourdes/month, to seek out and do other employment activities, because of a tremendous increase in the cost of living in the last two years. On the other hand, a performance-based pay policy program is more promising and, indeed, should help to improve the level of public services in Haiti, with certain measures to increase revenues and compel the public servants to fulfill their obligations in order to achieve certain indicative targets. Using the Rwanda experience and data from the USAID pilot program of performance-based financing in the health sector in Haiti, the paper estimates the costs and benefits of implementing such a program in the civil service and finds a cost-benefit ratio of 3.56 with a 5% reduction rate. The highlight of USAID's experience is that a 4% increase in costs generates a 12% increase in services, which can be widespread in the public sector, but mostly in the "craft jobs¹" and with less concern for "coping jobs²". This work paves the way for more further studies that could assess the impact of performance pay incentives in different sectors of public service by focusing on craft jobs and defining the appropriate indicative targets.

¹ Applying knowledge to specific tasks, with stable and similar results, for example: revenu collection, medical practice, teaching... (Hasnain, 2013, p.242)

² Applying knowledge to specific tasks, but results cannot be measured, for example : management work (Hasnain, 2013, p.242)

Glossary of Key Abbreviations and Acronyms

| | |
|--------|---|
| CGD | Center for Global Development |
| CSAPFP | Superior Council for Public Administration and Civil Service <i>(Conseil Supérieur de l'Administration Publique et de Fonction Publique)</i> |
| CNRA | National Commission for Administrative Reform <i>(Commission Nationale à la Réforme Administrative)</i> |
| CTC | Cholera Treatment Center |
| DGI | Haitian Tax Authority <i>(Direction Générale des Impôts)</i> |
| IMF | International Monetary Fund |
| FUNDE | Fund for Basic Education in Brazil |
| PBF | Performance Based Financing |
| WBI | World Bank Institute |
| CPI | Corruption Perceptions Index |
| MSH | Management Sciences for Health |
| ILO | International Labour Organizations |
| OMRH | Haiti's Human Resource Management Office <i>(Office de Management des Ressources Humaines)</i> |
| NGO | Non-Governmental Organization |
| SDGs | Sustainable Development Goals |
| OECD | Organization for Economic Cooperation and Development |
| GDP | Gross Domestic Product |
| PBP | Performance Based Pay |
| CBR | Cost-Benefit Ratio |
| USAID | United States Agency for International Development |
| CTU | Cholera Treatment Unit |

List of Tables

Table 1: Costs and Benefits with 5% reduction rate

Table 2: Breakdown of salary increases by category of public officials in 2013

Table 3: Breakdown of costs and benefits of wage offers in Mexico

Table 4: Comparison of services before and after the intervention (PBF) in Rwanda

Table 5: Results from the performance-based financing pilot project in Haiti

Table 6 : Costs and Benefits

Summary of policies

Background Information

Problem Statement

The improvement of public services continues to represent a real challenge for governments in Haiti, who are unable to put in place a public administration that is modern, dynamic and efficient. Indeed, in addition to the government's duty to provide quality public services to its citizens, and in order to respect commitments made by Haiti at the United Nations to reach its sustainable development goals (SDGs), there is an urgent need for reforms in public administration. Within the context of a weak and fragile state, it's clear that the actions that need to be taken in order to reach most of the SDGs in Haiti must entail a stronger, more dynamic and more productive public sector and new policies in terms of human resources.

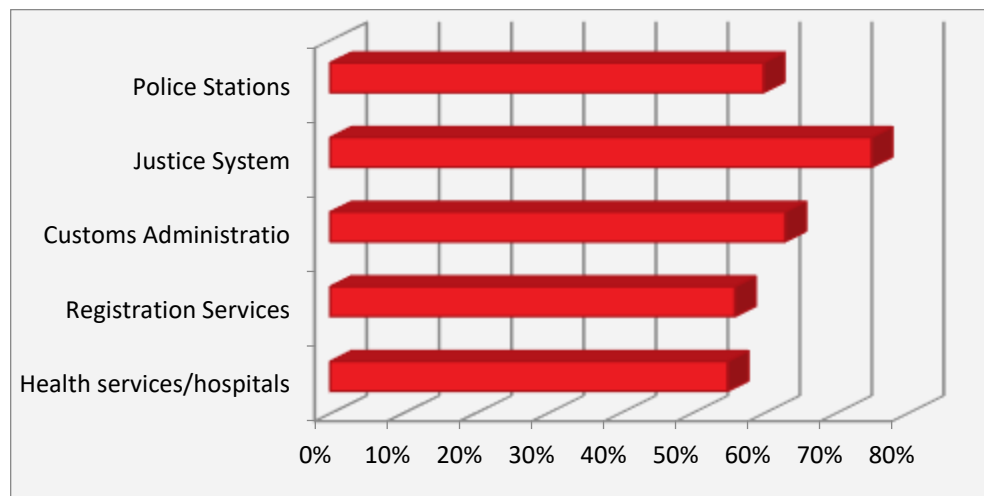
Many proposals have been made in the last ten years to make the public sector more effective with, among others things, a more dynamic and qualified staff. These include the establishment of the National Commission for Administrative Reform (CNRA) and the Superior Council for Public Administration and Civil Service (CSAPFP), and the creation of the Human Resource Management Office (OMRH), which brings forward an ambitious and promising vision. These initiatives, as well as the launch, in May 2012, of a program to improve public services by the Martelly-Lamothe government, are some of the efforts that were expected to modernize human resource management within the public sector and improve public services in the country.

In spite of these efforts, public services remain in a critical state. The series of strikes in the biggest public hospital in the country and by public school teachers, the ordeal that it is to get a passport, and the amount of red tape involved in clearing customs for imported goods, are, amongst other things, the circumstances that explain the level of precariousness of public services in Haiti.

An investigative study on governance and corruption by BRIDES (2007, p.25), with technical assistance from the World Bank Institute (WBI), revealed that 55% of households in Haiti considered that public health services/services provided at hospitals were of poor or very poor

quality. That rate was at 56% for registration services, 63% for customs administration, 75% for the justice system, 60% for police stations, and 69% for the national provider of electricity (*Electricité d’Haiti*, EDH).

Figure 1 : Percentage of households that consider the listed authorities as offering services of poor or very poor quality



This same study noted that “24.3% of people that needed services from the Haitian Tax Authority (*Direction Générale des Impôts*, DGI) turned to a third party for assistance, and 31.9% of them said they would lose too much time dealing with the national tax authority” (BRIDES, 2007, p.25).

It should also be noted that in this search for improvement of the public administration through the modernization of the civil service, the Haitian government faces both internal and external pressures. It faces internal pressures from citizens demanding public services that are both of higher quality and more accessible, and international pressure, from the World Bank and the UN in particular, expecting results from the government in the context of increasingly scarce resources or growing financial dependence. Hence the need more concrete steps to modernize the public sector in Haiti, especially in terms of human resources management.

Interventions

There are two components to the interventions proposed here to improve public services:

- a) Raising salaries in the public service ;
- b) Implementing a *performance-based pay program (PBP)*

Raising salaries in the public service

The intervention calls for a policy to increase salaries in the public service by 10%, particularly to align salaries in terms of the different public institutions. In certain countries, like Denmark, salary is the third most important motivating factor for civil servants (Aijala, 2012); yet all findings indicate that in Haiti salary is the most important motivating factor. This is in spite of the fact that in the World Economic Forum's global competitiveness report for 2015 (WEF, 2014), Haiti is number 119 with a score of 3.3 amongst countries where salary is tied to worker productivity.

Performance-based pay

This intervention calls for an incentive policy, capable of using performance indicators to measure government employees' performance, and that would provide increased benefits (namely bonuses) for better results. Many studies have shown that the implementation of a performance-based pay program can increase employees' level of effort in specific organizational contexts, particularly in jobs where output can easily be measured ("craft jobs"). That said, a PBP program might help improve public services. But given the complexity in measuring performance in the public sector, we've chosen to target specific areas of the public sector that provide proximity services, or those areas where we find what we call 'craft jobs' and where services are much more measurable and easier to observe, following the typology elaborated by James Q. Wilson (1989).

Implementation factors for targeted interventions

Cost of raising salaries in the public service

Implementing a policy raising salaries in the public service is subject to direct costs linked to the percentage increase. Indeed, with a 10% increase and a total payroll of 32,571, 985,371 HTG, or Haitian gourdes (MEF, 2016), the total cost of implementing such a policy would be 3, 257, 198,5371 HTG, with any reduction rate.

Cost of implementing a performance-based pay program

Contrary to raising salaries, information about the costs of a performance-based pay program in the civil service is taken from a pilot project by USAID in 1999, which introduced a performance-based financing program to increase health coverage and improve health services in Haiti (Eichler Eichler et al. 2007, Zeng et al. 2012).

Indeed, by using data on costs generated from the implementation of the program, which was implemented by the Management Sciences for Health (MSH) organization, the annual incentive payments as a percentage of the total cost (4%), government spending in Haiti as a percentage of the 2018 GDP (27%), and the percentage (30%) of government spending on operational costs (IMF, 2015), we can deduct that the total cost of performance-based pay program would be 4,763,367,189 HTG with a 5% reduction rate.

Rationale for intervention

Benefits of raising salaries in the civil service

While some studies have shown that raising salaries in the public sector generally doesn't have a real impact on productivity (Foltz et Opoku-Aguemang, 2015 ; IGC, 2016), others, including organizations like the International Labour Organization (ILO), think that raising salaries has a positive impact on worker productivity and on the rest of the economy (Ferraz & Finan, 2011).

In addition to increasing productivity and improving public services, a raise in salaries Might:

- a) Promote better allocation of budget resources
- b) Increase pay equity
- c) Implement a compensation system to motivate civil service officers and attract better human resources to the public sector

Assuming that the median effect of the three case studies considered is null and that the costs of raising salaries are equal to the benefits, and based additionally on the study done in Mexico, the benefits of a raise in salaries in the civil service are also equal to 3, 257, 198, 5371 HTG, with any reduction rate.

Benefits of a performance-based pay program

Performance-based pay programs have always been at the center of a set of public sector reforms. Indeed, USAID and MSH's experience in Haiti's health sector in the 1990s shows that a performance-based pay program can have significant impacts on the reduction of poverty and on human development. In fact, the results indicate that primary care services increased by 87% over 3 years (Zen et al. 2012), thanks to incentives and additional support. This is all consistent with other assessments of performance based financing programs in countries like Rwanda and the Democratic Republic of Congo (Basinga et al. 2011 and Soeters et al. 2011).

Based on the data on benefits of the program implemented by MSH, the percentage of the growing impact on health services provided on an annual basis (12.6%), government expenditure as a percentage of the 2018 GDP (27%), and the percentage (30%) of government expenditures on operation costs (IMF, 2015), the total cost for a pay-based performance program in the civil service would be 1,336,680,703 HTG with a reduction rate of 5%.

Report of benefits not measured

a) Benefits not measured

It's clear that a policy raising salaries and implementing a performance-based pay program in the public service generates a set of benefits that are not quantified and that cannot be easily measured using economic models or econometric approaches.

In fact, in addition to a general increase in revenue for the economy, these programs will have direct consequences on the economy, particularly as it relates to consumption and GDP, with 3.2 billion gourdes created on the market and public services rendered. Furthermore, other approaches could find benefits linked to beneficiaries' well being, including better access to child education, to health and to leisure activities.

Table 1: Costs and Benefits with 5% reduction

| Interventions | Benefit (HTG) | Cost (HTG) | Cost-Benefit Ratio | Quality of Evidence |
|-------------------------------|---------------|---------------|--------------------|---------------------|
| Raising Salaries | 3,257,198,537 | 3,257,198,537 | 1 | Moderate |
| Performance-based pay program | 1,336,680,703 | 4,763,367,189 | 3.56 | Moderate |

Note : All figures are based on a 5% discount rate

Mechanisms for implementing interventions

Implementing a policy to raise salaries in the public service need only go through one direct process: the state's finance act. The government must include an increase of the national budget of more than 3.2 billion gourdes in the proposed finance act, which must then be voted on by both houses in the Parliament.

On the other hand, there are few steps to go through to implement the performance-based pay program. First, the cost of the program must be added to the national budget and voted on in Parliament. Next, a supervisory committee will need to be created in the Parliament. The committee will be in charge of insuring regulatory compliance and reviewing reports on indicative targets produced by the different public agencies for accuracy and consistency.

Potential Risks

- a) Institutional: The risks of establishing such programs in the public service lie mostly in the weakness of our institutions in Haiti. It explains why reform programs are difficult to sustain. Weak institutions also explain the State's inability to ensure that set standards are respected for the proper functioning of the public administration and for the improvement of public services.

- b) Financial: Other risks can be considered from a financial perspective, given that Haiti's public finances are in a critical state. The government must work with a low budget that cannot even satisfy the needs of the population, and low tax revenues.

| | |
|--|-----------|
| 1. INTRODUCTION | 1 |
| 2. A REVIEW OF THE LITERATURE ON THE IMPACTS OF INCREASING SALARIES IN THE PUBLIC SERVICE | 3 |
| 2.1. THE CASE OF GHANA | 3 |
| 2.2. THE CASE OF INDONESIA..... | 4 |
| 2.3. THE CASE OF BRAZIL | 5 |
| 2.3. THE CASE OF MEXICO | 6 |
| 2.4. DISCUSSION AND ASSUMPTIONS..... | 7 |
| 3. A REVIEW OF THE LITERATURE ON THE IMPACTS OF PERFORMANCE-BASED PAY..... | 8 |
| 3.1 THE CASE OF RWANDA..... | 8 |
| 3.2. THE CASE OF HAITI | 9 |
| 3.3. DISCUSSION AND CALCULATIONS OF THE COSTS AND BENEFITS..... | 11 |
| 4. CONCLUSION AND RECOMMENDATIONS..... | 12 |
| 5. BIBLIOGRAPHY..... | 15 |

1. Introduction

Almost since the 1980s, the New Public Management (NPM) approach grew from governments' growing concerns in terms of improving public services and creating better relationships between the state and its citizens (Hughes, 2015).

In Latin America and the Caribbean, the issues are similar in terms of implementing and promoting public sector reforms, particularly with the aim of better tackling the UN's sustainable development goals (SDGs). This requires a more dynamic administration with very motivated employees.

This is why large international financial institutions involved in development continue to promote public sector reforms in countries of the region, and that the greater share (36%) of loans given by the World Bank in 2014 were dedicated to the public sector (World Bank, 2014, p.44).

In Haiti, the situation remains a lot more alarming than the rest of the region; access to public services continues to be a real problem. Public servants are not motivated. Internal regulations are almost never enforced. This is clear if we just look at what is happening at immigration, in public hospitals, in the justice system, at customs, and in the tax authority, as well as the level of corruption that occurs within the administration itself. In fact, according to Transparency International, Haiti remains the country perceived as the most corrupted not only in the region, but also in the entire world. In the latest Corruption Perceptions Index, it lost two points and went down 3 spots in the rankings (Transparency International, 2016).

If efforts to improve public services have been made in the last ten years by various governments, today, the needs are such, and the political and economic situation is so overwhelming, that expected results are far from being reached. Public services seem to have worsened over the last few years, despite an increase in salaries in the civil service in 2013 to appease grievances from certain officials and increase their level of motivation.

As a matter of fact, the Ministry of Economy and Finance (MEF) increased the total payroll by 12.18% in 2013 to try to improve, among other things, the quality of public services. These increases in salary in the civil service were included in the 2012-2013 budget plan (MEF, 2013).

In fact, officers that made between 5,000 and 10,000 gourdes, among which are included almost all teachers for grades 1 and 2 in the primary level, received a raise of 16%. However, public service employees that made between 10,001 and 21,500 gourdes, received a 12% raise. Included in this group are many police officers, and all public health officials, nurses, assistants etc. Those in 21,500 and 42,000 gourdes salary bracket, which includes high-ranking police officers, doctors and other types of teachers (at the secondary or university level), as well as those in the higher bracket in which are included assistant department heads, shared a raise of up to 3%

Table 2: Breakdown of salary increases by category of public officials in 2013

| Public Official | Salary Grade | % increase |
|--|-------------------|------------|
| - Teachers – 1st and 2 nd grade primary (elementary) level | [5,000 -10,000] | 16% |
| - Public health officers, nurses, assistants, etc. | [10,001-21,500] | 12% |
| - High-ranking police officers, doctors and other types of teachers (secondary, university) - Assistant Managers/Assistant Department heads | [21,501 – 42,000] | 3% |

Source: Haitilibre.com, 2012

In spite of these significant increases, about 3 years later, it's hard to evaluate the impact of this policy initiative of raising salaries in 2013. The difficulty lies in the fact that the economic and political context has significantly evolved - there has been an increase in the cost of living and inflation has doubled in these past 3 years. But although we cannot properly measure its impact, it is easy to observe that public services provided today leave a lot to be desired. Alongside such a policy of increasing salaries, a performance-based pay program was not thought of in order to

keep officers motivated and provide better public services, as was done in the health sector by USAID and MSH in the 90s.

It's in this context, and as part of the search for smart solutions to improve public services, that this paper seeks to calculate the costs and benefits of policies raising salaries in the public service and implementing a performance-based pay program (PBP). The rest of the study will consist of a review of the literature on the impact of the two interventions, as well as discussions and a case study on Haiti, which will allow us to better understand the costs and benefits of the PBP.

2. A review of the literature on the impacts of increasing salaries in the public service

2.1. The case of Ghana

Many theories suggest that a raise in salaries below a certain reference point can decrease job performance (Mas, 20016). In fact, one the most recent experiences relating to policies that raise salaries in the public service is that of Ghana. The expected results there were not achieved, thus adding to the evidence about the negative impact of such a policy on work productivity and on improving public services.

In fact, instead of reducing corruption within the police force, research financed by the International Growth Center (IGC) finds that the increase in salary for the police actually increases the level of corruption on Ghanaian roads. Indeed, as part of an ambitious reform policy plan in 2010, the Ghanaian government doubled salaries for police officers in order to reduce minor corruption on freeways. But a study financed by the IGC on bribes paid on more than 2,100 journeys by long distance trucks on the road between Ghana and Burkina Faso between 2006 and 2014, found that police officers actually demanded higher bribes after the increase in salary, despite the fact that they let more trucks go by without asking of bribes.

According to the study, because of the raise in salaries, the amount of bribes paid at each checkpoint on the freeway increased by 25%, and on the whole, the amount of bribes paid on the road increased by 23%,

Foltz and Opoku-Agyemang (2015) suggest that the police officers perhaps had of stronger sense of self after the raise, and thus asked for higher bribes. Another interesting perspective is linked to an increase in obligations for these officers. Indeed, there is a possibility that supervisors and families asked for more money from the officers after learning about the raise in salaries.

Foltz and Opoku-Agyemang (2015) did observe, however, that the police officers let more trucks go through the checkpoints without taking bribes, going from one tenth (10%) to one fifth (19%) of trucks. These results may show that the police officers are worried they may lose their jobs should they ask for more bribes.

Based on observation and evidence, we could say that the situation in Ghana following the raise in salaries in 2010 is not altogether different from the one in Haiti following the 12% raise in salaries for police officers in 2013.

2.2. The case of Indonesia

We've not only looked into the impact of raising salaries in the public service in Africa, but also in Asia, and particularly in Indonesia. We looked into the impact of a significant raise in salaries for public school teachers there.

In fact, those who in theory believe that an unconditional increase in salaries increases teachers' level of motivation and performance, maintain that a low salary not only lowers teacher morale, but also pushes them to get a second job. This then makes them less able to devote themselves fully to education (Ree, et al. 2016, p.7). In the same sense, the World Bank (2010) reports that teachers in Indonesia often accept other jobs to make ends meet, which translates into a high level of absenteeism and has a considerable effect on their level of motivation and effectiveness in classrooms. In fact, one of the greatest concerns thus far, is the way in which this level of teacher motivation and effectiveness affects student performance. This is what Ree, et. al (2016) looked into in the context of a doubling of teacher salaries in Indonesia.

Using a large-scale randomized experiment across a representative sample of Indonesian schools, Ree, et al. (2016) found the doubling of teacher salaries significantly increased teacher satisfaction with their income, reduced their likelihood of obtaining outside jobs and reduced their self-reported financial stress. However, after two or three years, the doubling in pay led to

no improvement in student learning outcomes, which suggests that it was simply a transfer to teachers with no impact on student learning.

Which brings us to conclude that, contrary to what proponents of increasing salaries in the public service say or what efficiency wage models of employee behavior predict, an unconditional raise in teacher salaries has no impact on student learning outcomes.

These results seem broadly similar to those observed in Haiti during the last three years, after the last wave of salary increases in the public service (12.7%). It is particularly similar to the raise in salary for teachers, coupled with the fact that results of the *baccalauréat* (exam taken at the end of high school) are becoming worse and worse, with less 30% of students passing (Serent, 2016).

It should then be noted that teacher satisfaction or motivation following a raise in salary does not translate into better student learning outcomes. This leads us to believe that student performance is not solely contingent on better conditions for teachers, and that other external factors are capable of influencing students' poor results.³

2.3. The case of Brazil

The trend observed in the previous two cases is not the same as in the case of Brazil, where the impact of an increase in salaries in the public education system was studied.

Using data from the education system and in econometric approach, the first study by Menezes-Filho & Pazello (2007) revealed that teacher salaries are unrelated to student test proficiency in public schools, conditional on other teachers observed characteristics.

Nevertheless, there exists a positive correlation in the private sector. This could be due to the fact that salaries are not important for proficiency in the public sector, or that there exists a spurious correlation between salaries and proficiency (Menezes-Filho & Pazello, 2007).

In their study, Menezes-Filho et al. (2007), use the 1998 reform in the funding of fundamental education in Brazil (FUNDEF) to identify the effect of teachers' wages on the proficiency of public school students. The reform established a floor on the percentage of public spending in

³ Students' capacity for learning, economic conditions, school environment etc.

teachers' wages out of total resources of 60% and redistributed resources among states and municipalities, depending on the size of each system. The results suggest that FUNDEF increased the relative salary of public school teachers and that this effect improved student proficiency in public schools. These results are in the same vein as those of Ferraz et al. (2011) who examined the impacts of monetary incentives on quality and level of performance in the political milieu in Brazil, and found that higher salaries for Brazilian politicians lead to improved performance, either through positive selection or through the incentive effects of higher wages.

The scenarios presented thus far remain very different from Haiti where, despite the increase in teachers' salaries at different levels of the education system, they still demand raises and adjustments and have gone on strike many times (Le Nouvelliste, 2016). This could demonstrate that the last wave of salary raises in the sector did not lead to an increase in teacher motivation, due to an increase in the cost of living, amongst other things.

2.3. The case of Mexico

In Mexico's case, the results were even more interesting for a program seeking to strengthen the state's presence in the most marginalized communities of the country, through two different wage offers randomly assigned across recruitment sites. It's on the grounds of these results that we were able to reinforce the assumptions made in the previous three case studies, allowing us then to identify the costs and benefits of raising salaries in the civil service in Haiti.

In fact, the results from the study by Del Bó et. al (2013) showed that higher wages helped to attract better candidates in terms of quality and motivation. It also showed that where higher salaries were offered, the average candidate was more intelligent, had more desirable personality traits, higher previous earnings, and a better professional profile.

Furthermore, the experimental project in Mexico shows that a 43% increase in salaries leads to a situation where the best candidates in line are 43% more productive than they would have been.

Table 3: Breakdown of costs and benefits of wage offers in Mexico

| | Costs | Benefits |
|------------------------------|-------|----------|
| - Minimum wage offer (pesos) | 3500 | 14,000 |
| - Maximum wage offer | 5000 | 20,000 |
| % increase | 43% | 43% |

Source: Created from data from Dal Bó et al (2013)

The highest salary in the high wage offer group is of 20,000 pesos, while the highest salary in the low wage offer group is 14,000 pesos. If we assume that the government recruits the best employee, this suggests that the increase in productivity is at 43%. So the costs are equal to the benefits and the benefits-cost ratio (BCR) is 1.

2.4. Discussion and Assumptions

By analyzing the first three case studies (Ghana, Indonesia, and Brazil), which deal with the impact of an increase in salaries in the public sector, we can assume that the median effect of these studies is null. Based on this assumption, and on what is now becoming of public services in Haiti three years after the last wave of salary increases in the civil service, we can conclude that an increase in salary will have no effect on current employees and would simply constitute a transfer of funds. Consequently the costs of an increase in salary are equal to the benefits. So the BCR is equal to 1.

Findings based on the discussion and assumptions go hand in hand with those found earlier in the case of Mexico, where the percent increase in salary (43%) equals the percent increase in work productivity (43%), thus resulting in a BCR of 1.

All of this leads us to conclude that, in terms of benefits, a 10% increase in salary in the civil service in Haiti would correspond to a 10% increase in employee productivity. So with a total payroll of 32,571,985,371 gourdes (2015-2016 Budget), the costs and benefits of increasing salaries in the civil service would both be equal to 3,257,198,537 gourdes, with different discount rates (3%, 5%, 12%). Therefore a 10% increase in salaries in the civil service will not necessary motivate officers, especially those who earn less than 30,000 gourdes/month,

especially since three years after the 12.7% salary increase in the sector in 2013, the same problems remain in public services, while the cost of living continues to rise.

3. A review of the literature on the impacts of performance-based pay

There is a longstanding view that the public sector and non-governmental organizations should function like private businesses, in order to provide better services for the population (Weibel, 2007). This idea was bolstered with the advent of a new paradigm in the public sector, the New Public Management (NPM) approach, that advocates for the state to adopt managerialism in order to effectively address the public's needs (Hughes, 2015, pp. 74-100).

Among the different tools that the State could borrow from the private sector is the performance-based pay system (PBP) or performance based financing (PBF), the introduction of which constitutes a major challenge for the state (Varone et Giauque 2001; Swiss 2005; Cardona 2006). In fact, studies have reported that at least two thirds of member countries of the Organization for Economic Cooperation and Development (OECD) and a certain amount of developing countries have adopted performance-based pay practices (Hasnain, 2014). These include, for example, Mexico, Brazil, the United Kingdom, the United States, New Zealand, and Canada (Cardona, 2006, OCDE, 2005). This approach also continues to spread in other countries of Africa such as Rwanda, and in South and Central American countries, such as Nicaragua (Eichler, 2009).

3.1 The case of Rwanda

Rwanda was one of the pioneers in terms of performance-based financing (Rusa et al. 2009, in Eichler et al. 2009). As part of its strategy to improve health and reach the Millennium Development Goals (MDG), the Rwandan government expanded a pilot performance-based financing program, which produced substantial results in the health sector. I

n fact, those provinces that received performance based financing (PBF) recorded greater increases in terms of preventative and curative care. Starting from a low level of 0.2 curative visits per person per year in all of the provinces, that number increased to 0.5 with PBF, as opposed to 0.3 for provinces that were not a part of the PBF system.

Table 4: Comparison of services before and after the intervention (PBF) in Rwanda

| Province and period | Curative care | Childbirth | Family Planning | Measles |
|---------------------|---------------|------------|-----------------|---------|
| FBP provinces | | | | |
| Before (2001) | 0.22 | 12.2 | 1.1 | 70.7 |
| After (2004) | 0.55 | 23.1 | 3.9 | 80.1 |
| Non-FBP provinces | | | | |
| Before (2001) | 0.20 | 6.7 | 0.3 | 77.9 |
| After (2004) | 0.30 | 9.7 | 0.5 | 78.9 |

Source: Eichler 2009

A comparison was made between the situation in provinces that were part of the PBF program and those that were not, using many health indicators such as curative care, family planning, childbirth, and immunization against measles. The results showed that all of the indicators substantially improved for the PBF group, as opposed to the non-PBF group.

Rwanda's experience showed that performance based systems can generate rapid results on a large scale, in terms of expanding the use and coverage of services (Rusa et al. 2009, dans Eichler et al. 2009). These findings are similar to those found in other developing countries.

While a costs and benefits analysis of the PBF was not done, the researchers' recommendations show that the program was extremely effective, which means the benefits far surpassed the costs.

3.2. The case of Haiti

The performance-based financing program (PBF) program was introduced in Haiti in 1995, through a USAID project that aimed to improve primary care services in the country. The project began in 1999 under the leadership of the MSH organization and three NGOs contracted for the implementation phase. Payment to these NGOs was conditional on targets being reached and on documents being provided to justify spending.

Significant improvements were achieved in key health indicators - notably immunization coverage, prenatal visits, postnatal visits, family planning, and assisted delivery – over the 6-year project implementation period (Eichler et al. 2009).

It should be noted that, as per the table below, the results surpassed or stayed close to the targets. In fact, using data from the program, Eichler et. al (2009) ran a series of econometric tests (panel analysis) adapted to the results set by the NGOs. The results showed that being paid based on results is linked to a significant increase in immunization coverage and assisted deliveries.

Table 5: Results from the performance-based financing pilot project in Haiti

| Indicators | NGO 1 | | | NGO 2 | | | NGO 3 | | |
|---|----------|--------|---------|----------|--------|---------|----------|--------|---------|
| | Baseline | Target | Results | Baseline | Target | Results | Baseline | Target | Results |
| Immunization coverage | 40 | 44 | 79 | 49 | 54 | 69 | 35 | 38 | 73 |
| At least 3 prenatal visits | 32 | 38 | 36 | 49 | 59 | 44 | 18 | 21 | 16 |
| Family planning discontinuation | 32 | 24 | 43 | 43 | 32 | 30 | 26 | 20 | 12 |
| Use of ORT | 43 | 50 | 47 | 56 | 64 | 50 | 56 | 64 | 86 |
| Correct use of ORT | 71 | 80 | 81 | 53 | 59 | 26 | 61 | 67 | 74 |
| Institutions with 4 or more modern family planning services | 6 | 9 | 9 | 2 | 5 | 5 | 0 | 5 | 5 |

Source: Eichler et al. 2009

Eichler et al. (2007) did some panel regressions for the *Center for Global Development* (CGD) and found that immunization coverage increased by 13 to 24 percentage points. This would imply that up to 15,000 more children were immunized in Haiti every year because of this change to performance-based financing (PBF) in the health sector. In these same panels, the researchers found that attended deliveries increased by 17 to 27 percentage points, which corresponds to 18,000 more women having benefited from a healthy and safe environment in which to give birth.

3.3. Discussion and calculations of the costs and benefits

Results from the USAID pilot project introducing a performance-based financing or pay program in Haiti demonstrate that such an approach is one of the most viable ways to improve public services in key sectors where performance can be measured.

Haiti's experience in this effort is not so different from that of Ghana. However, the concern is finding the type of work that responds well to this type of initiative, like the "craft jobs"⁴. In other words, jobs where employee performance can be measured by a specific indicative targets like, for example, the number of passports delivered per day, the number of taxpayers assisted at the Haitian tax authority per day, the number of patients seen each day at public hospitals, the number of cases treated at a cholera treatment unit or center, the number of prolonged pre-trial detentions processed in prisons, etc.

The major concern now is how employees who have jobs where their performance cannot be measured based on indicative target would fare with a performance-based pay program. What Wilson (1989) in Hasnain (2010, p.242) calls "coping jobs"⁵ like, for example, those related to managerial functions or leadership. In such a context, it's likely that the cost-benefit ratio (CBR) would be lower than that recorded for craft jobs. Further discussion on this issue within the context of Haiti is included in the conclusion and recommendations section.

The data provided by Eichler et al. (2009) has allowed us to calculate the costs and benefits of a performance-based pay or financing program in Haiti. However this is suited for 'craft jobs' and can theoretically be expanded throughout the public sector.

In fact, based on an analysis of the researchers' data, a 4% increase in total costs leads to an approximate increase of 12% in services. We manipulated the data from Eichler et. Al (2009) on the total costs of health services, the costs for technical and support services, payments made to health services providers and as incentives, plus data from the IMF on the Haitian government's total spending as a percentage of the GDP, and the percentage spent by the government in

⁴ Application d'un ensemble général de compétences à des tâches spécifiques, mais avec des résultats stables et similaires, par exemple : collection de revenu, pratique médical, enseignement (Hasnain, 2013, p.242)

⁵ Application des compétences génériques à des tâches spécifiques, mais les résultats ne peuvent pas être évalués, par exemple : les emplois de management (Hasnain, 2013, p.242)

terms of operating costs. We then found that implementing a performance-based pay program in the public service would cost 1,336,680,703 gourdes with any reduction rate, whereas the benefits would be between 4,770,587,616 and 4,739,220,744 gourdes, depending on the reduction rate. This gives us a BCR of 3.56 with a 5% reduction rate.

Table 6 : Costs and Benefits

| Interventions | Discount Rate | Benefit | Cost | Cost-Benefit Ratio | Quality of Evidence |
|-----------------------|---------------|---------------|---------------|--------------------|---------------------|
| Raise in salaries | 3% | 3,257,198,537 | 3,257,198,537 | 1 | Moderate |
| | 5% | 3,257,198,537 | 3,257,198,537 | 1 | |
| | 12% | 3,257,198,537 | 3,257,198,537 | 1 | |
| Performance-based pay | 3% | 4,770,587,616 | 1,336,680,703 | 3.57 | Moderate |
| | 5% | 4,763,367,189 | 1,336,680,703 | 3.56 | |
| | 12% | 4,739,220,744 | 1,336,680,703 | 3.55 | |

Source: calculations made by the author

4. Conclusion and recommendations

As part of our work, and within the context of finding smart solutions to improve public services in Haiti, we needed to analyze the costs and benefits of an increase in salaries and of the implementation of a performance-based pay program in the public service. We analyzed four case studies (Ghana, Brazil, Indonesia and Mexico) and found that the median effect in terms of raising salaries in the public service is null, and that any unconditional raise would represent merely a transfer. The BCR is thus equal to one (1). This leads us to conclude that a 10% increase in salaries in the public service in Haiti would correspond to a 10% increase in worker productivity. All of this leads us to further conclude that, in terms of benefits, a 10% increase in salary in the civil service in Haiti would correspond to a 10% increase in employee productivity. So with a total payroll of 32,571,985,371 gourdes (2015-2016 Budget), the costs and benefits of increasing salaries in the civil service would both be equal to 3,257,198,537 gourdes, with different discount rates (3%, 5%, 12%). Therefore we conclude that a 10% increase in salaries in the civil service will have no significant impact on officers' motivation and on improving public services, especially as the cost of living has risen at a dizzying speed in the past two years. All the

more so since, three years after the 12.7% salary increase in the sector in 2013, the level of public services provided remains critical.

On the other hand, by analyzing a performance-based pay program in Rwanda, and with data from a performance-based financing pilot project in the health sector in Haiti, implemented by USAID and MSH, we estimate that the costs of a performance-based pay program in the civil service would be 1,336,680,703 gourdes with any reduction rates, and the estimated benefits would be between 4,770,587,616 and 4,739,220,744, depending on the reduction rate. This gives us a 3.56 cost-benefit ratio with a 5% reduction rate. The salient point of the USAID experience is that a 4% increase in the costs of the PBP program in the health sector leads to a 12% increase in benefits. This could theoretically be expanded throughout the rest of the public service.

While the possibilities of an increase in salaries in the public service are debatable, insofar as the costs are equal to the benefits, implementing a performance-based pay program proves to be a more promising alternative, but with slight nuances in terms of the type of jobs that would better be affected by such an initiative. According to the literature, it would be difficult to introduce such a program for 'coping jobs' in the civil service, where performance is not easily measurable. Nevertheless, for this type of job, performance could possibly be measured directly by overall results, and not by indicative targets per se. The government will need to make a choice, instead of doing nothing at all. This means that the focus would be on 'craft jobs' in the public service (health, education, customs, taxes, immigration, etc.) that would better respond to incentive programs, but subject to certain measures to compel public servants to fulfill their obligations in order to achieve certain indicative targets.

This leads us to make a few recommendations for the implementation of any performance-based pay initiative in the public sector:

- Review and reinforce fiscal policies in the country in order to mobilize more resources for the national budget, whether through a broadening of the tax base, or an increase in fiscal pressure. This would help support any performance-based pay programs.

- Revise and vote on the anti-corruption law to include performance-based pay programs and avoid misappropriation and improper use of funds allocated to the program ;
- Reinforce internal regulations in public institutions so that officers can focus on their work and not waste time that could otherwise be used providing services to citizens ;
- Set legal provisions, including very severe penalties, compelling public officials to deliver on their commitments to reaching set targets ;
- Establish a parliamentary committee in charge of ensuring proper reporting of the PBP program, in order to avoid manipulation of the statistics to siphon program funds.

5. Bibliography

- Aijala, K, 2012, Secteur public- un employeur de choix ? Rapport sur le projet relatif à la compétitivité de l'employeur public, OCDE
- BRIDES, 2007, "Diagnostic sur la gouvernance et la corruption", supporté par l'ULCC et IBM
- Vardona, F, 2006, Performance related pay in the public service in OECD and EU member states, Seminar on Remuneration System for Civil Servants and Salary Reform, Vilnius, Lithuania: Sigma Program, OECD
- Dal Bo, E, Finan, F et Rossi, A M, 2013 ' Strengthening state capabilities: The role of financial incentives in the call to public service', The Quarterly Journal of Economics, vol.128(3), pp.1169-1218
- Eichler, R., P. Auxila, and J. Pollock. 2001. "Performance-Based Payment to Improve the Impact of Health Services: Evidence from Haiti."World Bank Institute Online Journal (April 2001)
- Eichler, R, Auxila, P, Antoine, U et Desmangles, B, 2009, ' *Haiti : Going to scale with a performance incentive model*', cité dans Eichler, R et Levine, R, 2009, Performance incentives for global health: Potential and Pitfalls, Center for Global Development
- Ferraz, C et Finan, F, 2011, Motivating politicians : The impacts of monetary incentives on quality and performance, UC Berkeley
- Foltz, J D & Opoku-Aguemang, K A, 2015, Do higher salaries lower petty corruption? A policy experiment on West Africa's highways, International Growth Center, viewed at: <file:///C:/Users/brh/Downloads/Foltz-Opoku-Agyemang-2016-Working-paper.pdf>
- ✓ Haitilibre, 2012, 'Augmentation des salaires de 3% à 16% dans la fonction publique', viewed at : <http://www.haitilibre.com/article-6737-haiti-social-augmentation-des-salaires-de-3-a-16-dans-la-fonction-publique.html>
- Hughes, O E 2012, Public Management, in '*Public management and administration: an introduction*', 4th edn, Palgrave, New York, pp. 74-102

- Hasnain, Z, Manning, N, Pierskalla, J H, 2014, *The Promise of Performance Pay? Reasons for Caution in Policy Prescriptions in the Core Civil Service*, Oxford University Press
- ICG, 2016, Higher salaries worsened police corruption in Ghana, according to IGC-funded research, viewed at:
<http://www.theigc.org/news-item/higher-salaries-worsened-police-corruption-in-ghana-according-to-igc-funded-research/>
- Le Nouvelliste, 2016, 'Les enseignants en grève les 14 et 15 Janvier, viewed at :
<http://lenouvelliste.com/lenouvelliste/article/154204/les-enseignants-en-greve-les-14-et-15-janvier>
- Mas, A, 2015, 'Pay, reference points and police performance', *Quarterly Journal of Economics*, vol.121, issue 3
- Menezes-Filho, N &, Pazello, E, 2007, 'Do teachers' wages matter for proficiency? Evidence from a Funding Reform in Brazil', *Economics of Education Review*, ELSVIER, vol.26(6), pp.660-672
<http://www.sciencedirect.com/science/article/pii/S0272775707000660>
- OCDE, 2005, *Performance-related pay policies for government employees*. Paris: OECD Publishing
- Rusa, L, Schneidman, M, Fritsche, G et Musango, L, 2009 '*Rwanda : Performance-based financing in the public sector*', cité dans Eichler, R et Levine, R, 2009, *Performance incentives for global health: Potential and Pitfalls*, Center for Global Development
- Ree, J, Muralidharan, K, Pradhan, M & Rogers, H, 2016, *Double for Nothing? Experimental Evidence on the Impact of an Unconditional Teacher Salary Increase on Student Performance in Indonesia*, viewed at:
[http://econweb.ucsd.edu/~kamurali/papers/Working%20Papers/Double%20for%20Nothing%20\(Current%20WP\).pdf](http://econweb.ucsd.edu/~kamurali/papers/Working%20Papers/Double%20for%20Nothing%20(Current%20WP).pdf)
- Swiss, James E. 2005. A framework for assessing incentives in results-based management. *Public Administration Review*, vol 65, pp.592–602

- Serent, R, 2016, 'Résultats catastrophiques du baccalauréat 2016 : mauvais signaux pour le développement d'Haïti' Radio Vision 2000, viewed at : <http://radiotelevision2000.com/home/?p=74029>
- PNUD, Programme cadre de réforme de l'Etat : Modernisation administrative et décentralisation (2007-2012)
- Transparency International, 2016, Rapport sur l'indice de perception de la corruption 2016
<http://www.transparency.org/cpi2015?gclid=CKinINz-ltMCFUcHhgodnu8POg#results-table>
- Varone, et David G, 2001, 'Policy management and performance-related pay: Comparative analysis of service contracts in Switzerland', *International Review of Administrative Sciences*, vol. 67, pp.:543–65
- Weibel, A, Rost, K et Osterloh, M, 'Pay for performance in the public sector-Benefits and (hidden) Costs, *Journal of Public Administration Research and Theory*, Oxford University, vol.20(2), pp.387-412
- World Bank, 2010, Transforming Indonesia's Teaching Force Jakarta: Human Development Department, World Bank East Asia and Pacific Region
- Wilson, J Q, 1989, *Bureaucracy: What government agencies do and why they do it*, New York, Basic Books
- World Economic Forum, 2014, The Global Competitiveness Report, viewed at: http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf
- World Bank 2014, World development annual report: poverty and prosperity, Washington DC, United States

Haiti faces some of the most acute social and economic development challenges in the world. Despite an influx of aid in the aftermath of the 2010 earthquake, growth and progress continue to be minimal, at best. With so many actors and the wide breadth of challenges from food security and clean water access to health, education, environmental degradation, and infrastructure, what should the top priorities be for policy makers, international donors, NGOs and businesses? With limited resources and time, it is crucial that focus is informed by what will do the most good for each gourde spent. The *Haiti Priorise* project will work with stakeholders across the country to find, analyze, rank and disseminate the best solutions for the country. We engage Haitians from all parts of society, through readers of newspapers, along with NGOs, decision makers, sector experts and businesses to propose the best solutions. We have commissioned some of the best economists from Haiti and the world to calculate the social, environmental and economic costs and benefits of these proposals. This research will help set priorities for the country through a nationwide conversation about what the smart - and not-so-smart - solutions are for Haiti's future.



Haiti Priorise

Un plan de **développement** alternatif

For more information visit www.HaitiPriorise.com

C O P E N H A G E N C O N S E N S U S C E N T E R

Copenhagen Consensus Center is a think tank that investigates and publishes the best policies and investment opportunities based on social good (measured in dollars, but also incorporating e.g. welfare, health and environmental protection) for every dollar spent. The Copenhagen Consensus was conceived to address a fundamental, but overlooked topic in international development: In a world with limited budgets and attention spans, we need to find effective ways to do the most good for the most people. The Copenhagen Consensus works with 300+ of the world's top economists including 7 Nobel Laureates to prioritize solutions to the world's biggest problems, on the basis of data and cost-benefit analysis.