REPUBLIC OF GHANA

2022

GHANA 2022 EARNINGS INEQUALITY IN THE PUBLIC SECTOR

JANUARY 2023

TABLE OF CONTENTS

LIST OF FIGURES

1. INTRODUCTION

The discourse on inequality continues to receive attention among world development leaders in view of the increasing levels and its characterisation across different geographical areas. According to the 2022 World Inequality Report, the richest 10 percent of the world population owns 52 percent of global income, while the bottom 50 percent of the population owns 8.5 percent of global income. The disparity is even greater for the distribution of wealth. While the richest 10 percent of the world population owns 76 percent of all wealth, the poorest 50 percent own just two percent of the wealth. Inequality has increased over time because these current levels of inequality are far higher than pre-1980 levels. There is heterogeneity in increases in inequality for countries that in the recent past have been experiencing these increases.

Economic (wealth, income, assets, and consumption expenditure) inequality creates disparities in the living conditions of persons with different demographic, social, and geographical characteristics. These are the differences that people observe between their lifestyles and those of their neighbours and acquaintances. Economic inequality increases crime and exacerbates existing inequality in social opportunities such as quality healthcare and education, and decent employment and can negatively impinge on poverty reduction efforts. The long-term consequences of economic inequality are the stifling of national growth and development, which could also be a precursor to conflict. It is against this backdrop that the United Nations has set to reduce inequality within and among countries as its tenth Sustainable Development Goal (SDG 10).

A country can only tackle the problem of inequality if it acknowledges and measures the level of inequality among its citizens. With its mandate to produce and disseminate official statistics to guide policy in Ghana, the Ghana Statistical Service (GSS) is obliged to inject a new momentum in the conversation about objectively determining the levels of inequality in Ghana. GSS aims to get policy makers and civil society groups to see the need to delve deeper into finding solutions to the high inequality within the country.

Across the varied spaces for measuring economic inequality, GSS has in the past only published statistics on consumption expenditure inequality using the data from the Ghana Living Standards Survey (GLSS). The seventh round of the GLSS, for instance, reports that the expenditure of the lowest household quintile accounts for just five percent of the total expenditure while that of the highest quintile accounts for 48 percent of the total expenditure. However, expenditure can be influenced by borrowing, remittances, and other transfer payments, thus limiting the ability of consumption expenditure inequality measures to accurately reflect areas of inequalities in the country.

To avert the disadvantage of measuring inequalities using consumption expenditure, GSS seeks to consolidate its measure of inequalities in Ghana via other methods. This report, for instance, measures inequalities in earnings (income). Measuring economic inequality in Ghana using income will present a true picture of the level of inequalities that exist in the country and thus propel the development of policies to address the issue. Moreover, by measuring income inequality, the fairness of the tax system can also be assessed.

Put in context, salaries in Ghana's public sector are earned based on a universal principle of equal pay for work of equal value. This policy is driven by the Fair Wages and Salaries Commission and is applied to public sector employees with the majority of workers on the Single Spine Salary Structure. The deployment of this principle implies that factors such as demographic, cultural, and political characteristics, and location of work do not influence basic earnings of employees. Hence, variations in earnings are influenced by differences in salary levels across Government Ministries, Departments and Agencies (MDAs) based on scientific job evaluation process. The evaluation considers several factors such as skills, level of qualification at the time of entry and promotions.

This report is the first in a series that GSS intends to produce on earnings inequality in Ghana. The maiden report on earnings inequality presents statistics on earnings inequality among employees working in Ghana's public sector based on administrative data sourced from the Controller and Accountant General's Department. The statistics generated on earnings inequality will complement the production of statistics on consumption expenditure inequality using survey data. The goal is to widen and deepen policy discussions on bridging gaps in accessing resources, mitigating social menace such as discrimination and crime, and ensuring balanced and sustained development across different sectors and geographies of the economy. The pursuit of this goal will contribute significantly to the global quest of leaving no one behind in the Ghanaian society.

The rest of the report is structured as follows. The next section defines key concepts, and describes the data source, the methodology, and the estimation techniques. This is followed by the description of the data, presentation of key findings, and then conclusions.

2. DEFINITION OF CONCEPTS, DATA SOURCE, METHODOLOGY, AND ESTIMATION

2.1 Definition of Concepts

2.1.1 Basic Salary

This is the fixed amount paid monthly to employees. It excludes salary arrears and recoveries.

2.1.1 Allowances

This is a sum of money paid regularly to a person to meet needs or expenses. Allowances differ from one institution to the other and also differ for persons within an institution, depending on their job. Components of analysis may include transport allowance, clothing allowance, entertainment allowance, rent allowance, house-help allowance, et cetera.

2.1.3 Gross Salary

The gross salary is the sum of the basic salary and the allowances paid to the employee.

2.1.4 Deductions

Deductions include all pension fund deductions (SSNIT and Tier 2) and income tax deductions. It excludes voluntary deductions such as deductions for payment of loans taken by an employee, standing orders deductions requested by employees, et cetera. This is also termed as statutory deductions.

2.1.5 Net Salary

The net salary is what an employee takes home if he/she has not ordered for voluntary deductions for the month, does not owe recoveries for that month and has not accrued salary arrears. It is measured as the gross salary minus the statutory deductions, which adds up to the basic salary plus the allowances minus the statutory deductions.

2.1.7 Payroll

Payroll is a list of persons from different organisations who are placed on the same salary structure. An example is the Article 71 payroll, which consist of some government officials or appointees working for different organisations. Another example is the Ghana Education Service Payroll, which captures the details of salaries paid to employees of the Ghana Education Service (i.e., teachers).

2.2 Data Source

The analysis presented in this report is based on data from the Controller and Accountant General's Department on December 2022 earnings of public sector employees. All values are in Ghana cedis. Moving forward, the Service will complement the use of this administrative data source with other traditional data sources that will provide information on wealth and earnings for both public and private sectors.

The data used for this analysis is data from the Integrated Personal Payroll Database (IPPD2). It is not exhaustive of the entire employees of the Government as some institutions such as the Ghana Revenue Authority, Social Security and the National Insurance Trust pay their employees themselves while others such as the Ghana Police Service, Ghana Armed Forces, and some universities pay their employees out of subvention from the Controller and Accountant General Department.

2.3 Methodology

To be able to analyse the data and provide insightful statistics, two minor adjustments to the data were made before the analysis. First, only employees in active employment are considered, such that those who are on leave of absence for example are not included in the analysis. Besides that, other salaries paid to workers who based on some arrangements, are temporarily assigned to work for another public sector organisation (i.e., are on secondment), were added to their salaries from their parent organisation. However, for the specific analysis on differences in salaries between workers on different payrolls and in different ministries, employees on secondments were excluded from the data. The analysis is based on 687,984 employees, who work in 129 payrolls, and 50 MDAs.

2.4 Estimation

In this report earnings inequality is described by mainly comparing average earnings of net incomes (salaries) of persons by age, sex and region. Moreover, a Lorenz curve of the net incomes is shown, with their corresponding Gini coefficients, and the Palma ratio. Besides the Lorenz curve, the Theil index is used to distinguish within and between group inequalities. These concepts are defined as follows.

2.4.1 Lorenz Curve

A Lorenz curve is a graphical representation of the distribution of income among a given population in this case public sector employees. The dashed 45-degree line represents

total equality. Any point (x, x) on this 45-degree line shows the bottom x percent earns exactly x percent of the total salary paid to all public sector employees. For example, the point on the line where 10 on the horizontal axis intersects with 10 on the vertical axis would mean that the bottom 10 percent earns 10 percent of the total salaries while the top 90 percent earn 90 percent. This means that everyone earns the exact same salary. The further below this dashed line the Lorenz curve is, the more unequal the distribution of income among workers.

2.4.2 Gini Coefficient

The Gini coefficient is the most widely used measure of income inequality. The value varies between zero and one, where zero presents a perfectly egalitarian distribution, and one presents full inequality (where one person receives all the income).

2.4.3 Palma Ratio

The Palma ratio is the ratio of the richest 10 percent of the workers share of net salaries divided by the poorest 40 percent's share.

2.4.4 Theil Index

The Theil index is a commonly used measure of inequality, with the property that it can be completely and perfectly decomposed into a within-group, and a between-group component. The groupings that have been used for the within-group and between-group inequality calculations are the same as used in the rest of the report.

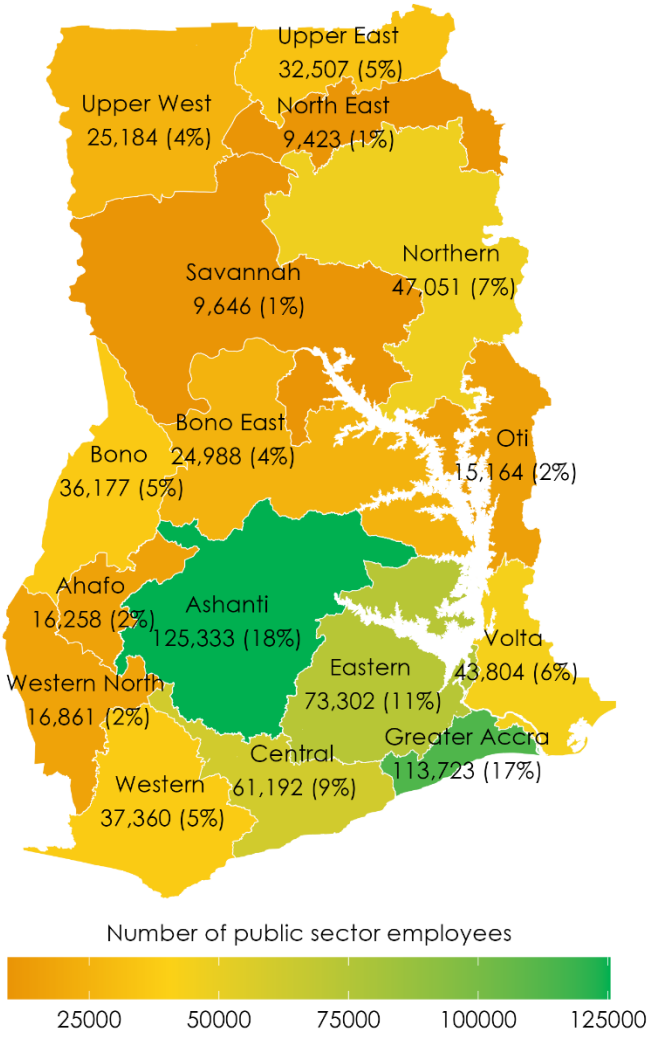
3. DATA DESCRIPTION

Statistics in this section are generated using December 2022 earnings data of public sector employees. This section provides a description of the data.

The Government of Ghana employs about 688,000[1] persons, with over one-third (34.8%) of the employees in the Ashanti (18.2%) and Greater Accra (16.5%) regions.

The North East (1.4%) and Savannah regions (1.4%) hold only 2.8 percent of the total number of public sector employees.

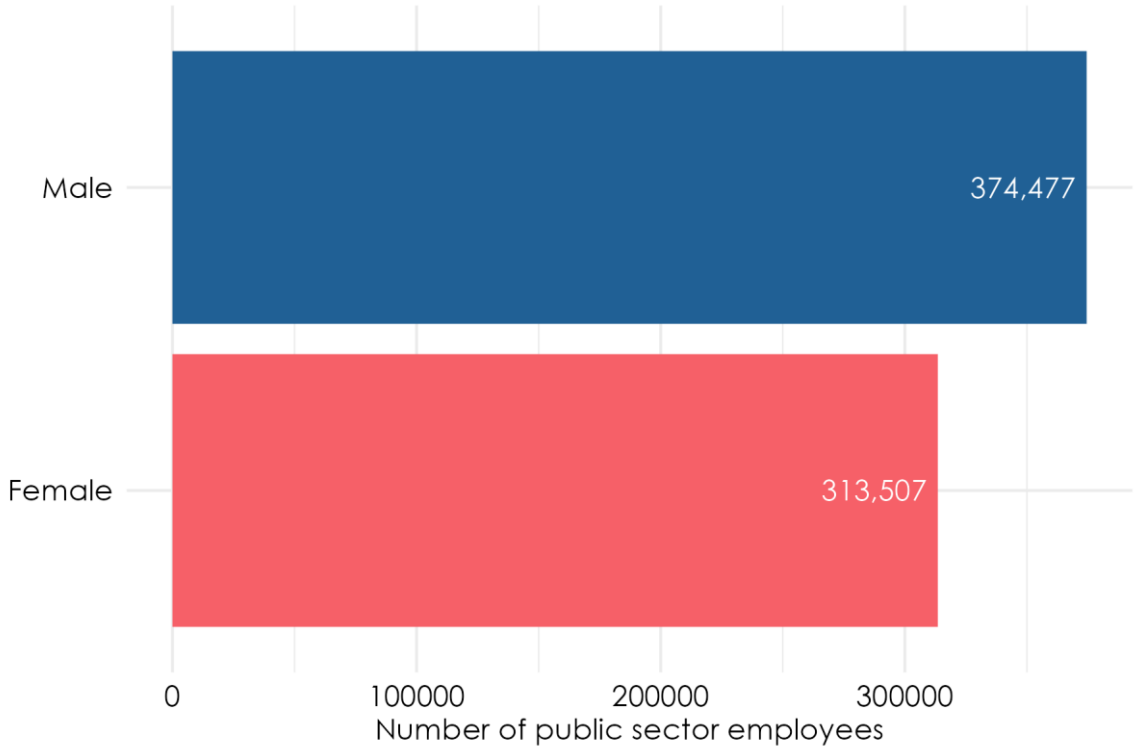
FIGURE 3.1: NUMBER OF PUBLIC SECTOR EMPLOYEES BY REGION



[1] The total number of active employees on the December 2022 payroll is 687,984. This figure however reduces marginally (<0.02%) across some of the variables. For instance, the record for age and region of work was unknown for 75 and 11 employees respectively.

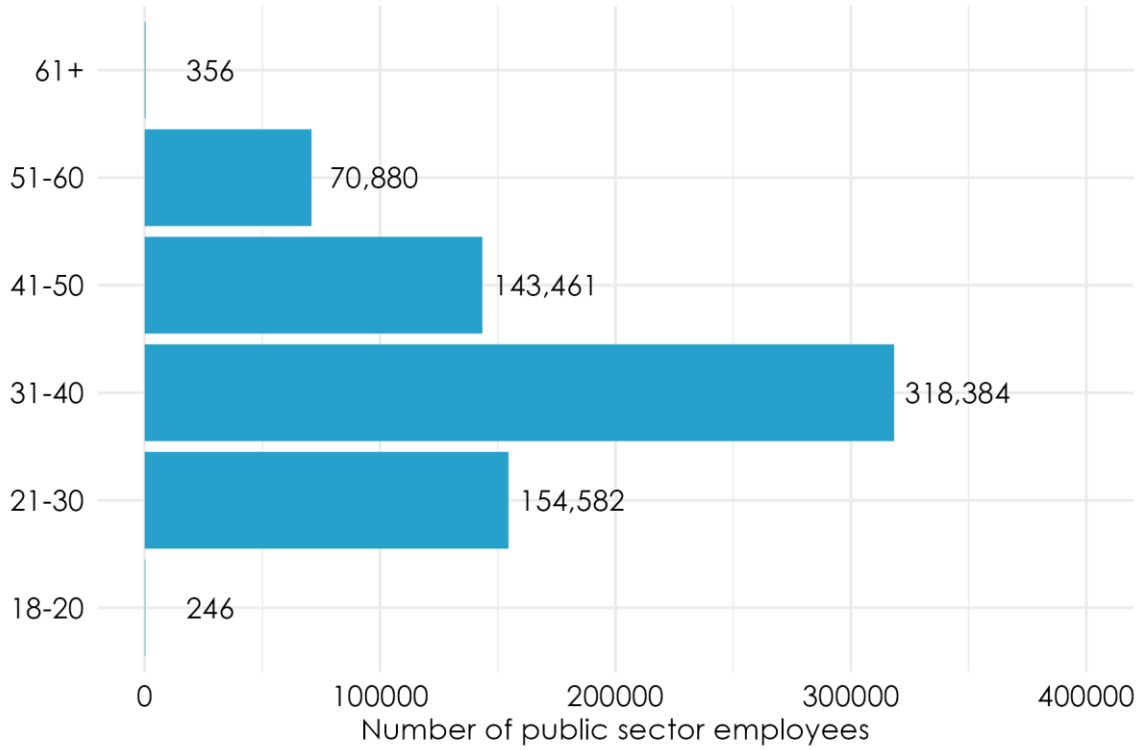
Males in the public sector constitute 54.4 percent of the total number of employees.

FIGURE 3.2: NUMBER OF PUBLIC SECTOR EMPLOYEES BY GENDER



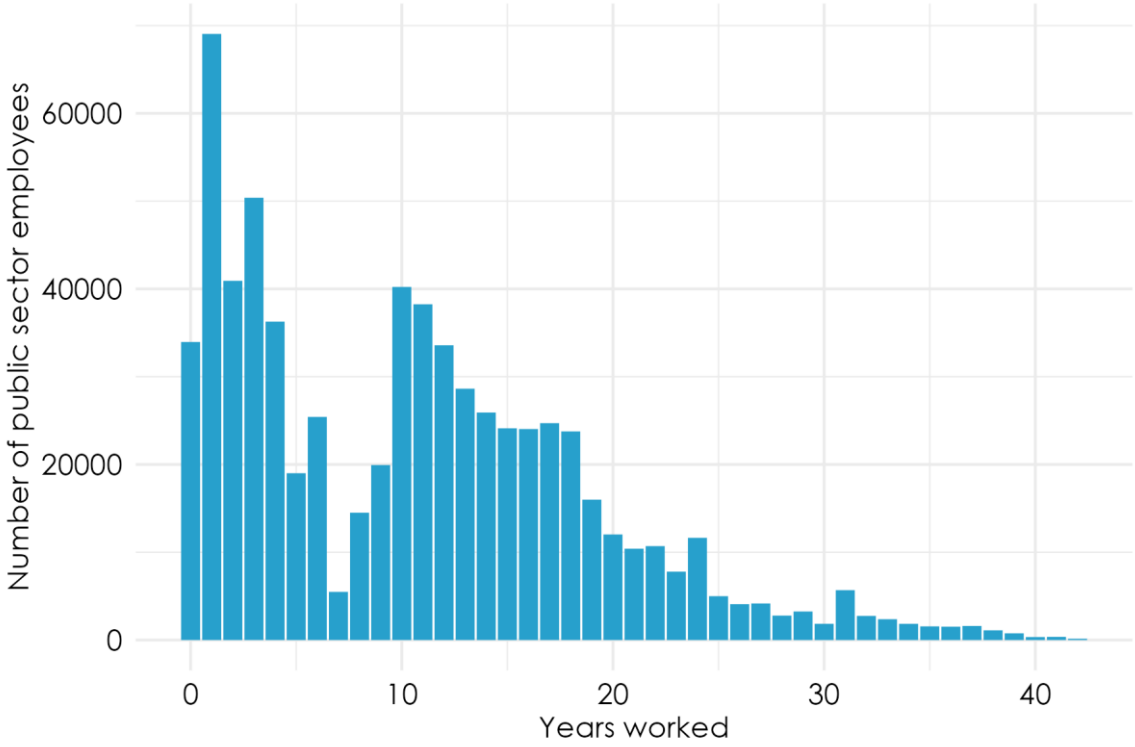
Almost half (46.3%) of public sector employees are between 31 and 40 years old.

FIGURE 3.3: NUMBER OF PUBLIC SECTOR EMPLOYEES BY AGE GROUP



Over the years, the number of public sector employees hired do not follow a discernible trend but generally Government in recent times, about 10 years, has employed more persons.

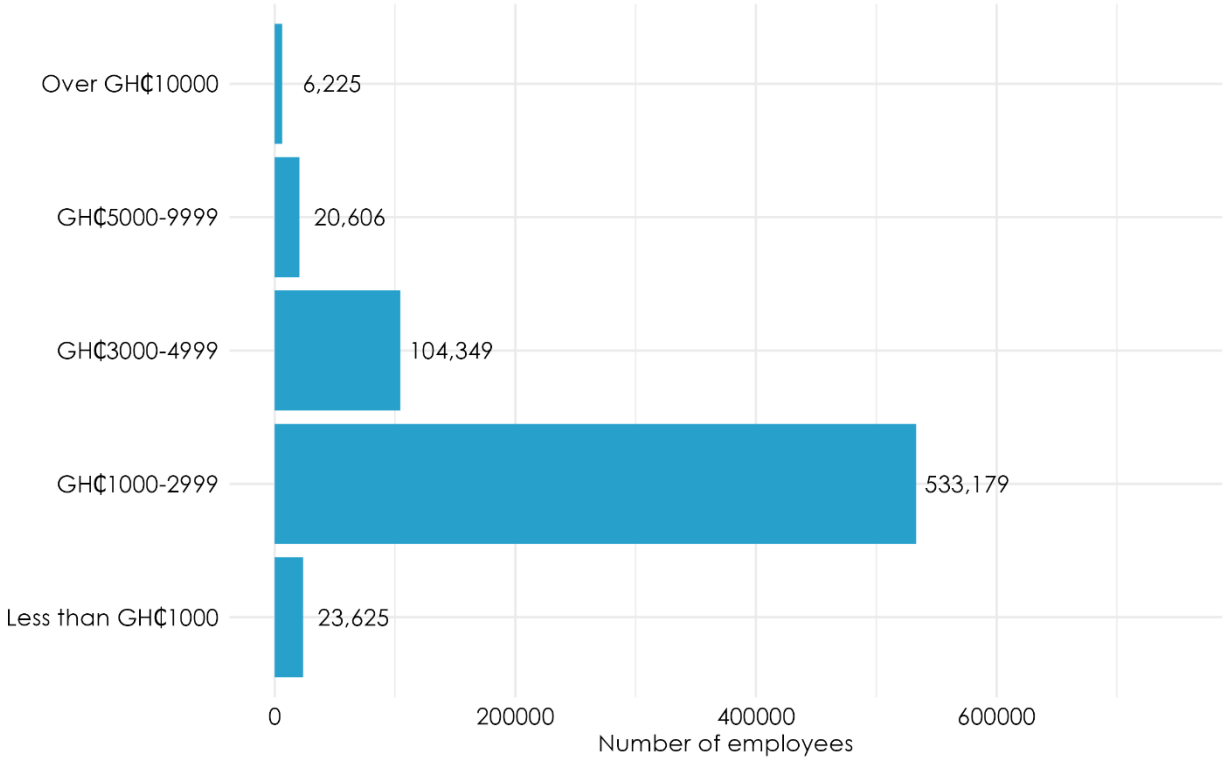
FIGURE 3.4: NUMBER OF PUBLIC SECTOR EMPLOYEES BY YEARS WORKED[2]



[2] The number of employees per years worked is based on all current employees and their hire date, such that it describes the number of years the current employees have been employed at their workplace.

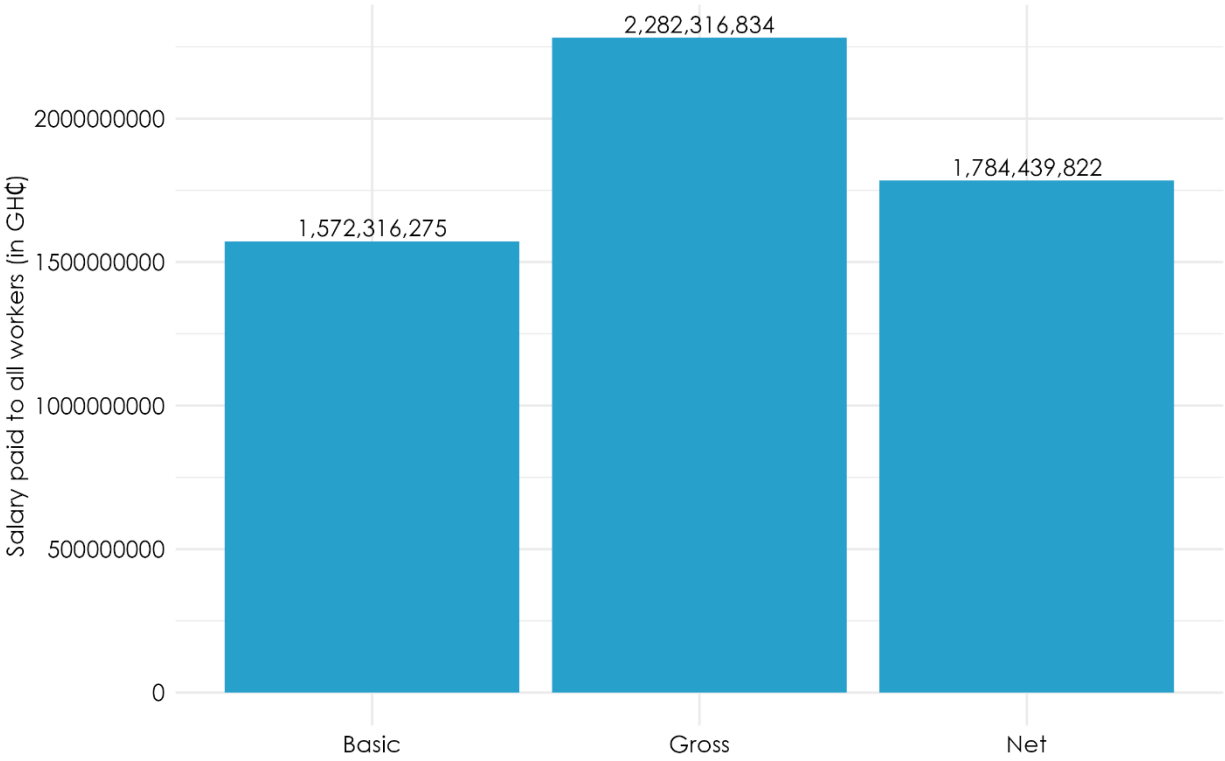
Four out of every five public sector employees earn less than GH₵3,000

FIGURE 3.5: NUMBER OF PUBLIC SECTOR EMPLOYEES BY NET SALARY



The Government paid about GH₵2.3 billion[3] in salaries and allowances public sector employees in December 2022.

FIGURE 3.6: TOTAL SALARY FOR PUBLIC SECTOR EMPLOYEES IN DECEMBER 2022



[3] This figure is limited to only Government employees that are paid through the Controller and Accountant General's Department (CAGD). Unconfirmed feedback on this report suggests that Government employees on the CAGD payroll constitute about 90 percent of the total number of Government employees.

4. KEY FINDINGS

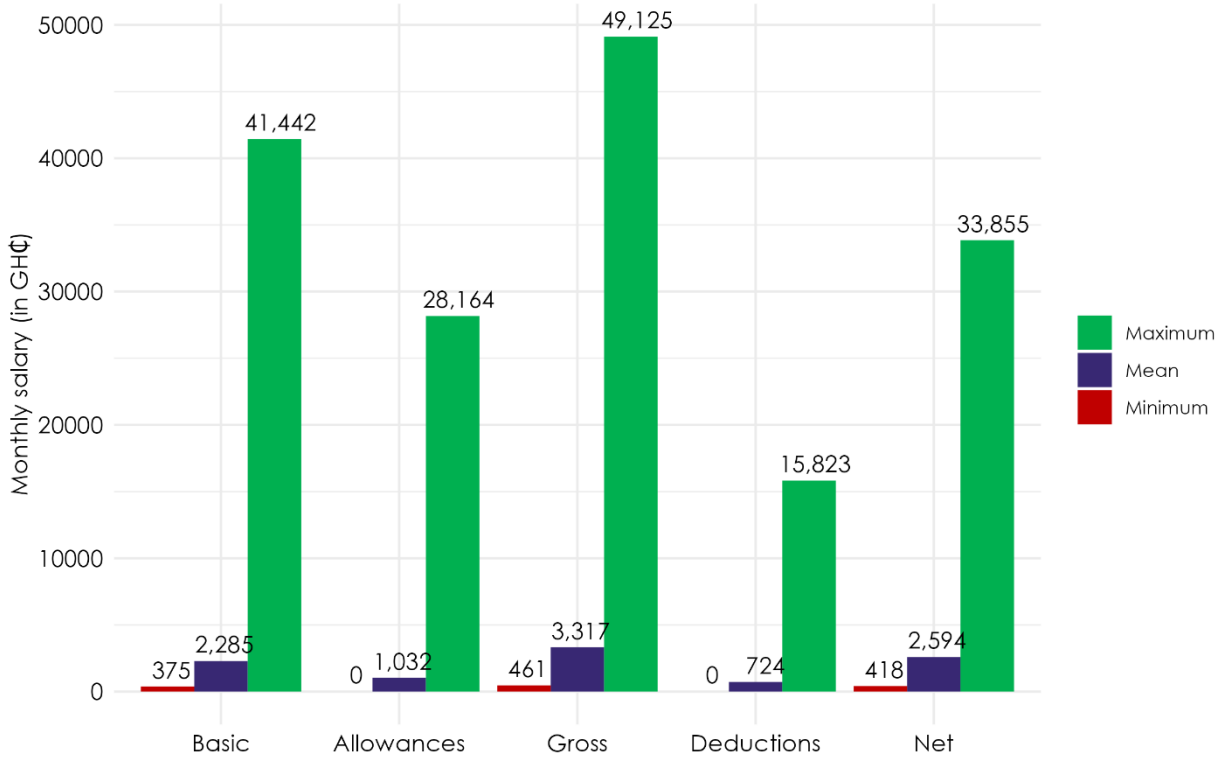
Statistics in this section are generated using December 2022 earnings data of all public sector employees.

4.1 National Earnings Inequality

The average monthly net salary of public sector employees is GH₵2,594.

The highest paid earner takes home GH₵33,855, which is close to 81 times as high as the net salary of the lowest paid worker (GH₵418).

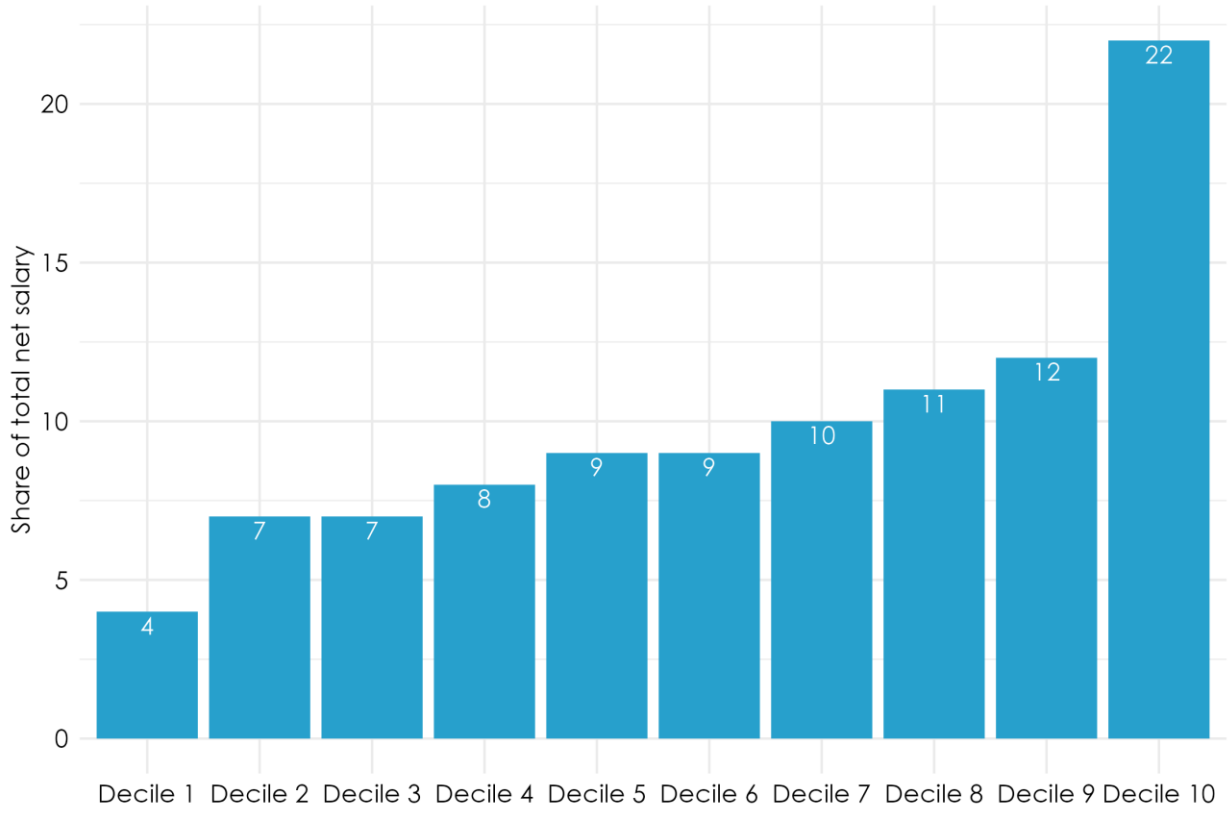
FIGURE 4.1: MINIMUM, MEAN, AND MAXIMUM MONTHLY EARNINGS



The top 10 percent of the employees with the highest net salaries earn 22 percent of the total net salary.

Half of the employees earn only one-third of the total net salary.

FIGURE 4.2: SHARE OF TOTAL MONTHLY NET SALARY PER DECILE

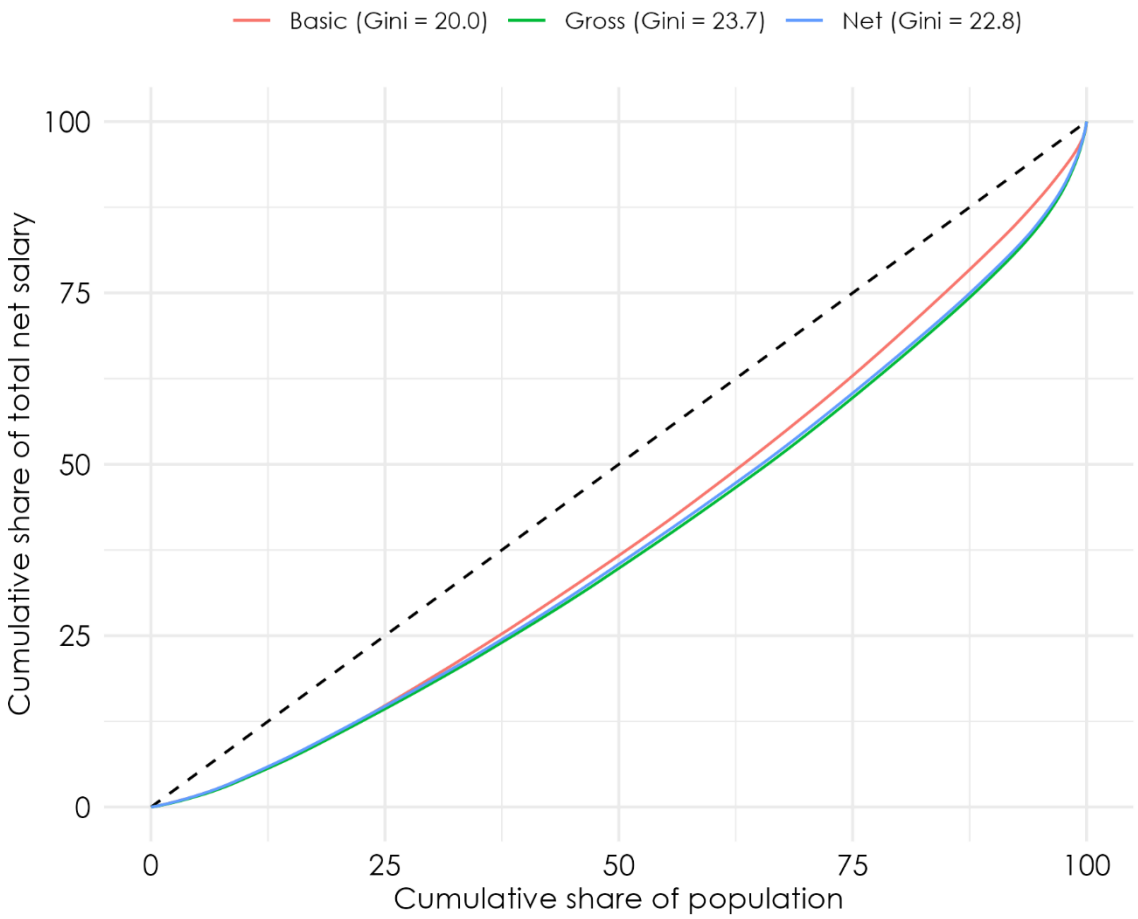


The variations in amounts of allowances paid to public sector employees exacerbates earning inequalities as the Gini coefficient for gross earning (23.7) is higher than basic (20.0).

Although salary deductions slightly reduce earnings inequalities among public sector employees, with a net salary Gini coefficient of 22.8, regressive effect is minimal.

The Palma ratio is 0.82. This means that the top 10 percent earns 82 percent of the total earnings of the bottom 40 percent.

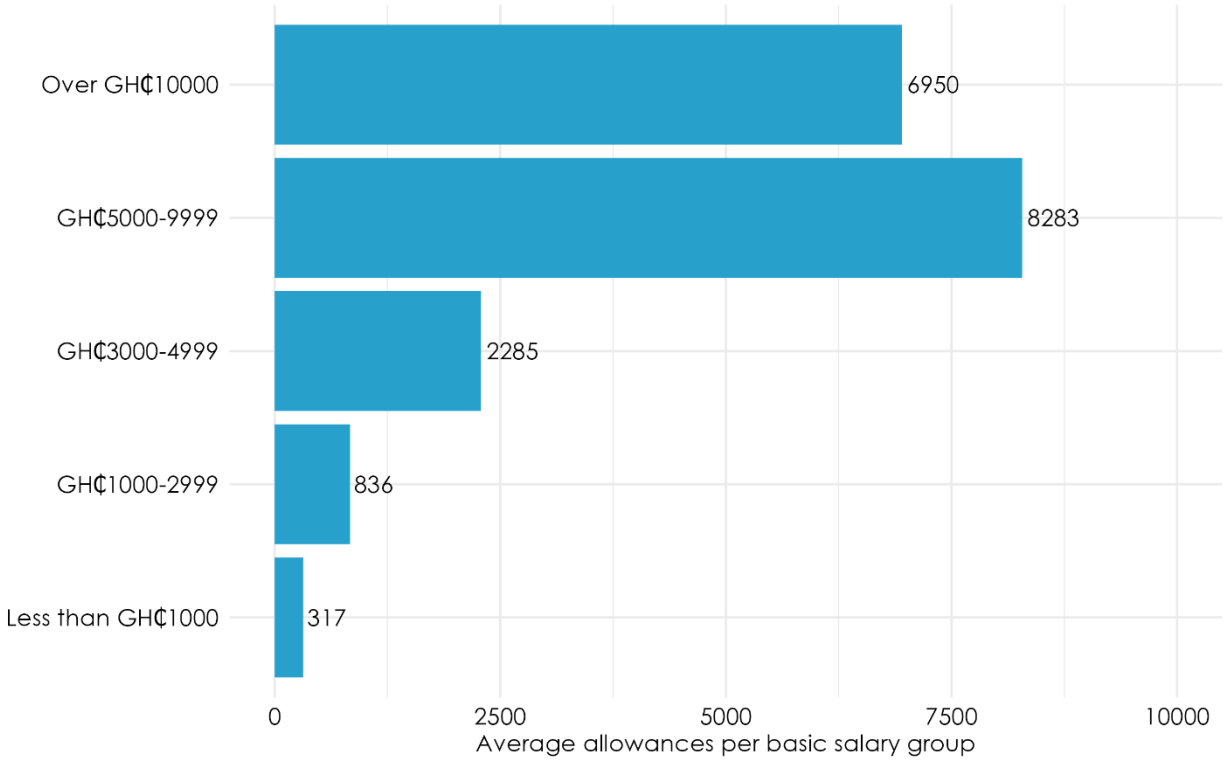
FIGURE 4.3: LORENZ CURVES OF BASIC, GROSS, AND NET SALARIES



The average allowances are much higher for persons with higher net salary.

The allowances of people with a basic salary of between GH₵5,000 and GH₵9,999 are more than 26 times larger than those of people with a net salary below GH₵1,000.

FIGURE 4.4: AVERAGE ALLOWANCES PER INCOME GROUP BASED ON BASIC SALARIES[4]

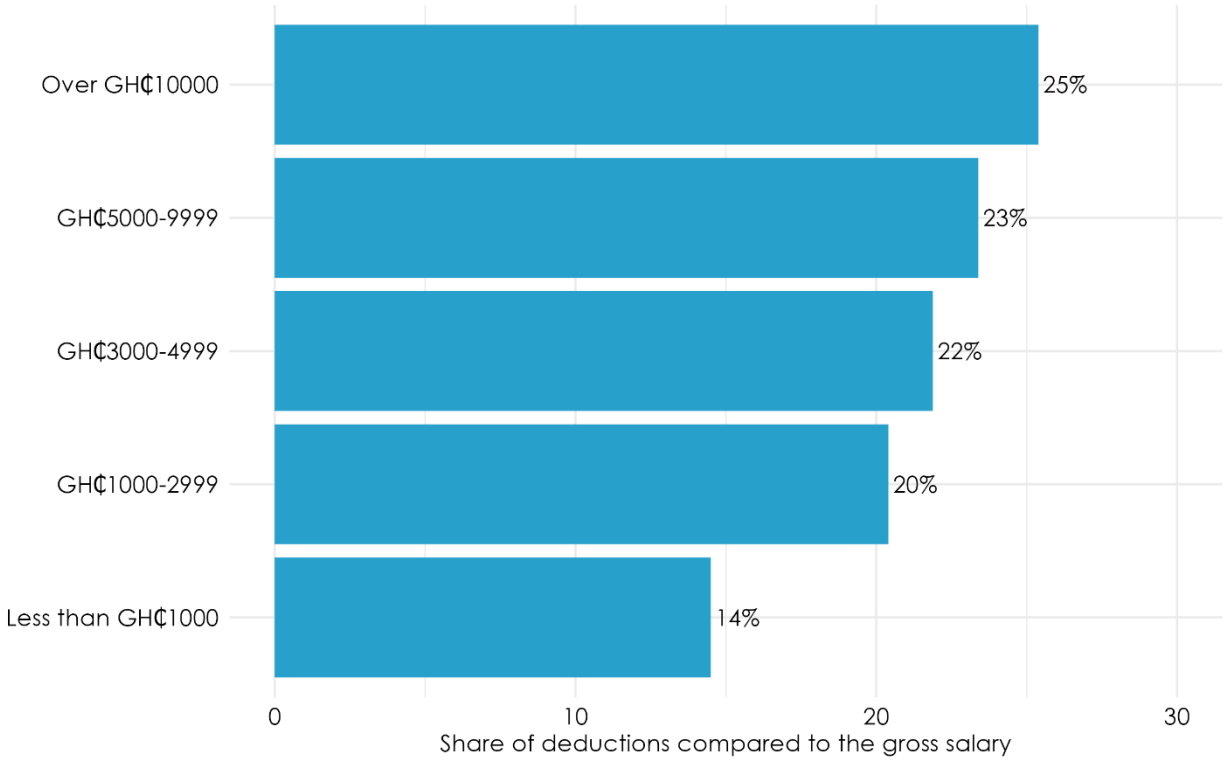


[4] This figure excludes people with zero allowances.

The statutory deductions are progressive as its share increases by higher income groups.

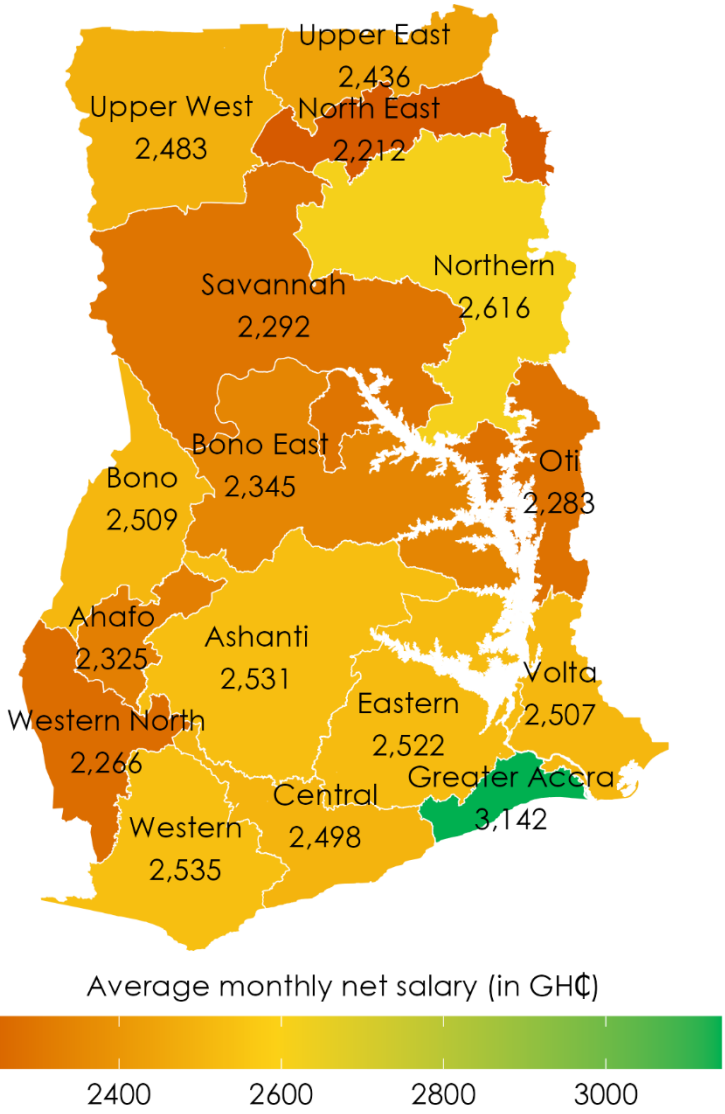
However, the differences are relatively small, where those with a salary above GH₵10,000 have statutory deductions of on average 25.0 percent, whereas those with a salary between GH₵1,000 and GH₵2,999 pay 20.0 percent of their gross salary to statutory deductions.

FIGURE 4.5: DEDUCTIONS AS SHARE OF GROSS SALARY, PER GROSS SALARY GROUP



Greater Accra has the highest average monthly net salary (GH₵3,142) with North East recording the lowest (GH₵2,212).

FIGURE 4.6: REGIONAL AVERAGE MONTHLY NET SALARIES



The difference between the average net salary of men and women is GH₵165. This means that the gender pay gap is 6.0 percent.

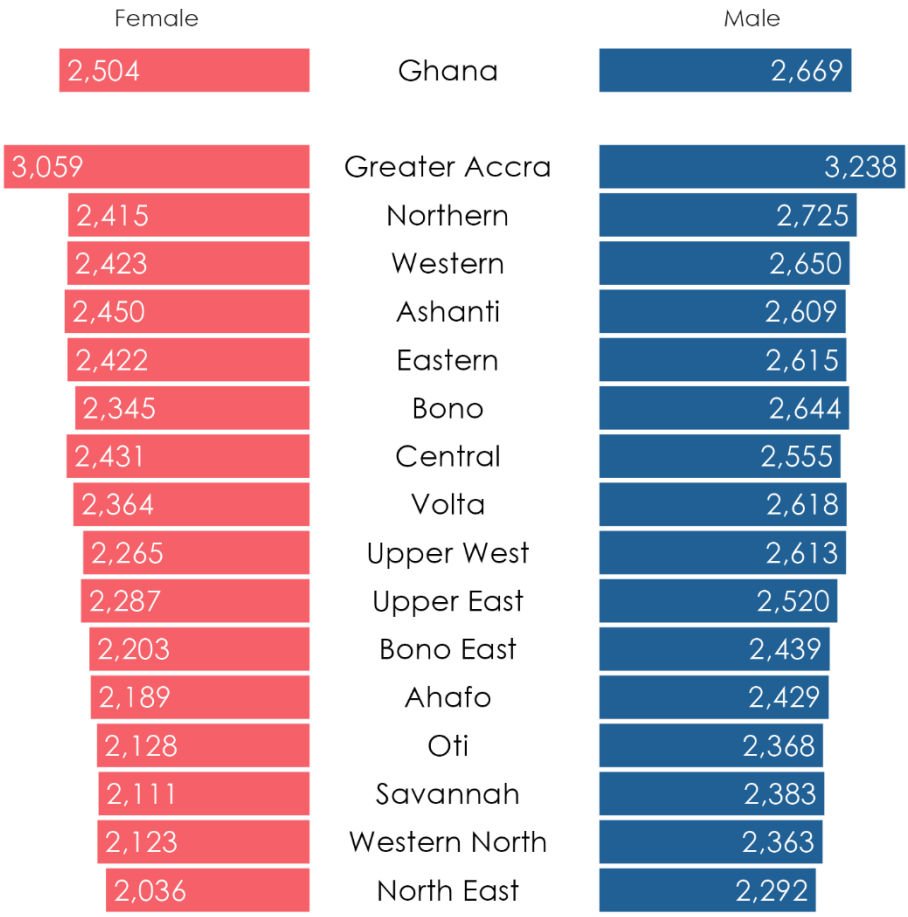
Men have a higher average monthly net salary, of GH₵2,669, while women have an average of GH₵2,504.

The average monthly net salary of women is lower than that of men in all 16 regions.

The difference is highest for employees in the Upper West region, with men earning on average GH₵348 more than women. This is a gender pay gap of 13 percent.

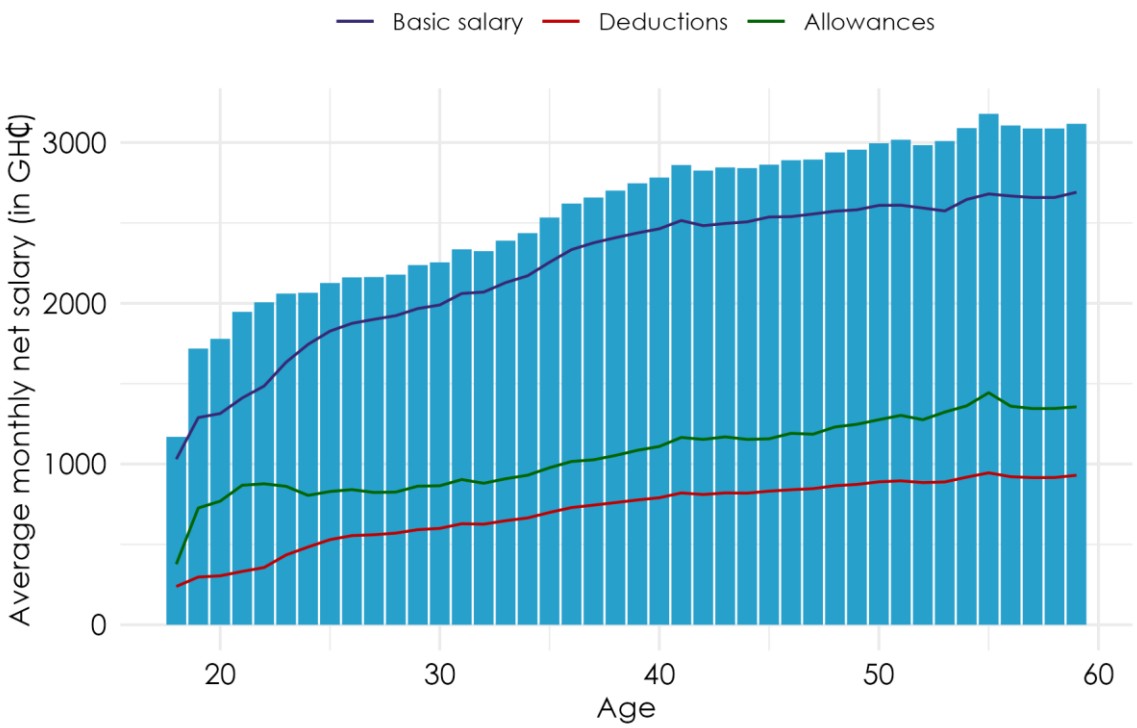
In the Central Region the difference between men and women is the least, with women earning GH₵124 less than men. This means the gender pay gap of 5.0 percent.

FIGURE 4.7: AVERAGE MONTHLY NET SALARY PER REGION BY GENDER



Basic salary, deductions, and allowances all increase with age and are highest for the age group 50 to 60 years. However, the rate of upward changes in earnings between ages 20 and 40 years is marginally steeper compared to increases after age 40 years.

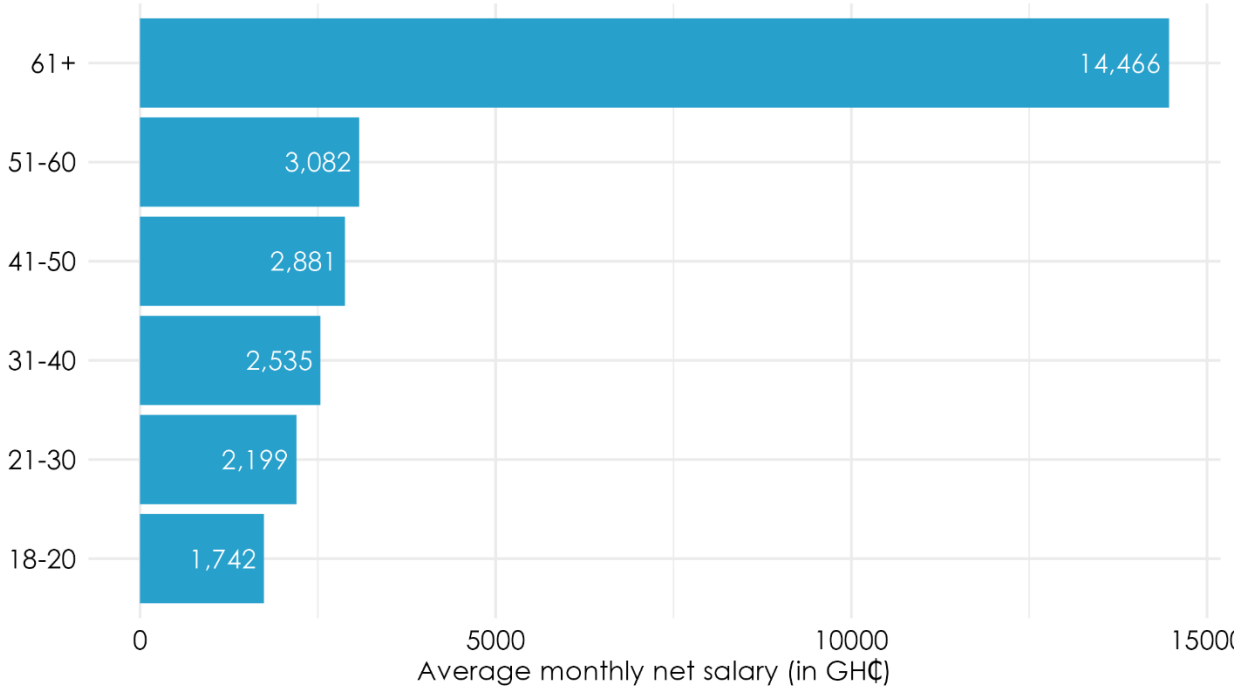
FIGURE 4.8: AVERAGE MONTHLY NET SALARY PER AGE



The average monthly salary for employees older than 60 years (GH₵14,466) is much higher than that of any other age group, almost five (4.7) times the average of 51 to 60 years, the group with the next highest average.

For the age groups up to 41 to 50 years, the average monthly net salary increases by between GH₵300 and GH₵500 from one age group to the next, with an increase of around GH₵200 between 41 to 50 years and 51 to 60 years.

FIGURE 4.9: AVERAGE MONTHLY NET SALARY PER AGE GROUP

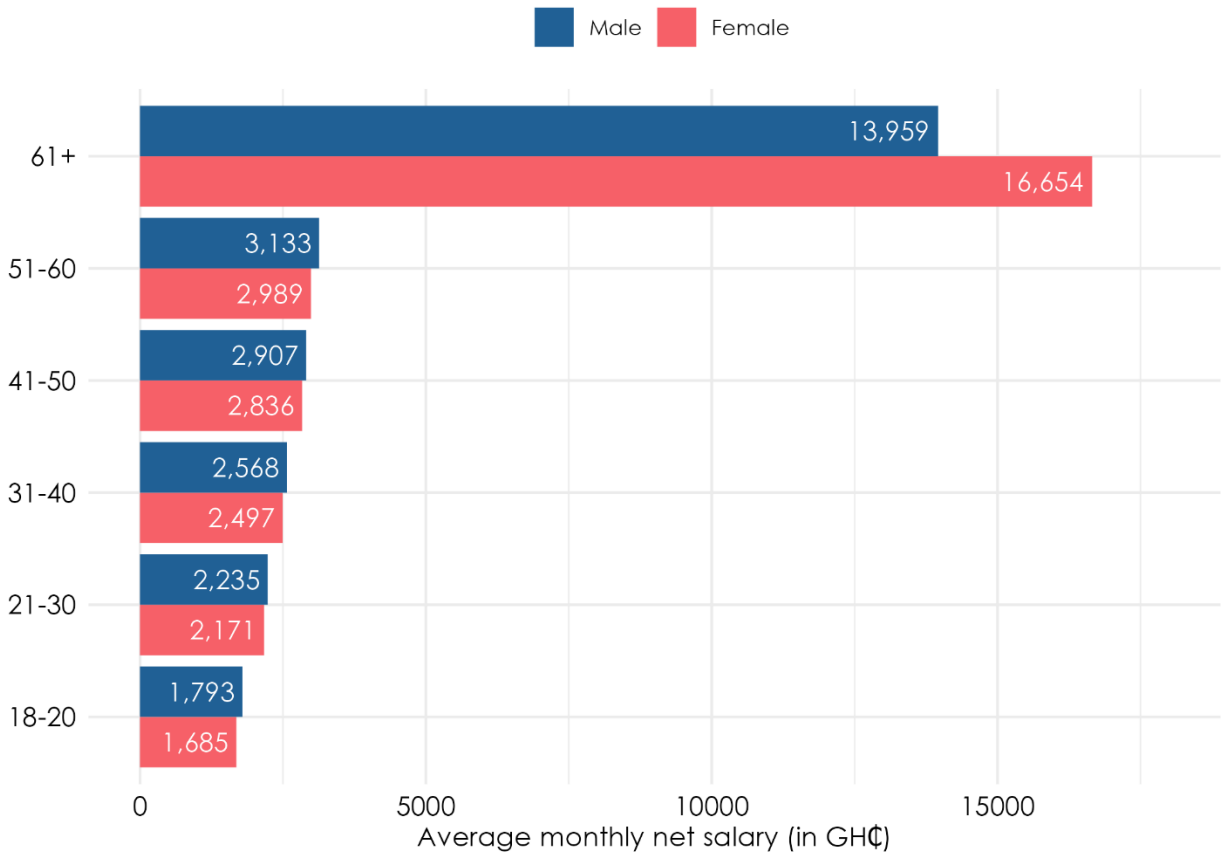


For women and men there is a very similar relation between age and the average monthly net salary, where the average steadily increases with age.

Average income steadily increases with age until age is above 60.

Average income for males above 60 is more than four times that of those within the ages of 51 to 60. In the case of females, the difference between the two groups is more than five times.

FIGURE 4.10: AVERAGE MONTHLY NET SALARY PER AGE GROUP BY GENDER



The average monthly net salary is highest for employees who have been in their workplace for between 20 and 35 years.

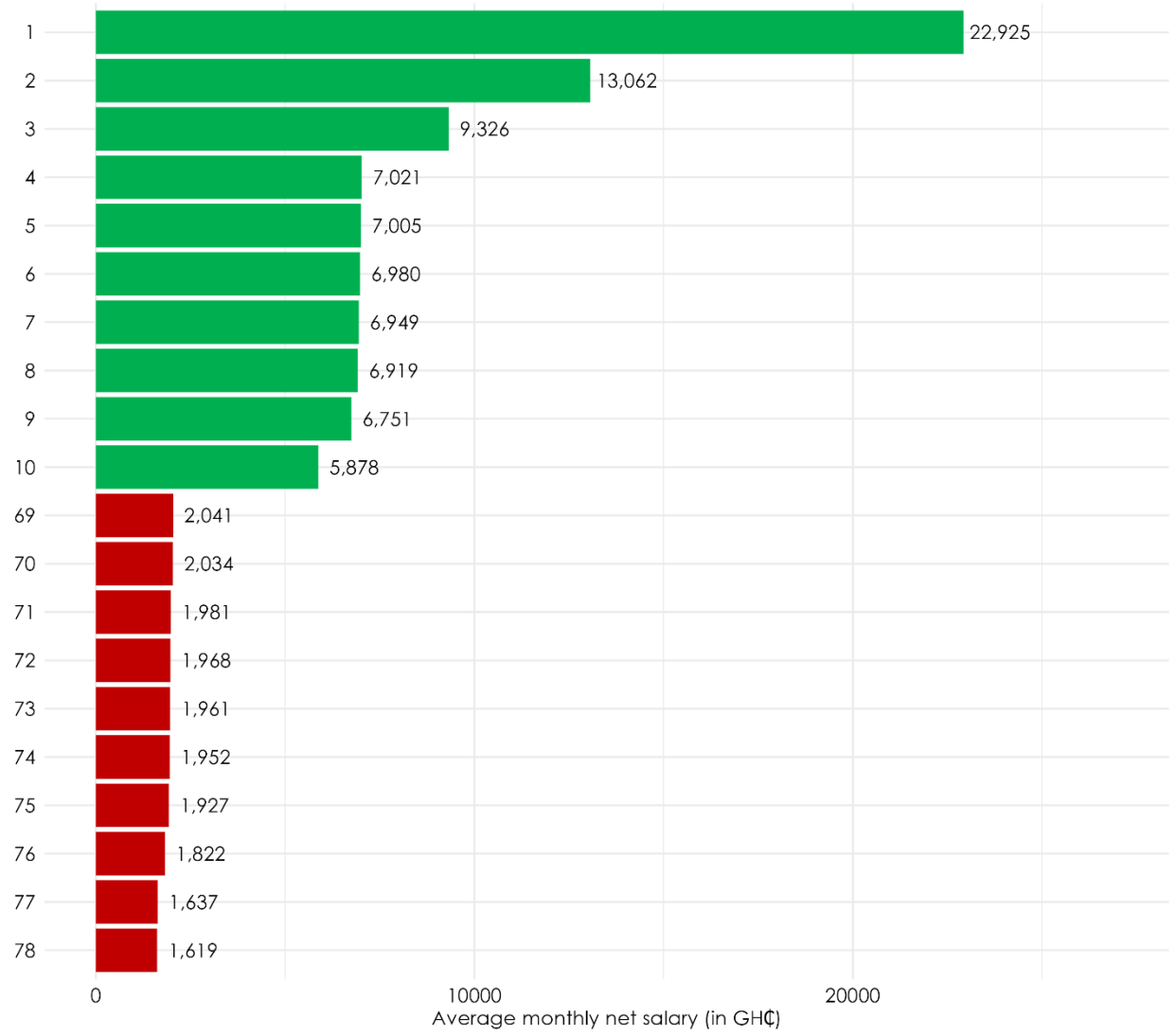
FIGURE 4.11: AVERAGE MONTHLY NET SALARY PER YEARS WORKED

4.2 Differences between Payrolls, Ministries, Departments and Agencies (MDAs)

The average salary of workers on the payroll with the highest average earnings (GH₵22,925) is more than 14 times the average salary of workers on the payroll at the bottom (GH₵1,619).

The difference between the average salary of workers on payrolls with the highest average earnings (GH₵22,925) and the average of next set of employees on the payroll (GH₵13,062) is 1.8 times high.

FIGURE 4.12: TOP AND BOTTOM 10 PAYROLLS WITH THE HIGHEST AND LOWEST AVERAGE MONTHLY NET SALARIES [5]

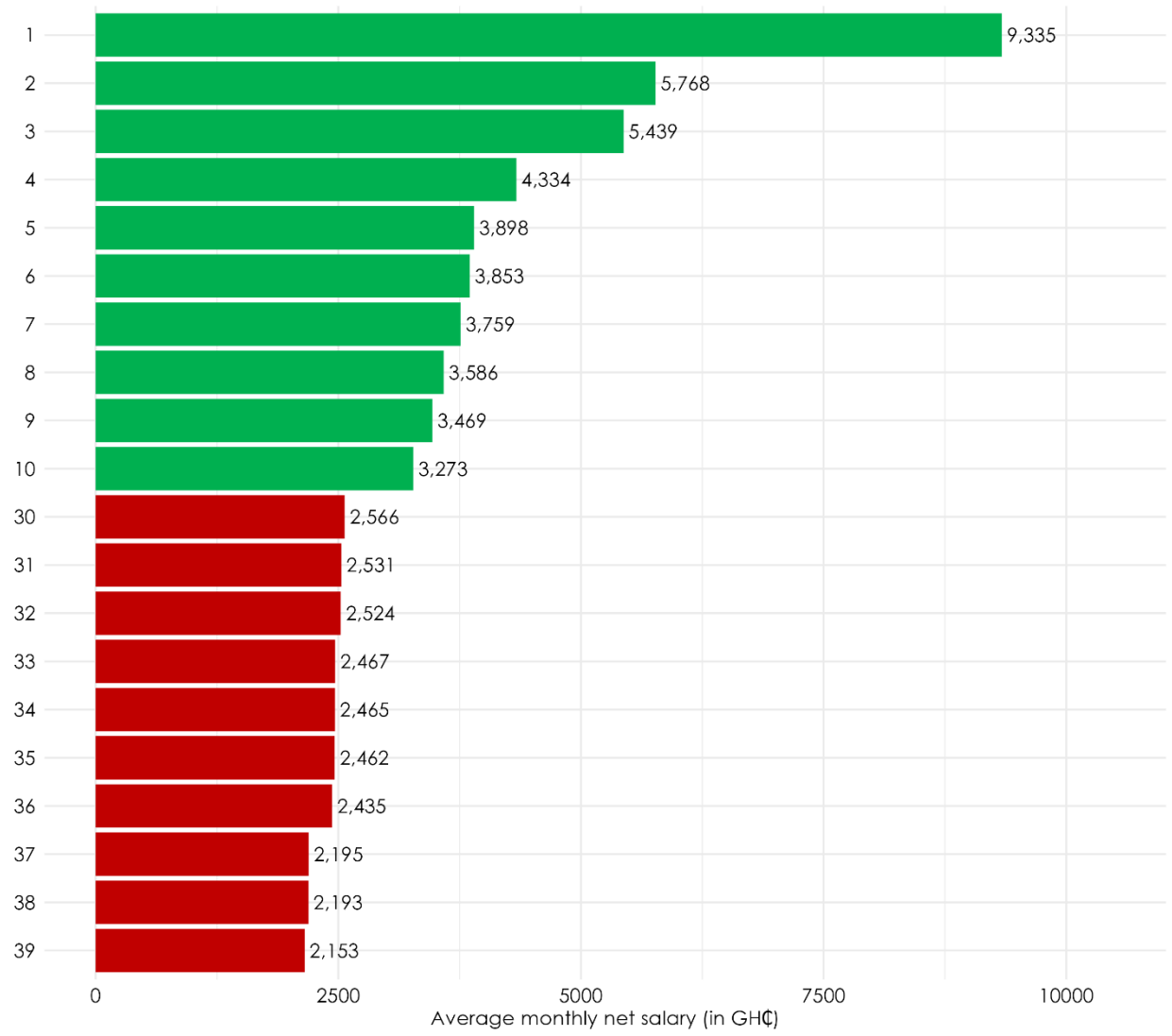


[5] This figure only includes payrolls with at least 50 employees, and the numbers on the vertical axis correspond to different payrolls.

The MDA with the highest average earnings (GH₵9,335) has its employees receiving salaries more than four times as high as the institution with the lowest average salaries (GH₵2,153).

The difference between the average salary of workers in MDAs with the highest average earnings (GH₵9,335) and second highest average salary (GH₵5,768) is about 1.6 times .

FIGURE 4.13: TOP AND BOTTOM 10 MDAS WITH THE HIGHEST AND LOWEST AVERAGE MONTHLY NET SALARIES [6]



[6] This figure only includes MDAs with at least 50 employees, and the numbers on the vertical axis correspond to different MDAs.

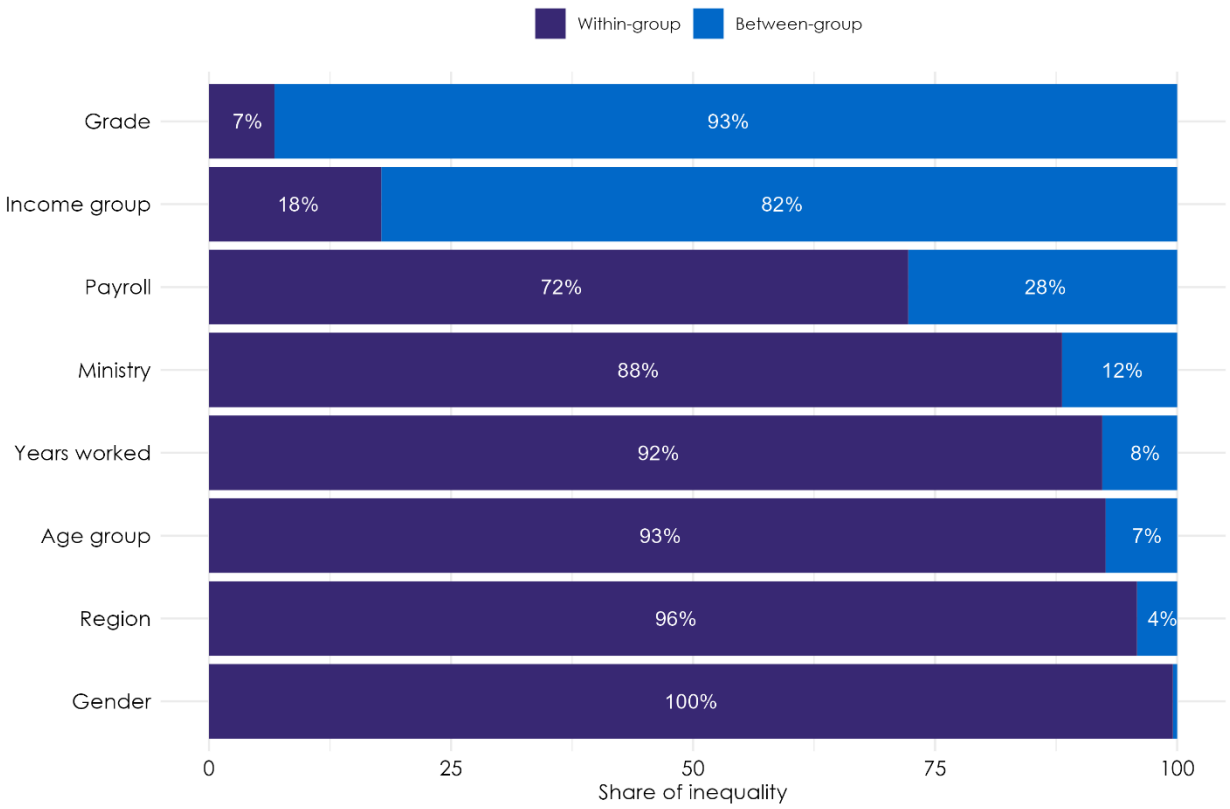
4.3 Within-Group and Between-Group Inequality

The contribution of earnings inequality among employees on the same grade is very negligible (7%) relative to differences across the grades (93%).

The differences in earnings across income groups are more pronounced compared to variations within income groups The contribution of earnings inequality within MDAs (88.0%) is significantly higher than variations across MDAs (12.0%)

Inequalities in net salaries of public sector employees are largely explained by the differences in salaries between persons in the same demographic group or location (region).

FIGURE 4.14: THE SHARE OF WITHIN-GROUP AND BETWEEN-GROUP INEQUALITY IN NET SALARIES



5. CONCLUSIONS

Analysing basic, gross, and net salaries of almost 688,000 employees within the public sector in Ghana has offered a baseline information for various stakeholders to study and unravel the specific causes of earnings inequality among different groups. This is partly because of the resolve of the Government of Ghana to deploy a universal principle of equal pay for work of equal value, which restricts the scope of potential factors that will drive earnings inequality.

These maiden statistics on salaries of public sector employees in Ghana has depicted stark differences in earnings among employees and across Government Ministries, Departments and Agencies. It should be noted that the overall inequality level that is found in this report is relatively low, with a Gini coefficient of 22.8 for the net salaries. However, this is not surprising as this report deals with a relatively homogenous group as it only focusses on public sector employees, whose salaries follow a universal principle of equal pay for work of equal value.

The variations, as alluded to earlier, are attributable to (1) differences in salary levels across Government Ministries, Departments and Agencies based on negotiated and approved specialised skills needed for the deployment of the mandate of institutions, (2) grade (level of qualification at the time of entry and promotions) and (3) grade step (number of years at the grade). The levels of earnings inequality presented in this report will potentially exacerbate existing disparities in social opportunities such as quality healthcare and education, engender discrimination and crime, and stifle national growth, poverty reduction, and development.

Insights from this report provide policymakers with an opportunity to relate the observed variations in earnings to productivity and the overall growth trajectory of Ghana's economy. Also, Heads of Government Ministries, Departments, and Agencies can collaborate with the Ghana Statistical Service to generate institution-specific analysis on earnings inequality and relate that to their levels of productivity across different segments of their organisations.

LIST OF CONTRIBUTORS

Name	Email	Institution	Role
Mr. Peter Yeltume Mwinlaaru	peter.mwinlaaru@statsghana.gov.gh	Ghana Statistical Service	Lead Author
Ms. Femke van den Bos	femke.bos@statsghana.gov.gh	Ghana Statistical Service	Lead Author
Prof. Samuel Kobina Annim	samuel.annim@statsghana.gov.gh	Ghana Statistical Service	Secondary Author
Mr. Felix Amattey	felix.amattey@cagd.gov.gh	Controller and Accountant General's Department	Reviewer
Prof. Josephine Dzahene-Quarshie	jdzahene-quarshie@ug.edu.gh	University of Ghana	Reviewer
Prof. Robert Darko Osei	rdosei@ug.edu.gh	University of Ghana	Reviewer
Mr. Paul Corral Rodas	pcorralrodas@worldbank.org	World Bank	Reviewer
Mr. Felix Adjei	felix.adjei@statsghana.gov.gh	Ghana Statistical Service	Graphic Design

www.statsghana.gov.gh