

A Comparative Study on Public-Private Sector Wage Differentials in Kenya



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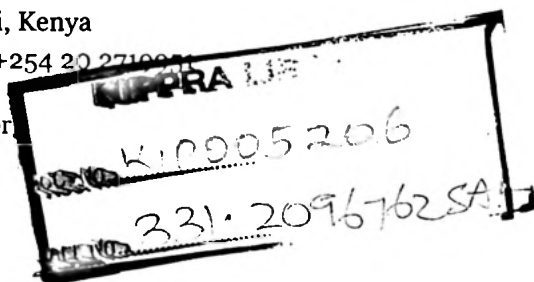
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This paper is based on a collaborative project between the Kenya Institute for Public Policy Research and Analysis and the Salaries and Remuneration Commission, Kenya



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FOREWORD

A significant portion of wage employment in developing countries, including Kenya, is in the public sector. One of the key issues of public debate and attention in Kenya is the public-private sector wage differentials at a time when the public sector wage bill has surpassed that of its comparators in the region. Wage differentials have severe implication on overall productivity in the public sector and the capacity of the sector to implement policies and reforms. The current public sector wage bill to ordinary revenue is around 50 per cent, while the ratio to recurrent expenditure is estimated at 64 per cent compared to the recommended 30-35 per cent for countries in Sub-Saharan Africa. Similarly, wage bill to GDP ratio has gradually increased from 10.7 per cent of GDP in 2008/09 to 12.2 per cent in 2012/13. The rising wage bill has a direct impact on the performance of the national economy. For instance, it may lead to diverting of funds to consumption at the cost of development, thus slowing down growth, exposing the economy to debt financing and driving out investors due to the high cost of labour.

This study was commissioned by the Salaries and Remuneration Commission (SRC) to provide information on the state and magnitude of the private-public sector wage differentials in Kenya and the impact of such differentials on employee retention, morale and output in the public sector, their effect on economic growth and on the cost of labour. The results presented in this report indicate that the general public sector pays slightly higher than the private sector when comparing basic salary and allowances. However, the private sector pays a higher basic salary. Further, there is a large vertical wage inequality in both the public and private sector between the lowest and highest cadres. These wage differentials have caused a distortion in the wage economy, defying the principles of wage determination. The report indicates that education and experience are no longer major considerations in wage determination. Moreover, the current employment policy seems inadequate in addressing issues around wage differentials within the public sector and between public and private sectors. The report further reveals that there is a positive correlation between wage differential and the cost of labour, as the higher the wage differential the greater the likelihood for agitation for higher wages.

The report also shows that basic salaries alone are not a sufficient motivator for retaining employees. Incentives and allowances play a significant role in ensuring employee retention within the public sector. Non-monetary incentives such as working environment, challenging assignments, job security and flexible working hours have contributed to high employee motivation. In addition, motivation is upped due to the wide range of allowances available to the employee in the public sector. In most cases, the proportion of allowances accounts for at least 50% of the total take home pay across the public service.

The report makes a number of recommendations, key among them being: equity in remuneration for jobs of comparable value; development of a framework for monitoring and evaluating wage inequity; undertake periodic comparisons with private sector wages; establish performance and productivity measures that will be used to remunerate public service employees; and draw up legislation to support transparency in reporting wage differentials.

The Commission is currently in the process of developing parameters, including policy and legislation for determining remuneration, and benefits structure that is equitable, sustainable and enhance productivity. The results of this report will therefore be used to guide the process and form a basis for the reforms in remuneration.



Sarah J.C Serem (Mrs), EBS

Chairperson

Salaries and Remuneration Commission

2013

PREFACE

This publication presents the findings of a study by the Kenya Institute for Public Policy Research and Analysis (KIPPRA) that was conducted on commission by the Salaries and Remuneration Commission (SRC). The justification of the study was threefold. First, there is ongoing public debate on public public-private wage differentials, and whether these make it difficult for the public sector to attract and retain talent. Second, surveys from developed countries show that public sector wages are on average higher than those of the private sector, but evidence from developing countries, Kenya included, is either limited or non-existent. The general perception is that employees in the private sector, particularly the highly skilled ones, earn much higher salaries compared to their public sector counterparts. Third, there is the perception that there are even wider disparities within the public service, with those in the higher cadres earning disproportionately higher salaries. This study was commissioned to establish the magnitude of wage differentials in Kenya and its effects, and identify appropriate policy interventions to help deal with the challenge.

The study used primary and secondary data derived largely from review of several studies on wage differentials in Kenya and globally. This was supplemented by analysis of quantitative data from the Salaries and Remuneration Commission on public sector wages. The wage differential survey was conducted in 2012 by KIPPRA and covered all counties. The wage differential was measured using Propensity Score Matching (PSA) technique. Thus, as the present publication uses the most recent tools in analyzing and explaining wage differential in the country, it may be seen as complementing existing literature on the state and magnitude of public-private wage differentials in Kenya.

The publication is intended for at least four kinds of readers: a) policy makers concerned with designing policies, strategies and interventions to promote sustainability of public sector wages while ensuring employee productivity; b) employers keen to understand trends in wage differential; c) economists, researchers and development specialists dealing with public-private sector wage differentials in Kenya and other African countries; and d) students and faculty of institutions of higher learning.

The Kenya Institute for Public Policy Research and Analysis (KIPPRA) is grateful to the Salaries and Remuneration Commission (SRC) Secretariat for commissioning it to conduct this study. This is an output of the productive partnership between the two institutions. We acknowledge the inputs of various individuals who contributed to the successful completion of this study. We especially acknowledge the lead researchers for their skill and

expertise in completing the study. We also thank all the individuals who participated in the research conceptualization, and peer review meetings, which helped to frame the research questions, clarify the study objectives, and deepen the analysis. Their invaluable comments and information contributed immensely to shaping the content and improving the quality of this publication. We also acknowledge with thanks the support of SRC members and SRC Secretariat staff who participated in the peer review meetings.



Dr John Omiti

Executive Director, KIPPRA

2013

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The study on “Comparative Study on Public-Private Sector Wage Differentials in Kenya” was commissioned at a time when the Salaries and Remuneration Commission (SRC) had been constituted and needed to understand the wage market and the cause of the apparent disparities in the remuneration levels. The success of the study has been made possible through the collaborative effort of the Salaries and Remuneration Commission and the Kenya Institute for Public Policy Research and Analysis (KIPPRA).

The Commission acknowledges that the study would not have been successful without the contribution of various private sector institutions, trade unions, and the representation of all public institutions who accepted to participate in the study.

The Salaries and Remuneration Commission takes this opportunity to thank the Kenya Institute for Public Policy Research and Analysis (KIPPRA) for undertaking this ground-breaking study. The Commission also wishes to express its gratitude to all the private sector institutions, trade unions and public sector institutions that provided information. Specifically, the Commission wishes to thank Dr Moses Ikiara (former Executive Director, KIPPRA), Dr John Omiti, Executive Director (KIPPRA); Dr Eric Aligula (Programmes Coordinator, KIPPRA) and and KIPPRA Associates Prof. Germano Mwabu and Dr Othieno Nyanjom for providing technical guidance; Union of Kenya Civil Servants, and SRC staff for providing invaluable comments during the process of writing the paper. The KIPPRA Technical Team comprised Dr Nancy Nafula, Dr Eldah Onsomu and Bernadette Wanjala. While every effort has been made to verify the information in this report at the time of writing, the authors alone retain responsibility or otherwise for the accuracy of the views expressed. The Commission is also indebted and sincerely appreciates the stakeholders from both the private and public sector who voluntarily participated during the study stakeholders consultations at the various stages and provided invaluable input.

The support, insightful comments and direction from the SRC Commissioners in the preparation of the study and report cannot be overlooked. Last but not least, in the acknowledgment is the contribution of staff from SRC and KIPPRA who dedicated themselves to ensuring the completion of this process and production of this report.



Grace A. Otieno (Mrs), MBS

Commission Secretary

EXECUTIVE SUMMARY

One of the key issues of public debate and attention in Kenya is the difference in wages between the public and private sector, which has made it difficult for the public sector to attract and retain talent. While surveys from developed countries show that public sector wages are, on average, higher than those of the private sector, evidence from developing countries is either limited or non-existent. The general perception is that employees in the private sector, particularly the highly skilled ones, earn much higher salaries compared to their public sector counterparts. An additional problem is the perception that there are even wider disparities within the public service itself, with those in the higher cadres earning disproportionately higher salaries. Also, within certain levels in the public service, education and experience do not seem, as they should, to account for differences in the wages.

As a result of these perceptions, and coupled with the rising cost of living, various groups of public servants have during 2011-12 “downed their tools” to demand higher wages. It is believed that wage differences, both within the public service and between the public service and the private sector, lower morale and in effect output in the public sector.

The Salaries and Remuneration Commission (SRC) is constitutionally mandated to ensure fairness in the determination of public salaries. SRC consequently contracted the Kenya Institute for Public Policy Research and Analysis (KIPPR) to conduct a study that would inform on the state and magnitude of public-private wage differences in Kenya, and the impact of such on employee retention, morale and output in the public sector, their effects on economic growth, and on the cost of labour. The study’s findings would inform policy on some of the measures that SRC can take to address wage differences.

Key Findings

The findings confirm the existence of wage differences between private and public sectors in Kenya. The main counter-intuitive finding is that there is a wage premium in favour of the general public sector. However, when civil service basic salary is compared to the private sector, the wage premium is in favour of the private sector. On average, the magnitude of the difference is about Ksh 7,150 per month for basic salary in favour of the private sector for individuals with similar education and years of experience. However, when allowances are included in the basic salary, the gap is in favour of civil service by a magnitude of Ksh 7,032. The difference is also in favour of state corporations, constitutional offices and

local government sub-sectors when both basic and gross wages are compared with those of the private sector. These results are statistically significant.

A comparison of public and private sector wages using broad occupation categories reveals major disparities. Legislators, administrators and managers enjoy a wage premium for all the public offices compared to the private sector. Similarly, professionals, technicians and associate professionals enjoy a wage premium for both basic salary and gross salary in public sector, excluding the civil service (of the government ministries). The wage difference in the respective basic salary is an average of Ksh 6,394 (professionals) and Ksh 3,592 (technicians). The highest differences in favour of private sector is among technicians and associates when compared with the equivalent labour force in the local government (Ksh 14,641). A summary on the wage penalties for selected individual occupations are as follows:

Education sector

- (i) Primary school teachers in the civil service, that is Teachers' Service Commission employees, experience a basic wage penalty of Ksh 6,783 and Ksh 7,000 for those in local government.
- (ii) Secondary school teachers and technical institute instructors in: (a) the civil service experience a gross wage difference of Ksh 9,188 and a basic wage difference of Ksh 15,629 compared to their counterparts in the private sector; (b) parastatals and state corporations experience a gross wage difference of Ksh 41,100 and a basic wage difference of Ksh 52,900.
- (iii) University and post-secondary teachers/lecturers in state corporations, experience gross penalty of Ksh 6,941.
- (iv) Other teachers and instructors in civil service experience a basic wage penalty of Ksh 29,516.

Health sector

- (i) Nursing and mid-wifely professionals in state corporations experience a basic wage penalty of Ksh 25,675.
- (ii) Health professionals in local government experience a gross wage penalty of Ksh 95,000.
- (iii) Medical/clinical officers in civil service experience a basic wage penalty of Ksh 7,940.

(iv) Health sector officers in the civil service suffer experience a penalty of Ksh 9,641 and Ksh 983 for basic and gross wage, respectively.

Other occupations include:

- (i) Computing professionals in state corporations suffer a basic wage penalty of Ksh 11,000.
- (ii) Electrical and telecommunication engineers employed in: (a) the civil service suffer a gross wage difference of Ksh 4,693 and a basic wage difference of Ksh 9,793; (b) parastatals and state corporations suffer a basic wage difference of Ksh 99,500.
- (iii) Electrical engineering technicians in state corporations experience a gross wage penalty of Ksh 35,112.
- (iv) Civil engineers in the civil service experience a basic wage penalty of Ksh 59,090 and gross wage penalty of Ksh 68,240.
- (v) Mechanical engineers in parastatals and state corporations experience a basic wage difference of Ksh 25,840.

The findings further show existence of large vertical inequalities in wages within the public sector. This is particularly severe between the lower cadres and the highest cadres. The wide inequality is caused by the huge salaries obtained by individuals in the highest job groups, that is top 10 per cent of the public wage earners. Wide wage differences also exist within the private sector, with earnings even higher at the top compared to those of the lower cadres, the within-sector (vertical) wage difference being greater than that in the public sector. The market clearing wage is distorted by pay structures in both the public and private sectors. The wage difference between the two sectors and within the sectors has caused a wage distortion in the wage economy. The principles of wage determination have been violated, and education and experience are rarely considered in wage determination.

The employment policy in Kenya inadequately addresses issues around wage differences within the public sector and between the public and private sectors. Many informal sector workers typically earn less than those in the formal sector. For instance, the policies governing wage determination have no clauses to ensure transparency in monitoring and reporting pay differences to the national government. Wage reporting and monitoring practices have been observed in most national governments in other countries. Besides the general monitoring of pay differences, which is conducted by or on behalf of the national government, some countries reportedly have legislation in place for ensuring transparency,

mainly targeting employers. In Kenya, there is neither a structured pay policy, nor one on pay determination. There is a weak linkage between public sector pay and performance, with a public wage bill estimated at 11.7 per cent of GDP and expected to increase owing to implementation of the Constitution of Kenya 2010.

Wage differences have a positive and significant effect on the cost of labour in the public sector. For instance, a Ksh 100 increase in the wage difference leads to an equivalent increase in the cost of labour in the public sector in the long term. This is because the wage differences can be used as a justification for lobbying for higher wages in the public service, as witnessed in recent salary increment calls by teachers, lecturers and doctors. In addition, wage differences also play a significant role both in the short term and long term. The results indicate that wage differences can exist in the short term, but agitation for higher wages could lead to a one-on-one increase in the cost of labour in the long term. The wage costs incurred by the private sector due to wage differences is much higher than a similar cost to the public sector, implying that private sector wages, on average, stay above the public wage, which might be a deliberate attempt by the private sector to attract and retain employees.

A wage penalty in the public sector increases turnover, while a wage premium reduces the chances of quitting. Specifically, a percentage increase in the gross wage gap (wage premium) in the civil service would result in a reduction in the probability of quitting of about 0.08 per cent. Similarly, a percentage increase in the basic wage gap (wage penalty) – equivalent to Ksh 71.50 – would lead to an increase in the probability of quitting civil service of about 0.24 per cent for individuals residing in urban areas. Considering the general public sector, the positive wage difference (wage premium) is in favour of public sector, and hence the probability of quitting is very low (0.10%).

Despite the relative importance played by wages, the overall job satisfaction that an individual derives from an organization is the most significant determinant of whether the individual quits or stays in the public sector. A percentage increase in the proportion of public sector workers who are satisfied would result in about 19 per cent reduction in turnover in the general public sector (and 17% in civil service). Incentives and allowances play a significant role in ensuring employee retention within the public sector. However, basic salaries alone significantly decrease retention chances.

Nearly 45 per cent and 47 per cent of workers in public and private sectors, respectively, consider wage difference as one of the important factors motivating employees. The employees also note that non-monetary incentives play a critical role in motivating them to work. Some of the incentives include good working

conditions, challenging assignments, flexible working conditions, job security and respectful positions. However, other factors undermine morale, including low salaries, lack of promotion or clear criteria for such, and poor working conditions.

A general observation is that the current remuneration structures in the public sector are *ad hoc*. Although the existing performance contracting is a fairly good measure of productivity, it does not effectively cascade to individual employees especially in the lower cadres. Moreover, it is difficult to objectively measure and compare productivity in the public sector due to the service nature of outputs. The relatively highly educated individuals working in the public sector—non-degree holders with high school education and above—on average, earn a lower wage compared to their private sector counterparts. Further, the relatively highly educated workers in the public sector are risk-averse, placing a high premium on job security. They remain in the sector despite the resulting wage penalty.

Kenya's wage compression ratio is relatively high compared to other countries in the region (about 20:1). The ratio between the highest and lowest paid within the civil service in Kenya is 98:1 based on SRC data. The composition of gross wages is skewed towards allowances and fringe benefits. The proportion of allowances in gross salary accounts for over 50 per cent across all job groups in the civil service. This excludes other allowances not reflected in the payroll.

There are many different categories of allowances in the public sector, some of which are relatively small whereas others are sufficiently large and make public sector employment more attractive when the complete package is considered. Some job groups in the civil service are entitled to more allowances than others, these preponderantly benefiting the higher and middle job cadres. This has promoted inequalities in wages, with individual incomes from allowances highly supplementing the basic remuneration. Incentives and allowances play a significant role in ensuring employee retention within the public sector. While wage differences between the private and public sectors are more pronounced when public sector is defined as civil service only, public sector workers choose to stay in the public sector despite the gap. It appears that job characteristics such as job security, prestige, allowances and other non-wage benefits, are successful in motivating highly educated workers to remain in the public sector.

Policy Recommendations

The government should develop and implement a wage policy as a matter of priority. The key pillars of the proposed wage policy should include: promotion of economic growth with jobs; payment of decent wages; creation of aggregate

demand for goods and services; equity dividend in terms of “equal pay for work of equal value”; enhancing social protection as a tool for redistribution; and promotion of social dialogue and rights at work.

The wage structure should contain basic pay, which reflects the value of the job; productivity based pay (bonus), which acts as a variable payment to compensate for productivity (performance); and a seniority element to compensate for long service, loyalty and experience.

The public sector should create a more favourable work environment for career advancement and job satisfaction; widen the scope of non-monetary incentives while ensuring equality in access among potential beneficiaries; and link public sector pay to levels of competencies (productivity) and output. There is need to compress civil service wages by reducing the difference between highest and lowest paid from ratio of 98:1. This should be accompanied by a strategy of managing existing overlaps. There is need to consolidate non-incident allowances in the public sector into basic salary, address the inefficiencies in allowances, and institutionalize selected categories of allowances. The proportion of basic pay should be no less than 75-90 per cent of the total salary.

Borrowing from some international practices, such as in Europe and Ghana, the public sector should review the role of allowances in total remunerations. SRC should undertake a comprehensive review of all allowances with a view to standardizing them and/or including them as part of basic pay. Allowances that are not directly linked to job responsibilities can be merged, redesigned, or eliminated. In these undertakings, safeguards should be put in place to ensure that no employee is disadvantaged through decreases in pay. Some job groups, especially in the lower cadres, could be merged or re-graded.

There is need to embrace such practices as job security, quality of work (improve the work environment, such as by ensuring the availability of work tools, a safe/healthy work environment, and flexible working hours, amongst other concerns), harmonized allowances and other non-wage benefits as interventions towards motivating highly educated workers in retaining their jobs in the civil service. There is also need to legislate policies that support transparency in monitoring and reporting wage differentials. The Employment Act 2007 is one of the avenues that could be used in this case. SRC should introduce a unit in charge of monitoring and evaluation of wage equalities within/in the public sector and undertake periodic comparisons with the private sector wages. Public sector remuneration should be linked to employee performance and productivity. Payment should be based on proven skills, competencies and achieved results.

Effective and efficient implementation of pay policy reforms in Kenya call for efficient data and information management systems. Thus, relevant government organs should strengthen the Integrated Payroll and Personnel Database system and develop an information management system for human resources in all employment institutions under public sector, both at national and county levels. The system should capture, among others, information on pay, employee characteristics, and best pay practices. The information can then be used to inform policy in the short and long-term, and for monitoring and evaluation of pay policies in the country.

The SRC initiative to undertake a job evaluation exercise to determine the value of each job description is in the right direction. While this is a noble idea, it is important that all stake holders (workers, employers and their representatives) are involved in the whole process. This is important for ownership, buy-in and smooth implementation of the outcome of the job evaluation. This should be completed with a view to continually improving the working conditions in the public sector. The results of job evaluation should be supplemented with other pay decision-making strategies, such as market benchmarking and cost of living.

Policy Actions

- (a) Integrate productivity in wage setting. SRC an work together with Productivity Centre of Kenya who have already initiated the development of the national and sectoral productivity indices.*
- (b) Address wage differentials by reviewing the current wage structures in the public sector.*
- (c) Increase basic pay for low wage earners and redesign the scope of allowances. The proportion of basic pay should be no less than 75-90 percent of the total salary.*
- (d) Rationalize the remuneration levels at the higher levels of the wage distribution.*
- (e) Develope and implement a wage policy and pay reform strategy for the country.*
- (f) Public sector pay should be based on performance, qualifications and responsibility.*
- (g) Reform public sector career advancement.*
- (h) Strengthen the Integrated Payroll and Personnel Database (IPPD) system in the country by institutionalizing a sustainable HR information system at county and national levels.*

ABBREVIATIONS AND ACRONYMS

CEO	Chief Executive Officer
COTU	Central Organization of Trade Unions
FKE	Federation of Kenyan Employers
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KNBS	Kenya National Bureau of Statistics
KNOC	Kenya National Occupational Classification
MSPS	Ministry of State for Public Service
PSC	Public Service Commission
SRC	Salaries and Remuneration Commission
SSSS	Single Spine Salary Structure

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1. INTRODUCTION

1.1 Background

Public sector employment accounts for a significant portion of wage employment in developing countries (Terrell, 1993; Van der Gaag and Vijverberg, 1988). The ability to attract and retain highly skilled personnel is a major challenge in increasing government capacity to produce and implement good policies, including wage determination policy. In employment, a major debate revolves around public-private sector wage differentials that are significant for attracting and retaining talent. Wage determination processes within the two sectors are distinct and (have the potential to) give rise to differentials in pay rewards between comparable worker categories (Hyder and Reilly, 2005; Mizala, *et al.*, 2011; Ramoni-Perazzi and Bellante, 2007; Skyt Nielsen and Rosholm, 2001; Van der Gaag and Vijverberg, 1988). While surveys from developed countries show that public sector wages are on average higher than those in the private sector, evidence from developing countries is often limited or entirely lacking.

The general perception is that employees in the private sector, particularly the highly skilled ones, earn much higher salaries than their public sector counterparts. The former tend to negotiate for higher salaries whenever they move from the public to the private sector. These perceptions do not, however, take into consideration the fact that although salaries in the public sector may be lower, the total compensation package may include transactional and relational returns, which are not available in the private sector. The higher packages to private or public sector workers are likely to introduce wage distortions and disparities in public-private sector wage employment, while leading to low morale and output in the affected sector.

Wage differentials in favour of the private sector may impose severe implications on the overall output in the public sector, and on the capacity of the sector to make and implement policies and reforms. Firstly, it results in massive 'brain drain' from the public sector to the private sector, thereby incapacitating the public sector in its mandate of making and implementing sound policies. While the reverse drain also occurs, it is not as extensive. Secondly, substantial wage differentials result in low morale among public sector workers, thereby leading to diminishing output. In most cases, perceived wage differentials have led to agitation among public workers for higher pay, as evidenced by strikes by various Kenyan professional groups during 2011 and 2012. Thirdly, in light of the increasing cost of living, corruption could increase in the public sector if the wage differentials are not addressed. This means that public governance, both in terms of management of public time and resources, would suffer. As a result, current

reforms and the long term government plans as articulated in the Constitution of Kenya (2010) and Kenya Vision 2030 could slow down or even stall.

Despite the overall implications of wage differentials, limited studies have been undertaken in the recent past to establish whether the differentials exist in Kenya, the nature and size of their distortionary effects, and how the differentials could be addressed without undermining macroeconomic stability. This Kenya-wide study is, therefore, intended to achieve the following objectives:

- (a) To examine the remuneration components and levels obtained in the public and private sectors.
- (b) To determine the magnitude of private-public wage disparities in Kenya by the different cadres of employment, taking experience and education into account.
- (c) To evaluate the extent of public staff turnover caused by wage differentials.
- (d) To examine whether wage differentials have introduced wage distortions in the public sector, the extent to which this might have impacted on the morale and output of the workers, and its general impact on the economic growth and cost of labour in the Kenyan economy.
- (e) To make recommendations on the management of wages, including the levels of wage differentials among public and private sector workers.

The rest of this chapter presents a discussion on the background and justification of the study. The broad Kenyan context is presented in Chapter 2. A critical review of related literature is discussed in Chapter 3. The methodology of the study and data issues is outlined in Chapter 4. Chapters 5 to 6 analyze public-private wage differentials and their implications, including that of wage distortions on staff retention, economic growth and cost of labour in the economy. A summary of key findings and policy implications is presented in Chapter 7.

1.2 Overview of Kenya's Economic Performance, Employment and Wage Trends

Kenya's economy has experienced continued recovery from the economic downturn encountered in 2008 when the country recorded a low GDP growth rate of 1.5 per cent, down from 7.0 per cent in 2007 (Table 1.1). GDP growth picked up from 2009, reaching 4.4 per cent in 2011, with growth projected at over 5.6 per cent for 2012. The population growth rate is also relatively high, contributing to a contraction in per capita incomes. Real per capita (adjusted for inflation) incomes grew by about 5 per cent between 2006 and 2010 when it stood at Ksh 36,419. In 2011, the per capita GDP at constant and market prices were Ksh 38,970 and Ksh

76,577, respectively. This translates to constant price earnings of about Ksh 3,248 per month, which is too low given the prevailing inflation rate of 14.5 per cent. The proportion of poor people is estimated to have increased to 48.8 per cent in 2011 (KIPRA, 2012) up from 45.9 per cent in 2005/06.

Another challenge facing the country is the low creation of quality jobs relative to the growth in the labour force, leading to unemployment and under-employment; high growth in informal sector employment compared to the formal sector (Munga *et al.*, 2012); and growing wage gaps. The share of informal sector employment has grown to 81 per cent between 2004 and 2011, meaning that formal (wage) sector (both public and private combined) employment stands at about 19 per cent. However, the growth rates in private sector employment have been relatively higher than in public sector employment (Table 1.1). It is estimated that about 9.3 million persons were engaged in the informal sector in 2011, up from 6.2 million in 2004 based on data from various Economic Surveys.

Table 1.1: Selected economic performance indicators

Indicator	2004	2005	2006	2007	2008	2009	2010	2011
Population (in millions)	34.2	35.1	36.1	37.2	38.3	39.4	40.4	41.4
Population growth (%)	1.9	1.8	2.1	...	...	2.6	...	...
Real GDP growth (%)	4.8	5.9	6.3	7.0	1.5	2.7	5.8	4.4
Per capita GDP (Ksh) (market prices)	37,273	40,291	46,175	49,128	57,427	62,785	66,229	76,577
Per capita GDP (Ksh) (constant prices)	35,121	35,206	34,574	36,000	36,982	36,986	38,306	38,970
Labour force (in millions)	14.3	14.6	15.0	15.5	15.9	16.4	16.9	17.4
Modern establishments (Employment)								
Formal private sector employment ('000)	1,106	1,154	1,208	1,282	1,306	1,346.5	1,397	1,446
Formal public sector employment ('000)	657	654	650	628	638	653.5	663	681
Total formal employment ('000)	1,764	1,808	1,858	1,910	1,944	2,000	2,060	2,127
Self-employed and unpaid family workers ('000)	66	67	67	68	67	68	70	75
Informal sector ('000)	6,168	6,627	7,069	7,502	7,942	8,389	8,830	9,272

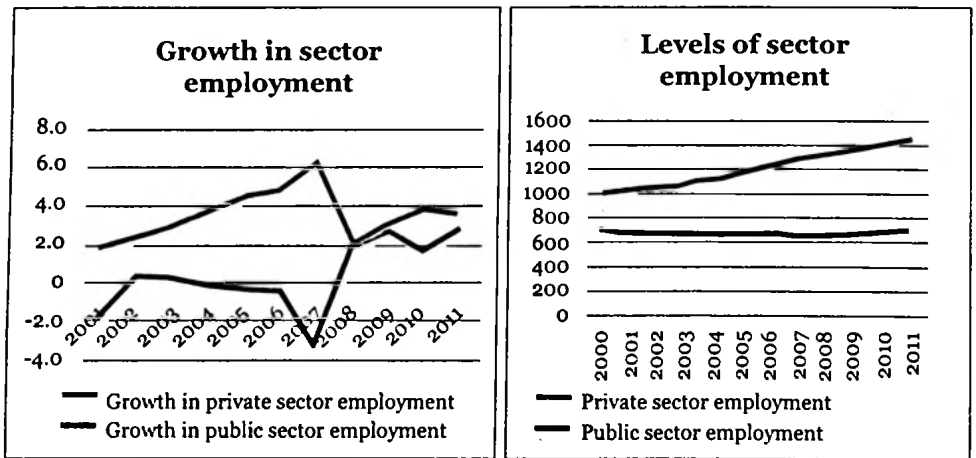
Source: Kenya National Bureau of Statistics (Various), Economic Survey

Trends in formal sector employment show that the private sector employs more workers than the public sector. Private sector wage employment grew by 1.9 per cent (2008) down from 2.6 per cent (2007). Public sector wage employment grew by 1.6 per cent (2008) up from -3.3 per cent (2007) (Figure 1.1). During the period 2000-2011, the proportion of informal sector employment to total employment in the economy grew from 70.2 per cent in 2000 to 81.0 per cent in 2011. Predictably, formal sector employment shrunk from 28.7 per cent of total employment in 2000 to 19 per cent in 2011. Along the same lines, there was a marked increase in the employment of casuals in the modern sector. The proportion of casuals in wage employment grew from 17.9 per cent in 2000 to 32.8 per cent, depicting a 14.9 percentage point increase in the level of casual workers over the period, based on Economic Survey data.

According to the Global Competitiveness Report (2010-11), Kenya was ranked 106 out of 139 countries in competitiveness in 2010, down from rank 98 out of 135 countries in 2009, indicating the country was sliding backwards. Productivity as measured by the ratio of output to input, in real terms, registered accelerated growth over the years, from 1.00 in 2001 to 2.26 in 2009. The labour productivity index improved sequentially over the same period from 0.40 in 2001 to 0.84 in 2010, and the capital productivity index from 0.20 in 2001 to 0.46 in 2009 (Global Competitiveness Report, 2010-11).

The score of global labour standard of percentage available man hours used for productive work in Kenya is at 35 per cent, while the global standard is at 75 per cent. This poor performance by Kenya suggests weak technological transformation

Figure 1.1: Total wage employment in the public and the private sectors in '000

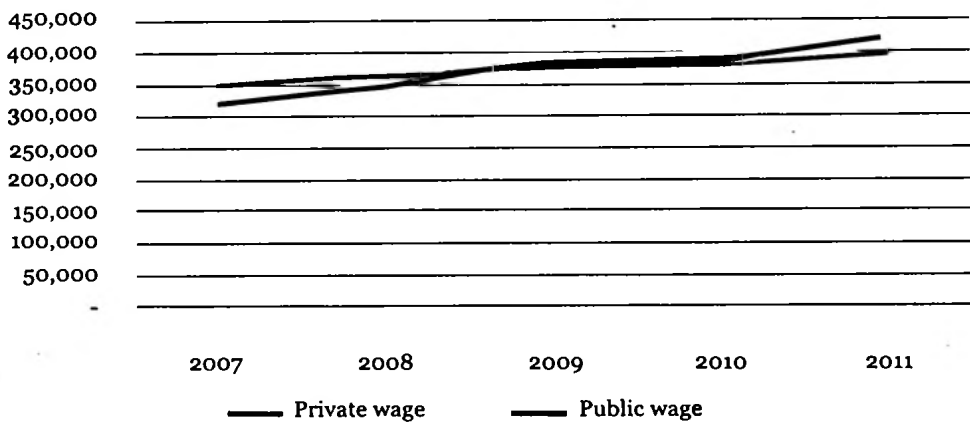


Source: Kenya National Bureau of Statistics (Various), Economic Survey

over time, and points to the need for consultations with stakeholders to implement interactive productivity-linked pay across the economy, so that parity and equity in pay structures is adopted. However, it would be difficult for any employer to pay more wages if productivity is not enhanced.

Figure 1.2 shows the trends in public and private sector wages. Until 2008, the average annual earnings were higher in the private sector than in the public sector. Since then, the trend has reversed in favour of the public sector, and the gap is even getting wider, with the 2011 average wage per public sector employee being Ksh 427,991, compared to the private sector's average of Ksh 405,959. Further, annual real earnings declined from 3.4 per cent to -8.1 per cent between 2006 and 2011 (Table 1. 2). The changes can be attributed to the increase in the

Figure 1.2: Annual average wage earnings per employee (nominal Ksh)



Source: *Economic Survey, various*

Table 1.2: Annual growth in wage employment, prices and earnings, 2006-2011

Indicator	2006	2007	2008	2009	2010	2011
Private wage (Ksh) Nominal	327,744	353,945	369,070	384,560	390,855	405,957
Public wage (Ksh) Nominal	294,959	323,409	353,322	393,099	394,913	427,991
Changes in nominal wages						
Private (%)	...	7.99	4.27	4.20	1.64	3.86
Public (%)	...	9.65	9.25	11.26	0.46	8.38
Changes in real wages						
Wage employment (%)	2.5	2.8	1.8	2.8	2.9	3.3
Average earnings at current prices (%)	7.5	8.7	5.8	4	3	5.3
Consumer prices (Inflation rate %)	3.2	4	17.8	9.9	3.5	14.5
Real average earnings (%)	3.4	4.5	10.2	-4.7	-0.4	-8.1

Source: *Kenya National Bureau of Statistics (Various), Economic Survey*

cost of living, as shown by the increase in inflation rate from 3.2 per cent in 2006 to a high of 14.5 per cent in 2011.

Total government revenue as a percentage of GDP increased from 21.2 per cent in 2003/4 to 24.6 per cent in 2010/11. Central government revenue, including grants, increased from 22.5 per cent to 23 per cent during the same period. Total expenditure as a percentage of GDP increased from 24.8 per cent to 29.1 per cent in 2010. Total recurrent spending was 22.1 percent of GDP in 2003/4 and 21.2 per cent in 2010/11. This trend can be associated with an increase in development spending from 3.1 per cent of GDP in 2003/4 to 8.9 per cent of GDP in 2008/9 (Government of Kenya, 2010), primarily targeted on infrastructure development.

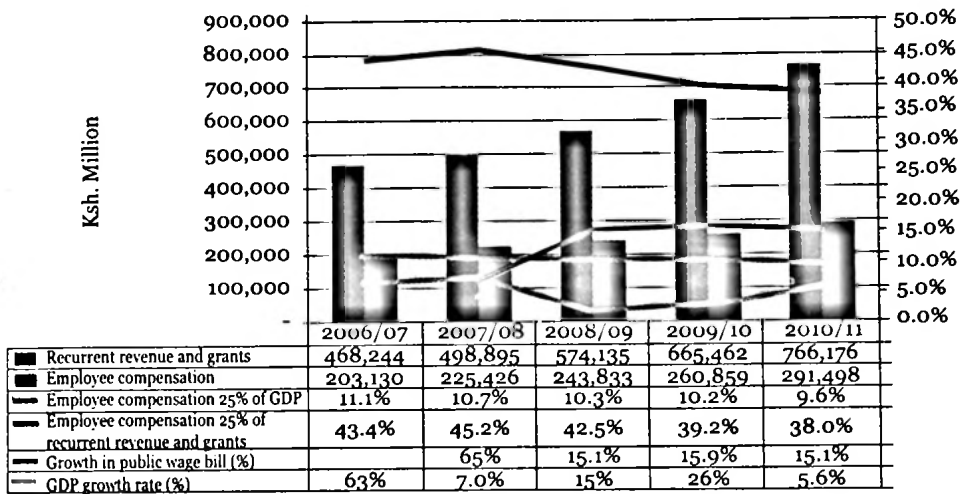
The total wage bill for the entire public service, including military and local authorities, in absolute terms, increased from Ksh 166 billion in 2004 to 291.5 billion in 2010/2011. The wage bill as a percentage of GDP was 11.1 per cent in 2007/8 and 9.6 per cent in 2010/2011. The wage bill to GDP ratio is an indicator

Table 1.3: Central government revenue, expenditure and employee compensation as percentage of GDP, 2003/4 to 2010/11

Indicator	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Revenues and grants as % of GDP*	22.5	22.4	21.7	22.5	23.9	26.2	22.0	23.0
Total revenue as % of GDP*	21.2	21.3	20.4	21.6	22.6	22.4	23.1	24.6
Total government expenditure as % of GDP*	24.8	22.9	24.3	24.6	28.2	31.4	29.5	29.1
Recurrent expenditure as % of GDP*	22.1	20.0	20.8	20.2	22.5	22.9	21.5	21.2
Central government public wage bill as % of GDP	11.3	7.3	7.7	6.0	11.1	10.7	10.3	10.2
GDP (Ksh billion)	1,109	1,175	1,249	1,336	1,833	2,107	2,367	2,549
Employee compensation+ (Ksh billion)	165.9	178.0	191.7	203.1	225.4	243.8	260.8	291.4
Growth in public wage bill (%)**		7.26	7.67	5.97	10.98	8.17	6.98	11.75
Real GDP growth rate**	4.8	5.9	6.3	7	1.5	2.7	5.8	4.4

Source: Kenya National Bureau of Statistics (Various), *Economic Survey*; *Government of Kenya, 2010. Note: + includes central government, military and local authority

Figure 1.3: Changes in public wage bill and GDP growth rate (%) (2005-2011)



Source: Kenya National Bureau of Statistics (Various)

of the public service personnel cost share of the total economy. The central government wage bill as a percentage of total recurrent revenue and grants was 43.4 per cent in 2007/8 and 38 per cent in 2010/11 (Figure 1.3). The changes in the public wage bill are, however, expected to be on an upward trend owing to the various reforms in government, including implementation of the Constitution (2010) and envisaged decentralization structures. In 2009, the wage bill as a percentage of national revenue in comparator countries was 41.1 per cent for Ghana, 38.7 per cent for Liberia and 26.9 per cent for Senegal (IMF database, 2010).

According to Figure 1.3, growth in the wage bill has remained higher than that of GDP, yet the reverse should be the case, with GDP growth outstripping that of the wage bill. A wage bill of 9.6 per cent of GDP in 2011 is higher than for some comparator countries, but should be maintained at a level of no more than 10 per cent. An international comparison shows that Malaysia (5%), Egypt (7.1%) and Mauritius (5%) have wage bill to GDP ratios below 10 per cent (IMF database, 2010). There is urgent need to stimulate economic growth and similarly reduce the wage bill in order to accommodate the process of devolution.

1.3 Why the Study

Kenya's economy has continued to recover from the economic downturn encountered in 2008 when the country recorded a low GDP growth rate of 1.7 per

cent down from 7.0 per cent in 2007. In 2011, the economy grew at 4.3 per cent up from 2.6 per cent in 2009. High employment growth in the informal sector partially compensates for formal employment stagnation. General unemployment and under-employment, and declining real wages, are among the factors that have contributed to the numerous strikes witnessed among public sector employees in the recent past. For instance, September 2012 saw nation-wide university staff and primary and secondary school teachers' strikes over remuneration, paralysing learning institutions across the country. The school teachers' demand of a 300 per cent pay rise dates back to a 1997 deal whose implementation is incomplete. Over 7,000 university lecturers and support staff are demanding higher salaries and allowances, owing to their perception that their salaries are too low and have not been reviewed in the last three years. Doctors in public health facilities were also on strike during the study period, demanding a 400 per cent salary increase, amongst other things.

Although various professionals in state offices have been demanding salary increments by issuing strike threats, and in some cases unions have actually implemented the strikes, government response has been ad hoc. Similarly, anecdotal evidence suggests that differentials between the public and private sectors have widened, although this context has not been studied. The current public wage bill to GDP ratio (11.7%) is too high and may become unsustainable if not contained. It is expected that recruitment for county governments is likely to worsen the wage bill to GDP ratio.

SRC was created to advise the national and county governments on remuneration and benefits for all public officers, as well as to eliminate disharmony that is evident within the public service, and to ensure transparency and fairness. It is required to review salaries on the basis of the prevailing social, economic and environmental factors, the prevailing labour market trends, sustainability of employment levels, and the productivity of employees. Other concerns for SRC include equity and competitiveness in relation to the prevailing salary structures in the public service, and benchmarking such salaries with those of similar organizations, some of which provide the employment destinations of disgruntled public officers.

Available literature on public/private wage differentials in Kenya is limiting. Considering that no empirical study on public-private wage differentials has been conducted recently for Kenya, it has been challenging for the government to address equity in wage policy, rewarding individuals with similar educational attainments and years of work experience equally. This study seeks to provide empirical evidence on wage differentials between the public and private sectors as a baseline for sound policy formulation and wages in the country.

2. THE KENYAN CONTEXT: PAY DETERMINATION AND REMUNERATION COMPONENTS

2.1 Public Sector Wages

Wages in the public sector tend to have minimal variations compared to the private sector because, firstly, unlike the private sector, the public sector is not necessarily motivated by profit, hence it might not necessarily regard productivity as the most important attribute from human capital. Public sector jobs are also more service-oriented, while private sector has both services and goods. Therefore, the nature of public sector jobs makes it difficult to measure productivity. Other factors that might come into play include the equitable distribution of public sector jobs and seniority. That said, public sector wages tend to be institutionally set based on structured pay grades, in contrast to the practice in the private sector where wages are based on estimated marginal returns of labour.

Although government organs sign performance contracts for their institutions, performance appraisal is not used as a basis of pay determination, but is invariably applied to bonus sharing and other non-permanent benefits, which individual government organs opt to advance to employees in their institutions. Performance contracts are not adequately cascaded to individual workers, making it difficult to differentiate a productive and non-productive worker.

The public sector in Kenya has in the recent past experienced increased wage demands due to the rise in trade union activity. In the absence of a proper means for wage setting, the public sector is likely to encounter intermittent demands for increased wages. This constrains the government from adjusting the size of the civil service in spite of the adverse effects that it may have on the wage bill. Public sector wage determination in Kenya, therefore, remains a big problem, since public expectations are sometimes inconsistent with the required approaches to creating efficiency and paying competitive wages (Institute of Economic Affairs, 2006).

2.2 Determination of Salaries in the Public Sector in Kenya

Wage determination in Kenya is diverse and involves many institutions, actors and processes. These can be broadly classified as follows: i) Minimum wage legislation; ii) Collective bargaining agreements; iii) Flexible wage fixing; and iv) Administrative reviews.

Minimum wage legislation

Minimum wages in Kenya are specified as part of a national wage policy set in place before independence and guided up to 2007 by the Regulation of Wages and Conditions of Employment Act (CAP 229). This Act has since been repealed and the minimum wage fixing mandate is now regulated under Sections 43(1) and (2) of the Labour Institutions Act of 2007. The objective of such policy has been to reduce poverty, as well as to protect and promote the living standards of workers (Omolo and Omiti, 2004). There are two wage advisory boards, the Agricultural Wages Advisory Board and the General Wages Advisory Board, but the minister may institute sectoral councils to give recommendations on the annual minimum wage levels and on the employment conditions of workers, as provided by Sections 43(1) and (2) of the Labour Institutions Act. Membership to these boards is tripartite, involving the ministry, COTU and FKE. COTU operated within the provisions of the Trade Unions Act (Chapter 233), which has since been repealed, but management of trade unions is currently governed by the Labour Relations Act (2007). Currently, COTU has 36 affiliated trade unions with a total membership of about 1 million workers. In turn, the Federation of Kenyan employers (FKE) has 11 affiliated associations in both the private and the public sector.

The functions of a wages council provided in section 44(a) are to “investigate the remuneration and conditions of employment in any sector” (b) “invite and consider written and oral representations, in the prescribed manner, from interested parties” and (c) “make recommendations to the Minister on minimum wages remuneration and conditions of employment”. Based on the findings, the minister is empowered to make a Wage Order determining the minimum wage and other conditions of employment for employees in any sector and area of the country.

An analysis¹ of the minimum wage determination outcomes shows that even though the criteria for minimum wage setting is clear, there is inconsistency in the application of the criteria. This is manifested in the minimum wage increases, which have in all instances been at variance with inflation rate and the rate of growth of the economy. Above all, the minimum wage guidelines are rarely enforced in the formal sector, but informal sector employees tend to suffer the most through a lack of enforcement of minimum wage laws.

Collective bargaining agreements

Collective bargaining agreements (CBAs) have been used to determine wages and other terms of conditions of employment in almost all countries. It is one of the most dominant system of wage formation in both the private and public sectors in Kenya. It is a negotiation process involving employers and/or their

representatives, and representatives of workers (trade unions), on the terms and conditions under which workers will consent to work. CBAs usually involve staggered long-term contracts, conditions of employment, fringe benefits and union membership drives.

Collective bargaining in Kenya is grounded on the provisions of the ILO Convention No. 98 of 1949 on the Right to Organize and Collectively Bargain. Kenya ratified the Convention in 1964. There is evidence that the Government of Kenya has made progress in domesticating the provisions of the Convention. For instance, Chapter 4 of the Constitution provides for fundamental rights and freedoms. Article 36 of the Constitution provides for freedom of association, which is a critical pillar to collective bargaining. Article 37 provides for the right to assembly, demonstration, picketing and petition. Article 41 accords workers the right to: (i) fair labour practices; (ii) fair remuneration and reasonable working conditions; (iii) form, belong and participate in trade union activities; (iv) go on strike; and (v) engage in collective bargaining. Article 43 grants every person, including workers and their families, economic and social rights.

The fundamental rights and freedoms contained in the Constitution are reinforced in the labour laws. The requirements for voluntary negotiations and collective bargaining are specifically provided for in the Employment Act (2007), labour Institutions Act (2007), and Labour Relations Act (2007). Kenya's industrial relations machinery provides for collective bargaining between employers and workers' representatives (trade unions). While labour unions in Kenya are mainly affiliated to COTU, some employers are represented by FKE.

Flexible wage fixing

This approach is mainly applicable in the non-unionized segment of the private sector. It applies in situations where the worker in the firm(s) in question are either not organized by a trade union body, hence they cannot benefit from collective bargaining, or a section of employees are unionized and, therefore, covered by collective bargaining, but others (mostly the management group, or non-unionisable cadre) are not covered.

Under the flexible/near market approach, wages and other terms and conditions of employment are fixed through minimum wage regulation, direct negotiations between individual employees and the management, and discretion of the company's board of directors or as may be outlined in the company's human resource policy. This method of wage fixing may also involve some elements of pattern bargaining, especially in a unionized firm. In this case, once the wages of the unionizable employees have been determined through collective bargaining outcomes, the management group may apply either the same percentage or

a proportion of the percentage to increase their wages and other terms and conditions of employment.

Administrative reviews

This refers to wage determination approach where wages and other terms and conditions of employment are determined via schemes of service and periodic reviews by *ad hoc* taskforces, committees and commissions appointed by the government. This approach is applicable in the public sector, specifically central government. Previous literature shows that between 1963 and 1998, a total of 14 commissions/committees were appointed to review salaries and other terms and conditions of employment for various public servants (Mule et al., 2004). About 8 of these committees/commissions were specifically mandated to review the wages and terms and conditions of employment of civil servants. No wage review committees, commissions or taskforces have been established to review the wages and other terms and conditions of employment of public servants since the Kipkulei Review Commission of 1998.

The Government through the Kenya Gazette Notice No. 7941 of 6th November 2003 established the Permanent Public Service Remuneration and Review Board (PPSRRB). The mandate of the board was to facilitate rationalization and harmonization of public service pay, and ensure that public public sector wages, including those of civil servants are in line with market trends.

In March 2006, the government unveiled a public sector pay policy to guide wage determination in the civil service and other institutions within the public sector. The main objective of the pay policy was to: i) harmonize pay within the public sector and make them more equitable; ii) link pay to employee's performance; and iii) establish a wage standard that is capable of attracting, retaining and motivating staff. The pay policy envisaged the undertaking of a job evaluation and re-grading exercise to address pay inequities within the system.

In 2010, the government established the SRC as provided in Article 230 of the Kenya Constitution 2010. The function of SRC is to set and regularly review the remuneration and benefits of all state officers. The SRC is also mandated to advice the national and county governments on the remuneration and benefits of all other public officers.

Until the year 2002, the determination of salaries of civil servants was highly fragmented. The Public Service Commission (PSC) had oversight over the salaries of civil servants, often in response to recommendations of successive salary review commissions. The Parliamentary Service Commission, whose members are drawn from Parliament, reviewed and made recommendations on salaries and allowances of the members of the National Assembly. Moreover,

Table 2.1: Mechanisms for reviewing the emoluments of MPs in Kenya

Period	Mechanism for Review of Salaries, Allowances and Benefits of MPs	Remarks
Prior to 1981	In house reviews by Parliament	MPs themselves conducted the reviews, made and adopted recommendations
1981	The Slade Committee	Ex-MPs appointed to chair committees to review salaries and allowances Followed the Waruhiu Commission of 1980 on Civil Servants' Salaries
1986	The Omolo Okero Committee	Followed the Ramtu Commission of 1985 on Civil Servants' Salaries
1992	The Julia Ojiambo Committee	Followed the Mbithi Commission of 1981 on Civil Servants' Salaries
1994	The Odongo Omamo Committee	Followed by the Munene Commission of 1996/97 on Civil Servants' Salaries
2002	The Cockar Committee	Followed the Kipkulei Commission of 1998/99 on civil service salaries
2010	The Akilano Akiwumi Committee	Followed by the SRC for all state officers

Source: KIPPRA (2009)

employers, who are its members, during collective bargaining. Over time, FKE has played the facilitatory role in collective bargaining more than direct negotiation role. Recommendations made from deliberations of the GWAB, AWAB and WCs are then used to inform the Minister for Labour in fixing minimum wages.

Sections of the public sector are represented by active unions, which articulate demands for the central government to raise wages of their members. The mainstream civil service workers, primarily of the lower cadres, are represented by the Union of Kenya Civil Servants. The Kenya National Union of Teachers represents public sector primary school teachers and is among the most active unions in the country, while public sector secondary school teachers and college lecturers are represented by the Kenya Union of Post-Primary Education Teachers. Even though the three unions listed here are independent of COTU, the tendency across the rest of the public service is for employees to belong to a union representing their trade. Wage negotiations by trade unions tend to succeed each other as unions are often under pressure from members to extract concessions that continually ensure that members' wages match those of other sectors (Institute of Economic Affairs, 2006).

Table 2.2: Ministerial basic salary and allowances by level of education, 2010 (Ksh)

Educational attainment	Statistics	Basic salary	House allowance	Domestic allowance	Ministerial allowance
Form 4: O' level	Mean	200,000	86,667	52,429	133,333
	Maximum	200,000	100,000	69,500	200,000
	Number of observations	15	15	14	15
	Coefficient of variation	0.00	0.11	0.27	0.37
Form 4: 8-4-4	Mean	200,000	100,000	46,200	200,000
	Maximum	200,000	100,000	69,000	200,000
	Number of observations	2	2	2	2
	Coefficient of variation	0.00	0.00	0.70	0.00
Form 6	Mean	200,000	85,000	58,625	125,000
	Maximum	200,000	100,000	69,500	200,000
	Number of observations	4	4	4	4
	Coefficient of variation	0.00	0.12	0.12	0.40
Bachelors	Mean	202,041	89,796	49,268	140,816
	Maximum	300,000	200,000	69,500	300,000
	Number of observations	49	49	47	49
	Coefficient of variation	0.07	0.21	0.38	0.38
Masters	Mean	200,000	90,526	47,863	152,632
	Maximum	200,000	100,000	69,500	200,000
	Number of observations	19	19	19	19
	Coefficient of variation	0.00	0.11	0.41	0.34
Doctoral	Mean	200,000	92,727	51,455	163,636
	Maximum	200,000	100,000	69,500	200,000
	Number of observations	11	11	11	11
	Coefficient of variation	0.00	0.11	0.41	0.31

Source: Salaries and Remuneration Commission, Administrative data, 2010

2.2.1 Pay structure for ministerial positions

Under the old constitution, Cabinet Ministers and Assistant Ministers had to be parliamentarians, a position which maintained until the new government was formed in April 2013. As such, they are entitled to a basic salary of Ksh 200,000, house allowance of up to Ksh 100,000, domestic allowance of up to Ksh 69,500 and a ministerial allowance of up to Ksh 200,000. Other allowances paid include sitting allowance (Ksh 40,000) and car maintenance allowance (Ksh 247,000), bringing the total to about Ksh 851,000 per month on average. Table 2.2 shows the ministerial salaries and some of the allowances paid based on individuals' educational qualifications. It is noted that high school graduates and university graduates are paid on relatively the same salary scale. Perhaps this is because of the length of service and the resulting number of increments while in the service. The data shows minimal variations in the allowances paid to Cabinet and Assistant Ministers, with no variation in their basic salary. The Vice President earns the highest salary package at Ksh 869,500, made up of a basic salary of Ksh 300,000, house allowance of Ksh 200,000, domestic salary of Ksh 69,500 and ministerial allowance of Ksh 300,000. The determination of salaries paid to politicians is an issue that warrants further research and analysis in order to rationalize it with other government institutions. Some countries such as Ghana have managed to have all the salaries on one salary structure, that is the Single Spine Salary Structure (Ankomah, 2010).

2.2.2 Pay structure in the civil service

An in-depth analysis of civil service pay reveals disparities in the structures. On average, an individual in the lowest job-group (A) earns 1 per cent (Ksh 7,701) of the basic salary of the highest earner (Ksh 737,332) in the service, that is job-group V (Table 2 3). The distribution of allowances follows a similar trend, such that individuals in the lowest job group earn the least. There is evidence that some allowances are paid selectively. Allowances also constitute a very high proportion of gross salary across the job groups (Table 2.3), being comparatively attractive for the higher cadres (job groups R and above). Such allowances include house allowance, entertainment allowance, transport allowance, non-practicing allowance and extraneous allowance. Other in-kind benefits in the public sector include: human development/training, gratuity, pension, per diems, car loans and development loan.

While it is true that civil servants earn various allowances, the bulk of the allowances such as extraneous, acting, responsibility, hardship, special house, special duty, special salary and non-practicing allowances do not accrue to all civil

Table 2.3: Civil service average basic salary and allowances by Job Group, 2010 (Ksh)

Job-group	A	B	C	D	E	F	G	H	J	K	L	M
Basic salary	7,701	8,484	8,804	9,575	11,026	13,810	15,314	18,461	22,655	25,596	28,785	32,367
House	2,499	2,204	2,070	2,417	2,712	2,435	3,060	3,144	3,825	6,660	13,019	12,964
Medical	375	377	375	385	537	521	921	1,111	1,269	1,576	2,098	2,473
Commuter	-	-	-	-	-	-	3,801	3,910	10,253	5,365	5,966	8,168
Transport	12,960	-	-	27,730	-	25,425	11,340	-	9,205	3,967	4,106	1,250
Entertainment	-	-	-	-	-	-	-	-	-	-	-	-
Extraneous	3,000	5,714	5,971	4,753	5,930	3,250	5,246	7,299	7,232	9,433	10,153	12,357
Acting	-	-	-	-	-	2,333	3,007	6,351	20,148	23,785	6,030	7,563
Responsibility	2,750	3,000	3,000	3,683	3,577	832	665	1,009	1,075	1,241	4,220	4,207
Hardship	917	1,128	1,119	1,101	1,493	1,077	2,089	2,157	2,371	2,530	3,372	4,713
Special house	-	-	12,000	300	7,633	533	816	945	343	3,464	8,105	5,684
Special duty	-	-	-	926	1,125	2,444	1,944	2,394	2,870	3,634	3,441	6,653
Special salary	-	-	14,570	-	-	1,832	-	165	-	-	-	-
Uniform	-	-	-	-	-	-	-	-	3,581	3,584	3,574	3,494
Transfer	-	-	8,819	9,163	11,835	15,782	18,471	23,588	28,170	33,824	33,685	37,378
Leave travel	3,986	4,000	3,930	3,990	3,979	3,989	3,991	3,982	3,987	5,759	5,971	5,933
Non-practicing	-	-	-	-	-	-	-	-	-	3,300	11,960	13,282
Mean total allowances	26,486	16,423	51,853	54,449	38,822	60,452	55,351	56,056	94,328	108,123	115,701	126,120
Mean Gross salary	34,188	24,906	60,657	64,024	49,848	74,262	70,665	74,516	116,982	133,718	144,486	158,487
Allowance as proportion of gross salary	77.5	65.9	85.5	85.0	77.9	81.4	78.3	75.2	80.6	80.9	80.1	79.6

Source: Salaries and Remuneration Commission, Administrative data, 2010

Job-group	N	P	Q	R	S	T	U	V	Total
Basic salary	37,853	67,610	82,732	99,179	156,895	228,610	424,038	737,332	19,948
House	14,833	30,535	28,745	36,589	58,587	59,326	93,975	99,188	5,839
Medical	2,714	1,999	2,133	2,619	2,399	1,153	534	131	1,161
Commuter	-	-	14,875	16,174	20,000	24,000	-	-	16,397
Transport	3,877	2,276	3,117	-	22,778	7,739	6,458	44,000	6,843
Entertainment	1,500	1,293	1,357	12,702	39,022	65,122	81,176	104,000	42,022
Extraneous	12,088	20,125	21,029	31,001	42,879	58,544	79,316	107,143	13,982
Acting	7,472	11,629	-	-	-	6,570	-	-	10,140
Responsibility	4,358	4,451	4,571	8,917	15,111	11,277	44,750	53,293	1,026
Hardship	4,664	2,677	2,076	4,566	1,703	1,200	-	-	2,172
Special house	6,000	22,444	18,867	-	20,000	20,000	-	-	3,950
Special duty	5,304	7,764	13,154	9,106	21,159	-	-	-	4,297
Special salary	-	1,289	1,673	59,055	372,044	178,951	257,871	469,156	273,343
Uniform	3,600	3,600	-	3,600	-	-	-	-	3,577
Transfer	42,856	65,607	80,720	100,620	127,980	378,932	-	-	20,272
Leave travel	6,000	9,647	10,000	10,000	10,000	10,000	50,000	-	4,221
Non-practicing	30,612	42,425	48,942	29,710	24,733	14,041	13,133	13,000	26,139
Mean total allowances	145,879	227,763	251,259	324,658	778,395	836,854	627,213	889,912	435,382
Mean Gross salary	183,732	295,374	333,990	423,837	935,290	1,065,464	1,051,250	1,627,244	455,330
Allowance as proportion of gross salary	79.4	77.1	75.2	76.6	83.2	78.5	59.7	54.7	95.6

Source: Salaries and Remuneration Commission, Administrative data, 2010

servants in the listed job groups. Further, uniform, transfer and leave allowances are not paid on a monthly basis.

Evidence from pay scales in the public sector reveals that employees in the entire public service are concentrated in the lower paying job scales (Institute of Economic Affairs, 2006). About 84 per cent of all employees of the public sector are in job scales A to J. On the other hand, high earners (16%) are placed in the pay scale from K to V. Included in this latter group are permanent secretaries, professional managers serving in the numerous commissions, ministerial officers and their assistants, and legislators and judges.

2.2.3 Pay structure for constitutional office bearers

The Constitutional Offices (Remuneration) Act Cap 423 of 2009 defines the schedule for fixing the salaries and allowances of persons holding certain offices provided for in the Constitution. Table 2.4 shows salaries payable to the constitutional office holders in salary bands A1, A2 and A3. Their salaries increase at an annual rate of 10 per cent, 7 per cent and 6 per cent, respectively. They are also entitled to tax free allowances contrary to the Constitution's provision

Table 2.4: Monthly wages for constitutional office bearers

Office Bearer	Salary band	Minimum (Ksh)	Maximum (Ksh)	Average Annual increment (Ksh)
Attorney-General (Director of Public Prosecutions)	A1	399,440	916,500	52,607
Chief Justice	A1	399,440	916,500	52,607
Judge of Appeal	A2	292,765	576,120	25,557
Puisne Judge	A3	232,960	481,318	17,034
Controller & Auditor-General	A2	292,765	576,120	25,557
Chairman, PSC	A2	292,765	576,120	25,557
Deputy Chairman, PSC	A3	232,960	481,318	17,034
Member, PSC	A3	232,960	481,318	17,034
Chair, Interim Independent Electoral and Boundaries Commission	A2	292,765	576,120	25,557
Vice-Chair, Interim Independent Electoral and Boundaries Commission	A3	232,960	481,318	17,034
Member, Interim Independent Electoral and Boundaries Commission	A3	232,960	481,318	17,034

Source: Government of Kenya (2009)

at Article 210 (3) that: “No law may exclude or authorize the exclusion of a State Officer from payment of tax by reason of—(a) the office held by that State officer; or (b) the nature of the work of the State officer”.

The Constitution also establishes 11 commissions, including: Kenya National Human Rights and Equality Commission, National Land Commission, Independent Electoral and Boundaries Commission, Parliamentary Commission, and Judicial Service Commission. Others include Commission on Revenue Allocation, Salaries and Remuneration Commission, Public Service Commission, Teachers Service Commission, National Police Service Commission, and Commission for the Implementation of the Constitution. The Constitution also requires Parliament to establish additional offices, that is an Independent Ethics and Anti-corruption Commission, and Commission of Administration Justice.

Members of commissions that have existed since 2008 when the salary structure was published are earning salaries for Chairpersons and some members ranging from between Ksh 600,000 and Ksh 800,000. The high salaries in the various commissions have contributed to higher average salaries in the general public sector. However, a further investigation across the cadres shows evidence of very high inequalities in the remuneration of public servants.

2.2.4 Pay structure for the Kenya Defense Forces

The Kenya Defense Forces consist of the Kenya Army, Kenya Air Force and the Kenya Navy. The Kenya Defense Forces is established under Part 2 Section 241 (1) of the Constitution of Kenya 2010. The SRC is charged with the responsibility of setting and renewing the remuneration and benefits of the Chief of the Defense forces, the Vice Chief of the Defense Forces and the three Service Commanders in accordance with Article 230 (4) of the Constitution and the Salaries and Remuneration Act (2011). The salaries and benefits of the rest of all other service personnel is to be determined and renewed by the Defense Council through the advice of the SRC in accordance with Section 29 (1) of the Kenya Defense Forces Act No. 25 of 2012.

Unlike other uninformed services, the Kenya Defense Forces has a comprehensive Job Evaluation Framework and procedure for its Service Personnel. This is done through a branch within the Defense Headquarters, the Defense Forces Job Evaluation Team (DEFJET). The Kenya Defense Forces basic salaries include a predetermined percentage known as the X-Factor, which applies to military personnel only. Currently, the X-Factor applies to the Kenya Defense Forces and is computed at 10 per cent of the basic salaries for each grade.

Table 2.5: Current salary levels for disciplined services, 2012

Band	Scale	Equiv. J/G	In-post	Current Basic Salary (Ksh)		
				Minimum	Maximum	Average
1	2	3	4	5	6	7
D	PG/1	F	68,656	17,190	32,880	25,035
C	PG/2	G	11,860	22,410	42,660	32,535
	PG/3	H	4,054	30,750	45,540	38,145
	PG/4	V=H/J	4,133	33,990	50,220	42,105
	PG/5	J	2,316	36,300	53,820	45,060
	B2	PG/6	W=J/K	284	40,080	59,220	49,650
B1	PG/7	X=K	148	41,370	63,420	52,395
	PG/8	L	75	48,660	73,020	60,840
	PG/9	M	35	59,220	85,890	72,555
	PG/10	N	10	68,160	94,770	81,465
	B1	PG/11	P	27	98,040	130,590	114,315
A3	PG/12	Q	11	118,590	157,890	138,240
	PG/13	R	2	143,790	187,890	165,840
	PG/14	S	6	157,890	198,390	178,140
	PG/15	T	1	198,390	307,890	253,140
Total			91,618			

Source: Salaries and Remuneration Commission, Administrative data, 2010

The X-Factor is defined as “that part of the serviceman’s or servicewoman’s pay intended as comprehensive for the disruption and disadvantages of life in the Armed Forces”. This is an adjustment to military pay recommended to recognize the judgment of the relative disadvantage of working conditions experienced by members of the armed forces worldwide, compared to those in the civilian sector. The working environment and the work professional expectation of a soldier is more demanding and disruptive compared to those in civil employment. It takes account of a range of factors, some positive and others negative, which cannot be directly evaluated when assessing pay comparability. The adjustment does not and is not intended to reflect the particular set of circumstances that Service personnel may be faced with at any given time.

The following points are applicable when considering the X-Factor: (i) it is not separately identified in the pay slip but reflected as part of the basic salary; (ii) it is pensionable; and (iii) the same rate is paid irrespective of ranks, employability and service.

As shown in Table 2.5, the average monthly salaries in the Disciplined Services range between Ksh 25,035 and Ksh 253,140, with the lowest salary standing at Ksh

17,190, while the highest is Ksh 307,890. Additional data collected from a sample of defense forces staff indicate a mean total salary of Ksh 106,059, with mean basic salary of Ksh 42,131 and mean allowances of Ksh 63,928. The observed general disparities and the comparatively low earnings among the lower cadres are major issues of concern, given that the Disciplined Services are the backbone of national security and the maintenance of law and order. Other challenges with regard to pay structure for the Disciplined Services include: i) the lack of a comprehensive job evaluation framework to determine the comparable worth of positions across the Disciplined Forces; and ii) the low retention of services of personnel deployed in the specialized units such as aviation, engineering and instructing skills at competitive remuneration (SRC, not dated). Although the government has made efforts to review the levels of wages and allowances for these critical non-unionizable public sector employees, it is difficult to match their wages with the employee desired wages. Other challenges include low quality of housing, and exposure to high risks given the nature of the disciplined services in maintaining order, safety and security. Although staff of the Defense Forces staff have a risk cover, the other Disciplined Services staff are yet to be provided with a similar insurance cover, notwithstanding that the monthly risk allowance paid to the Police as a substantive insurance cover is debatable.

2.3 Private Sector Wage Determination and Pay Structure

Wage formation in the private sector is similar to the public sector. These channels include: Minimum wage regulation, collective bargaining and a flexible wage fixing approach that is hinged on the prerogative of the board of company directors. However, the profit motive in the private sector ensures that wages are paid according to productivity. The remuneration structure in the private sector is pegged on the basic pay, with allowances accounting for a substantial share of the total packet. Some of the allowances in the private sector include: medical allowance, commuter allowance, responsibility allowance, and acting allowance. In-kind benefits include: medical insurance cover, human development/training, gratuity, housing, car benefit, staff loans and fringe benefit tax and staff meals.

However, there are major differences and gaps in the pay structure for private sector (PriceWaterHouseCoopers, 2009). For instance, the PriceWaterhouse Coopers study shows that the highest paid Chief Executive Officer (CEO) was in the financial services sector, earning close to Ksh 3.9 million per month (having increased by 55% from Ksh 2.5 million in 2007). This contrasts sharply to a low of Ksh 274,083 per month (having increased by 17% from Ksh 274,083 in 2007) for a CEO in the manufacturing and processing sector. These earnings should also be contrasted to the average monthly pay for highest paid state corporation

executives in the public sector, which was Ksh 1.03 million per month. The least paid profession in the public sector was a supervisor, earning Ksh 20,000 (Table 2.6). The average cost of employing a chief executive officer in Kenya is Ksh 1.38 million per month, having increased from Ksh 1.056 million per month in 2007.

2.4 Challenges of Wage Differentiation

Kenya has never had a comprehensive, consistent and sustainable wage policy since it attained its independence in 1963. As discussed in the previous section, wages and compensation have been adjusted on an ad hoc basis. Specifically, wages and compensation have been determined by special commissions or taskforces to review the pay scales of sections of the public service (Institute of Economic Affairs, 2006). Sections of the public sector are also represented by active unions, which articulate demand for the central government to raise the wages of their members.

This has resulted in numerous uncoordinated wage determination systems with multiple outcomes and challenges. Piecemeal salary reviews targeting specific professional groups or categories of employees have resulted in perpetual and considerable wage differentials within the public sector. Moreover, the sector has suffered from spiral agitation for wage increases and frequent threats of or actual industrial action. Further, leapfrogging of wages and industrial disputes have not spared the sector. As a result of the public sector wage policy gap, some cadres within the public sector are without clear schemes of service to guide their progression.

Lacking in all the wage determination mechanisms are aspects of productivity. During Kenya's first development plan (1964-1970), the wage guidelines and the Sessional Paper No. 1 of 1986 all underscored the need to promote productivity in enhancing enterprise and organizational competitiveness. Specifically, the wage guidelines advocated for inclusion of productivity as an additional factor for wage compensation. The 8th National Development Plan (1997-2001) advocated for the establishment of a productivity centre to champion productivity improvement, and removal of labour market rigidities, especially wage guidelines. The Economic Recovery Strategy for Wealth and Employment Creation (2003-2007), the Kenya Vision 2030 and the First Medium Term Plan (2008-2012) and the Sector Plan for Labour, Youth and Human Resource Development (2008-2012) all emphasized the need for mainstreaming productivity in all sectors of the country's economy, including wage fixing.

Despite the recurring emphasis for productivity mainstreaming and consequent establishment of the Productivity Centre of Kenya (PCK) in 2002, the country still lacks a framework for linking public sector pay to performance.

Table 2.6: Private sector gross wages by sector

Sector	Management level			Non-Management level				
	Highest	Lowest	Highest	Lowest	Highest	Lowest		
	Title	Amount (Ksh)	Title	Amount (Ksh)	Title	Amount (Ksh)		
Financial services	CEO	3,922,679	Audit Assistant	20,961	Receptionist	188,219	Security guards	17,500
	Divisional General Manager	1,385,570	Assistant marketing manager	50,000	Technician	117,350	Cleaner/janitor/tea lady	20,667
Insurance services	CEO	3,294,246	Housekeeper	29,447	Cashier	238,548	Cleaner/janitor/tea lady	26,675
Manufacturing processing and agriculture	CEO	3,200,110	Supply and services manager	13,203	Cashier	217,417	Driver	15,751
NGOs, missions and delegations	CEO	1,508,435	Housekeeper	26,046	Receptionist	130,160	Room steward	16,632
Professional services	CEO	1,890,433	Warehouse manager	21,000	Clerk	64,482	Room steward	9,450
Trade	CEO	1,698,280	Secretary	37,540	Technician	107,260	Room steward	11,917
Hospital health and medical services	CEO	2,688,998	Assistant project officer	11,112	Messenger	131,983	Room steward	20,213
Hoteliers and hospitality	CEO	1,636,333	Audit Assistant	26,375	Head waiter	56,621	Room steward	15,355
State corporations, public service and public sector	CEO	1,033,292	Supervisor	20,000	Storekeeper	70,500	Security guards	20,161

Source: PriceWaterHouseCoopers, 2009

3. THEORETICAL FRAMEWORK AND CROSS COUNTRY ANALYSIS

3.1 Theoretical Reasons for Wage Differentials

Several authors have provided explanations as to why there may be differentials between public and private sector pay structures. A discussion on the factors responsible for wage differentials is presented in this section.

Most decomposition studies (Bender, 1998; Moore and Raisian, 1987; Gunderson, 1979) attribute wage differentials to different levels of personal and job characteristics (endowments) and to 'economic rent' captured by workers (the unexplained part of the differential or the difference in the estimated coefficients).

With respect to the wage determination process, the basic difference between the public and private sector is that in the former, the profit constraint is replaced by an ultimate political constraint. In such circumstances, the wages of public sector workers ultimately depend on their ability to compete with other interest groups over the allocation of the public budget, and also with their ability to compete with tax payers on the size of the budget (Gunderson, 1979).

Political forces influence public sector wages indirectly through institutional channels, which affect the framework within which bargaining occurs. The institutions include civil service regulations, comparability wage surveys and appropriate wage criteria. In addition, aggregate policies such as wage-price guidelines, inter-governmental transfers, and decision to curb the growth of the public sector can affect public sector wages (Gunderson, 1979).

In practice, political constraints impart an upward bias to wages in the public sector, which occurs since market forces are more effective in providing a floor than a ceiling for public sector wages. The floor is justified since employers in the public sector have to compete with employers in the private sector and other elements of the public sector for their workers.

If all jobs were identical and all firms perfectly competitive, then a single wage rate would prevail in any given economy. However, it is not uncommon to find that jobs requiring equal level of qualifications differ in terms of attractiveness. Employees in such less attractive jobs have to be paid some premium in terms of higher wages. This scenario is summarized under the theory of compensating differentials (Arbache, 2001; Moore and Raisian, 1987).

The theory argues that high wages compensate for differences in working conditions within and among firms. Employers who offer different working conditions in terms of safety, uncommon risk of lay-off, physical exertion, overtime work, and desirable environment (e.g. noise, humidity and ventilation)

should appropriately compensate workers for their job attributes. However, Moore and Raisian (1987) discount this explanation, since the public sector in the United States and Japan tends to get better wages and fringe benefits. Moreover, they argue that premiums are due to skill differentials which, in the long run, should be the only reason for wage differentials. Given the persistence of the 'unexplained portion of the differential', this too is unlikely. Other reasons for the differentials include: short run market disequilibrium (due to inelasticity of labour supply in industries), unions taking advantage of the low labour demand elasticity, political action by unions to increase demand for public sector goods, and relative discrimination.

According to Gregory (1990), public sector wages are different from private sector wages for a number of reasons. First, the 'Good Employer Obligation', a policy of the British government for the past 100 years. However, the appropriateness of this policy has been questioned. Second, public sector unions have a very strong bargaining position given the nature of both essential and non-storable public sector services, whose withdrawal at any particular moment have serious negative implications on the welfare of the society. Third, public sector wages may be lower than private sector wages due to the 'Nature of Public Service Employment'. Public sector employees often have greater job satisfaction, job security, longer holidays and more generous pensions compared to their private sector counterparts in developed economies, but this might not be the case for developing economies, Kenya included. For these reasons, the government is likely to pay lower wages than the private sector. Lastly, wages could be subject to 'Government and National Economic Policy'. For instance, public sector wages were used in Britain as a policy tool to reduce wage inflation. Such policies could lead to different wages for similar jobs between the public and private sector.

The literature identifies three general themes in determining the demand for labour and public sector wages. The first theme involves an analysis of consumer/firm theory of labour demanding which labour demand curve is downward sloping; that is, the higher the wages, the lower the demand for labour. The second theme considers politicians' preferences, the argument being that politicians control both the funding and the kinds of output being produced. Based on 'vote maximization studies', the assumption is that the politician is maximizing a 'vote function', whereby he/she buys votes with the output that government produces. Some studies have emphasized the role of the bureaucrat, who produces a public sector output and is assumed to be interested in maximizing the budget of his/her department. The third approach brings lobbies and public sector unions into the model, as they will want larger departments to increase their utility as an organization (Bender, 1998).

'Social planner' refers to an 'effective' decision maker who decides on the optimal amount of goods and services that the government will produce, subject to a budget constraint. It is assumed that the decision maker/social planner is maximizing consumer welfare over both publicly, and privately-produced goods. The arguments in the wage and labour demand functions are the same; that is, human capital constitute a demographic variable in the wage equation. A few exceptions to this include a measure of taxes or government ability to pay. Others include the effect of unions on public sector wages (Bender, 1998; Gyourko and Tracy, 1988).

3.2 Empirical Literature on the Public-Private Wage Gap

The public-private wage differential is well documented for developed countries. Among the more various studies are Adamchik and Bedi (2000) for Poland, Van der Gaag and Vijverberg (1988) for Ivory Coast, and Skyt Nielsen and Rosholm (2001) for Zambia. The findings of various studies on developing countries have been inconclusive. Some studies (Hyder and Reilly, 2005; Lindauer and Sabot, 1983; Skyt Nielsen and Rosholm, 2001; Terrell, 1993) suggest that public sector workers earn varying amounts of premium. Other studies (Bedi, 1998; Van der Gaag and Vijverberg, 1988) find that private workers enjoy a significant wage advantage over their public sector counterparts. Moreover, studies such as Al-Samarrai and Reilly (2005) conducted for Tanzania conclude that there is no significant statistical difference in the wage structures between the public and private sectors.

An analysis of country studies shows that, generally, the wage differentials have been in favour of the public sector. The highly qualified public sector workers tend to trade off substantial wage returns for security and other non-wage benefits (Table 3.1). Younger individuals are more likely to be engaged in wage employed in the private sector.

Table 3.1: Highlights of cross country studies on wage differentials

Study author, year and country	Study Objectives	Variables used	Statistical method and data sources	Key findings
Hyder Asma and Reilly Barry (2005) – on Pakistan	To investigate the magnitude of public/private wage differentials	Average mean difference in log wages as dependent variable and highest education qualification attained, whether an individual undertook technical training, age and its quadratic, marital status, gender, settlement type, dummies for the length of time resident in the district, and occupation	OLS estimation of separate sectoral wage equations and a quintile Regression analysis 2001/02 labour force survey	Public sector employment in Pakistan is more attractive than private sector employment because of better pay, better work conditions, and the availability of other fringe benefits (e.g., pension rights and free medical benefits) On average, the more highly qualified public sector workers trade-off substantial wage returns for the security and other non-wage benefits associated with the public sector The gender pay gap is in favour of males. However, it is considerably lower in the public sector (16%) compared to the private sector (53%)
Skyt Nielsen and Rosholm Michael (2001) – on Zambia	To investigate changes in the public-private wage gap over time at different wage distribution	Log wages explained by educational level, gender and age	OLS and Quintile Regression Analysis Three household survey data: Priority Survey I of 1991; Priority Survey II of 1993 and Living Conditions Monitoring Survey of 1996	Being female is associated with lower wage level in the private sector, which is not the case in the public sector Although education-earnings profile in the private sector is constant throughout the study period, return to education is higher in the private sector than the public sector Wages in the large and strongly regulated public sector are higher than in the private sector
Bender, Keith (2003) – on UK	To examine the extent to which focusing exclusively on differences in mean wages obscures the true nature of the wage relativities	Separate mean log hourly wages for public/private sectors Human capital and regional variables Occupation	Variant of Mean Square Error criterion, MSE British Social Change and Economic Life Initiative, SCELL 1986	Results indicate that low-paid public sector males are paid more compared to low-paid private sector workers, whereas high-paid private sector males earn more than their public sector counterparts. This double imbalance is observed in the overall differentials However, no evidence of the double imbalance for the public sector female workers

Borland, J., Hirshberg, J. and Lye, J. (1998) – on Australia	To seek to extend the analysis of earnings differentials between public and private sectors	Usual weekly earnings Worker characteristics Job characteristics	Probit OLS ABS Training and Education Experience Survey 1993	It is concluded that the higher average weekly earnings of public sector employees are wholly explained by inter-sector differences in productivity related characteristics of employees and job characteristics in each sector.
Christofides Louis and Pashardes-Panos (2002) on the Republic of Cyprus	<p>The study aims to answer:</p> <ol style="list-style-type: none"> 1. Are sector and type-of-employment outcomes in Cyprus more like those in advanced countries or do they resemble those in Greece and Turkey? 2. Do rewards in the public sector exceed those in the private sector? If so, does this continue to hold unconditionally? 3. Are rewards to characteristics such as education similar in developed countries and Cyprus? 4. What is the relevance of institutions broadly defined in these matters? 	Age, educational level, gender, marital status and presence of children as control variables. Other variables include individual wealth positing and non-labour income	Probit Household Expenditure and Income Survey (CHEIS) 1990/1991	<p>On sector of employment decisions, risk-averse individuals have a preference for the public sector</p> <p>Women are more likely to work in the private sector and are significantly less likely to be self-employed</p> <p>Younger individuals are more likely to be paid employees in the private sector, perhaps because they have not accumulated the experience and connections required to secure a job in the public sector, and they have not met the capital requirements of self-employment</p> <p>Education has a very clear influence on sectoral and type-of-employment choices</p>

2.3 Literature Review on Wage Differentials in Kenya

Due to lack of an explicit Kenyan policy on wage determination, distortions exist between employees bearing similar qualifications, experience and levels of competence. According to work done by the Institute of Economic Affairs (2006), there are substantial differences in the remuneration of individual public sector workers across different departments and institutions. A comparison of wages in the public sector – across the central government, the Judiciary, Parliament, Local Authorities, Disciplined Forces, and State Corporations – shows that the basic pay in central government is substantially lower for the same educational qualifications, experience and ability.

Further, the study notes that there are discrepancies across the operational pay scales. For instance, the Judicial Service Commission has a pay scale that concentrates remunerative rewards and allowances on judges at the expense of clerks, magistrates and other officers. Moreover, the compensation package for

judges alone for the year ending June 2004 was found to comprise 48 per cent of the total net approved expenditure for the Judiciary, yet judges comprise less than 25 per cent of the staff cadre. Judges are also entitled to allowances and are equipped with vehicles and other means of travel (Institute of Economic Affairs, 2006).

Similarly, the Legislature has acquired the discretion to revise their allowances and financial compensation with little possibility of review and adjustments by outsiders. Further review shows that legislators in Kenya appear to be well compensated compared to countries with similar economic characteristics, including having a majority of workers in the public sector (Institute of Economic Affairs, 2006).

Mule *et al.* (2004) associate wage gaps in the country with differences in pay between the public and the private sectors in favour of the private sector. Using macro data, the study established that private sector employees earned 14 per cent higher wages in 2005, and this gradually reduced to 9.44 per cent by 2008. Since 2004, several cadres of public service have benefited from salary increases, including teachers, university lecturers, doctors and civil servants. At the same time, private sector wages have not increased with the same speed, resulting in a reduction in the wage gap between the public and the private sectors. Since 2004, several public sector unions have been registered; they include the University Academic Staff Union and the Kenya Union of Civil Servants.

Available evidence shows that some categories of workers are more affected by wage differentials than other groups. The 1998/1999 labour force survey conducted by the then Central Bureau of Statistics, now the Kenya National Bureau of Statistics (KNBS), showed that the private sector pays relatively more to skilled workers than the public sector. The public sector, on the other hand, pays relatively more to the low skilled occupations. If you assume that the private sector prices labour competitively according to the forces of demand and supply, then these statistics suggest that the public sector pays above market rates to the lower cadres and below market salaries to the upper cadres.

Mule *et al.* (2004) found that the public sector pays more to those with less education than the private sector. The private sector, on the other hand, pays much more to those with higher education than those with lower education. Again, assuming that the private sector prices labour competitively according to the level of education, meaning that the higher the education, the higher the pay, then this finding suggests that public sector salaries are not matched with education qualifications for those without a degree. In other words, the public sector pays above market rates to the less educated workers and below market salaries for the highly educated workers. This can probably explain why less educated workers

tend to prefer the public sector than the private sector, and the more educated prefer the private sector to the public sector. Any policy interventions in this area, therefore, need to be made to attract and retain the more educated workers in the public service.

The findings of Mule *et al.* (2004) also show that when qualifications are taken into account, public sector employees may earn less than their same-job colleagues in the private sector. This means that what the government pays public workers is higher than what they can get if they opted to go to work in the private sector. This suggests that compensating those salaries equivalent to the private sector salaries would amount to overpaying them.

3.4 Techniques Used in Public-Private Sector Wage Differentials

Several econometric techniques have been applied in investigating public sector wage differentials, with each method relying on different sets of assumptions about the underlying processes of determining wages and sector choices. First, econometric specification is not used to measure or compare wages across sectors. Instead, inference for public sector wage premium is based on lower quit rates in the public sector or existence of queues for public sector jobs. The reasoning behind such studies is that a queue for public sector jobs or lower quit rates than in comparable private sector jobs means that public sector workers receive more in total compensation than private sector workers (Adamchik and Bedi, 2000). Unfortunately, this method does not provide the degree of overpayment or underpayment. It is not easy to capture the nature of data required for this kind of analysis (Adamchik and Bedi, 2000.) Also, a simple head count analysis does not take into account the differences in the qualification, and other individual characteristics.

The second approach is a single earnings equation with a dummy variable indicating whether the worker is employed in the public sector or not.

$$W = X\beta + \beta^*S + \varepsilon \dots\dots\dots(1)$$

Where W =log earnings, X =a vector of human capital, demographic and/or job characteristics with associated parameter vector, B , S =a dummy variable equal to 1 if the worker is employed in the public sector, and ε is the error term. The coefficient β^* captures the difference in pay between the public and private sectors. If β^* is positive, then public sector workers earn a premium. A potential draw-back with this method is that while it allows for differences in the 'intercept' term between public and private sector, it constrains the coefficients of the wage equation to be the same for both the public and private sectors.

The third approach has two earnings equation, one for each sector. This involves estimating regression equation for public sector workers:

$$W = X\beta^{pu} + \varepsilon^{pu} \dots\dots\dots(2)$$

And for private sector workers:

$$W = X\beta^{pr} + \varepsilon^{pr} \dots\dots\dots(3)$$

Where W and X are same as equation (1), β^{pu} and β^{pr} = the returns to the variables in for the public and private sectors respectively, ε^{pu} and ε^{pr} = error terms for public and private sector, respectively.

The earnings differential is the result of the difference between what the worker would earn in the sector in which they are not employed in and the individual's actual wage in the sector where they are employed. The wage differential assumes constant all the characteristics of the worker, and allows for sector-specific returns to different characteristics, as opposed to when a single equation regression is estimated. This double equation has been used in a number of studies (Gunderson, 1979; Lindauer and Sabot, 1983; Moore and Raisian, 1987).

Sample selection plays a key role in estimation equations. The workers have to make a choice between working in the public sector or the private sector. This means there is potential for sample selection bias because of the non-random draw of workers that would be employed in the public and private sectors. To correct for sector selection bias, a sector selection bias correction method, which models wage setting mechanisms in each sector as a function of both observable and unobservable characteristics of workers and employers, is applied (Gyourko and Tracy, 1988; Terrell, 1993; Van der Gaag and Vijverberg, 1988). In terms of empirical strategy, this leads to a two-stage estimation procedure. On the first stage, we estimate the sector of employment choice model and generate the selection correction term. Second, we estimate wage equation with choice specific lambda included together with other explanatory variables. The problem with the above methods is that they do not restrict the comparison to those individuals with comparable characteristics in both groups. To overcome this drawback, studies have applied matching methods.

A non-parametric technique called Propensity Score Matching (PSM) is another possible methodology (see Glinskaya and Lokshin, 2005; Ramoni-Perazzi and Bellante, 2006). The methodology allows us to compare similarly skilled public and private workers, considering differences in the distribution of their observed characteristics. Wage equations are estimated to determine the differential. Moreover, this approach allows us to analyze whether the wage gap displays heterogeneous behavior throughout the conditional wage distribution

(Mizala *et al.*, 2011). This approach has been applied in various studies (Glinskaya and Lokshin, 2005; Mizala, Romaguera and Gallegos, 2011; Ramoni-Perazzi and Bellante, 2007). The success of PSM will depend on the extent to which data can be matched.

Previous analytical work (Mule, Ryan and Ndi, 2004) on wage differentials in Kenya has not applied such rigorous methods. This particular study attempts to fill this gap by applying the matching technique method, which allows us to compare similarly skilled public and private workers, considering differences in the distribution of their observed characteristics. The study uses micro-economic data collected from individuals working in both private and public sectors.

3.5 Results of the International Benchmark Reviews on Wage Determination

To be able to give credible and sound recommendations, benchmarking is critical. As indicated in Section 2, a key component of the methodology used in this study was to identify best-practices as far as dealing with public-private wage differentials is concerned. The following sub-sections, therefore, review the experiences of various African countries, including Uganda, Tanzania, Ghana, Zambia, Botswana and Burkina Faso.

3.5.1 Approaches to pay decision making

Several approaches have been used to pay decision making, with Table 3.2 summarizing Kiragu and Mukandala's (2003) analyses of the approaches and techniques applied in various African countries. Experiences from these countries have shown that in most instances, the techniques have failed where they have been assumed to be an end in themselves. For instance, job evaluation and salary re-grading failed in Uganda and Ghana, where they were treated as ends. In most countries where this has been applied, it was not taken through to its logical conclusion. An additional difficulty associated with job evaluation and re-grading exercises is their being expensive and time consuming, thereby requiring more resources for implementation of the results. Further, the results of job evaluation are usually contested by many groups of employees, because either they perceive bias in the evaluation process, or they seek to protect their status and interests that could be challenged by the results. Finally, there are professional debates about the merits and demerits of alternative methods of job evaluation.

Table 3.2: Approaches to pay decision-making: An international comparison

Characteristics	Approaches	Techniques and tactics prevalence in the study
1. National Incomes policy	<p>A statutory "National Incomes and Employment" body is mandated and tasked to define policy targets and limits that bind both public and private sectors in pay adjustments</p> <p>Decisions for public service pay adjustments, including those based on, for example, the salary reviews commissions and collective bargaining agreements (CBAs) were based on the above policy framework</p> <p>To protect the workers from exploitation, government established a minimum salary above the market level. It was the wage leader</p>	<p>This was a common development soon after independence in the Anglophone study countries (Botswana, Ghana, Tanzania, Uganda, Zambia)</p>
2. Salary (and conditions of service) review commissions	<p>Head of State appoints a team of eminent nationals to collect views among stakeholders and present recommendations on salaries and terms and conditions of service</p> <p>The commission also facilitates consensus building</p> <p>The Commission is usually technically supported by experts and provided with administrative support by public/civil servants</p> <p>The Commission makes recommendations to government</p> <p>Government decides which of the recommendations to accept</p>	<p>In Anglophone countries, this technique was a sequel to the "National Incomes Policy" approach. Commonly applied in Ghana, Botswana, Tanzania, Zambia, Kenya and Uganda</p>
3. Controlled collective bargaining agreement	<p>Labour laws provide for trade unions to bargain for pay adjustments</p> <p>Trade unions are linked to the ruling Political Party</p>	<p>In Benin, Ghana, Kenya and Zambia, there is a significant degree of free collective bargaining</p>
4. Free collective bargaining agreement	<p>Labour laws allow and regulate trade unions to negotiate pay with government</p> <p>Trade unions present proposals and arguments for pay adjustments</p> <p>Salaries of non-unionized staff adjusted on the basis of CBAs</p>	<p>This practice is there in Botswana, Burkina Faso, Kenya and Tanzania</p>
5. Indexation of salary adjustments	<p>Invoke mathematical/statistical basis for early fixing of future pay</p> <p>Negotiate/agree future levels many years in advance</p> <p>Pre-empt future negotiated outcomes</p> <p>Government and workers representatives negotiate indices by which salaries for various grades will be adjusted over the years</p> <p>Automatic adjustment of salaries by Ministry of Finance</p>	<p>For many years, this was the dominant technique in the Francophone countries, for example Benin and Burkina Faso</p>

<p>6. Wage bill and employment modelling</p>	<p>Define wage bill ceiling for fiscal stability</p> <p>Reduce and/or control employment to within wage bill ceiling</p> <p>Adjust salaries within the wage bill envelope</p> <p>Enhance transparency of pay system</p> <p>Monetize in-kind benefits</p> <p>Consolidate allowances and monetize benefits into a basic salary structure</p> <p>Eliminate distortions and non-transparent compensation (allowances)</p> <p>External pressure to accord priority to fiscal stabilization (usually as part of structural adjustment)</p> <p>Allowances and in-kind benefits not associated with facilitating specific organizational functions or operations are eliminated</p> <p>Government prepares to absorb the additional wage bill and improve wage bill control</p> <p>Enhance fairness, equity and efficiency of the salary structure and improve the post-employment compensation structure</p>	<p>This has been the macroeconomic and Structural Adjustment Programme oriented technique to salary adjustment. While much has been written about it, it has had very limited practical application in Ghana, Botswana, Benin, except for a few years in Tanzania and Uganda</p>
<p>7. Cost of living</p>	<p>Determine the minimum acceptable standard of living for the public servant as the basis for establishing a target minimum salary</p> <p>Accord priority in salary adjustment to achieving the MLW (if necessary compress the structure)</p>	<p>In the countries where this technique was used, for example Uganda and Tanzania, it was found that: (i) it was difficult to achieve consensus on definition (level) of the MLW; and (ii) it resulted in extraordinarily high wage bill</p>
<p>8. Crisis-driven pay adjustments</p>	<p>A high prevalence of award of ad hoc allowances and in kind benefits indicates use of this technique. Powerful or influential groups put pressure/threaten government with industrial action or political consequences</p> <p>Government yields to the pressure/threat usually by an award of allowance outside the salary structure</p> <p>Use of allowances and in-kind benefits</p> <p>Introduction of new salary scales for select groups</p>	<p>This approach has been practiced extensively sometimes in Ghana, Tanzania, Uganda, Benin, Burkina Faso, Kenya and Zambia</p>
<p>9. Job evaluation and salary re-grading</p>	<p>Comparative analysis and re-grading of jobs as specified</p> <p>Pursuit of both fairness and equity</p> <p>Participatory but limited</p> <p>Use of "expert opinion"</p>	<p>This technique is a management tool that complements the salary review commissions and market benchmarking. It has been popular but technically and politically problematic in Uganda and Ghana. Applied in Kenya</p>
<p>10. Market benchmarking</p>	<p>Comparative salary survey across sectors</p> <p>Decompression of salary structure in favour of the senior and skilled staff</p> <p>Parallel progression salary structure for skilled professionals</p>	<p>This is the predominant feature of current initiatives in Botswana and Tanzania. It is also implicit in the new Uganda pay policy</p>

11. Performance-based adjustments	Productivity measures Performance benchmarking Performance contracts Use of performance contracts to define employment terms	Benin and Burkina Faso governments have tried this but found stiff resistance. It is in vogue in Botswana and Tanzania
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Source: Kiragu and Mukandala, 2003

3.5.2 Country comparison on wage determination

Uganda

Uganda's labour market is characterized by high rates of population and consequent growth in labour force, stagnation in employment to population rate (EPR), low share of wage earners in the total work force, but a large share of the private sector in the paid employment. These factors play a significant role in wage determination in both the public and private sectors. The country's labour laws include the Workers Compensation Act 2000, Minimum Wages Act 2000, Employment Act 2006, Labour Union Arbitration and Settlement Act 2006, and Occupational Safety Act 2006, most of which are hardly enforced. In 2002, the Ministry of Public Services adopted a pay strategy, proposing to raise the total wage bill from 4.9 per cent to 6.1 per cent of GDP, and to compress public sector wages by reducing the difference between the highest and lowest paid from a ratio of 34:1 to no more than 20:1. Implementation of these reforms, designed to create a more transparent and equitable pay structure, was spread over a period of 10 years, that is up to 2012 (International Labour Organization, 2011).

Tanzania

Public wage determination in Tanzania is based on the Public Service (Negotiation Machinery) Act 2003, Public Service Act 2002, Public Service Management and Employment Policy (2008), and Public Service Pay and Incentive Policy 2010. The Presidential Pay Commission formed in 2006 is tasked with advising the government on how to improve public service incentives. The Government of Tanzania has previously made an attempt to enhance salaries in the public service according to adopted pay targets. However, the increase did not result in convergence between public service pay levels and those of its labour market comparators (United Republic of Tanzania, 2010).

The government effectively implemented a job evaluation and re-grading exercise in 2003. This facilitated rationalization of salary and job grade structures by improving the link between pay and performance. This move increased the transparency of the compensation system and wage bill management (United

Republic of Tanzania, 2010). Despite these efforts, pay levels in the public service, especially technical, professional and managerial groups, are still low. Given this situation, the government is working towards ensuring competitive pay, ensuring equal pay for equal value of work across the public service, increasing allowances and the total reward in the public service, mainstreaming project implementation units into government structures, ensuring collective bargaining in public service, and improving productivity as a strategy to enhance pay.

Ghana

Public wage determination in Ghana is governed by the Single Spine Pay Policy (SSPP) (Government of Ghana, 2009). The Fair Wages and Salaries Commission (FWSC) is the institution responsible for the implementation of the SSPP, a comprehensive pay policy for public service workers in Ghana. The aim of the policy is to ensure that public sector remuneration structure is rational, equitable, transparent and sustainable. It places all public servants listed in Article 190 of the 1992 Constitution on one unified salary structure, that is the Single Spine Salary Structure (SSSS). The public servants include employees in the civil service, judicial service, audit service, education service, health service, parliamentary service, national fire service, customs, excise and preventive service, internal revenue service, local government service, police service and prisons service.

Workers in public corporations other than those set up as commercial ventures, public services established by the Constitution, and all other public services as Parliament legislates, are also included in the SSSS (Ankomah, 2010). The SSSS policy's remuneration of jobs of the same value within the same pay range accords with the principle of 'equal pay for work of equal value', an approach based on a job evaluation exercise. Ankomah (2010) concludes that: "The reality (of implementing SSPP), however, is that there is a declining confidence of some public workers and unions in the ability of the reform to realize its intended objective." Although the SSPP is meant to ensure greater comparability of similar jobs across the public sector, the initiative is associated with various weaknesses. Fiscal estimates indicate that implementation of SSPP would result into a 50 per cent wage bill increase. There is a large number of public sector employees whose pay remain outside the base pay, especially in the health sector, resulting into persistence of wage disparities. Furthermore, it is not possible to establish whether the values assigned to the single spine reflect competitive and sustainable levels, consistent with local and international labour market dynamics.

Australia

The Australian government has the Fair Work Act (2009), which guarantees fair minimum wages as a key part of the government's commitment to establishing

a safety net for employees. The government has also committed to providing complete and accessible information for both employers and employees about minimum wages. Wage awards specify the minimum wages for employees. The government has the Fair Work system, minimum wages and casual loadings, which are set and adjusted by a specialist Minimum Wage Panel within Fair Work Australia. The Minimum Wage Panel comprises seven Fair Work Australia members, including the President, and three Minimum Wage Panel members.

Fair Work Australia undertakes annual reviews of minimum wages, but may also vary award wages outside of these reviews, in limited circumstances. The Minimum Wage Panel conducts its annual wage reviews through a non-adversarial process, and will do so openly and transparently, with individuals and organizations making submissions at will. Updated wage rates in modern awards take effect from 1 July each year and are enforceable by law. When setting and adjusting minimum wages, the Minimum Wage Panel may take the following into account:

- (a) The performance and competitiveness of the national economy, including productivity, business competitiveness and viability, inflation and employment growth;
- (b) Promoting social inclusion through increased workforce participation;
- (c) Relative living standards and the needs of the lowly paid;
- (d) The principle of equal remuneration for work of equal or comparable value; and
- (e) Providing a comprehensive range of fair minimum wages for junior employees, employees to whom training arrangements apply and employees with a disability.

Other European countries

To address pay policy challenges, most European countries have adopted performance-based remuneration structures, which are intended to achieve equal competitiveness of pay across positions in the public sector. In Italy, United Kingdom and Germany, for instance, bonuses and individual pay structure are justified mainly on the need to attract skilled employees while offering competitive rewards. Box 3.1 highlights some of the objective principles guiding wage determination in various countries in Europe.

Box 3.1: Principles of European pay practices

The European public sector pay practices are based on the following objectives: (i) Ensuring consistency, internal equity and transparency; (ii) Pay differentials provide an incentive for staff to perform well and to seek higher levels of responsibility; and (iii) Salaries are set reasonably in line with the market pay levels in order to attract qualified staff and to minimize incentives to supplement income through other means such as allowances. The key elements for the pay structure include:

- (a) Base pay is the main element of total pay and comprises about 90% of the total pay. Some governments use allowances only to reflect special working conditions. This allows for increased transparency of the compensation system.
- (b) Bonuses are not common. Where they exist, they are limited to 10-20% of basic pay and take into account performance for the previous evaluation period. The bonuses are also funded through specific allocation in the budgetary provisions.
- (c) In-kind benefits such as housing, cars, etc are limited. This is mainly because benefit schemes are regarded as being expensive to administer and may increase differentials among those entitled and those who do not qualify.
- (d) Total pay levels in the public sector are lower than for comparable jobs in the private sector.
- (e) Pay structures are based on job evaluation system that assigns pay grades on the basis of an assessment of outputs, knowledge, accountability, skills, nature of contracts and management responsibilities.
- (f) Each pay grade has a pay range (minimum and maximum) of not more than 50% allowing for annual increments. The ranges reflect staff experience and performance.
- (g) Seniority plays a subordinate role in actual responsibility. The benefits in terms of experience are linked to jobs and grades. Once at the top of any given range, then any further increase in pay is associated with an increase in responsibility – that is promotion.
- (h) There are substantial differences between pay levels of successive grades of at least 12% from one grade mid-point to another. This is aimed at providing financial motivation for staff to take up higher responsibilities. This motivates performance, since promotion is associated with some financial benefits.
- (i) The pay structure reflects the human resource principle of equal pay for equal work. Thus, employees in each public sector with same qualification, responsibility, working conditions and approximate job complexity receive equal pay.

Source: World Bank (2008)

3.6 Implications of Wage Differentials on Economic Growth and Cost of Labour

The impact of wage differentials on labour costs and economic growth can be analyzed through the effect of wages on labour costs and national output. Increased wages imply high costs of production, which can have a negative effect on the economy. When growth in wages is lower than economic growth, then it follows that workers are receiving a declining share of the national output (i.e. GDP), as a larger share of economic gains is devoted to profits. This occurrence can also have adverse impacts on economic growth (International Labour Organization, 2008).

Further, the link between fiscal policy and private investment is important for a better understanding of the implications of wage growth on economic growth. Generally, an expansionary fiscal policy is expected to spur growth, while a contractionary one is expected to slow growth. Increased public spending can, however, have a negative impact on a company's profits, leading to reduced private investment, hence reduced growth. Reduced public spending can result in increased private investment, hence increased growth.

Alesina *et al.* (1999) find that changes in public spending and taxation affect private investment, with the former having a comparatively larger impact than taxation does. In this respect, specific reference is given to the public wage bill and to government transfers, because of the importance of the labour market as the main channel linking fiscal policy effects and growth. Increases in public wages can make private sector employees push for higher wages, which cut into private sector profits, leading to reduced private investment and overall growth.

Another important aspect of cost of labour is minimum wage legislation. Discussions on the causes and consequences of labour market rigidities often focus on the effects of minimum wage legislation, whose opponents consider to have negative effects on output. On the other hand, proponents of minimum wage legislation have shifted attention from the employment effects of the policy to the tradeoff between market efficiency and equity goals. They argue that despite reduced employment, minimum wage regulation may enhance economic growth more than the competitive wage economy by improving labour market competitiveness.

4. METHODOLOGY

The study utilized both qualitative and quantitative methods, using micro-economic data from primary sources and administrative data from secondary sources. The conceptual framework and analytical framework for empirical estimations is presented as a technical annex (Annex 1 and 2). The next section focuses on data sources and sampling approaches for the primary data collection.

4.1 Data Sources

The main data sources for this study are twofold: a primary survey of private and public institutions, and secondary data sources that include the public sector wage data for the period 2010, various issues of the government's annual Economic Survey, 2009 PriceWaterhouseCoopers Limited report, and data from the National Human Resource Survey report. The SRC also provided secondary data on public sector personnel emoluments. Primary data was collected using two instruments, namely: (i) a structured interview schedule administered on the heads of public and private sector institutions; and (ii) a structured questionnaire for individual public and private sector employees. These instruments collected data and information covering a variety of dimensions of the labour market, including: individuals' characteristics; earnings and benefits; age of worker at the time of survey; experience and work tenure-time worked on the current job (years) and previous appointments; occupation/profession; education and training qualifications; professional qualifications; technician-dummy variable for technician and associated professionals; clerks; service worker; region/location; occupational status; industry; gender; marital status; wage incomes and other remuneration components; sector of employment; and union status; among other variables.

The analysis for this study was restricted to individuals aged between 15 and 64 years (the national age limits of the labour force) who reported non-zero earnings, alongside their primary employment being in the private sector or public sector. Consequently, the selection excluded self-employed (own-account workers) individuals, students or unpaid family workers. The survey covered 313 private and public institutions, with a total of about 1,800 individuals being interviewed.

The analysis uses the monthly wage as the dependent variable. In order to examine the relationship between earnings and age from the perspective of human capital theory, experience and its quadratic are used in the specifications. These measures are designed to proxy for labour force experience.

4.2 Sampling Methodology

The Kenya National Bureau of Statistics (KNBS) maintains an establishment frame, which contains most of the firms in the country categorized according to their sector of operation and the nature of their business. The establishments were stratified according to the economic activities in the individual units. Although the frame was not up-to-date - KNBS was in the process of revising its standard survey framework, the National Sample Survey and Evaluation Programme IV - it was the best available source from which a sample of establishments could be obtained. The target population in this study comprised of two types of establishments, that is the public and private sectors. A sample of establishments was drawn from a larger frame. The basic sampling unit was an establishment, the smallest business unit with a single physical location where business transactions take place or services are performed.

4.3 Sample Size, Allocation and Selection

Before selection of the institutions, the establishment frame was split into one that contains public institutions alone, and another with private institutions only. In order to select establishments for targeting, allocation of the sample was done to each economic activity to ensure that the sample is spread across all economic activities. Establishments were then selected systematically after determination of the 1st random start, thus systematic sampling. This exercise continued in each group until the last establishment/institution was selected from each sector. Prior to selection, the establishments in the frame were arranged according to regions. This resulted in implicit stratification by region to ensure that the sample was also spread to most parts of the country.

4.4 Selection of Individuals within each Establishment

Within each firm, up to 10 individuals were selected randomly. To ensure randomness in selecting individuals to be interviewed, a random numbers table was used by each interviewer. They were required to list the employees in each institution according to the Kenya National Occupational Classification Standards (KNOCS) category (see Annex 10 for a list). The sub-groups in the KNOCS list include: legislators, administrators and managers; professionals; Technicians and associate professionals; secretarial, clerical services and related workers; service workers, shop and market sales workers; skilled farm, fishery, wildlife and related workers; craft and related trades workers; plant and machine operators and assemblers; elementary occupations and armed forces (see Annex for details).

Individuals for interviewing were randomly selected based on the random-numbers table, until all 10 KNOCS sub-groups existing in the institution were covered.

4.5 Variables Selected for Analysis

The survey collected data on individual employee characteristics and firm level characteristics. Some of the individual characteristics include: age , years of education, gender, sector of employment, hours worked per day, tenure, years of experience, basic salary, fringe benefits, marital status

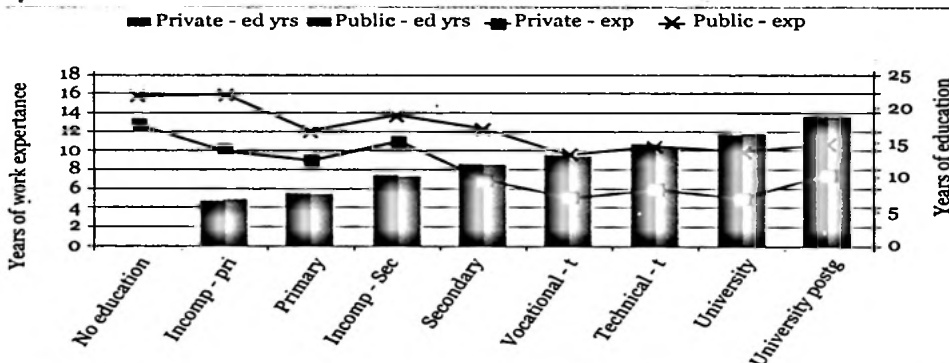


5. PUBLIC-PRIVATE SECTOR WAGE DIFFERENTIALS AND ITS CAUSES

5.1 Mean Characteristics of Workers Interviewed

The survey results show that employees in the private sector are relatively younger than those working in the public sector (Figure 5.1). The difference is even wider in favour of the public sector for those with higher levels of education. The share of the young in the private sector may be explained by the greater employment opportunities in the private sector. This age gap is also mirrored in the difference in average years of experience, with individuals working in the public sector having more years of experience, on average, than those working in the private sector. In both cases, those with lower levels of education have more years of experience compared to those with higher levels of education.

Figure 5.1: Average number of years of experience and of education by sector



Source: Wage differential survey (2012)

The mean wage across the various levels of education shows that individuals working in the private sector and who have no education earn an average Ksh 9,368, while those with a first university degree and post-graduate education earn an average Ksh 47,968 and Ksh 113,784, respectively (Table 5.1). A similar analysis in the public sector shows that an individual with no education earns an average Ksh 16,916, whereas university graduates earn between Ksh 83,629 and Ksh 101,695, on average (Table 5.1).

According to the employees interviewed in the sample, wage differences exist even for individuals with similar characteristics, such as cadres of employment, levels of education, and the years of experience. Three-quarters (75%) of the employees reported that indeed there were large wage differences between public and private sector employees (Figure 5.2). Slightly more than one-fifth of the

Table 5.1: Mean characteristics of public and private workers

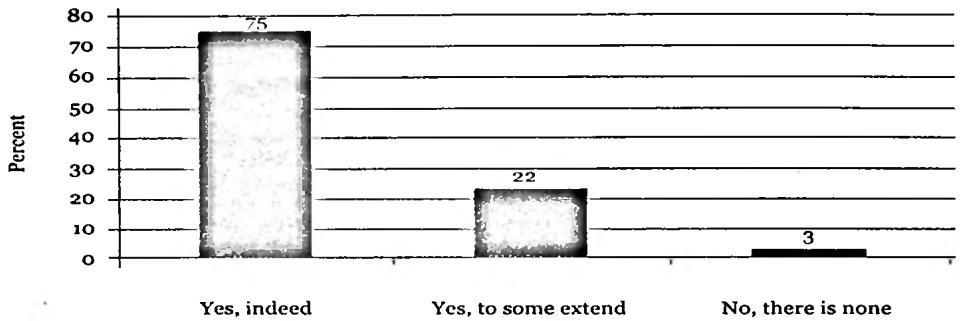
	None	Incomplete primary	Primary	Incomplete secondary	Secondary	Vocational training	Technical training	University	University post-graduate
Education (years)	0	7	8	11	12	13	15	16	19
Basic salary	9,368	12,785	10,022	12,243	13,656	17,752	24,141	47,068	113,784
Hours worked per day	5	7	8	7	7	6	7	6	6
Age	52	46	41	42	38	35	35	35	45
Experience (years)	13	10	16	28	7	15	12	5	8
Education (years)	0	7	8	10	12	13	15	17	19
Basic salary	16,916	10,704	12,473	12,669	18,181	18,360	38,980	101,695	83629
Hours worked per day	7	11	9	7	7	6	6	7	7
Age	48	46	45	60	44	41	41	40	44
Experience (years)	16	16	12	14	16	10	11	10	11

Source: Wage differential survey (2012)

respondents (22%) felt there was a small difference in earnings, while 3 per cent indicated that there was not much difference.

The importance of this perception survey is that most employees are likely to decide whether to move between the public service and the private sector based on their perceptions of intervening wage differentials, even if such differences are in fact not significant. Such perceptions are subjective, often depending on respondents' opinions rather than on facts.

Figure 5.2: Do you believe there is a wage difference between public and private sectors?

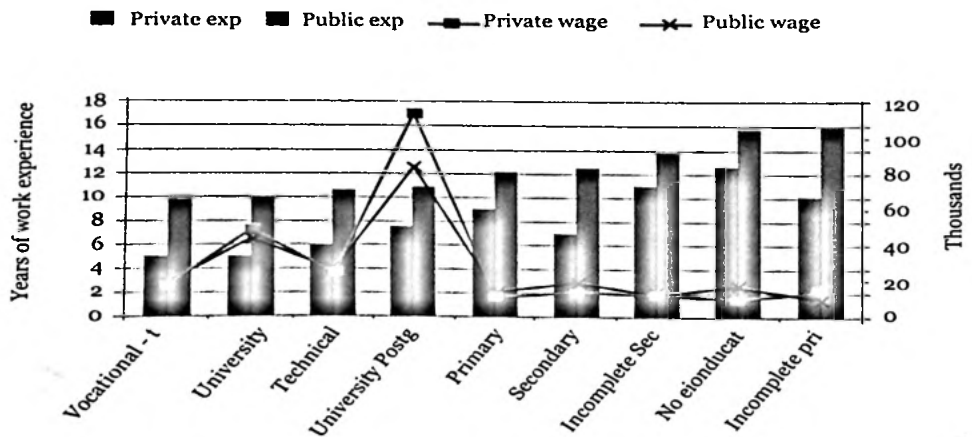


Source: Wage differential survey (2012)

However, analyses of the mean wages given years of education and work experience reveal the existence of a wage differential between the two sectors (Figure 5.3). The private sector's mean wage is higher for individuals with higher education, despite their counterparts in the public sector having more years of work experience. Further, public sector individuals with no education have more years of work experience and earn higher average wages, on average, than similar workers in the private sector.

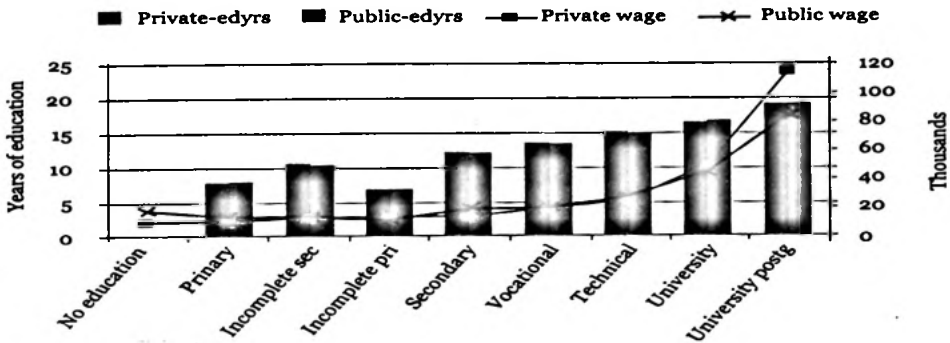
A comparison between years of education and returns in the two sectors reveals that highly educated public sector individuals earn salaries that are lower than comparable individuals in the private sector (Figure 5.4).

Figure 5.3: Mean wage by level of education and years of work experience



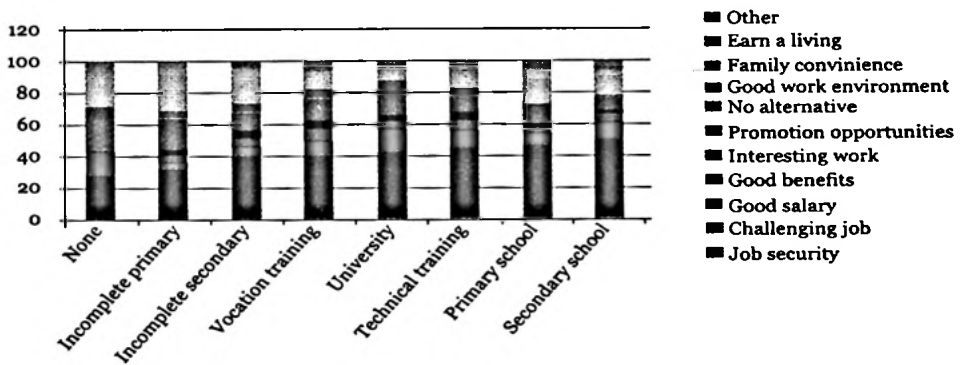
Source: Wage differential survey (2012)

Figure 5.4: Mean wage by years of education and level of education



Source: Wage differential survey (2012)

Figure 5.5: Main reason that an individual working in the public sector stay at their current job



Source: Wage differential survey (2012)

A likely explanation for why highly educated people choose to work in the public sector and consequently face a wage penalty is that they are risk-averse and put a high value on job security (Figure 5.5). They also enjoy non-monetary benefits, such as political power and the capacity to implement their ideas and make changes in the policy arena.

In the next sub-section, we carry out a more rigorous analysis to determine whether there exists a significant wage differential between the private and public sectors using propensity score matching (PSM).

5.2 Wage Differentials between the Public and Private Sectors

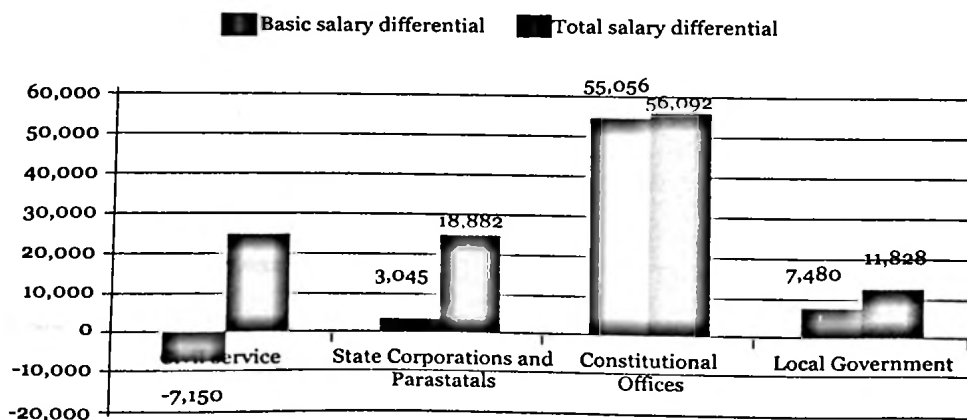
The data used for this analysis is from a primary survey. The PSM technique was used to analyze data for this section (see Annex 3 for methodology notes). The technique involved using various socio-economic characteristics of employees to compare wages in the public sector with those in the private sector. The approach

is to estimate the likelihood of an individual working in the public or private sector given their socio-economic characteristics, such as gender, marital status, age, education, work experience and whether working in the rural areas or urban areas.

Individuals in public and private sectors who have similar probabilities – implying comparable characteristics, for example, same age, same education level, same occupation, similar experience, working in an urban area, etc – are matched and the difference in wages estimated. The wage differentials are estimated for public and private sector basic salary and gross remuneration (including allowances) in general, as well as between comparable portions of the private sector, civil service, state corporations and parastatals, constitutional offices and local government. The wage differential between the private and public sector was estimated using different matching algorithms to see if the results would differ. A detailed analysis can be found in the annexes.

The results show that there is a wage differential between the public and private sector. The wage differential is in favour of the general public sector (including civil service, state corporations, constitutional offices and local government). However, when public sector is dis-aggregated, results show that the wage gaps indeed vary depending on the different sub-sectors in the public service (Figure 5.6). There is a wage differential (Ksh 7,150 per month) in favour of the private sector when basic salary in the civil service is compared to the basic salary in the private sector. When gross salary is used as the basis of comparison, however, the wage differential favours the civil service (Ksh 7,032). The results obtained are statistically significant. This means that the allowances paid in the civil service play a major role in reversing the wage gap between the civil service and comparable elements of the private sector.

Figure 5.6: Basic and gross wage gaps between private and public sector (Ksh)



Source: Wage differential survey (2012)

Wage differentials in state corporations and parastatals, constitutional offices and local government are in favour of the public sector by varied degrees when both basic salary and gross salary are considered. The constitutional offices have the highest wage premium for both the basic salary (Ksh 55,056) and gross salary (Ksh 56,092) when compared to the private sector. The wage gap between private and state corporations is Ksh 3,045 for basic salary and Ksh 18,882 for gross salary. Similarly, the wage gap is in favour of local government for both basic salary (Ksh 7,480) and gross salary (Ksh 11,828).

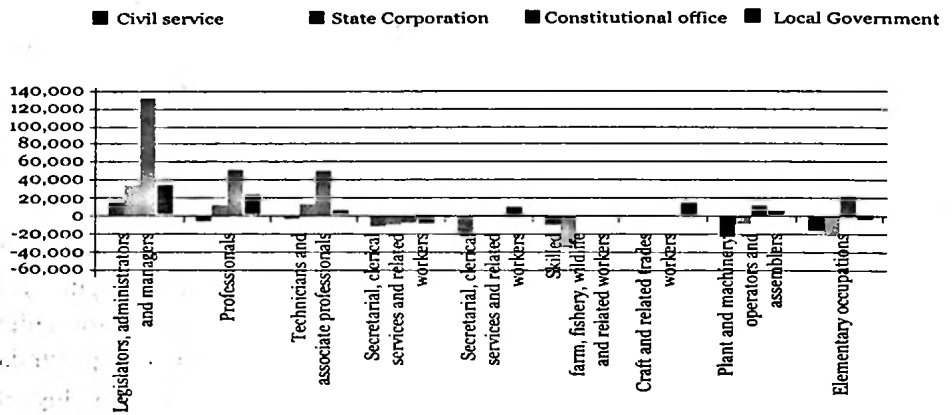
Despite the wage differential in favour of state corporations and parastatals, differences emerge when the wage gap is dis-aggregated by sectors (Figure 5.7). For instance, financial, public universities and training and research sectors suffer a wage penalty when either their basic or gross salaries are compared to similar individuals in the private sector. Training and research experience the highest mean basic salary wage penalty of Ksh 6,247, but also accounts for the least gross salary wage gap. Public universities suffer the least basic salary wage penalty (Ksh 744), but enjoy a gross salary wage premium of Ksh 18,322, compared to commercial/manufacturing's Ksh 55,777 gross salary premium. When non-monetary incentives are considered, public universities enjoy the benefit of job security and flexible working hours.

Figure 5.7: Public (state corporation)-private sector mean wage differentials by category



Source: Wage differential survey (2012)

Figure 5.8: Public-private sector basic salary wage differentials by occupation

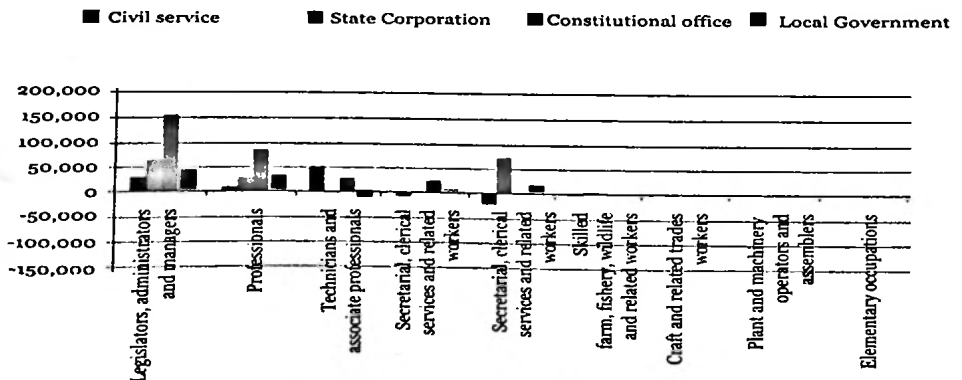


Source: Wage differential survey (2012)

5.2.1 Vertical wage differentials by occupations

The results for vertical wage differentials are shown in Figure 5.9 and Table 5.2. On average, the wage gap between public and private sector is in favour of public sector officers in the highest cadre. These are mainly legislators, administrators and managers. The constitutional offices account for the highest wage premiums in this group (Ksh 131,227 for basic salary and Ksh 155,327 for gross salary). On the other hand, the civil service accounts for the least wage premium (Ksh 14,474 for basic salary and Ksh 30,254 for gross salary), when comparison is made with the private sector top cadre. The civil service only has a basic salary wage premium among the legislators/administration/managers category (as stated in next paragraph), and in only two (2) categories for gross salaries.

Figure 5.9: Public-private sector gross salary wage differentials by occupation



Source: Wage differential survey (2012)

In addition, professionals and technicians working in the civil service also earn a wage penalty (Ksh 6,394 and Ksh 3,592, respectively, for basic salary), while the rest of the occupations face a wage premium. Technicians and associates face the highest wage premium (Ksh 50,877) in the civil service when gross salary is compared to the private sector. In the local government, the technicians and other associates suffer a wage penalty (Ksh 14,641) when their gross salary is compared to the private sector.

Table 5.2: Public-private sector wage differentials by occupation (Ksh)

Occupation	Civil Service		State Corporation		Constitutional Office		Local Government	
	Basic salary	Gross salary	Basic salary	Gross salary	Basic salary	Gross salary	Basic salary	Gross salary
Legislators, administrators and managers	14,474	30,254	34,122	64,321	131,227	155,327	33,266	40,327
Professionals	-6,394	8,887	12,378	29,664	51,826	84,466	23,166	30,454
Technicians and associate professionals	-3,592	50,877	12,704	-2,977	50,833	29,167	5,256	-14,641
Secretarial, clerical services and related workers	-11,359	-7,853	-9,924	2,531	-7,885	24,616	-9,026	1,808
Service workers	-18,154	-22,468	-1,003	72,329	...	...	8,050	12,550
Skilled farm, fishery, wildlife and related workers	-9,663	-3,414	-35,583	6,600	...	...	...	...
Craft and related trades workers	-596	-1,899	1,074	30,398	...	...	12,750	10,025
Plant and machine operators and assemblers	-23,024	-17,044	-8,694	-14,068	12,200	-125,251	4,434	6,294
Elementary (unskilled) occupations	-15,898	-14,301	-23,359	-18,483	22,916	39,891	-4,981	1,622
Total	-7,150	7,032	3,045	18,882	55,056	56,092	7,481	11,828

Source: Wage differential survey (2012)

Table 5.3: Vertical wage penalties by selected occupations (Ksh)

Occupation	Civil Service		State Corporations and Parastatals		Local Government	
	Basic wage gap (Ksh)	Gross wage gap (Ksh)	Basic wage gap (Ksh)	Gross wage gap (Ksh)	Basic wage gap (Ksh)	Gross wage gap (Ksh)
Primary school teachers	-6,783				-7000	
Secondary school/ technical institutes' teachers	-15,629	-9,188	-52,900	-41,100		
University and post-secondary teachers				-6,941		
Other teachers and instructors	-29,516					
Nursing and mid-wifery			-25,675			
Health professionals						-95,000
Medical/clinical officers	-7,940					
Computing professionals			-11,000			
Electrical and Telcom engineers	-9,793	4,693	-99,500			
Electrical engineering technicians				-35,112		
Civil engineers	-59,090	-68,240				
Mechanical engineers			-25,840			
Accountants	-1,122					
Typists	-16,625	-2,180			-29,667	-10,641
Secretaries and office clerks	-4,722	-1,476	-15,483			
	-1,153	-12,378	-12,378			

Source: Wage differential survey (2012)

Secretarial, clerical workers and related workers across the public sector generally earn less than what the private sector offers for similar work. The only exemption is where allowances in the state corporations, constitutional offices and local government have played a big role in reducing the wage gap between the public office and private sector (see Annex 4 for specific occupations).

Service workers, skilled farm, fishery and wildlife related workers, craft and related workers, plant and machine operators and assemblers and unskilled workers all in the civil service face a wage penalty.

Looking at specific occupations (see Annex 4 for complete list), differentials are more apparent and even wider. Some of the occupations in the public sector indeed suffer a wage penalty. These include teachers and instructors at the various levels of education, medical and clinical officers, civil engineers, typists, and

clerks. Their average wages are much lower than what the private sector offers individuals with similar characteristics (Table 5.3). However, civil engineers earn a wage premium of Ksh 68,240 over their counterparts in the private sector when allowances are included.

- (a) Primary school teachers with a basic salary wage penalty of Ksh 6,783 in civil service and Ksh 7,000 in local government.
- (b) Secondary school teachers and technical institute instructors in: (a) the civil service with a gross salary wage differential of Ksh 9,188 and a basic salary wage differential of Ksh 15,629; (b) parastatals and state corporations with a gross wage differential of Ksh 41,100; and a basic wage differential of Ksh 52,900.
- (c) University and post-secondary teachers/lecturers in state corporations, gross penalty of Ksh 6,941.
- (d) Other teachers and instructors in civil service earn a basic wage penalty of Ksh 29,516.
- (e) Nursing and mid-wifely professionals in state corporations with basic wage penalty of Ksh 25,675.
- (f) Health professionals in local government with gross wage penalty of Ksh 95,000.
- (g) Medical/clinical officers in civil service with a basic wage penalty of Ksh 7,940.
- (h) Computing professionals in state corporations suffer a basic wage penalty of Ksh 11,000.
- (i) Electrical and telecommunication engineers employed in: (a) the civil service with a gross wage differential of Ksh 4,693 and a basic wage differential of Ksh 9,793; (b) parastatals and state corporations with a basic wage differential of Ksh 99,500.
- (j) Electrical engineering technicians in state corporations with a gross wage penalty of Ksh 35,112.
- (k) Civil engineers in the civil service with a basic wage penalty of Ksh 59,090 and gross wage penalty of Ksh 68,240.
- (l) Mechanical engineers in (a) parastatals and state corporations with a basic wage differential of Ksh 25,840.
- (m) Accountants in the civil service with a basic wage penalty of Ksh 1,122.
- (n) Typists in: (a) the civil service with a gross wage differential of Ksh

2,180 and a basic wage differential of Ksh 16,625; (b) local government with a gross wage differential of Ksh 10,641 and a basic wage differential of Ksh 29,667.

- (o) Secretaries and office clerks in: (a) the civil service with a gross wage penalty of Ksh 1,476 and a basic wage differential of Ksh 4,722; (b) state corporations –basic wage penalty of Ksh 15,483, gross wage penalty- Ksh 1,153; (c) local government with a gross wage penalty of Ksh 12,378 and a basic wage differential of Ksh 12,378.

5.2.2 Vertical wage differentials by industry/sector of employment

A comparison of wage differentials across industries in the public sector is analyzed (see Annex 9 for details). The following selected sectors are disadvantaged compared to the private sector (see Table 5 4).

- a) The education sector suffers a wage penalty in: (a) civil service with a basic wage penalty of Ksh 13,926 and gross penalty of Ksh 9,403; (b) state corporation with a basic wage penalty of Ksh 11,015 and gross penalty of Ksh 1,421; and (c) local government with a basic wage penalty of Ksh 6,326.
- b) Medical, dental and other health services in: (a) civil service suffer a basic wage penalty of Ksh 2,051; (b) state corporation suffer a basic wage penalty of Ksh 13,283; and (c) local government suffer a wage penalty of Ksh 7,600 and Ksh 3,500 for basic and gross wage, respectively.
- c) Last but not least, government services in the civil service suffer a penalty of Ksh 9,641 and Ksh 983 for basic and gross wage, respectively.

Table 5.4: Vertical wage penalties by selected industry/sector of employment

Sector	Civil Service		State Corporations and Parastatals		Local Government	
	Basic wage gap (Ksh)	Gross wage gap (Ksh)	Basic wage gap (Ksh)	Gross wage gap (Ksh)	Basic wage gap (Ksh)	Gross wage gap (Ksh)
Education	-13,926	-9,403	-11,015	-1,421	-6,326	
Health	-2,051		-13,283		-7,600	-3,500
General government services	-9,641	-983				

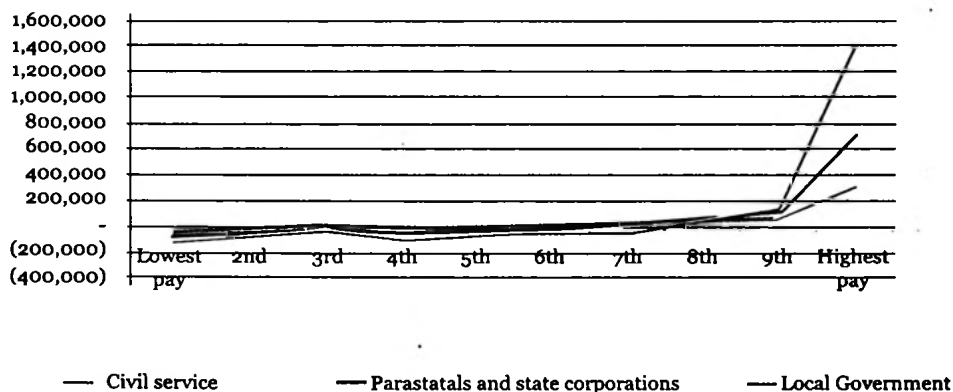
Source: Wage differential survey (2012)

5.2.3 Vertical wage differentials by deciles

The severity in the difference is between the highest earners in the public service and the lowest earners. As discussed in the previous section, the highest earner in civil service (job group V) earns a basic salary that is 96 times higher than the lowest earner (Job Group A). Figure 5.10 shows that the gross wage differential is very narrow for low income earners and very wide for high income earners. In fact, the top 10 per cent earners account for almost all the gross wage differential within the public sector. This means that wage distribution is highly skewed towards the highest job groups.

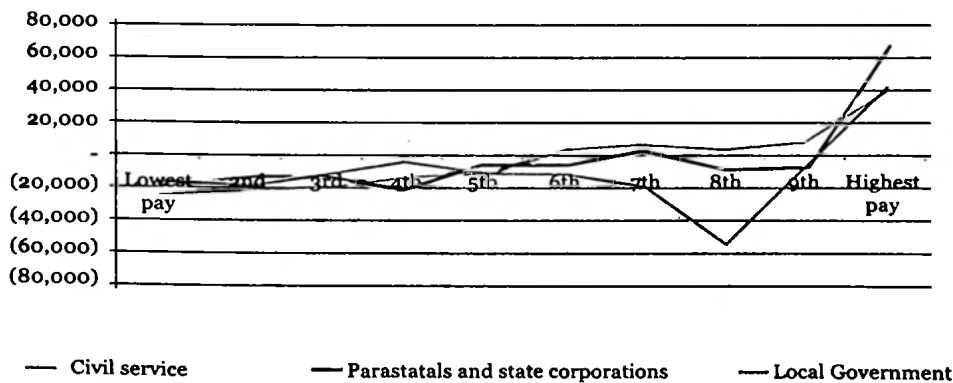
A similar trend is observed for basic salary differential as shown in Figure 5.11. Civil service, state corporations and parastatals' basic salary is highly skewed in the highest deciles. The skewness is more pronounced in the top 10 per cent of the population.

Figure 5.10: Vertical gross wage differentials by deciles



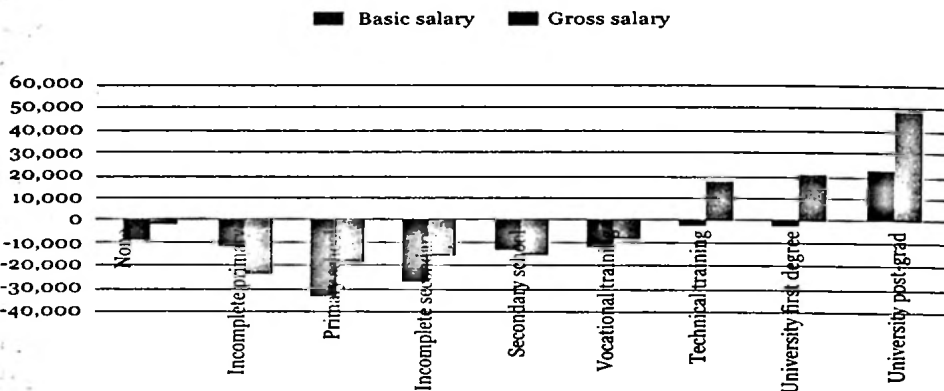
Source: Wage differential survey (2012)

Figure 5.11: Vertical basic salary differentials by deciles



Source: Wage differential survey (2012)

Figure 5.12: Public-private wage differentials in the civil service by level of education



Source: Wage differential survey (2012)

Figure 5.13: Public-private wage differentials in the state corporations by level of education

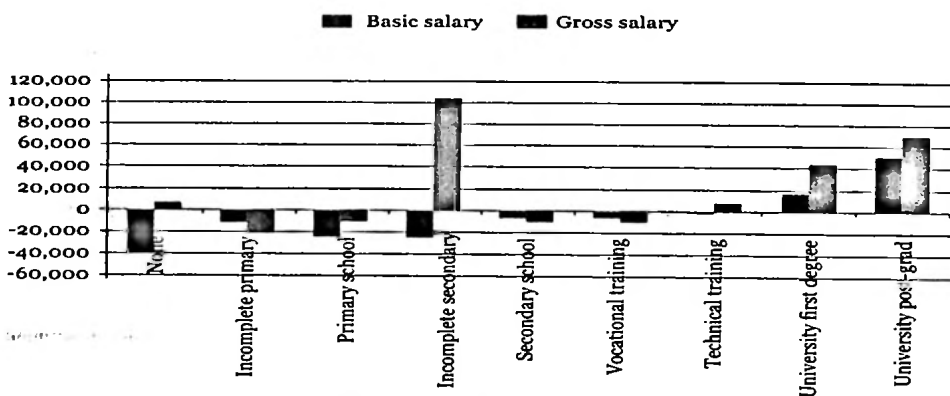
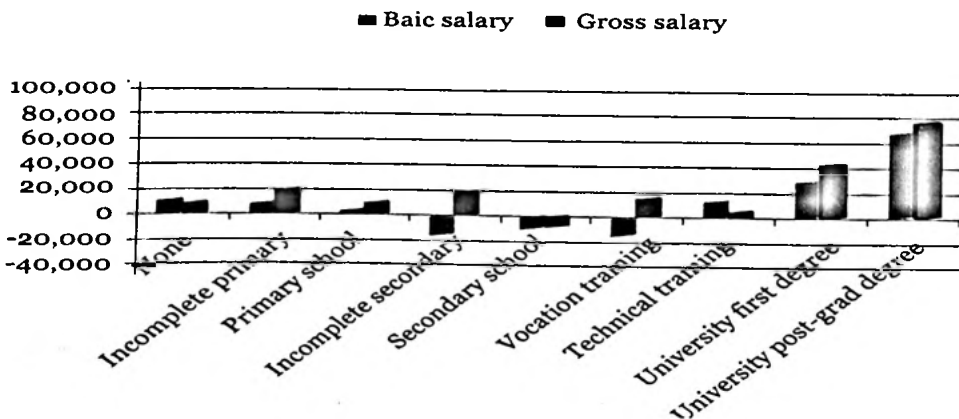


Figure 5.14: Public-private wage differentials in the local government by level of education



Policy measures must address this difference. The main implication is that salary reviews need to take into account vertical wage differentials, which are very narrow at the bottom and very wide at the top. Proposals for salary increments should not be applied uniformly but should include a careful review of the existing salary structure to ascertain the required salary increment levels per job group. To narrow the gaps, it is expected that increments for lower job groups should be higher than increments for higher job groups. In some cases, salary reviews will require the ration between the highest and lowest paid, which is drastically reduced in the long run.

5.2.4 Vertical wage differentials by level of education

Differentials exist by level of education. In the civil service, a huge differential exists mainly among those with lower educational attainment. The highest differentials are found among those with primary education, while the least differential is obtained among those with technical and university first degree. This means that the private sector pays much higher remuneration for individuals with lower education than the civil service. The basic salary is also higher for those who have attained technical and university first degree.

6. IMPLICATIONS OF WAGE DIFFERENTIALS ON STAFF RETENTION AND PRODUCTIVITY, ECONOMIC GROWTH AND COST OF LABOUR

6.1 Overview

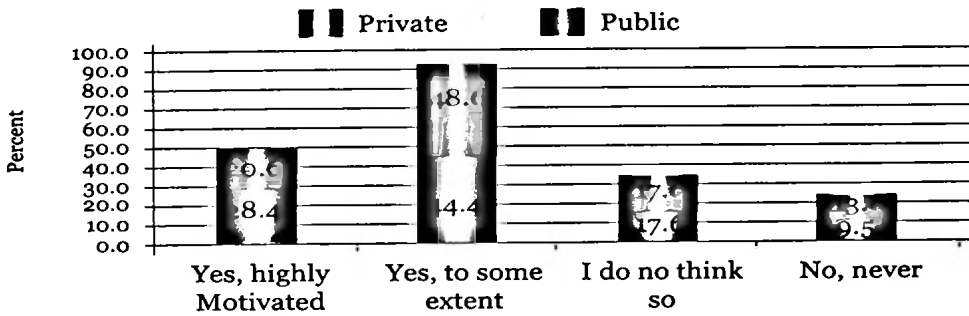
Overall, 16.6 per cent of respondents had changed jobs in the last five (5) years. About 1.64 per cent had left the public sector to join the private sector, and 15 per cent had left the private sector to join the public sector. Most of the employees (62.4%) felt that their employers were making efforts to retain qualified staff, whereas 37.6 per cent felt that their employers did not make efforts to retain qualified staff. They were further asked about the greatest thing that their employers could do to improve employee retention in their organizations. The majority of the respondents cited better salary or wages as the main thing that their employers could address in order to improve employee retention. Others cited job security, financial rewards and improving benefits as other aspects that employers could work on to retain staff.

The employees were further asked whether they were motivated to do their current job (Figure 6.1). Generally, a good proportion of the workers in both sectors are motivated to some extent. Within the public sector, 48.6 per cent of the employees interviewed are motivated to some extent, while about 20.6 per cent are highly motivated to do their work. However, about 30.8 percent are not motivated. Similarly, some workers in the private sector are motivated to some extent (44.4%), whereas 28.4 per cent are highly motivated to do their job. Nearly 27.1 per cent are for some reason dissatisfied, hence not motivated at all. There are varying reasons for the different levels of motivation across the individual workers or group of workers in the sample selected.

From Figure 6.2, it is clear that a wage difference is a major contributor to the level of morale an individual has to perform their work. However, it is not the only reason, but the extent of its importance varies across individuals in both the public and private sector. About 45.8 per cent of public sector employees interviewed considered wage differences for individuals doing the same job and have same qualifications and experience as a major determinant of morale in their workplace.

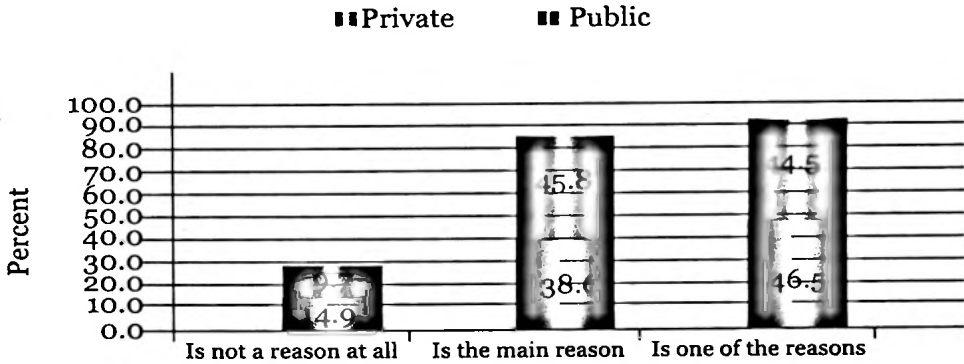
Workers in both public (44.5%) and private (46.5%) sectors agree that a wage difference is not the only factor contributing to the level of morale, but is one among others. For some group of workers, a wage difference is not a factor at all in both private (14.9%) and public (9.7%) sectors.

Figure 6.1: Are you motivated to do your job?



Source: Wage differential survey (2012)

Figure 6.2: Is wage difference a contributor to your morale?



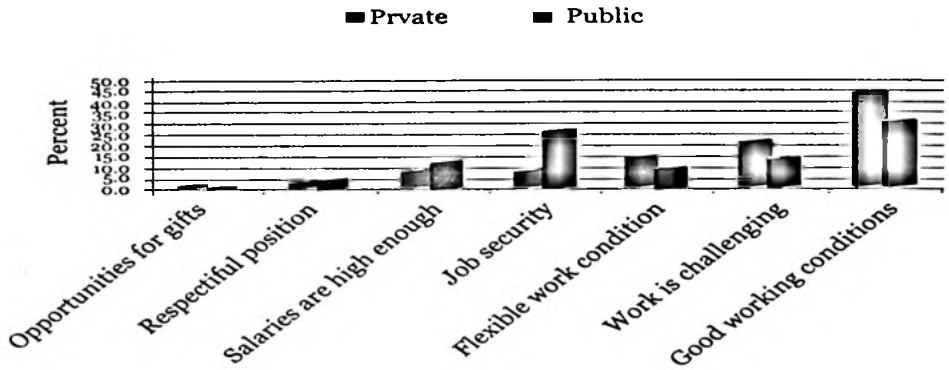
Source: Wage differential survey (2012)

The staff that had high morale cited good working conditions, challenging work and job security as their main reasons for being highly motivated. The results are presented in Figure 6.3.

Despite the fact that remuneration levels are not high enough to motivate the workers, there was an appreciation of good working conditions as the most important factor in motivating workers in both the private and public sectors. Moreover, job security was also cited as a critical factor in motivating workers in the public sector. Challenging work, respectful position and flexible working conditions were also cited by workers in both sectors.

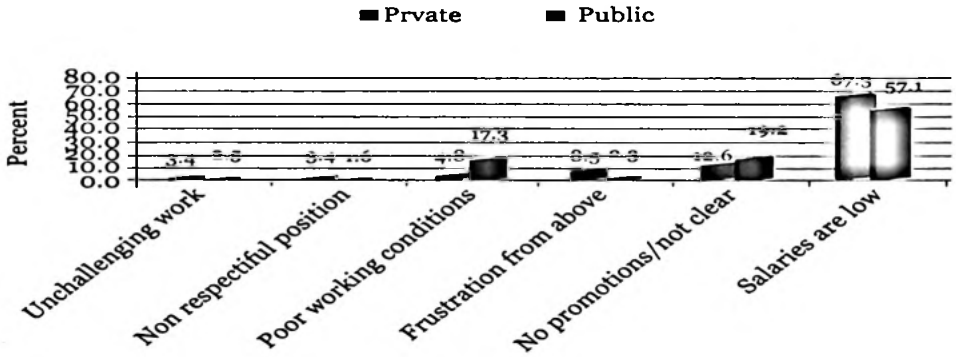
The main factors that contributed to low morale of the employees were low salaries, lack of promotions or lack of clear criteria for promotions and poor working conditions (Figure 6.4). About 67.3 per cent of workers in the private sector feel that remuneration levels are low and that the working conditions are poor (4.8%) with no clear criteria on promotions (12.6%). Similarly, a substantial proportion of workers in the public sector (57.1%) expressed dissatisfaction

Figure 6.3: Reasons for high morale in public and private sectors



Source: Wage differential survey (2012)

Figure 6 4: Reasons for low morale in public and private sectors



Source: Wage differential survey (2012)

in the remuneration levels (57.1%), poor working conditions (17.3%) with no opportunities/ clear criteria for promotions (19.2%).

It is clear from these analyses that remuneration is not just one way. Some group of workers feel that salaries are very low, while another group feels that salaries are high enough. This is evidence that the wage differences are likely to be different along the wage distributions, as can be seen from previous analysis. Most of the employees expressed satisfaction with their current jobs. Of these, 8.2 per cent were very satisfied and 64.7 per cent just satisfied. Some 23.5 per cent indicated that they were dissatisfied and 2.4 per cent very dissatisfied. The employees were further asked about what would motivate them mostly in their jobs. A higher proportion cited financial reward, job security and job satisfaction as the things that would motivate them.

Majority of employees noted that they would be most motivated by financial rewards. Job security and job satisfaction were also among the most important factors of motivation for employees. Moonlighting activities are also evidenced in both public and private sectors (Figure 6.5). Whereas the private sector dominates in moonlighting activities, a good proportion of employees in the public sector (76%) operate a second job. Activities of moonlighting are likely to interfere with the efficiency of service delivery. This is likely to be the case where employees choose to deliver at the bare minimum.

6.2 Effects of Wage Differentials on Staff Turnover in Civil Service and Public Sector

In this analysis, we have narrowed down to analyzing the effect of wage differentials on the overall public sector and the effect on the civil service. From the analysis on wage differentials, we found that there are wage penalties in the civil service when basic salary is used for analysis, but there are wage gains when the public sector is combined.

Table 6.1 shows that the effect of wage differentials on the general public sector is not uniform for the sub-sectors in the public sector. Indeed, a wage gap can affect turnover in the public sector depending on whether the gap is in favour of the public sector or not. A wage penalty in the public sector increases turnover. However, it is not the most important factor. Similarly, a wage premium reduces the chances for quitting. For instance, Table 6.1 shows that a 1 per cent increase in the gross wage gap (wage premium) in the civil service would result in a reduction

Figure 6.5: Proportion of workers who operate a second job (moonlight)

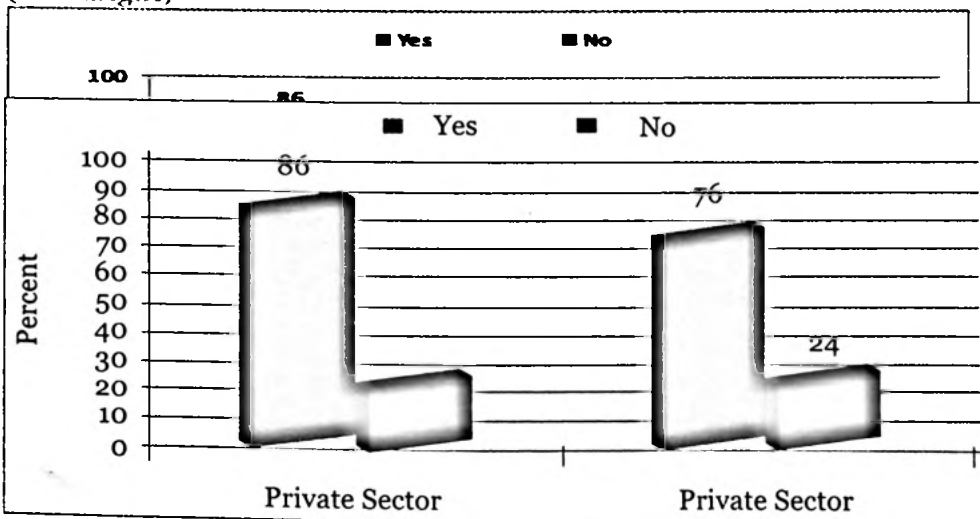


Table 6 1: Effects of wage differentials on staff turnover

Variables	Civil Service- Impact of basic salary wage differentials		Civil Service- Impact of gross salary wage differentials		All public sector- Impact of basic salary wage differentials		All public sector- Impact of gross salary wage differentials	
	Coefficient	t- value	Coefficient	t- value	Coefficient	t- value	Coefficient	t- value
Gross wage gaps	-	-	-0.083**	-2.02			-0.041	-1.23
Basic wage gaps	-0.035*	-0.6	-	-	-0.061	-1.61	-	-
Urban*basic wage gap	0.244**	2.51	-	-	0.102**	2.05	-	-
Urban*gross wage gap	-	-	0.067	1.08	-	-	0.044	1.24
Experience	-0.010	-1.5	-0.010	-1.51	-0.004	-0.76	-0.004	-0.79
Experience squared	0.000	0.17	0.000	0.32	0.000	-0.97	0.000	-0.97
Education years	0.005	0.78	0.007	1.16	0.014***	3.17	0.015***	3.4
Urban (dummy)	-0.063*	-1.8	-0.062*	-1.77	-0.048*	-1.78	-0.051*	-1.9
Marital status (dummy)	-0.069	-1.48	-0.058	-1.29	-0.057	-1.62	-0.054	-1.57
Gender (dummy)	-0.037	-1.07	-0.044	-1.26	-0.004	-0.16	-0.001	-0.05
Job satisfaction (dummy)	-0.172***	-4.15	-0.166***	-4.01	-0.191***	-5.96	-0.187***	-5.9
Legislators, administrators and managers	0.131	1.11	0.171	1.38	-0.046	-0.57	-0.041	-0.5
Professionals	0.098	0.98	0.113	1.09	-0.026	-0.31	-0.023	-0.27
Technicians and associate professionals	0.137	1.23	0.162	1.39	0.002	0.02	0.004	0.05
Secretarial, clerical workers and related workers	0.060	0.65	0.051	0.56	-0.058	-0.74	-0.059	-0.77
Sales	-	-	-	-	-0.117*	-1.94	-0.119**	-2.02
Craft and related trades workers	0.295	1.58	0.302	1.61	0.031	0.27	0.032	0.28
Machine operators and assemblers	0.215	1.63	0.195	1.5	0.067	0.63	0.076	0.71
Unskilled workers	0.114	1.08	0.110	1.03	-0.017	-0.2	-0.014	-0.16

Note: (***) , (**) and (*) denote significance at 1%, 5% and 10% levels, respectively

in the probability of quitting civil service of about 1.02 per cent. This means that the more the wage gap favours the public sector, the less likely it is that employees would quit the civil service.

The basic wage gap for most adults residing in the urban sector is an important determinant of turnover in public sector employment. A 1 percent increase in the basic wage gap, that is a wage increase equivalent to Ksh. 4.48 (1% of 1000) would lead to an increase in the probability of quitting civil service of about 1.04 per cent. In the general public sector, the wage gap is in favour of public sector, that is a wage premium, hence the probability of quitting is very low (0.10%).

The overall job satisfaction that an individual derives from the organization is the most important determinant of whether the individual decides to quit or stay in the public sector. As shown in Table 6.1, job satisfaction is highly statistically significant across the sector analysis for both civil service and general public sector. The results show that a 1 per cent increase in the proportion of workers who are satisfied in public sector would result in about 10 per cent reduction in turnover in the public sector (17% reduction in civil service).

The years of education are also an important determinant of whether an individual quits the public sector or not. A 1 per cent increase in the years of education would increase the probability of quitting the public sector by 0.10 per cent.

6.3 Implications of Wage Differentials on Economic Growth and Cost of Labour in the Economy

6.3.1 Impact of wage differentials on economic growth

To determine the impact of wage differentials on economic growth, annual time series data from 1976 to 2011 was utilized. This data was obtained from the economic surveys. We estimate a production function with Gross Domestic Product (GDP) as the dependent variable and capital (proxied by gross fixed capital formation) and labour (proxied by the labour force) as the independent variables. The wage differential variable is included in the model to assess the impact of the differential on growth of the economy.

Both the long term (long run) and short term (short run) models were estimated, with the short term model showing the speed of adjustment in the long term. The results of the long-term estimation are shown in Table 6.2. The results indicate that in the long term, wage differential has a positive and significant effect on growth of the economy. However, the short-term model shows that economic growth is positive and significant. The long-term model shows that economic growth in Kenya is mainly driven by capital accumulation.

Table 6.2: Long run effect of wage differential on growth of the economy

Variable	Coefficient	t-Statistic
Wage differential	0.17	0.35
Wage differential (last 1 year)	-0.04	-0.07
Wage differential (last 2 years)	-0.20	-0.45
Capital	3.73	6.48
Capital (last 1 year)	-1.23	-1.27
Capital (last 2 years)	1.93	2.80
Labour force	4,089.65	0.04
Labour force (last 1 year)	15,145.11	0.08
Labour force (last 2 years)	24,357.76	0.23
Dummy for 1990	-100,527.50	-3.01
Dummy for 1988	-67,344.70	-2.13
Dummy for 1989	-63,403.82	-2.01
Constant	-249,987.50	-7.17
R-squared	0.999101	
Adjusted R-squared	0.998588	

Source: Own estimations using data from Economic surveys

Note: We tested for stationarity and found that all the variables had unit roots and have a long run relationship.

Thus, the economy is said to be more capital intensive.

The short term model results are shown in Table 6.3. The results indicate that in the short term, wage differentials have a negative and significant (at 10%) effect on growth of the economy. An increase in the wage differential by Ksh 100 would reduce the value of output after two years by about Ksh 52. Capital is significant in the short run. Labour is also significant in the short run, but only the second lag. This implies that changes in labour force are reflected in output after two years.

6.3.2 Impact of wage differentials on the cost of labour in the public sector

Following from theories of wage determination, we hypothesize that the cost of labour is largely determined by the level of public sector employment, inflation and labour productivity. Labour productivity is measured by dividing the gross valued added by total employment. Further, a wage differential variable is included in the equation to determine the impact of the differential on the cost of labour. The

Table 6.3: Short run (short term) effect of wage differential on growth of the economy

Variable	Coefficient	t-Statistic
Wage differential*	0.09	0.22
Wage differential* (last 1 year)	-0.14	-0.44
Wage differential* (last 2 years)	-0.52	-1.73
Capital*	3.54	9.04
Capital* (last 1 year)	-0.97	-1.74
Capital* (last 2 years)	2.06	3.65
Labourforce*	29,464.97	0.35
Labourforce* (last 1 year)	-77,337.08	-0.74
Labourforce* (last 2 years)	174,445.90	2.13
Error correction term (residual)	-0.55	-2.81
Dummy for 1991	81,445.93	2.99
Dummy for 2010	-82,796.71	-2.84
Constant	-30,852.46	-1.55
R-squared	0.96368	
Adjusted R-squared	0.94189	

Source: Own estimations using data from Economic surveys

Note: * means variable in first difference. The coefficient of the error correction term indicates that any shocks to the cost of labour in the public service are fully adjusted within one year. The results of the error correction term reveal that after any shock, equilibrium in output is fully achieved within two years.

dependent variable, which is the cost of labour in the public sector, is proxied by the gross wages paid by the public sector. Annual time series data from 1976 to 2011 is used for the analysis.

The results of the long term are shown in Table 6.4. The results indicate that wage differentials have a positive and significant effect on the cost of labour in the public sector. For instance, an increase in the wage differential by Ksh 100 would lead to an equivalent increase in the cost of labour in the public sector in the long run. This is because the wage differential can be used as a justification for lobbying for higher wages in the public service as witnessed by the salary increment calls by teachers, lecturers and doctors. Inflation is also significant but negative, implying that higher inflation reduces the cost of labour in the public service. This could be attributed to annual salary adjustments in the public service being much lower

Table 6.4: Long term effect of wage differential on cost of labour in public sector

Variable	Coefficient	t-Statistic
Wage differential	1.0	6.9
Wage differential (last 1 year)	-0.2	-1.1
Wage differential (last 2 years)	1.4	9.1
Public employment	-0.1	-0.4
Public employment (last 1 year)	0.2	0.6
Public employment (last 2 years)	0.0	-0.1
Inflation	-1,059.1	-3.3
Inflation (last 1 year)	-518.6	-1.6
Inflation (last 2 years)	-1,347.7	-4.8
Labour productivity	-0.1	-1.4
Labour productivity (last year)	0.0	-0.3
Labour productivity (last 2 years)	-0.3	-3.4
Dummy for 2011	204,617.2	14.6
Dummy for 2010	150,882.1	12.1
Dummy for 2009	122,813.2	9.0
Dummy for 2004	51,984.8	4.3
Dummy for 1998	-22,990.1	-2.1
Constant	216,504.1	8.7
R-squared	0.9970	
Adjusted R-squared	0.9938	

Source: Own estimations using data from *Economic surveys*

Notes: All variables have a unit root. We estimate the long run equation in levels and the short run equation in first differences.

than the inflation rate. The effect of labour productivity (last two years) on cost of labour in the public sector is also significant.

However, in the short run (near future), the current cost of labour in the public sector is significantly determined by the cost of labour in the previous years, with an effect of up to 8 previous years (Table 6.5). In addition, wage differentials also play a significant role in the short run; for instance, an increase in the wage differential of Ksh 100 leads to an increase of Ksh 42 in the cost of labour. These results indicate that wage differentials can exist in the short run, but agitation for higher wages could lead to a one-on-one increase in the cost of labour following an increase in the wage differential in the long run. Employment of additional staff in the public service also significantly increases the cost of labour in the public service

Table 6.5: Short run effect of wage differential on the cost of labour in the public sector

Variable	Coefficient	t-Statistic
Public wages* (last 1 year)	-0.32	-3.11
Public wages* (last 2 years)	-0.09	-1.25
Public wages* (last 3 years)	0.55	9.04
Public wages* (last 4 years)	0.86	8.47
Public wages* (last 5 years)	1.28	10.33
Public wages* (last 6 years)	0.08	1.04
Public wages* (last 7 years)	0.44	6.82
Public wages* (last 8 years)	0.22	4.04
Wage differential*	0.42	8.69
Wage differential* (last 1 year)	0.59	4.82
Wage differential* (last 2 years)	0.55	5.55
Public employment* (last 1 year)	1.00	7.87
Public employment* (last 1 year)	1.01	10.32
Public employment* (last 2 years)	-0.72	-8.16
Inflation*	-1,375.00	-6.02
Inflation* (last 1 year)	-554.30	-7.54
Inflation* (last 2 years)	-1,061.81	-8.51
Labour productivity*	-0.23	-7.79
Labour productivity * (last 1 year)	-0.47	-7.50
Labour productivity* (last 2 years)	-0.67	-10.84
Error correction term	-1.45	-9.28
Dummy for 1990	31,471.97	7.02
Dummy for 1986	-9,571.76	-2.53
Dummy for 1989	8,702.92	2.49
Constant	-38,243.30	-7.86
R-squared	0.99823	
Adjusted R-squared	0.97699	

Source: Own estimations using data from Economic surveys

Note: *Variable in first difference

in the near future, while inflation and labour productivity significantly reduce the cost of labour. Higher labour productivity could necessitate employment of fewer people, thus reducing the wage bill in the short run. Higher labour productivity also increases gross output, which gives room for wage adjustments.

Table 6.6: Long run effect of wage differential on cost of labour in private sector

Variable	Coefficient	t-Statistic
Wage differential	1.75	9.67
Wage differential (last 1 year)	-0.13	-0.54
Wage differential (last 2 years)	-0.25	-1.11
Private employment	0.22	1.41
Private employment (last 1 year)	0.34	2.82
Private employment (last 2 years)	0.00	0.03
Inflation	-457.76	-1.20
Inflation (last 1 year)	-373.40	-0.87
Inflation (last 2 years)	-780.19	-1.80
Labour productivity	0.50	4.79
Labour productivity (last 1 year)	0.06	0.44
Labour productivity (last 2 years)	-0.11	-1.09
Dummy for 1990	-75,597.57	-4.84
Dummy for 1989	-68,135.82	-4.56
Dummy for 1988	-57,373.10	-3.75
Dummy for 1987	-48,378.58	-3.02
Constant	-447,270.60	-9.42
R-squared	0.995545	
Adjusted R-squared	0.991352	

Source: Own estimations using data from Economic surveys

Note: All variables have a unit root. This equation is estimated in levels

6.3.3 Impact of wage differential on the cost of labour in the private sector

Similarly, to the estimation for cost of labour in the public service, we hypothesize that the cost of labour in the private sector is largely determined by the level of private sector employment, inflation and labour productivity. The dependent variable, which is the cost of labour in the private sector, is proxied by the gross wages paid by the private sector. Data used here is annual time series from 1976 to 2011. The results of the long run appear in Table 6.6. The results indicate that wage differentials have a positive and significant effect on the cost of labour in the private sector. For instance, an increase in the wage differential by Ksh 100 would lead to an increase in the cost of labour in the private sector in the long run by Ksh 175. This implies that the private sector wages, on average, stay above the public wage, which might be a deliberate attempt by the private sector to attract

Table 6.7: Short term effect of wage differential on cost of labour in private sector

Variable	Coefficient	t-Statistic
Wage differential*	1.51	13.54
Wage differential* (last 1 year)	-0.04	-0.40
Wage differential* (last 2 years)	-0.33	-2.96
Private employment*	0.28	3.62
Private employment* (last 1 year)	0.32	4.79
Private employment* (last 2 years)	-0.05	-0.66
Inflation*	-180.22	-0.76
Inflation* (last 1 year)	11.54	0.06
Inflation* (last 2 years)	-696.63	-2.91
Labour productivity*	0.00	-0.07
Labour productivity* (last 1 year)	0.06	0.90
Labour productivity* (last 2 years)	0.01	0.16
Error correction term	-0.47	-2.50
Dummy for 1987	-30,333.06	-2.77
Dummy for 2001	19,772.05	2.37
Dummy for 2003	23,467.20	2.53
Constant	-3,307.79	-0.99
R-squared	0.95165	
Adjusted R-squared	0.90329	

Note: * means variable in 1st difference. The coefficient of the error correction term indicates that any shocks to the cost of labour in the private sector are fully adjusted within three years.

and retain employees. Further, additional employment of staff in the private sector in the previous year by 100 leads to the current year's cost of private sector wages by 34. Inflation has an insignificant effect on cost of labour in the private sector, which implies that private sector wages are not adjusted to keep pace with inflation. Labour productivity is also a significant determinant of wages in the private sector in the long run.

Wage differentials also play a significant role in the short term (short run). For instance, an increase in the wage differential of Ksh 100 leads to an increase of Ksh 151 in the cost of labour in the private sector (Table 6.7). These results indicate that agitation for higher wages could lead to a more than proportional increase in the cost of labour in the short term. Employment of additional staff in the private sector also significantly increases the cost of labour in the short run, while inflation significantly reduces the cost of labour.

7. CONCLUSIONS AND POLICY IMPLICATIONS

7.1 Conclusion

In this study, we have examined whether individuals working in the public sector suffer a wage penalty as commonly viewed. We have further investigated the effect of wage penalty on turnover in the public sector, economic growth and labour costs in the economy. We use employee primary survey data, which we collected from a sample of public and private institutions. Secondary data from economic surveys, PriceWaterHouseCoopers, Salaries and Remuneration Commission have also been analyzed.

The findings show wage differences between the private and the public sector/sub-sectors in Kenya. The main finding is that there is a wage premium in favour of the general public sector. However, when civil service basic salary is compared to private sector, the wage premium is in favour of the private sector. On average, the magnitude of the difference is about Ksh 7,150 per month for basic salary. This means that, on the average, the civil service pays Ksh 7,150 less on the basic salary than the private sector. When wage allowances are included in the basic salary, however, the gap is in favour of civil service by a magnitude of Ksh 7,032; that is, civil service gross salary is higher than private sector by about Ksh 7,032 for individuals with similar education and years of experience. The difference is in favour of state corporations, constitutional offices and local government sub-sectors when both basic and gross wages are compared with the private sector. These results are statistically significant.

A comparison of the public-private sector wages using the broad occupation reveals major disparities in the levels of wage differences. Legislators, administrators and managers enjoy a wage premium for all the public offices. Similarly, professionals, technicians and associate professionals enjoy a wage premium for both basic salary and gross salary in the public sector, with the exception of the civil service. The wage difference in the basic salary is an average of Ksh 6,394 (professionals) and Ksh 3,592 (technicians). The highest differences in favour of private sector is among technicians and associates in the local government (Ksh 14,641).

The findings further show large vertical inequalities in wages within the public sector. This is particularly severe between the lower cadres and the highest cadres. The wide inequality is caused by the huge salaries by individuals in the highest job groups; that is, the top 10 per cent of the public wage earners. Wider wage differences exist also within the private sector, with earnings in the sector even higher at the top compared to earnings at the lower cadres in the same sector and compared to the within-sector (vertical) wage differences in the public sector.

The market clearing wage is distorted by lack of a comprehensive, consistent and sustainable wages policy. The wage determination systems have multiple outcomes and challenges in both the public and private sectors. The wage differential between the two sectors and within the sectors has caused a wage distortion in the wage economy. Principles of wage determination have been violated, and education and experience are rarely considered in wage determination.

The existing pay policy in Kenya inadequately addresses issues around wage differentials within the public sector and between the public and private sectors. Wage determination should be well expounded in a wage policy and anchored on the provisions of the Labour Relations Act (2007) and the Labour Institutions Act (2007). Informal sector workers earn even less. For instance, the policies governing wage determination have no clause to ensure transparency in reporting and monitoring pay differences on behalf of the national government. These practices have been observed in most national governments in other countries. Besides the general monitoring of pay differences, which is conducted by or on behalf of the majority of national government, some countries reportedly have legislation in place for ensuring transparency. This legislation is mainly addressed to employers. Kenya has no structured pay policy, including policy of pay determination. There is weak linkage between public sector pay and performance. Public wage bill as percentage of GDP is estimated at 11.7 per cent, and is expected to increase owing to the implementation of the 2010 Constitution and establishment of decentralized administrative units (counties). There is weak pay and remuneration information system in Kenya.

Wage differences have a positive and significant effect on the cost of labour in the public sector. For instance, an increase in the wage difference by Ksh 100 would lead to an equivalent increase in the cost of labour in the public sector in the long term. This is because the wage difference can be used as a justification for lobbying for higher wages in the public service as witnessed by the current salary increment calls by teachers, lecturers and doctors.

In addition, wage differences also play a significant role in the short term. These results indicate that wage differences can exist in the short term, but agitation for higher wages could lead to a one-on-one increase in the cost of labour following an increase in the wage difference in the long term. The cost of labour incurred by the private sector due to wage difference is much higher than a similar cost to the public sector, implying that private sector wages, on average, stay above the public wage, which might be a deliberate attempt by the private sector to attract and retain employees.

A wage penalty in the public sector increases turnover; similarly, a wage premium reduces the chances of quitting. Specifically, a percentage increase in the gross wage gap (wage premium) in the civil service would result in a reduction in the probability of quitting civil service of about 0.08 per cent. Similarly, a percentage increase in the basic wage gap (wage penalty) equivalent to Ksh 71.50 would lead to an increase in the probability of quitting civil service of about 0.24 per cent for individuals residing in urban areas. Considering the general public sector, the wage gap (wage premium) is in favour of the public sector; the results show that the probability of quitting is very low (0.10%).

Despite the relative importance played by wages, the overall job satisfaction that an individual derives from the organization is the most significant determinant of whether the individual quits or stays in the public sector. A percentage increase in the proportion of workers who are satisfied in the public sector would result in about 19 per cent reduction in turnover in the general public sector (17% in the civil service). Incentives and allowances play a significant role in ensuring employee retention within the public sector. However, basic salaries alone significantly decrease chances of retention.

Nearly 45 per cent and 47 per cent of workers in public and private sectors, respectively, consider wage difference as one of the factors, among others, which are important in motivating employees. The employees also note that non-monetary incentives play a critical role in motivating them to work. Some of the incentives include good working conditions, challenging assignments, flexible work conditions, job security, and respectful positions. Moreover, some factors are prohibitors of high morale. These include low salaries, lack of promotions or clear criteria for promotions, and poor working conditions.

A general observation is that the current remuneration structure in the public sector is *ad hoc* and piecemeal. Although the existing performance contracting is a fairly good measure for productivity, it does not apply to each individual employee. Moreover, it is difficult to objectively measure and compare productivity in the public sector due to the service nature of outputs. The relatively highly educated (non-degree holders with high school and above) individuals working in the public sector, on average, earn a lower wage compared to a similar individual working in the private sector. The relatively highly educated workers in the public sector are risk-averse, and hence put a high value on job security. They choose to work in the public sector even though they face a wage penalty.

Kenya's wage compression ratio is relatively high compared to other countries in the region (about 20:1). The ratio between the highest and lowest paid within the civil service is 98:1, when data obtained from SRC is considered. The composition of gross wages is skewed towards allowances and fringe benefits. The proportion

of allowances in gross salary accounts for over 50 per cent across all job groups in the civil service. This excludes other allowances not reflected in the payroll.

There are many different categories of allowances in the public sector. Some of the allowances are relatively too small in value terms, whereas others are huge and make the public sector more attractive when the complete package is taken into account, for instance house allowance, entertainment allowance, transport allowance, and extraneous allowance (Job Group R and above). Some job groups in the civil services are entitled to a greater number of allowances than others. Allowances are awarded mainly to higher and middle job cadres. This has promoted inequalities in wages. Individual incomes from allowances highly supplement the basic remuneration. Incentives and allowances play a significant role in ensuring employee retention within the public sector. While wage differences between the private and public sector are more pronounced when the public sector is defined as civil service only, public sector workers choose to stay in the public sector despite the gap. It appears that job characteristics such as job security, prestige, allowances and other non-wage benefits are successful in motivating highly educated workers in retaining their jobs in the public sector.

Despite that, recruitment may not suffice as a problem. However, widening wage gaps might promote moonlighting. This is particularly attractive for public sector employees, since they can retain their first jobs but supplement their incomes by maintaining a second job. Such habits are likely to compromise the efficiency of service delivery in the public sector. Given this situation, agitating for higher wages will increase the wage bill and strain the fiscal position of the public sector at the expense of tax payers. Similarly, ignoring the wage gap will contain the fiscal strain, promote inefficiencies, and incubate an increasingly dissatisfied public sector work force.

7.2 Policy Recommendations

A number of policy implications can be sieved out of the analysis and the results. These include:

- (i) Remunerate jobs within the same job value the same pay range in accordance with the principle of "equal pay for work of equal value" and target productivity as an instrument to enhance pay.

There is need for a competitive pay in the public service, and cascading of performance contracts to all staff. A measure that is not directly linked to pay concerns the establishment of 'equality plans', which is a widespread practice among European governments. Such measures include a commitment on the part of public authorities and private

employers towards their employees. These commitments could include the promotion of equality of opportunity, and equality in pay for people with the same skills and experience. These commitments may encompass instigating the compulsory adoption of equality plans in state-owned companies, as is the case in Portugal. Alternatively, they might equally require public administration to draw up positive action plans for the attainment of effective parity, as is the case in Italy. This will guarantee more women senior positions in the public service and, because these positions pay more, the average earning for women will generally go up.

- (ii) To ensure flexibility and protection of workers and their families against deterioration in their standards of living, the pay should contain basic, productivity and seniority components.
- (iii) Link public sector pay to levels of competencies and productivity. This will require clear mechanisms for measuring performance index for the various cadres of employment and sectors.
- (iv) Compress civil service wages by reducing the difference between highest and lowest paid from ratio of 98:1 and link wages to a realistic living wage that accords workers a decent living. The wage compression should be accompanied by a strategy of managing existing overlaps. This would cushion the workers who are already earning the higher salaries while redressing the plight of the disadvantaged workers.
- (v) There is need to consolidate non-incident allowances into basic salary and address the inefficiencies in allowances and institutionalize selected categories of allowances in the public sector.
- (vi) Provide adequate working tools, safe and clean working environment.
- (vii) Borrowing from some international practices, such as in the case for Europe, the public sector should review the role of allowances in total remunerations.
- (viii) The Salaries and Remuneration Commission should undertake a comprehensive review of all allowances with a view to standardizing them or including them as part of basic pay. Allowances that are not directly linked to job responsibilities can be merged, redesigned, and or eliminated.
- (ix) The Salaries and Remuneration Commission should consider developing a pay reform strategy for the county. The strategy should

take into account the findings from the ongoing job evaluation exercise; categorization of all types of pay and allowances with a view to merging some allowances; redefining some allowances and ensuring consistency; and eliminating others. In this undertaking, safeguards should be put in place to ensure that no employee is disadvantaged through decreases in pay and that implied pension costs are sustainable in the long run.

- (x) Some job groups especially at the low cadres could be merged since the education qualifications are the same. Currently, the minimum entry in public sector is completion of Kenya Certificate of Secondary Education, and most employees have attained some form of professional skills. At professional level, entry education qualification is a first degree.

- (xi) Address vertical earnings inequalities in public, private and informal sectors as well.

Embrace such practices as job security, quality of work, harmonized allowances and other non-wage benefits as interventions towards motivating highly educated workers in retaining their jobs in the civil service.

Legislate policies that support transparency in reporting and monitoring wage differentials. The Employment Act 2007 is one of the avenues that could be used in this case. The SRC should establish a department to be in charge of monitoring and evaluation of wage dynamics in the public sector.

Public sector remuneration should be linked to employee performance. Payment should be based on proven skills competencies and achieved results. The two dimensions of job evaluation and performance should form a basis for pay determination. Outsourcing of non-core services in the public sector and multi-skilling could also be deepened.

Ensure equity and greater flexibility in career advancement criteria in the public sector.

- (xii) Differences in pay should be driven by differences in performance, qualifications and responsibility. Jobs in public sector that may require high level expertise should be competitive enough in order to attract the relevant skills from the labour market or private sector. Quality of public sector service delivery could be improved through better alignment of pay with objectively identified job responsibilities,

to be determined through the ongoing job evaluation exercise.

- (xiii) The government should develop and implement a wage policy as a matter of priority. The key pillars of the proposed wage policy should include: promotion of economic growth with jobs; payment of decent wages; creation of aggregate demand for goods and services; equity dividend in terms of equal pay for work of equal value; enhancing social protection as a tool for redistribution; and promotion of social dialogue and rights at work.
- (xiv) The wage structure should contain basic pay, which reflects the value of the job; productivity-based pay (bonus), which acts as a variable payment to compensate for productivity (performance); and a seniority element to compensate for long service, loyalty and experience.
- (xv) The SRC in collaboration with the Ministry of Finance and Commission for Revenue Allocation should estimate the amount of available resources over the medium term to support the current and envisaged pay increases and ensure feasibility of the aggregate wage bill in terms of macroeconomic stability. The increases will be brought about by the creation of county administrative structures, demands for higher wages due to increases in cost of living, collective bargaining agreements, and trade union demands. Some of the resources can then be targeted at positions that have previously been under-paid.
- (xvi) Instead of unplanned negotiations with trade unions and other collective bargaining institutions, the SRC in collaboration with stakeholders should develop a medium term pay strategy, which should be guided by a 3 year framework on pay guidelines. The collective bargaining process with trade unions should be flexible to take into consideration any envisaged pay reforms. The framework should also be flexible enough to accommodate any emerging issues from the trade unions. This undertaking could minimize the uncertainties and inefficiencies associated with ad hoc strikes, and irregular pay demands. The policy should also be consistent with the macroeconomic stability policy objectives of the country.
- (xvii) The SRC in collaboration with the public service commission should strengthen the IPPD system and develop an information management system for human resource in all institutions under public sector both

at national and county levels. The system should capture, among others, information on pay, employee characteristics, and best pay practices. The information can then be used to inform policy both in the short and long-term, and be used in monitoring and evaluating pay policies in the country.

- (xviii) Implement the minimum wage legislations in order to address vertical wage differentials within the private. The private sector pays much less at the lower cadres than the public sector. If we take the lowest public sector wages as the minimum wages set by the government, then the lower wages seen in the private sector at the lower cadres means that most private sector employers of the low skilled and low educated workers do not respect and implement minimum wage legislations. It is therefore apparent that most employers in the private sector do not adhere to the minimum wage guidelines, ending up paying their workers at the lower cadres wages that are way below the minimum wages. Implementation of the minimum wage consistent with a desired pay to earn a decent living would help reduce inequalities in this sector. Besides, it is important that the country establishes the basic living earning/wage to inform minimum wage setting.
- (xix) Develop mechanisms for monitoring wage equality. To determine the extent of wage differentials on a continuous basis, the Salaries and Remuneration Commission needs to establish a unit mandated with the monitoring of equality in wages in both the public and private sectors. One of the indicators of progress particularly in reducing gender wage differences would be the implementation of the one third gender rule as outlined in the constitution, particularly in the senior cadres of the public service. This will guarantee more women senior positions in the public service and, because these positions pay more, the average earning for women will generally go up. The Commission needs to put in place a mechanism to monitor adherence of public and private institutions to this rule.
- (xx) Developing such a mechanism will obviously involve training of appropriate staff to carry out regular wage review of the ministries, parastatals and other government agencies and private firms paying below minimum wages to ensure that regulations on wage equality are not violated. The officers would need training on such issues as the interpretation and analysis of the relevant legislation and mediation techniques.

- (xxi) Promotion and awareness raising campaigns on wage equality. One of the main measures to reduce wage inequalities would be to increase the level of awareness. This would involve provision of information on the existing monitoring mechanisms, and the legislation and procedures that are already in place for protecting the equality of employees at work. The objective of this action would be to highlight the role played by the existing mechanisms and to increase people's awareness of the inspection system as well. At the same time, it would build citizens' knowledge and awareness of issues of equal treatment of employees at work and in pay matters. In many countries, governments support awareness raising initiatives among employers and the wider public. In Germany, for instance, the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth supports the organization and realization of the country's equal payday to encourage public debate.
- (xxii) Develop legislation to support transparency in reporting wage differentials. Besides the general monitoring of pay differences, which is conducted by or on behalf of the majority of national government, some countries reportedly have legislation in place for ensuring transparency. This legislation is mainly addressed at employers.
- (xxiii) Draw up wage equality plans in all public and private institutions. A measure that is not directly linked to pay concerns the establishment of 'equality plans', which is a widespread practice among European governments. Such measures include a commitment on the part of public authorities and private employers towards their employees. These commitments could include the promotion of equality of opportunity and equality in pay for people with the same skills and experience. These commitments may encompass instigating the compulsory adoption of equality plans in state-owned companies as is the case in Portugal. Alternatively, they might equally require public administration to draw up positive action plans for the attainment of effective parity as is the case in Italy. This will guarantee more women senior positions in the public service and, because these positions pay more, the average earnings for women will generally go up.

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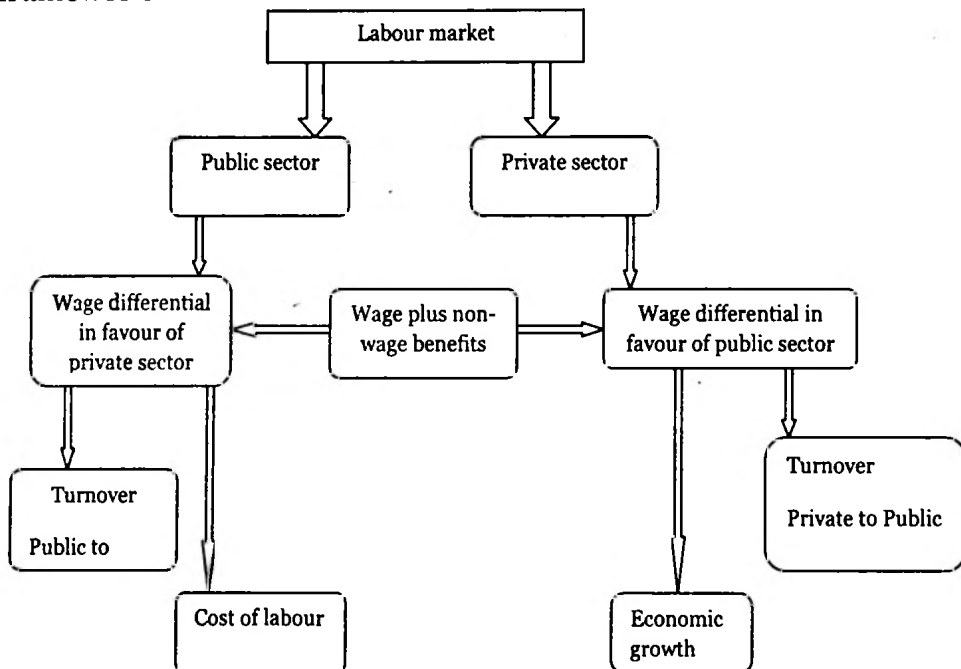
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Annex

Annex 1: Human capital and wage differentials: A conceptual framework



Annex 2: Technical note 1: Analytical framework

The analytical framework of this study borrows heavily from work of Mincer (1958; 1974) and Becker (1964) on the human capital models of determining earnings. The models suggest that observed wage differences among individuals are brought about by a combination of school and post-school investments (education, training and work experience) and a host of other socio-economic factors such as geographical location, marital status, and nationality, which are expected to be correlated with earnings (Adamchik and Bedi, 2000; Bedi, 1998; Oaxaca and Ransom, 1994; Terrell, 1993; Oaxaca, 1994 #14; Van der Gaag and Vijverberg, 1988).

In a given labour market, an individual faces a sector (private or public) choice decision. An individual has to determine the sector in which to seek a job, and then, she or he has to be selected by an employer to join a particular sector based on the characteristics of the individual and job demands. We assume that individual utility depends on consumption and leisure and not on non-wage benefits. Since the private sector is preferred, there is a shortage of jobs and applying is costly (for instance, wages may be deferred due to delays in obtaining a private sector job). These costs of entry are a function of individual characteristics and discourage

workers with low selection probability from seeking a private sector job. An individual i incorporates these costs into his/her decision matrix and seeks work in the private sector. An individual will join the private sector on the following condition: First, the expected wage differential has to be large enough to draw an individual to seek work in the private sector, and second, the individual has to be selected by an employer to join the private sector.

Following sector choice, wages are determined according to the following equations:

$$\text{Log}W_{1i} = Z_i\alpha_1 + \varepsilon_{1i} \dots\dots\dots 1$$

$$\text{Log}W_{2i} = Z_i\alpha_2 + \varepsilon_{2i} \dots\dots\dots 2$$

Where Z_i is a vector of wage determining variables; ε_{1i} and ε_{2i} are random residual terms.

Subsequent to sector choice and wage determination, an individual faces the decision to change jobs if earnings in the current sector are higher than earnings in the alternative sector. Higher earnings in the current job/sector lowers the propensity to change jobs across sectors, while higher expected earnings in the alternative sector increases the propensity to change jobs.

$$T_i = X_{i0} + \alpha_1 \log W_{1i} + \alpha_2 \log W_{2i} + \eta \dots\dots\dots 3$$

Where $T_i=1$ if the public sector worker changes jobs to join the private sector, X_i is a vector of exogenous attributes, $\log W_{1i}$ is the predicted (expected) private sector wage for a public sector worker and $\log W_{2i}$ is the predicted public sector wage, η is a zero-mean positive variance error term.

The decision to change jobs is made after the sector choice and wages have been determined. Both the sector choice and turnover equations are estimated as probit models.

Annex 3: Methodology1: Propensity score matching

We employ propensity score matching (PSM) to estimate the public-private sector wage gap as employed by Mizala, Romaguera and Gallegos (2011), Nopo (2008) and Ramoni-Perazzi and Bellante (2007). PSM identifies a control group that exhibits the same distribution of covariates as a treatment group, in non-experimental data. However, PSM can also be applied outside the context of treatment evaluation, for example to disentangle the effects from observable and unobservable, as a non-parametric alternative to Blinder-Oaxaca wage differentials decomposition.

In this study, we use PSM method to identify workers in the public sector who display the same observable characteristics as private sector workers, and

compare their wages. Public sector workers are the treated group, while private sector workers are the comparison group. The matching methods are based on the idea that selection bias is reduced when comparison of outcomes is performed only between treated and control units who are similar (Ramoni-Perazzi and Bellante, 2007). In addition, PSM allows us to estimate not only the average wage gap between the public and private workers, but also its distribution. This analysis provides insights into the distribution of the unexplained wage differences between public and private workers.

Let sector of employment, D , be the decision variable. The treated group is given by individuals working in a particular sector, for instance the public sector ($D=1$), while the control group includes private sector workers ($D=0$). The propensity score (PS) as defined by Rosenbaum and Rubin (1983) is the conditional probability of being in the public sector, given pre-treatment characteristics X :

$$PS = \Pr\{D = 1 | X\} = E\{D | X\}$$

If the selection of sector of employment is random according to X , it is also random according to PS. With randomization, the treated and control groups do not substantially differ from each other, so that the results are no longer conditioned to treatment.

PSM methods are subject to the strong ignorability assumptions:

1. Balancing of pre-treatment variables given the propensity score, also ignorability of treatment or unconfoundedness:

$$D \perp X | PS$$

Which ensures that PS provides all the necessary information regarding the determinants of the decision about sector of employment; thus the outcome (wages, W) is independent of D . This requires that observations with the same propensity score have the same distribution of observable (and unobservable) characteristics regardless of the treatment status. If this is true for a given propensity score, assignment to treatment is random and, therefore, treated and control units should, on average, be identical and

$$W_1, W_0 \perp D | PS$$

2. Common support or probability of assignment to treated is bounded between one and zero:

$$0, \Pr(D = 1 | X), 1$$

This implies that matching should be performed over an area of common support. If there is no overlap in propensity scores in both sectors, it is not possible to match individuals, and no treatment effect can be estimated with those data. Therefore,

this condition rules out the possibility of perfect prediction, since workers with PS equal to 1 or 0 cannot be matched. In other words, only workers with similar probabilities of being assigned to either sector can be matched.

The PS is estimated using parametric procedures, usually logit or probit, on the basis of a set of conditioning variables that affect the decision to work in the public sector following the general algorithm:

- a) Estimate the propensity score by using a logistic (or probit) model starting with a parsimonious specification with linear covariates.
- b) Divide the observations into k equally spaced intervals of the PS, such that within each interval the difference in propensity score for treated and control group is insignificant.
- c) Within each interval, test the hypothesis that the average of each covariate does not differ between treated and control group.
- d) If the intervals are not balanced, re-estimate the propensity score by adding higher order variables or interactions. If there are no differences, the specification is accepted.

Our implementation of the methodology follows carefully the steps suggested by Mizala, Romaguera and Gallegos (2011) and Ramoni-Perazzi and Bellante (2007). First, we estimate a probit regression for the treatment enrollment probability:

$$\text{SECTOR} = f(\text{age, years of experience, years of experience squared, occupational dummies, educ, gender, ethnicity, maritalstatus, regional dummies}) + \varepsilon \dots\dots\dots 6$$

Where:

Sector = 1 for individuals in treatment group and, 0 otherwise

The independent variables vary according to the need to consider higher order variables and interactions or even the elimination of some items in order to satisfy the balancing assumption.

Second, the treated units are matched following the Nearest Neighbour (NN) matching method, with replacements that each treatment unit can be matched with several similar control units. Third, we determine the region of common support. After individuals are matched, the unmatched members of the control group are discarded. The sub-samples obtained, as well as the pre-matching sample, are used to estimate separate wage equations by sector of employment as given below.

$$\begin{aligned} \text{Log}W = & \alpha_0 + \alpha_1 \text{ age} + \alpha_2 \text{ age}^2 + \alpha_3 \text{ tenure} + \alpha_4 \text{ education} + \alpha_5 \text{ training} + \alpha_6 \text{ ethnicity} + \dots\dots\dots 7 \\ & \alpha_7 \text{ gender} + \alpha_8 \text{ marital status} + \alpha_9 \text{ fulltime worker} + \alpha_{10} \text{ union member} + \varepsilon \end{aligned}$$

If any two individuals with the same probability of working in either sector show differences in wages, such a premium can be explained as the result of differences in the returns to productivity-related characteristics of the workers (Ramoni-Perazzi and Bellante, 2007).

Taking advantage of the matching approach, we obtain the cumulative empirical distribution function of hourly wages for the matched sample of public and private sector workers. At any percentile, the horizontal distance between the two distribution functions after matching is a measure of the unexplained public-private wage gap at the respective percentiles (Mizala, Romaguera and Gallegos, 2011; Nopo, 2008).

Methodology 2: Analytical framework for estimating implications of wage differentials on economic growth and cost of labour

The varied specifications of the economic growth and labour costs equations observed in the theoretical analysis indicate that there is no consensus in terms of the implications of wage differentials on the economy and the labour costs. This is particularly so when productivity aspects are included. Thus, in specifying the growth and labour costs equations, a parsimonious standard regression model is initially estimated, and subsequently statistically insignificant variables are eliminated to obtain a specification with only significant regressors.⁴

The labour cost function

The cost function approach is used in econometric investigation on impact of wage differentials on labour costs. Arising from Shepard (1953) and contributions of Uzawa (1964), Diewert (1974) and Hanoch (1975), a dual relationship is proved to exist between a production function and a cost function in some functional forms such as the Cobb-Douglas and CES. Shepard's duality, therefore, provides an avenue to estimate the production function under certain conditions via the cost function. In some cases, the cost function approach is utilized instead of the production function because of the difficulties associated with measurement of variables used in the production function. As suggested in the literature (see Greene, 1995), the cost function approach is preferred over the production function approach because estimation of the latter makes use of stock and flow

⁴ It should be noted that it is impractical to attempt to include all possible variables in a regression model. Certain variables may be excluded on grounds of inadequate data. Moreover, loss of degrees of freedom means that only the most important variables remain.

variables, which leads to biased coefficients. When such problems are encountered, it becomes imperative to estimate the production function indirectly via a cost function (see Du Toit and De Wet, 2002).

The cost function is expressed as a function of output and factor prices. In econometric estimations, the following cost function can be estimated:

$$LC=f(Y,W,I).....1$$

Where LC is the total labour cost of production, Y is total output, W is wage differential and I is inflation. In this formulation, the output is expected to be positively associated with costs as higher output will obviously be associated with higher costs. The user cost of labour are expected to be positively associated with total labour costs, since higher prices of factor inputs will yield higher total cost. On the other hand, inflation is expected to be associated with higher costs.

Implications on the economy

Secondly, we follow the approach used by Berndt (1976) and Antras (2004) in which we start by assuming a production structure with constant returns to scale in input quantities stated as:

$$Q=q(K,L,X_3,X_4...X_M).....2$$

Where Q is the flow of gross output, K is the flow of services from capital, L is the flow of services from labour, the X 's are other inputs, and W is wage differential. We assume further that any technical change affecting the inputs is Hicks-neutral, which admits us to state the equation above as:

$$Q=CA.....3$$

where A is an index of total output and H is the aggregate input function $C=C(K,L,X_3,X_4...X_M,W)$. We further assume that L and K are weakly separable from all other inputs in C , such that $C=J(F(K,L),X_3,X_4...X_M,W)$.

Annex 4: Public-private wage differentials by occupation

Occupation	Civil Service		State Corporations		Constitutional Offices		Local Government	
	Wage Gaps		Wage Gaps		Wage Gaps		Wage Gaps	
	Basic	Gross	Basic	Gross	Basic	Gross	Basic	Gross
Local Authority Officials	...	...	...	...	...	...	38,086	64,347
Senior Officials of Special Interest Organizations	...	...	67,177	65,737	...	...	...	...
Government Administrators	14,606	23,025	14,817	84,029	...	...	18,628	21,828

Directors and Chief Executives	16,633	58,344	96,206	143,118	...	...	...	...
Specialized Departmental Managers	12,475	42,626	44,667	83,909	89,000	105,250	...	...
Other Departmental Managers	11,062	21,209	37,157	63,269	179,579	220,654	54,251	-68,500
Non-departmental Managers	17,528	4,526	41,656	34,876	...	...	...	...
Other non-departmental Managers	...	...	...	-2,500	...	...	...	...
Other Administrators and Managers	13,388	29,161	99,000	91,000	...	...	...	...
Other Administrators and Managers	14,822	34,518	19,074	45,075	76,750	74,750	31,068	50,277
Chemists	...	...	68,697	106,170	...	...	...	...
Mathematicians and Related Professionals	...	...	28,000	61,938	...	...	...	...
Statisticians	19,700	18,100	...	...	...	...	...	...
Computing Professionals	...	...	-11,000	36,500	...	...	...	...
Engineering Science Professionals	...	...	...	...	...	...	33,000	34,000
Architects and Town Planners	...	...	...	...	...	...	4,500	23,000
Surveyors and Cartographers	-742	7,957	...	...	...	...	...	...
Civil Engineers	...	...	-26,667	30,250	...	...	...	...
Mechanical Engineers	19,275	40,275	-25,840	164,560	...	...	...	...
Mining Engineers, Metallurgists and Related Technologists	...	...	214,000	212,780	...	...	...	...
Electrical, Electronics and Telecommunications Engineers	-9,793	-4,693	-99,500	37,375	...	...	160,610	143,610
Agriculturalists and Related Professionals	-46,018	-40,202	10,000	32,310	...	...	12,775	24,525
University and Post-secondary Teachers/Lecturers	18,144	45,950	41,877	-6,941	...	...	...	...
Secondary and Technical Institute Teachers and Instructors	-15,629	-9,188	-52,900	-41,100	-46,370	40,830	...	...
Special Education Teaching Professionals	-752	26,509	...	...	...	...	...	...
Primary Education Teachers	-6,783	7,752	...	...	...	...	-7,000	5,000
Pre-primary Education Teachers	-84,935	36,090	...	...	...	...	...	...

Other Teachers and Instructors	-29,516	19,481	3,375	-4,511	...	...	...	...
Education Methods Advisers and Assessors	31,771	46,227	...	...	...	...	...	...
Other Teaching Professionals	26,600	34,400	19,464	36,763	...	...	12,800	33,800
Lawyers	...	...	54,429	93,433	0	40,000	...	...
Social Science and Related Professionals	-40,367	17,133	...	...	...	...	...	...
Economists	33,000	59,000	...	...	...	...	...	...
Sociologists, Anthropologists and Related Professionals	10,300	-14,200	...	...	79,750	89,750	...	...
Other Social Science and Related Professionals	25,000	12,000	...	-25,000	...	...	...	...
Business Professionals	...	...	30,820	39,100	...	...	36,000	29,000
Accountants, Auditors and Tax Assessors	-1,122	6,117	12,243	20,033	146,000	162,000	21,348	31,398
Personnel and Occupational Professionals	-120,539	22,404	75,906	53,849	...	...	55,166	45,000
Other Business Professionals	5,900	10,295	31,462	42,703	...	...	...	...
Other Professionals	12,500	36,000	...	...	...	...	...	...
Archivists, Librarians, and Related Professionals	-84,243	-31,523	-9,363	6,333	...	...	...	...
Authors, Journalists and Related Professionals	...	...	-1,500	34,056	...	...	...	...
Technical Draughts-men	...	...	-5,640	11,593	...	...	16,650	20,750
Civil Engineering and Related Technicians	-59,090	-68,240	15,750	2,070	...	...	...	...
Mechanical Engineering and Related Technicians	-130,500	-121,155	-20,408	24,068	...	...	34,945	47,445
Electrical Engineering Technicians	4,652	12,650	22,006	-35,112	...	...	...	...
Electronics and Telecommunications Engineering Technicians	...	...	15,058	12,976	...	...	...	...
Chemical Engineering Technicians	...	...	2,717	-81,283	...	...	...	...
Photographers, Image and Sound Recording Equipment Controllers	...	...	-1,049	14,171	...	...	...	...
Health Professionals	19,850	52,350	29,000	6,275	...	...	-152,000	-95,000
Nursing and Mid-wifely Professionals	8,792	18,936	-25,675	8,863	...	...	33,084	31,094

Life Science Professionals	...	...	7,000	12,060	...	...	...	...
Auxiliary Nurses	15,774	12,411	...	...	...	...	...	...
Medical/Clinical Officers	-7,940	12,552	28,333	43,100	...	...	28,000	6,000
Dental Technicians	22,500	19,000	...	...	...	...	...	...
Physiotherapists and Related Associate Professionals	14,076	35,640	...	...	...	...	...	...
Veterinary Officers	15,505	37,632	5,567	12,767	...	...	2,000	-229,000
Pharmaceutical Officers	15,125	40,100	-12,000	-1,235	9,500	-37,000	...	...
Other Associate Medical, Nursing and Nutrition Worker	-7,717	757	16,000	28,500	...	...	-38,145	-22,945
Physical Science Technicians	-1,588	300,570	-9,185	-16,243	...	...	...	...
Life Science Technicians	7,812	25,610	17,615	30,650	...	...	...	...
Agronomy and Forestry Technicians	28,000	46,000	51,411	-65,778	...	...	...	...
Administration and Middle Level Personnel	-10,000	-5,200	39,488	57,030	84,000	41,000	...	...
Police Inspectors, Detectives, Customs and Border Officials	31,440	16,090	...	...	...	...	...	...
Government Tax and Excise Officials	...	...	78,500	129,546	...	...	...	...
Welfare and Pension Officials	...	...	...	...	59,000	83,500	...	...
Government Licensing Officials	27,067	37,233	...	...	...	...	...	...
Business and Public Service Middle Level Personnel	18,000	20,800	50,230	10,650	...	...	...	...
Statistical and Planning Officials	3,347	11,183	20,387	19,172	...	...	...	...
Fisheries, Wildlife and Tourist Officials	...	...	17,300	20,642	...	...	...	...
Lands, Agricultural and Livestock Officials	29,761	33,851	...	...	...	...	...	...
Other Middle Level Personnel	18,465	28,855	2,323	-37,522	...	...	...	...
Athletes, Sportsmen and Related Workers	...	...	42,000	4,200	...	...	...	...
Safety, Health and Quality Inspector / Controllers	10,563	13,209	4,333	-111,067	...	...	24,500	31,965
Mechanical, Electrical, Building and Fire Inspectors	29,000	47,000	8,000	-44,000	...	...	...	...

Secretaries and Office Clerks	-4,722	-1,476	-15,483	-1,153	-18,769	34,231	-12,539	-12,378
Secretaries Stenographers and Typists	-16,625	-2,180	-2,392	8,487	...	...	-29,667	10,641
Office Machine Operators	-5,400	-9,000	12,144	1,250	3,000	15,000	...	...
Numerical Clerks	-1,796	138	7,000	16,500	...	...	10,500	17,700
Material Recording and Transport Clerks	-4,654	15,395	-48,973	-2,223	...	...	...	...
Library, Mail and Related Clerks	-1,500	4,150	-1,000	6,067	...	...	...	...
Coding, Proofreading and Related Clerks	-132,000	17,000	50,968	96,605	...	...	...	...
General Office Clerks	-23,424	-29,679	-18,407	-2,681	...	...	15,167	15,417
Client Oriented Clerks	377	3,309	12,473	1,292	...	...	...	...
Cashiers, Tellers and Related Clerks	-5,938	-58,092	3,530	-10,386	...	...	...	...
Information Clerks	3,266	8,116	-28,298	-18,042	...	...	-5,950	28,000
Other Client Oriented Clerks	-3,500	-250	-14,691	-11,941	...	...	14,392	9,667
Shop Assistants and Demonstrators	...	...	5,670	-2,330	...	...	...	...
Undertakers and Embalmers	-140	2,498	...	...	...	...	...	...
Protective Service Workers	9,369	6,369	17,400	39,650	...	...	13,000	22,000
House Stewards, Caterers, Waiters and Related Workers	167	-16,389	10,337	-145,923	...	...	...	...
House Stewards and Housekeepers	-765	35	584	-9,807	...	...	...	...
Cooks and Other Catering Service Workers	-25,677	-29,949	-3,560	117,510	...	...	3,100	3,100
Waiters Bartenders	...	...	-22,000	35,000	...	...	...	...
Transport Conductors	...	...	12,388	-77,842	...	...	...	...
Farm Workers (except fish)	-20,360	-11,873	-12,468	-17,658	...	...	...	...
Field Crop, Vegetable and Horticultural Farm Workers	...	...	7,200	15,700	...	...	...	...
Poultry, Dairy and Livestock Producers	-9,500	-19,500	42,000	55,000	...	...	...	...
Crop and Animal Producers	...	...	10,427	10,025	...	...	...	...
Fishery Workers	17,000	25,775	...	...	...	...	...	...
Forestry and Related Workers	...	...	-130,169	10,846	...	...	...	...
Hunting and Wildlife Workers	...	...	4,252	12,971	...	...	...	...

Building Trades Workers	...	...	6,414	12,414	...	...	...	...
Metal Molders, Welders, Structural-metal Preparers and Related Trades Workers	...	...	0	67,000	...	...	...	...
Blacksmiths, Toolmakers and Related Trades workers	...	...	8,822	13,563	...	...	...	...
Machinery Mechanics and Fitters	-8,980	7,632	-11,500	12,733	...	...	12,500	5,500
Electrical Equipment Fitters and Installers	-4,959	-23,554	-13,000	-30,000	...	...	...	...
Electrical Equipment Fitters and Services	5,495	903	-13,000	28,000	...	...	...	...
Electrical Linemen and Cable Jointers	...	...	0	27,300	...	...	...	...
Printing and Related Trades Workers	1,000	18,050	47,000	88,000	...	...	...	...
Printing Engravers and Etchers	...	...	4,000	3,400	...	...	...	...
Photographic and Related Workers	...	..	11,000	10,500	...	...	...	...
Bookbinders and Related Workers	...	..	-40,000	179,546	...	...	...	...
Bakers, Pastry-cooks and Confectionery Makers	...	...	50	-4,950	...	...	...	..
Woodworking Trades Workers	...	...	-1,694	-18,854	...	...	13,000	14,550
Textile, Garment and Related Trades	-7,400	-25,400	...	...	...	...	...	...
Tailors, Dressmakers and Related Workers	24,804	-16,696	...	...	...	...	...	...
Wood Products Machine Operators	...	...	-6,000	-67,605	...	...	...	...
Chemical Heat-treating and Plant Operators	...	...	91,115	106,650	...	...	...	...
Occupation	Civil Service		State Corporations		Constitutional Offices		Local Government	
Chemical Still and Reactor Operators	...	...	2,000	-54,000	...	...	...	...
Pharmaceutical and Toiletry Products Machine Operators	5,000	-32,000	...	...	...	...	...	...
Steam Turbine Boiler and Engine Operators	...	...	2,000	28,000	...	...	...	...
Food and Related Products Machine Operators	...	...	38,656	41,034	...	...	...	...

Tea, Coffee and Cocoa Processing Machine Operators	...	...	-53,000	1,338	...	...	...	...
Mechanical Machinery Assemblers	...	...	7,525	17,150	...	...	...	...
Drivers and Mobile Machinery Operators	-16,205	-143	-14,031	8,535	...	...	...	...
Motor Vehicle Drivers	-24,053	-26,123	-18,202	-32,393	12,200	-125,251	4,434	6,294
Agricultural and Materials-handling Machinery Operators	...	...	-33,000	-95,850	...	...	...	...
Ships' Deck Crews and Related Workers	-9,793	-11,115	...	...	...	...	...	...
Other Plant and Machine Operators and Assemblers	-141,486	2,983	...	...	...	...	...	...
Textile Bleaching, Dyeing and Cleaning Machine Operators	...	...	-9,400	7,800	...	...	...	...
Sales and Services Elementary Occupations	...	...	43,000	101,300	...	...	...	...
Cleaners, Launderers and Domestic Workers	-12,761	-13,842	-4,972	-2,407	...	...	-5,105	3,385
Building Caretakers	...	...	21,510	10,100	19,580	42,830	...	...
Messengers, Porters, Watchmen and Related Workers	-19,909	-16,278	-23,470	-31,106	26,251	36,951	-6,872	-2,407
Agricultural, Fishery and Related Labourers	...	...	-113,980	24,275	...	...	...	...
Farm- hands and Related Labourers	7,379	879	-114,452	-1,028	...	...	9,000	19,250
Forestry Labourers	...	...	-28,633	-19,223	...	...	...	...
Mining and Quarrying Labourers	...	...	-9,000	-69,000	...	...	...	...
Construction and Maintenance Labourers	3,983	5,703	13,650	1,800	...	...	...	...
Total	-7,150	7,032	3,045	18,882	55,056	56,092	7,481	11,828

Source: Wage differential survey (2012)

Annex 5: Public-private wage differentials by occupation in training and research institutions (state corporations)

Occupation	Basic	Gross
Government Administrators	-74,383	55,097
Directors and Chief Executives	119,268	107,980
Specialized Departmental Managers	142,243	146,243
Other Departmental Managers	23,000	39,000
Other non-departmental Managers	.	-2,500
Other Administrators and Managers	19,118	50,858
Chemists	87,394	119,039
Mathematicians and Related Professionals	28,000	61,938
Civil Engineers	50,000	85,750
Mechanical Engineers	-29,680	92,320
Agriculturalists and Related Professionals	10,000	32,310
University and Post-secondary Teachers/Lecturers	71,000	-145,625
Secondary and Technical Institute Teachers and Instructors	-66,000	-50,500
Other Social Science and Related Professionals	.	-25,000
Accountants, Auditors and Tax Assessors	-36,132	-1,862
Personnel and Occupational Professionals	-27,584	-57,684
Archivists, Librarians, and Related Professionals	1,820	25,965
Authors, Journalists and Related Professionals	-1,500	34,056
Technical Draughts-men	12,280	15,480
Electrical Engineering Technicians	16,650	-66,500
Electronics and Telecommunications Engineering Technicians	20,096	25,627
Photographers, Image and Sound Recording Equipment Controllers	-1,049	14,171
Health Professionals	36,000	-8,450
Nursing and Mid-wifely Professionals	-51,000	43,300
Medical/Clinical Officers	15,000	53,200
Veterinary Officers	5,567	12,767
Pharmaceutical Officers	-12,000	-1,235
Other Associate Medical, Nursing and Nutrition Workers	16,000	28,500
Physical Science Technicians	2,274	-12,729
Life Science Technicians	25,230	42,800
Agronomy and Forestry Technicians	51,411	-65,778
Statistical and Planning Officials	30,546	38,116

Athletes, Sportsmen and Related workers	.	-10,000
Secretaries and Office Clerks	20,684	5,835
Secretaries Stenographers and Typists	-25,343	-10,681
Numerical Clerks	7,000	16,500
General Office Clerks	-55,262	6,384
House Stewards, Caterers, Waiters and Related Workers	10,874	-232,646
House Stewards and Housekeepers	-8,790	983
Cooks and Other Catering Service Workers	-3,135	-2,789
Farm Workers (except fish)	-18,387	-24,050
Poultry, Dairy and Livestock Producers	.	.
Hunting and Wildlife Workers	-8,771	5,329
Metal Molders, Welders, Structural-metal Preparers and Related Trades Workers	-2,000	106,000
Blacksmiths, Toolmakers and Related Trades Workers	8,822	13,563
Electrical Equipment Fitters and Installers	-13,000	-30,000
Electrical Linesmen and Cable Jointers	-2,000	57,600
Bookbinders and Related Workers	-40,000	179,546
Woodworking Trades Workers	-4,098	-28,098
Wood Products Machine Operators	-6,000	-67,605
Drivers and Mobile Machinery Operators	-46,530	-4,668
Motor Vehicle Drivers	-29,254	-71,011
Agricultural and Materials-handling Machinery Operators	-5,000	-96,600
Cleaners, Launderers and Domestic Workers	-1,284	5,904
Building Caretakers	21,510	10,100
Messengers, Porters, Watchmen and Related Workers	-48,261	-21,687
Farm-hands and Related Labourers	4,721	-7,484
Total	-6,247	2,525

Source: Wage differential survey (2012)

Annex 6: Public-private wage differentials by occupation in state corporation category 4 (Universities)

Occupation	Basic	Gross
Government Administrators	217,270	270,270
Other Administrators and Managers	6,000	6,500
University and Post-secondary Teachers/Lecturers	27,315	62,401
Secondary and Technical Institute Teachers and Instructors	-500	-3,500
Other Teachers and Instructors	4,000	-21,320
Other Teaching Professionals	28,427	63,025

Electronics and Telecommunications Engineering Technicians	1,000	17,000
Medical/Clinical Officers	59,000	55,100
Physical Science Technicians	-43,288	-48,391
Secretaries and Office Clerks	4,011	3,398
Secretaries Stenographers and Typists	2,675	16,075
Cooks and Other Catering Service Workers	3,593	5,987
Crop and Animal Producers	10,427	10,025
Building Trades Workers	6,414	12,414
Woodworking Trades Workers	710	-9,610
Drivers and Mobile Machinery Operators	7,850	16,000
Cleaners, Launderers and Domestic Workers	-11,000	8,375
Messengers, Porters, Watchmen and Related Workers	832	-9,644
Farm- hands and Related Labourers	-174,038	2,200
Total	-744	18,322

Annex 7: Public-private wage differentials by occupation in state corporation category 1: (Financial)

Occupation	Basic	Gross
Government Administrators	35,000	37,500
Specialized Departmental Managers	-136,000	28,417
Other Administrators and Managers	25,533	64,833
Accountants, Auditors and Tax Assessors	24,883	27,858
Personnel and Occupational Professionals	12,420	-26,000
Administration and Middle Level Personnel	-2,000	2,500
Business and Public Service Middle Level Personnel	.	-55,000
Other Middle Level Personnel	10,750	-115,000
Secretaries and Office Clerks	5,125	-16,688
Secretaries Stenographers and Typists	41,719	44,138
Coding, Proofreading and Related Clerks	1,935	13,710
General Office Clerks	3,960	12,600
Information Clerks	-6,595	-875
Cooks and Other Catering Service Workers	7,850	-8,950
Drivers and Mobile Machinery Operators	15,000	21,500
Motor Vehicle Drivers	5,000	14,338
Messengers, Porters, Watchmen and Related Workers	-8,813	-158,569
Total	9966.79	-2771.5

Annex 8: Public-private wage differential by highest educational attainment

Highest education attained	Civil service		State corporation		Constitutional office		Local government	
	Basic salary	Gross salary	Basic salary	Gross salary	Basic salary	Gross salary	Basic salary	Gross salary
None	-9,300	-1,814	-39,327	6,992	...	...	11,505	9,025
Incomplete Primary	-11,786	-24,126	-11,033	-21,291	...	...	9,000	19,250
Primary School	-33,821	-18,488	-24,147	-9,983	39,500	39,500	3,261	9,824
Incomplete Secondary School	-27,627	-15,699	-25,440	104,140	...	...	-16,245	19,255
Secondary School	-13,265	-15,517	-5,278	-9,648	...	...	-10,229	-7,157
Vocation Training	-11,991	-8,284	-5,645	-9,490	26,251	36,951	-14,405	14,338
Technical Training	-2,603	17,331	-698	7,920	8,193	-80,890	13,379	6,679
University First Degree	-2,304	20,259	18,107	44,693	34,439	49,070	30,153	43,892
University Post-graduate Degree	22,651	48,284	52,271	70,735	125,032	156,662	68,975	77,728
Total	-7,150	7,032	3,045	18,882	55,056	56,092	7,481	11,828

Source: Wage differential survey (2012)

Annex 9: Public-private sector wage differential by industry/sector

Industry	Civil service		State corporation		Local Government	
	Basic	Gross	Basic	Gross	Basic	Gross
Air transport carriers including aircraft rental	...	...	5,300	12,413	...	...
Education services	-13,927	-9,403	-11,015	-1,421	-6,326	6,598
Financial services	22,965	10,965	37,265	-22,368	...	...
House and estate agents	...	...	...	...	...	...
Hunting and tourist guide services	...	...	14,682	24,674	...	...
Insurance companies	...	...	30,000	37,749	...	...
Law and order	7,163	5,325	...	...	...	...
Medical, dental and other health services	-2,051	33,281	-13,283	24,741	-7,600	-3,500

Other amusement and recreational services	...	...	48,451	40,166	...	...
Research and scientific institutes	...	...	-1,762	3,109	160,610	143,610
Social and related community services	...	...	-44,000	-5,038	14,333	29,083
Activities not adequately defined	16,650	39,810	60,188	94,742	...	...
Agricultural produce	...	...	35,000	-76,168	...	...
Agricultural services	-2,543	-1,393	2,163	154,476	...	...
Communications	...	...	18,383	30,920	...	...
Electric light and power	...	...	47,698	52,939	...	...
Food, drink and tobacco	...	...	-7,267	-9,975	...	...
Forestry	...	...	-86,979	10,981	...	...
Government services	-9,641	-983	4,719	11,859	3,490	6,789
Hotels, rooming houses, camps and other lodging places	...	...	2,759	5,509	...	...
Hunting, trapping and game propagation	...	...	-4,300	3,649	...	...
Libraries, museum, botanical and zoological gardens and other cultural services	20,942	29,055	-11,277	15,314	...	...
Manufacture of dairy products	...	...	30,077	37,565	...	...
Manufacture of prepared animal feeds	...	...	-7,229	1,695	...	...
Monetary institutions	-5,000	298	2,044	31,924	...	...
Not reported	...	...	-8,355	3,948	...	...
Ocean and coastal fishing	16,232	30,543	...	...	...	...
Oil and petrol	...	...	48,497	104,426	...	...
Other public administration	...	...	...	-17,125	25,351	28,347
Printing, publishing and allied industries	...	...	42,771	137,282	...	...
Processing co-operatives of small firms	...	...	-33,667	-4,887	...	...
Restaurants, cafes and other eating and drinking places	...	...	-6,272	-50,288	3,100	3,100
Slaughtering, preparing and preserving of meat	...	...	17,696	16,596	...	...

Spirits, beer and tobacco	...	...	-12,309	-37,909	...	...
Tea plantations	...	...	6,757	-41,116	...	...
Textiles, soft furnishings, clothing and shoes	...	...	4,120	294	...	...
Water works and supply	...	...	22,579	24,423	...	...
Welfare institutions	...	...	...	...	9,789	12,723
Total	-7,150	7,032	3,045	18,883	7,481	11,828

Source: Wage differential survey (2012)

Annex 10: Kenya National Occupational Classification Standard (KNOCS)

Major Group 1: Legislators, Administrators and Managers

110: Legislators and Constitutional Officials

111: Legislative and Constitutional Officials

112: Local Authority Officials

120: Administrators and Senior Officials of Special Interest Organizations

121: Government Administrators

122: Senior Officials of Special Interest Organizations

130: Corporate Managers

131: Directors and Chief Executives

132: Specialized Departmental Managers

133 Other Departmental Managers

140: Non-Departmental Managers

141: Non-departmental Managers

150: Other Administrators and Managers

151: Other Administrators and Managers

Major Group 2: Professionals

210: Physical Science Professionals

211: Physicists and Related Professionals

212: Chemists

220: Mathematicians, Statisticians and Computing Professionals

221: Mathematicians and Related Professionals

222: Statisticians

223: Computing Professionals

230: Engineering Science Professionals

- 231: Architects and Town Planners
- 232: Surveyors and Cartographers
- 233: Civil Engineers
- 234: Mechanical Engineers
- 235: Chemical Engineers and Technologists
- 236: Mining Engineers, Metallurgists and Related Technologists
- 237: Electrical, Electronics and Telecommunications Engineers
- 238: Production and Related Engineers
- 240: Health and Life Science Professionals
- 241: Health Professionals
- 242: Nursing and Mid-wifely Professionals
- 243: Life Science Professionals
- 244: Agriculturalists and Related Professionals
- 250: Teaching Professionals
- 251: University and Post-secondary Teachers/Lecturers
- 252: Secondary and Technical Institute Teachers and Instructors
- 253: Special Education Teaching Professionals
- 254: Education Methods Advisers and Assessors
- 259: Other Teaching Professionals
- 260: Legal Professionals
- 261: Lawyers
- 262: Jurists/Judges
- 270: Social Science and Related Professionals
- 271: Economists
- 272: Psychologists
- 273: Sociologists, Anthropologists and Related Professionals
- 274: Historians and Political Scientists
- 275: Philologists, Translators and Interpreters
- 279: Other Social Science and Related Professionals
- 280: Business Professionals
- 281: Accountants, Auditors and Tax Assessors
- 282: Personnel and Occupational Professionals
- 289: Other Business Professionals
- 290: Other Professionals

291: Archivists, Librarians, and Related Professionals

292: Religious Professionals

293: Authors, Journalists and Related Professionals

294: Sculptors, Painters and Related Professionals

295: Composers, Musicians and Singers

296: Choreographers

Major Group 3: Technicians and Associate Professionals

310: Engineering Technicians

311: Technical Draughts-men

312: Civil Engineering and Related Technicians

313: Mechanical Engineering and Related Technicians

314: Mining and Metallurgical Technicians

315: Electrical Engineering Technicians

316: Electronics and Telecommunications Engineering Technicians

317: Chemical Engineering Technicians

318: Photographers, Image and Sound Recording Equipment Controllers

319: Broadcasting and Telecommunications Equipment Controllers

320: Medical and Health Science Associate Professionals

321: Auxiliary Nurses

322: Medical/Clinical Officers

323: Sanitarians

324: Optometrists and Opticians

325: Dental Technicians

326: Physiotherapists and Related Associate Professionals

327: Veterinary Officers

328: Pharmaceutical Officers

329: Other Associate Medical, Nursing and Nutrition Workers

330: Physical and Life Science Technicians

331: Physical Science Technicians

332: Life Science Technicians

333: Agronomy and Forestry Technicians

334: Farming and Forestry Advisors

340: Farming Advisors

341: Ships Engineer

- 342: Ships Deck Officers and Pilots
- 343: Aircraft Pilots and Related Workers
- 344: Air Traffic Controller
- 350: Business and Social Services Associate Professionals
- 351: Securities and Finance Dealers
- 352: Insurance Brokers and Agents
- 353: Real Estate Agents
- 354: Business Service Agents
- 355: Buyers, Appraisers Auctioneers
- 360: Administration and Middle Level Personnel
- 361: Police Inspectors, Detectives, Customs and Border Officials
- 362: Government Tax and Excise Officials
- 363: Welfare and Pension Officials
- 364: Government Licensing Officials
- 365: Business and Public Service Middle Level Personnel
- 366: Statistical and Planning Officials
- 367: Fisheries, Wildlife and Tourist Officials
- 368: Lands, Agricultural and Livestock Officials
- 369: Other Middle Level Personnel
- 370: Primary and Pre-primary education and Other Teachers
- 371: Primary Education Teachers
- 372: Pre-primary Education Teachers
- 373: Other Teachers and Instructors
- 390: Other Business, Social Services, Athletics, Sports and Related Workers
- 391: Non-ordained Religion Assistants
- 392: Social Advisers and Helpers
- 393: Athletes, Sportsmen and Related workers
- 394: Decorators and Other Commercial Workers
- 395: Radio, Television and Other Announcers
- 396: Street, Nightclub and Related Musicians
- 397: Acrobats, Clowns, Magicians and Related Workers
- 398: Safety, Health and Quality Inspector /Controllers
- 399: Mechanical, Electrical, Building and Fire Inspectors

Major Group 4: Secretarial, Clerical Services and Related Workers

- 410: Secretaries and Office Clerks
- 411: Secretaries Stenographers and Typists
- 412: Office Machine Operators
- 413: Numerical Clerks
- 414: Material Recording and Transport Clerks
- 415: Library, Mail and Related Clerks
- 416: Coding, Proofreading and Related Clerks
- 417: General Office Clerks
- 420: Client Oriented Clerks
- 411: Cashiers, Tellers and Related Clerks
- 422: Information Clerks
- 423: Other Client Oriented Clerks

Major Group 5: Service Workers, Shop and Market Sales Workers

- 510: Models, Shop Assistants and Demonstrators
- 511: Fashion and Other Models
- 512: Shop Assistants and Demonstrators
- 520: Personal and Protective Service Workers
- 521: Hairdressers, Barbers, Beauticians and Related Workers
- 522: Undertakers and Embalmers
- 523: Fortune Tellers, Astrologers and Related Workers
- 524: Protective Service Workers
- 530: House Stewards, Caterers, Waiters and Related Workers
- 531: House Stewards and Housekeepers
- 532: Cooks and Other Catering Service Workers
- 533: Waiters Bartenders
- 540: Travel Attendants and Guides
- 541: Ship and Flight Attendants and Travel Stewards
- 542: Transport Conductors
- 543: Travel Guides and Ground Attendants

Major Group 6: Skilled Farm, Fishery, Wildlife and Related Workers

- 610: Farm Workers (except fish)
- 611: Field Crop, Vegetable and Horticultural Farm Workers
- 612: Poultry, Dairy and Livestock Producers

613: Crop and Animal Producers

620: Fishery and Related Workers

621: Fishery Workers

630: Subsistence Agricultural and Fishery Workers

631: Subsistence Agricultural and Fishery Workers

640: Forestry and Related Workers

641: Forestry and Related Workers

650: Hunting and Wildlife Workers

651: Hunting and Wildlife Workers

Major Group 7: Craft and Related Trades Workers

710: Extraction and Building Trades Workers

711: Mining, blasting, Stone Cutting and Related Workers

712: Building Trades Workers

720: Metal, Machinery and Related Trades Workers

721: Metal Molders, Welders, Structural-metal Preparers and Related Trades Workers

722: Blacksmiths, Toolmakers and Related Trades workers

723: Machinery Mechanics and Fitters

724: Electrical Equipment Fitters and Installers

725: Electrical Equipment Fitters and Services

726: Electrical Linesmen and Cable Jointers

727: Solar Equipment Fitters and Installers

730: Precision and Handicraft Workers

731: Precision Workers in Metal and Related Materials

732: Potters, Glassmakers and Related Trades Workers

733: Handicraft Workers

740: Printing and Related Trades Workers

741: Compositors and Typesetters

742: Stereotypes and Electrotypers

743: Printing Engravers and Etchers

744: Photographic and Related Workers

745: Bookbinders and Related Workers

746: Silk-screen, Block and Textile Printers

750: Food Processing and Related Trades

751: Butchers, Fishmongers and Related Food Preparers

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- 752: Bakers, Pastry-cooks and Confectionery Makers
753: Dairy Products Makers
754: Fruit, Nut and Related Preservers
755: Tobacco Preparers and Tobacco Products Makers
756: Food and Beverage Tasters
757: Brewers, Distillers and Related Workers
758: Other Food Processing and Related Workers
760: Woodworking Trades Workers
761: Wood Treating, Cabinetmaking and Related Trades Workers
762: Woodworking-machine Setters and Setter-operators
770: Textile, Garment and Related Trades
771: Fibre Prepapers
772: Weavers, Knitters and Related Workers
773: Tailors, Dressmakers and Related Workers
780: Upholsterers, Pelt, Leather and Shoemaking Trades Workers
781: Upholsters
782: Fell mongers, Tanners and Pelt Dressers
783: Shoe-making and Related Trades Workers
- Major Group 8: Plant and Machine Operators and Assemblers**
- 810: Drilling and Mining Plant and Mineral Products Machine Operators
811: Well Drillers and Borers
812: Mining Plant Operators
813: Stone, Clay, Cement and Other Mineral Products Machine Operators
820: Metal Processing Plant and Metal Working Machine Operators
821: Metal Smelting, Converting and Refining Furnace Operators
822: Metal Melters, Casters and Rolling Mill Operators
823: Metal Heat-treating Plant Operators, Metal Drawers and Extruders
824: Machine -Tool and Other Metal-Working Machine Operators
825: Metal Finishing, Plating and Coating Machine Operators
830: Wood Processing Plant and Wood, Rubbers and Plastic Machine Operators
831: Wood Processing and Paper Pulp Plant Operators
832: Wood Products Machine Operators
833: Printing and Binding Machine Operators

- 834: Paper Products Machine Operators
- 835: Rubber and Plastic Rubber Machine Operators
- 840: Chemical-Processing Plant and Chemical Products Machine Operators
- 841: Chemical Crushing, Grinding and Mixing Machine Operators
- 842: Chemical Heat-treating and Plant Operators
- 843: Filtering and Separation Equipment Operators
- 844: Chemical Still and Reactor Operators
- 845: Petroleum Refining Plant Operators
- 846: Pharmaceutical and Toiletry Products Machine Operators
- 849: Other Chemical Processing Plant and Machinery Operators
- 850: Power Production Plant Operators
- 851: Power Generating Plant Operators
- 852: Steam Turbine boiler and Engine Operators
- 860: Food and Related Products Machine Operators
- 861: Meat and Fish Processing Machine Operators
- 862: Dairy Products and Machine Operators
- 863: Grain and Spice-milling Machine Operators
- 864: Baked Goods, Cereal and Chocolate Products Machine Operators
- 865: Fruit, Vegetable and Nut Processing Machine Operators
- 866: Sugar Production Machine Operators
- 867: Tea, Coffee and Cocoa Processing Machine Operators
- 868: Brewers, Wine and Other Beverage Machine Operators
- 869: Tobacco Production Machine Operators
- 870: Assemblers
- 871: Mechanical Machinery Assemblers
- 872: Electrical and Electronic Machinery Assemblers
- 873: Metal Products Assemblers
- 874: Plastic and Rubber Products Assemblers
- 875: Wood, Paperboard and Related Products Assemblers
- 876: Textile and Leather Products Assemblers
- 880: Drivers and Mobile Machinery Operators
- 881: Railway Engine Drivers and Related Workers
- 882: Motor Vehicle Drivers

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- 883: Agricultural and Materials-handling Machinery Operators
 - 884: Ships' Deck Crews and Related Workers
 - 890: Other Plant and Machine Operators and Assemblers
 - 891: Glass and Ceramics Kiln and Related Plant Operators
 - 892: Textile Preparing, Spinning and Winding Machine Operators
 - 893: Weaving, Knitting and Sewing Machine Operators
 - 894: Textile Bleaching, Dyeing and Cleaning Machine Operators
 - 895: Fur and Leather Preparing Machine Operators
 - 896: Shoemaking and Related Machine Operators
 - 899: Plant and Machine Operators and Assemblers not Elsewhere Classified

Major Group 9: Elementary Occupations

- 910: Sales and Services Elementary Occupations
- 911: Street Vendors and Related Workers
- 912: Shoe Cleaning and Other Street Services Elementary Occupations
- 913: Cleaners, Launderers and Domestic Workers
- 914: Building Caretakers
- 915: Messengers, Porters, Watchmen and Related Workers
- 916: Other Sales and Service Labourers
- 920: Agricultural, Fishery and Related Labourers
- 921: Farm- hands and Related Labourers
- 922: Forestry Labourers
- 923: Fishery, Hunting and Trapping Laboures
- 930: Labourers in Mining, Construction, Manufacturing and Transport
- 931: Mining and Quarrying Labourers
- 932: Construction and Maintenance Labourers
- 933: Manufacturing Labourers
- 934: Transport Labourers and Freight Handlers

Major Group 10: Armed Forces

- 010: Armed Forces
- 011: Armed Forces

Annex 11: International Standards of industrial Classification Codes (ISIC REV III)

1. Agriculture and Forestry

- 1111 Coffee plantations
- 1112 Tea plantations
- 1113 Sugar plantations
- 1114 Sisal plantations
- 1115 Mixed farming
- 1116 Ranches
- 1117 Other agricultural activities n.e.c.
- 1119 Processing co-operatives of small farms
- 1120 Agricultural services
- 1130 Hunting, trapping and game propagation
- 1211 Forestry
- 1212 Charcoal burning
- 1220 Logging
- 1301 Ocean and coastal fishing
- 1302 Inland water fishing

2. Mining and Quarrying

- 2901 Stone quarrying, clay and sand pits
- 2902 Chemical and fertilizer mineral mining
- 2909 Mining and quarrying n.e.c.

3. Manufacturing

- 3111 Slaughtering, preparing and preserving of meat
- 3112 Manufacture of dairy products
- 3113 Canning and preserving of fruits and vegetables
- 3114 Canning, preserving and processing of fish
- 3115 Manufacture of vegetable and animal oils and fats
- 3116 Grain mill products
- 3117 Manufacture of bakery products
- 3118 Sugar factories and refineries
- 3119 Manufacture of cocoa, chocolate and sugar confectioneries
- 3121 Manufacture of food products n.e.c.
- 3122 Manufacture of prepared animal feeds

3131 Spirits, beer and tobacco
3134 Soft drinks and carbonated waters industries
3210 Cotton ginneries
3211 Spinning, weaving and finishing textiles
3212 Manufacture of made-up textile goods except wearing apparel
3213 Knitting mills
3215 Cordage, rope and twine industries
3219 Manufacture of textiles n.e.c.
3220 Manufacture of wearing apparel, except footwear
3231 Tanneries and leather finishing
3233 Manufacture of products of leather, except footwear and wearing apparel
3240 Manufacture of footwear, except plastic footwear
3311 Sawmills, planing and other wood mills
3312 Manufacture of wooden and cane containers
3319 Manufacture of wood and cork products n.e.c.
132
3320 Manufacture of furniture and fixtures, except primarily of metal or plastic
3411 Manufacture of pulp, paper and paperboard
3419 Manufacture of pulp, paper and paperboard articles n.e.c.
3420 Printing, publishing and allied industries
3511 Manufacture of basic industrial chemicals, except fertilizers
3512 Pyrethrum extraction
3521 Manufacture of paints, varnishes and lacquers
3522 Manufacture of drugs and medicines
3523 Manufacture of soap and cleaning preparations, perfumes, cosmetics other toilet preparations
3529 Manufacture of chemical products n.e.c.
3530 Petroleum refineries
3550 Manufacture of rubber products
3560 Manufacture of plastic products
3610 Manufacture of pottery, china and earthenware
3620 Manufacture of glass and glass products
3691 Manufacture of structural clay products
3692 Manufacture of cement, lime and plaster

3699 Manufacture of non-metallic mineral products n.e.c.

3700 Basic metal industries

3811 Manufacture of cutlery, hand tools and general hardware

3812 Manufacture of furniture and fixtures, primarily of metal

3813 Manufacture of structural metal products

3819 Manufacture of fabricated metal products, except machinery and equipment n.e.c.

3820 Manufacture of machinery except electrical

3830 Manufacture of electrical machinery and appliances

3841 Ship building and repairing

3842 Manufacture of railroad equipment

3843 Manufacture and assembly of motor vehicles

3844 Manufacture and assembly of motorcycles and bicycles

3845 Manufacture and repair of aircraft

3850 Manufacture of professional and scientific equipment photographic and optical goods

3900 Other manufacturing industries

4. Electricity and Water

4101 Electric light and power

4200 Water works and supply

5. Constructions

5101 Electrical contractors

5102 Plumbers

5103 Structural steel erectors

5104 Painters, roof-tilers and minor repairs

5105 Borehole drilling

5201 Construction of buildings

5202 All other construction

6. Wholesale and Retail Trade, Restaurants and Hotels

0060 Joint wholesale and retail trade

6001 Motor vehicles

6002 Non-electric machinery and appliances

6003 Electrical machinery and appliances

61 Wholesale trade

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6110 Food, drink and tobacco

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- 6111 Agricultural produce
 - 6112 Oil and petrol
 - 6113 Textiles, soft furnishings, clothing and shoes
 - 6114 Building materials, hardware and timber
 - 6115 Domestic hardware
 - 6116 Photographic and pharmaceutical goods
 - 6117 Engineering products, scrap, industrial and agricultural chemicals, seeds, e.t.c.
 - 6118 General wholesale
 - 6119 Wholesale n.e.c.
 - 62 Retail Trade
 - 6211 Food, drink and tobacco
 - 6212 Butcheries
 - 6213 Oil and petrol
 - 6214 Textiles, soft furnishings, clothing and shoes
 - 6215 Building materials, timber, and domestic hardware
 - 6216 Photographic and pharmaceutical goods
 - 6217 General Retail Trade
 - 6218 Retail n.e.c.
 - 6310 Restaurants, cafes and other eating and drinking places
 - 6320 Hotels, rooming houses, camps and other lodging places
 - 7. Transport and Communications**
 - 7110 K.R. Central administration
 - 7111 Railway transport
 - 7112 Urban, sub-urban and inter-urban highway passenger transport
 - 7113 Other passenger land transport
 - 7114 Freight transport by road
 - 7115 Pipeline transport
 - 7116 Supporting services to land transport
 - 7121 Ocean and coastal water transport
 - 7122 Inland water transport
 - 7123 Supporting services to water transport
 - 7131 Air transport carriers including aircraft rental
 - 7132 Supporting services to air transport
 - 7190 Booking and travel agencies

7191 Services incidental to transport n.e.c.

7192 Storage and warehousing

7200 Communications

7201 K.P. & T. administrative services

8. Finance, Insurance, Real Estate and Business Services

8101 Monetary institutions

8102 Other financial institutions, except holding companies

8103 Financial services

8104 Holding companies

8201 Insurance companies

8202 Other insurance

8311 Property companies

8312 House and estate agents

8321 Legal services

8322 Accounting, auditing and book-keeping services

8323 Data processing and tabulating services

8324 Engineering, architectural and technical services

8325 Advertising services

8329 Business services, except machinery and equipment rental and leasing n.e.c.

8330 Machinery and equipment rental and leasing

9. Community and Social Services

9101 Government services 9102 Law and order

9103 Defence

9104 Other public administration

9310 Education services

9320 Research and scientific institutes

9331 Medical, dental and other health services

9332 Veterinary services

9340 Welfare institutions

9350 Business, professional and labour associations

9391 Religious organizations

9399 Social and related community services n.e.c.

9410 Motion pictures and other entertainment services

9420 Libraries, museums, botanical and zoological gardens and other cultural services

n.e.c.

9490 Pleasure boat hire

9491 Other amusement and recreational services n.e.c.

9511 Repair of footwear and other leather goods

9512 Electrical repair shops

9513 Repair of motor vehicles and motorcycles

9514 Watch, clock and jewellery repair

9519 Other repair shops n.e.c.

9520 Laundries, laundry services and cleaning and dyeing plants

9530 Domestic services

9591 Barber and beauty shops

9592 Photographic studios including commercial photography

9593 Hunting and tourist guide services

9599 Personal services n.e.c.

9600 International and other extra-territorial bodies

0000 Activities not adequately defined