



GHANA STATISTICAL SERVICE

THEMATIC BRIEF

Population Mobility and Distributions in Ghana in 2024



FLOWMINDER.ORG

GHANA STATISTICAL SERVICE
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TABLE OF CONTENTS

LIST OF TABLES	iii
ACKNOWLEDGEMENTS	iv
1. INTRODUCTION	1
2. DEFINITION OF CONCEPTS	3
2.1. Call Detail Records (CDRs)	3
2.2. Home location	3
2.3. Inflow	3
2.4. Net relocations	3
2.5. Outflow	3
2.6. Relocations	3
2.7. Residents	4
3. DATA SOURCES	5
4. METHODOLOGY	6
4.1. Production of population and mobility estimates	6
4.1.1. Mobility inference from CDRs and cell data	6
4.1.2. Calculating monthly, district-level population estimates	6
4.2. Analysis of population and mobility estimates	7
4.2.1. Delineation of metropolises	7
4.2.2. Classification of population trends	9
5. KEY FINDINGS	10
5.1 Population Trends and Relocations by Districts	10
5.2 Population Trends and Relocations for Accra Metropolitan Area and Wider Metropolis	13
5.3 Population Trends and Relocations for Kumasi Metropolis	16
5.4 Population Trends and Relocations for Sekondi-Takoradi	19
5.5 Population Trends and Relocations for Tamale Metropolis and Wider Metropolitan Area	22
6. CONCLUSIONS	25
7. APPENDIX	26
LIST OF CONTRIBUTORS	40

LIST OF FIGURES

Figure 5.1: Trends in the relative monthly change in estimated population for districts in Ghana with reference to projected population growth, January to December 2024	10
Figure 5.2: Relative size of total numbers of estimated relocations for 2024 between regions in Ghana	12
Figure 5.3: Estimated monthly population and total monthly relocations to and from Accra Metropolitan area and wider metropolis, January to December 2024	13
Figure 5.4: Annual number of estimated relocations to the Accra Metropolis area from other districts (left) and from Accra Metropolis to other districts (right) in 2024.	14
Figure 5.5: Long-term population estimates for Accra Metropolitan Area and Wider Metropolis, January 2020 to December 2024	15
Figure 5.6: Estimated Monthly Population And Total Monthly Relocations To And From Kumasi, With Specific Focus On The Metro Districts, In 2024	16
Figure 5.7: Annual number of relocations to Kumasi from other districts (left) and from Kumasi to other districts (right) in 2024	17
Figure 5.8: Long-term population estimates for Kumasi Metropolitan Area and wider metropolis, January 2020 to December 2024	18
Figure 5.9: Estimated monthly population of and total monthly relocations to and from Sekondi-Takoradi, with specific focus on the metro districts, in 2024.	19
Figure 5.10: Annual number of estimated relocations to Sekondi-Takoradi from other districts (left) and from Sekondi-Takoradi to other districts (right) in 2024.	20
Figure 5.11: Long-term population estimates for Sekondi-Takoradi Metropolitan Area and wider metropolis, January 2020 to December 2024	21
Figure 5.12: Estimated population of and total monthly relocations to and from Tamale, with specific focus on the metro districts in 2024	22
Figure 5.13: Annual number of relocations to Tamale from other districts (left) and from Tamale to other districts (right) in 2024	23
Figure 5.14: Long-term population estimates for Tamale Metropolitan Area and wider metropolis, January 2020 to December 2024	24

LIST OF TABLES

Table 4.1: The districts included in each of the metropolises selected for greater focus	7
Table 4.2: Thresholds for the categorisation of districts by the slope of the linear regression of the percentage change in population over the period January and December 2024	9
Table 5.1: Summary of the trends of the relative monthly change in estimated population for districts in Ghana with reference to the projected population growth, January to December 2024	11
Table 7.1: Estimated population by region, January to December 2024	26
Table 7.2: Estimated population by district, January to December 2024	27

ACKNOWLEDGEMENTS

This thematic brief was born out of Ghana Statistical Service's partnership journey with Telecel Ghana (previously Vodafone Ghana) and Flowminder Foundation under the Data for Good Partnership Project since 2018. The primary objective of the project was to build a sustainable framework for integrating anonymised mobile phone data into the production of national statistics, including strengthening the capacity of GSS to explore the potential of Call Detail Records (CDRs, a type of mobile phone data automatically generated by operators for billing purposes), such as producing the type of analysis described in this thematic brief. In this partnership, Flowminder is providing technical expertise in ensuring data access and building capacity for GSS.

We first of all want to express our gratitude to the William and Flora Hewlett Foundation and the UK's Foreign, Commonwealth & Development Office (FCDO) for financing this work under the Data for Good Partnership project, and also appreciate the leadership and the entire management of Telecel Ghana, for the initiative to partner with Ghana Statistical Service, and Flowminder, on this flagship project.

1. INTRODUCTION

Mobility refers to the movement of individuals across different locations. Mobility plays an important role in determining population wellbeing and driving economic development. It allows people to reach essential services such as healthcare, education, and employment opportunities, thereby improving their quality of life and overall wellbeing. From an economic perspective, mobility facilitates the movement of goods and services, which is essential for trade, business, and job creation. Mobility also promotes equitable access to opportunities which can foster social inclusion and inclusive and sustainable development. Data on mobility thus provides important information on travel patterns, transportation networks, and infrastructure usage which can support planning and policymaking.

Data on mobility in Ghana is necessary to support the implementation and monitoring of the Sustainable Development Goals. This is because movement of people within a country is one of the three cardinal considerations in understanding population dynamics leading to the deployment of the needed humanitarian and social interventions. Specifically, these insights will facilitate the achievement of good health and well-being (SDG3), clean water and sanitation (SDG6), and sustainable cities and communities (SDG11), amongst others.

In accordance with Ghana's overall commitment to decentralisation, as reflected in the Constitution, various enabling acts and policies, varying implementation roles are assigned to higher levels of government and the departments and agencies that fall under them. Ministries, Departments, and Agencies (MDAs) are given direct responsibility in a range of areas, including waste management, public health management, environmental monitoring, planning and monitoring.

Ghana's National Health Policy (2020) primarily focuses on ensuring equitable access to appropriate quality healthcare with the requisite number of health personnel and increasing the availability of appropriate health technology to achieve the SDG-3, "Good Health and Wellbeing". A more resilient healthcare delivery system envisaged by the health sector can be realised, paying attention to interventions that factor population movements in the implementation of strategic plans and interventions. Objective one of Ghana's Health Sector Medium Term Plan 2022 - 2025 seeks to "ensure sustainable, affordable, equitable and easily accessible healthcare services". This requires taking into consideration people who are distant from health facilities yet in need of health service.

Mobility data may also support interventions that promote improvement of human settlement and housing. Ghana's current housing landscape is characterised by inadequate housing stock, overcrowding, congestion, housing decay, and neighbourhood blight. Monitoring trends in population densities in short intervals alongside the provisioning of infrastructure and social amenities can help inform future

settlement patterns and identify areas vulnerable to environmental challenges or experiencing environmental degradation due to settlement.

This thematic brief investigates the monthly mobility and population distribution trends for the period of January 2024 to December 2024 at the national and regional levels, and four major metropolises namely Accra (including Tema), Kumasi, Sekondi-Takoradi, and Tamale. The objective of this report is to provide insights into settlement and mobility patterns to support decision-making in key areas such as resource allocation, infrastructure development, and community planning.

The subsequent sections of this report present the following: Definition of Concepts, Data Sources, Methodology, Key Findings; and Conclusions.

2. DEFINITION OF CONCEPTS

This section provides definitions of core concepts which underpin quantifying mobility. Further information on these concepts can be found on Flowminder's CDR data analytics Knowledge Centre (FlowGeek.org).

2.1. Call Detail Records (CDRs)

This refers to mobile phone network usage data automatically generated by mobile network operators for billing purposes.

2.2. Home location

This refers to the district containing those cell towers which most frequently (and in at least three separate weeks) routed the last call of the day of a subscriber over a calendar month.

2.3. Inflow

This refers to the estimated sum of relocations from all other districts to a given district. This is calculated monthly for each district.

2.4. Net relocations

This refers to the estimated net number of people relocating into a district and is calculated as the inflow minus the outflow. Positive net relocations have larger inflows than outflows, while negative net relocations have larger outflows than inflows. This is calculated monthly for each district.

2.5. Outflow

This refers to the estimated sum of relocations to all other districts from a given district. This is calculated monthly for each district.

2.6. Relocations

This refers to an estimate of the number of subscribers who change their home location from district A to district B during a given period of time. This is calculated monthly for each district.

The number of subscribers relocating from district A to district B is multiplied by weights derived from survey data, CDR data and GSS population projections. This gives the number of relocations scaled to population size and adjusted for biases in the CDR datasets.

2.7. Residents

This is the estimated number of de-facto residents per month, in a given district, calculated as the sum of the population for that district in the previous month and the estimated net relocations to that district between the two months, multiplied by a district-specific rate of population change - accounting for births, deaths and international migration.

The district estimate of residents for each month is calculated from the baseline population for that district - the census count for July 2021. In other words, the estimates are calibrated to the 2021 census counts. For all months after the census month, the cumulative sum of all net relocations is added, and the sum is multiplied by a district-specific rate of population growth.

3. DATA SOURCES

The population distribution and mobility estimates presented in this thematic brief were derived from Call Detail Records (CDRs) provided by Telecel Ghana (previously Vodafone Ghana). The CDRs contain -amongst other things- the timestamp of subscribers' network events (e.g. making/receiving a call or SMS or using mobile internet data), as well as the location of the cell towers routing those network events, which can be used to approximate the location of groups of subscribers and estimate their movements over time. These estimates are not traditional population estimates. Readers not familiar with this data source are encouraged to read explanatory documentation on Flowminder's CDR data analytics Knowledge Centre ([FlowGeek.org](https://flowminder.org/flowgeek)) or a more detailed description of indicators hosted on the [Haiti Mobility Data Platform](https://haitimobilitydata.org/), which uses the same methods as this brief.

The CDR dataset cannot be assumed to be representative of the entire population of Ghana, due to the demographics of phone ownership and Telecel's subscribers. In spite of these limitations, the dataset still provides a good indicator of changes in a population's movements as a significant proportion of the population are mobile phone users (74.0% of those aged over 5 had at least some phone usage in the three months prior to survey according to the GSS ICT survey 2019, p7, although the proportion of those who were Telecel subscribers is substantially lower). Therefore, aggregated and anonymised CDR data used to produce the estimates and indicators in this document have been combined with other data sources to adjust for biases in the CDR dataset.

The long-term population and mobility estimates presented in this thematic brief (estimates of residents and relocations) have been adjusted to make the indicators representative of the whole population (instead of representing only Telecel Ghana's subscribers). For this, the indicators have been scaled to be representative of the population using a recent Annual Household Income and Expenditure Survey (AHIES), implemented in 2022. Furthermore, the methodologies for calculating long-term mobility estimates used in this thematic brief are robust to temporal variation in phone usage.

Long-term mobility indicators focus on the monthly changes in the number of people residing in and relocating between districts over the course of 2024. These indicators are also used to assess the overall trends in the size of regional and district populations (i.e. whether the population is increasing, decreasing or stable, and whether the population size fluctuates substantially) over this period.

The data shown in this report are based on estimates version 2.1 (as of January 2025).

4. METHODOLOGY

4.1. Production of population and mobility estimates

4.1.1. Mobility inference from CDRs and cell data

The combination of CDR and cell location data provides the three features required to infer mobility: a subscriber identifier (which has been pseudonymised), a timestamp (the date and time of a network event), and the location of the cell which routed the network event (which is assumed to approximate the location of the subscriber).

From these data, the approximate home locations (described above) of subscribers can be inferred and likely changes in home location identified. By aggregating the changes in home locations (referred to as relocations) of large numbers of subscribers and applying additional anonymisation protocols (such as k-anonymity), patterns of population mobility and changes in population distribution can be captured.

4.1.2. Calculating monthly, district-level population estimates

Flowminder has developed novel methodologies for calculating monthly estimates of the population of an area from call detail record (CDR), survey, and census data.

In Ghana, the calculation of monthly, district-level population estimates is based on:

- Changes in Telecel Ghana subscribers' home or stay district (subscribers' relocations, described below);
- Weights derived from CDR data and from the Annual Household, Income and Expenditure Survey (AHIES) 2022 to correct for biases in relocations between any two communal sections and scale to the general population;
- Estimates of average monthly population change rates derived from the GSS population projections; and
- Baseline population counts from the 2021 census in Ghana.

Relocations from district A to district B between months M and N are estimated based on CDR aggregates of relocations, the number of subscribers changing their home locations from district A to district B between those months.

For each subscriber, relocations are then detected as a change in the district of the home location from one month to the next. Then CDR aggregates of relocations between pairs of districts from one month to the next are multiplied by weights - also accounting for multiple phone numbers per person.

The net relocations estimate from one month to the next is the sum of all estimated relocations to that district minus the sum of all estimated relocations from that district.

The estimate of residents in a district for a given month is calculated as the sum of the population for that district in the previous month and the net relocations to that district between the given month and the previous month, multiplied by a district-specific rate of population change - accounting for births, deaths and international migration.

The district estimate of residents for each month is calculated from the baseline population for that district - the census count for July 2021. For all months after the census month, the cumulative sum of all net relocations is added, and the sum is multiplied by district-specific monthly rate of population growth.

Non-unique cell IDs in the CDR data meant that it was not possible to confidently locate all events in the CDR data. Cell IDs for which more than 5% of events, following the correction of this issue, were assigned to a different location were excluded from the analysis. For four districts (Pru West, Bono East; Karachi West, Oti; Nanumba South, Northern; and Lambussie Karni, Upper West) this meant the exclusion of all cells from the analysis. These districts are therefore redacted from this report.

4.2. Analysis of population and mobility estimates

4.2.1. Delineation of metropolises

Four major metropolises were selected for greater focus in this thematic brief: Accra, Kumasi, Sekondi-Takoradi, and Tamale. Due to their proximity, Tema was considered part of the Accra metropolis. Metropolises were defined as the metropolitan district (e.g. Accra Metropolitan Area) and associated municipality districts. The districts included in each metropolis are listed in Table 4.1.

TABLE 4.1: THE DISTRICTS INCLUDED IN EACH OF THE METROPOLISES SELECTED FOR GREATER FOCUS

Metropolis	District names
Accra	Accra Metropolitan Area
	Ablekuma Central
	Ablekuma North
	Ablekuma West
	Adenta
	Ayawaso Central
	Ayawaso East

Metropolis	District names
	Ayawaso North
	Ayawaso West
	Okaikoi North
	Korle Klottey
	Ashaiman
	Ga Central
	Ga East
	Ga North
	Ga West
	Kpone Katamanso
	Krowor
	La Dade Kotopon
	La Nkwananang Madina
	Lekzokuku
	Tema Metropolitan Area
	Tema West
	Weija Gbawe
Kumasi	Kumasi Metropolitan Area
	Asokore Mampong
	Asokwa
	Kwadaso
	Oforikrom
	Old Tafo
	Suame
Sekondi-Takoradi	Sekondi-Takoradi Metropolitan Area
	Kwesimintim
Tamale	Tamale Metropolitan Area
	Sanerigu

4.2.2. Classification of population trends

Each district was classified based on the overall trend of the population over the period January and December 2024. The classification has two components: the trend of the growth rate relative to the underlying population projections (i.e. whether the population is generally increasing faster than projected, in line with projections, or decreasing) and the variation of the trend (whether the trend of the growth rate is largely constant over time or has large fluctuations).

To determine the trend of the growth rate of the population in a district, we calculated the monthly percentage difference in the population relative to the median population in 2023. We then calculated the slope of a simple linear regression of the percentage difference over the time period. Using the slope (m), we classified each district as in the table below. The thresholds for the classification “Increasing as projected” were derived from the range of slopes calculated for the population predictions using only the growth rates calculated from the 2021 census. This range then informed the subsequent thresholds.

TABLE 4.2: THRESHOLDS FOR THE CATEGORISATION OF DISTRICTS BY THE SLOPE OF THE LINEAR REGRESSION OF THE PERCENTAGE CHANGE IN POPULATION OVER THE PERIOD JANUARY AND DECEMBER 2024

Classification	Slope value (m)
Increased much greater than projected	$m \geq 0.7$
Increased greater than projected	$0.35 \leq m < 0.7$
Increased as projected	$0 \leq m < 0.35$
Decreased	$-0.35 \leq m < 0$
Strongly decreased	$m < -0.35$

To determine whether a district is “constant” or “fluctuating”, we calculated the detrended standard deviation in population of each district over the time period. Districts with a detrended standard deviation greater than 2.5 were classified as fluctuating.

As simple linear regressions are not well suited to classifying the overall population trend of districts with very large fluctuations, districts with a detrended standard deviation greater than 3 were labelled “uncategorised”.

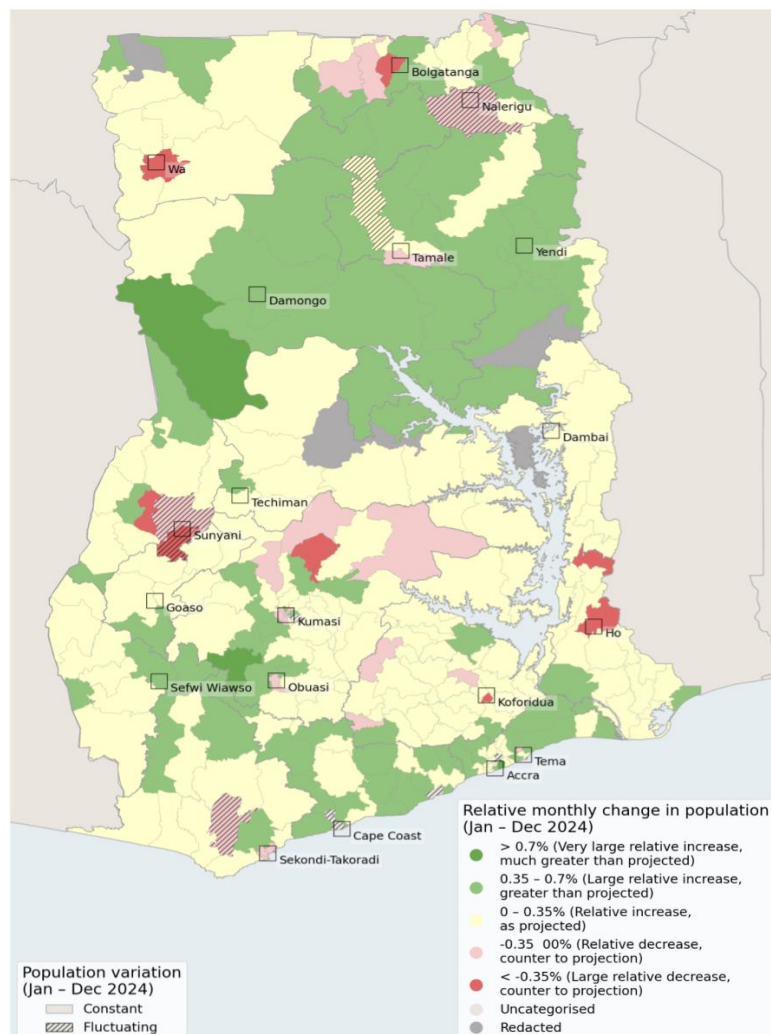
5. KEY FINDINGS

5.1 | Population Trends and Relocations by Districts

In 80 administrative districts (representing about a third), populations increased faster than the projected population due to net inflows into those districts, including three districts where the population increased much greater than projected: La Dade-Kotopon, Greater Accra; Bole, Savannah; and Amansie South, Ashanti.

Population decreased in 28 districts, despite being projected to increase, with large decreases recorded in eight districts, highest in Bolgatanga, Ho, Koforidua, Sunyani, and Wa.

FIGURE 5.1: TRENDS IN THE RELATIVE MONTHLY CHANGE IN ESTIMATED POPULATION FOR DISTRICTS IN GHANA WITH REFERENCE TO PROJECTED POPULATION GROWTH, JANUARY TO DECEMBER 2024



In four districts, observed fluctuations were too large to classify the overall population trend in 2024. These districts have large university campuses: Oforikrom (Kwame Nkrumah University of Science and Technology), Cape Coast Metropolitan Area (University of Cape Coast), Effutu (University of Education, Winneba), and Ayawaso West (University of Ghana).

TABLE 5.1: SUMMARY OF THE TRENDS OF THE RELATIVE MONTHLY CHANGE IN ESTIMATED POPULATION FOR DISTRICTS IN GHANA WITH REFERENCE TO THE PROJECTED POPULATION GROWTH, JANUARY TO DECEMBER 2024

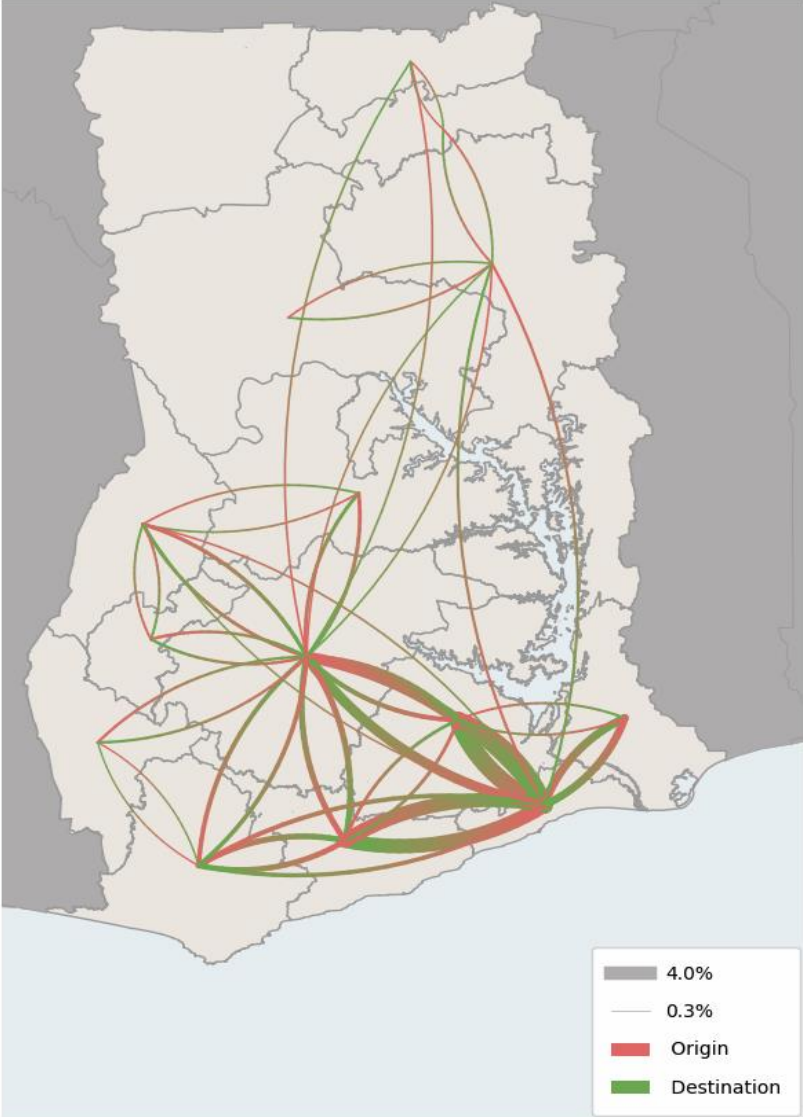
Characterisation of population trends	Constant	Fluctuating	All
Very large relative increase (much greater than projected)	3 (1.2%)	0 (0.0%)	3 (1.2%)
Large relative increase (greater than projected)	77 (30.0%)	0 (0.0%)	77 (30.0%)
Relative increase (as projected)	144 (56.0%)	1 (0.4%)	145 (56.4%)
Relative decrease (counter to projection)	17 (6.6%)	3 (1.2%)	20 (7.8%)
Large decrease (counter to projection)	7 (2.7%)	1 (0.4%)	8 (3.1%)
Uncategorised (high fluctuation)	NA	4 (1.6%)	4 (1.6%)
Redacted	NA	NA	4 (1.6%)
All	248 (94.9%)	9 (3.5%)	261 (100%)

Relocations to and from Greater Accra constituted 41.1 percent of all relocations in 2024, the highest share.

Regions with the highest relocations to and from Greater Accra were Eastern (4.9% and 4.8% of relocations, respectively), Central (4.3% and 4.1%, respectively), Ashanti (3.4% each) and Volta (2.5% and 2.4%, respectively).

In the 50 largest flows between regions, six involve both origins and destinations in the north of Ghana (between the Northern Region and the North East, Savannah and Upper East regions, in order of size) with all other flows in the top 50 having a region in the southern part of Ghana as the origin, destination or both. In total, relocations between regions in the North of Ghana constituted 6.5 percent of all relocations in 2024.

FIGURE 5.2: RELATIVE SIZE OF TOTAL NUMBERS OF ESTIMATED RELOCATIONS FOR 2024 BETWEEN REGIONS IN GHANA

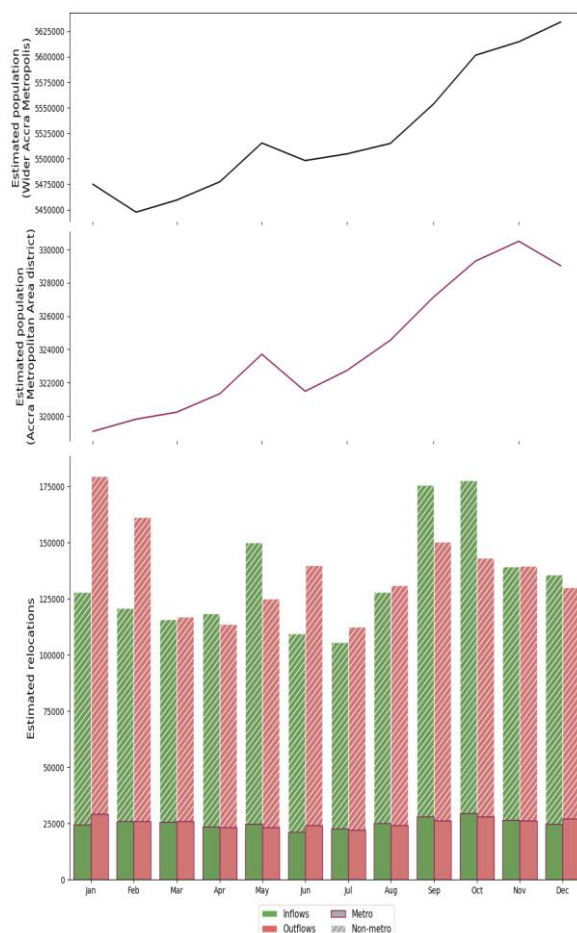


5.2 | Population Trends and Relocations for Accra Metropolitan Area and Wider Metropolis

From January to February 2024, over 340,000 people relocated out of the wider Accra Metropolis (including Tema) resulting in net negative relocations (i.e. greater total outflows than total inflows). Population increased between August and December, driven in particular by large inflows of over 175,000 people in both September and October.

The population of the Accra Metropolitan Area district followed a similar pattern to the wider metropolis, increasing to 324,000 in May before decreasing in June and peaking above over 330,000 in November.

FIGURE 5.3: ESTIMATED MONTHLY POPULATION AND TOTAL MONTHLY RELOCATIONS TO AND FROM ACCRA METROPOLITAN AREA AND WIDER METROPOLIS, JANUARY TO DECEMBER 2024

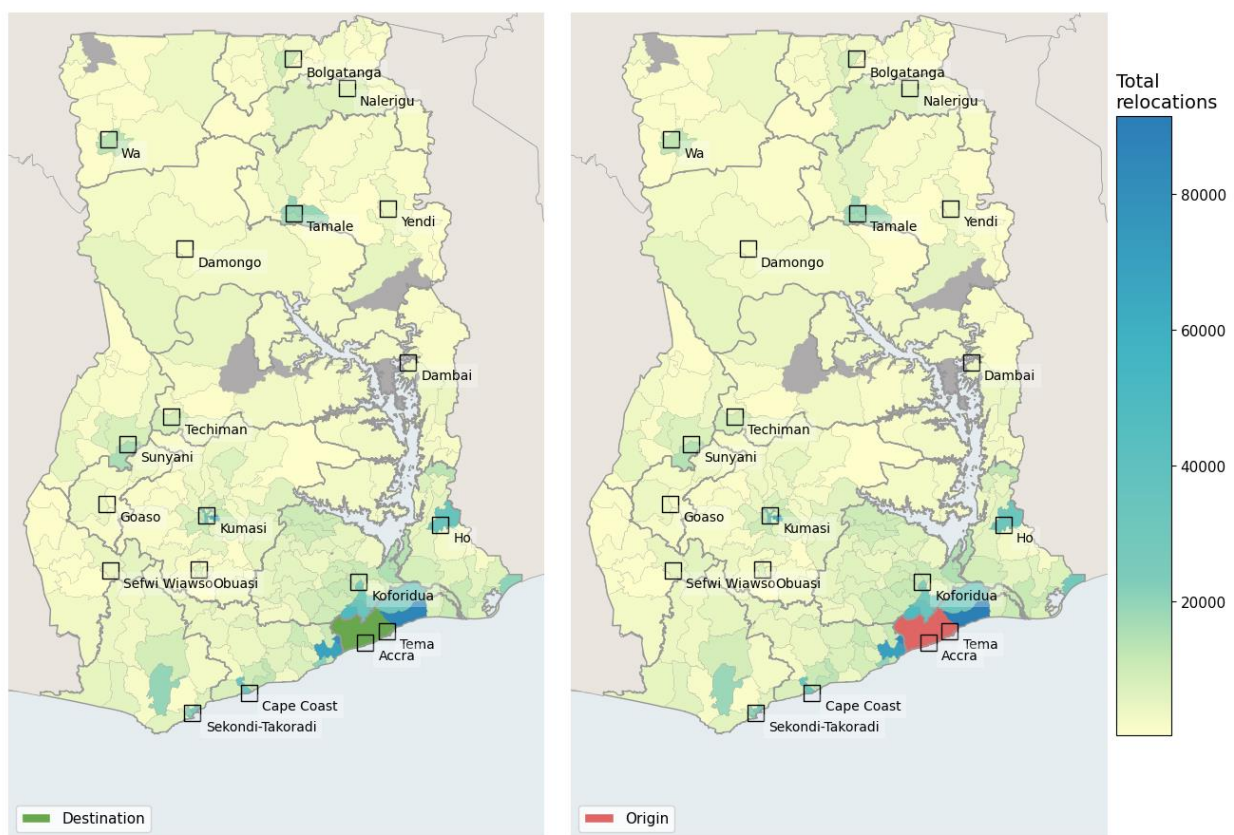


Note: The estimated monthly population is a combination of both mobility and the population growth rate which incorporates components such as births and deaths. The monthly change in population therefore does not equal the monthly net relocations as it includes these other drivers of population change.

Large numbers of relocations for Accra Metropolis were to and from nearby districts, particularly Ningo-Prampram (86,400 arrivals into Accra, 91,500 departures), Awutu Senya East (79,500 arrivals into Accra, 82,900 departures), and Gomoa East (67,700 arrivals into Accra, 69,200 departures).

The highest number of longer distance relocations was recorded between Accra Metropolis and Oforikrom Municipality in the Ashanti Region: in all, there were 58,000 relocations to Accra from Oforikrom and 58,200 to Oforikrom from Accra in 2024.

FIGURE 5.4: ANNUAL NUMBER OF ESTIMATED RELOCATIONS TO THE ACCRA METROPOLIS AREA FROM OTHER DISTRICTS (LEFT) AND FROM ACCRA METROPOLIS TO OTHER DISTRICTS (RIGHT) IN 2024.



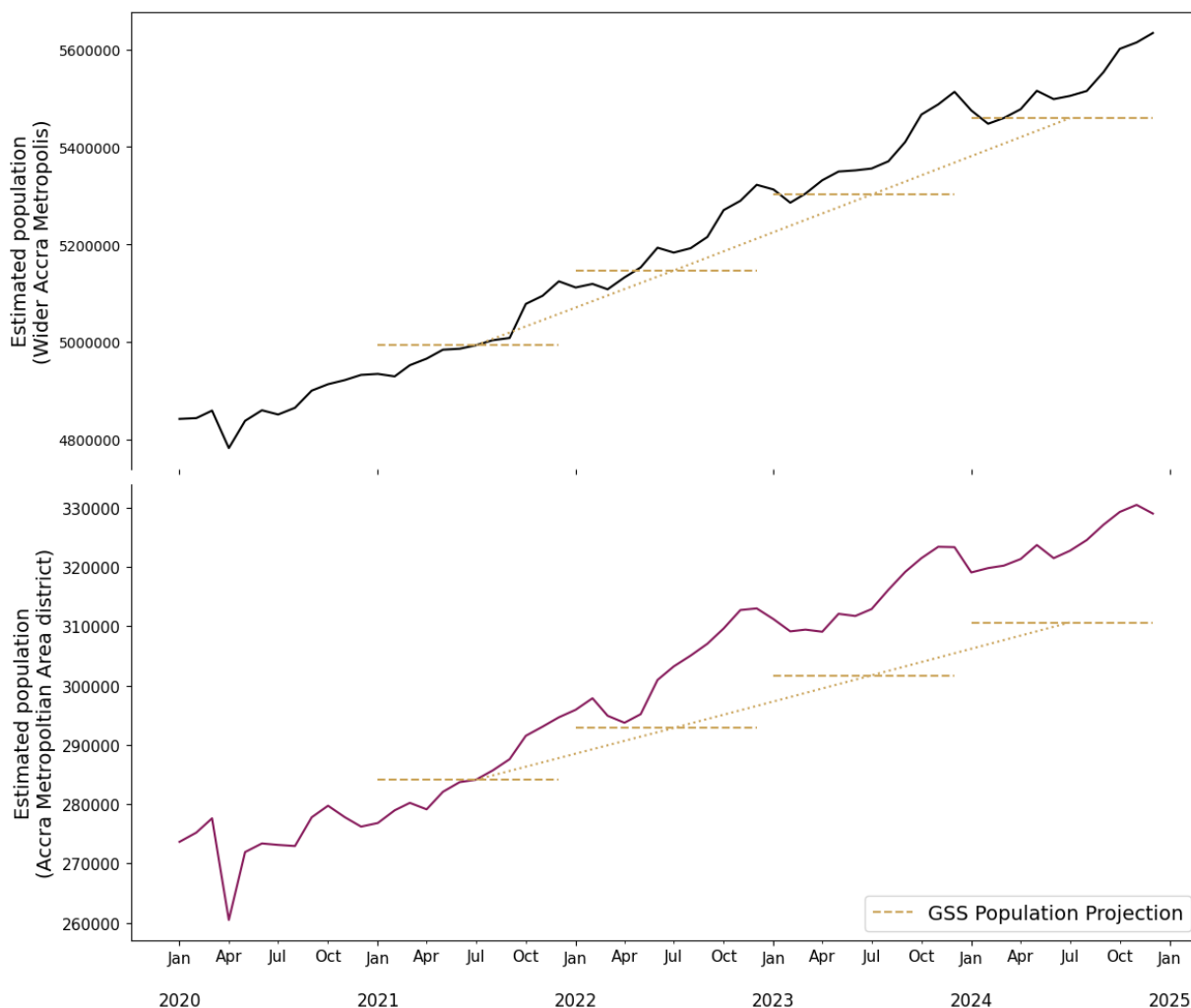
Note: Cumulative monthly estimates include multiple counts of individuals relocating more than once.

The estimated population of both the Accra Metropolitan Area and the wider Accra Metropolis experienced sharp decreases in April 2020 to 260,500 and 4.78 million people, respectively.

The population of both areas has increased up to peaks in late 2024 of 330,500 and 5.63 million people, respectively with evidence of a seasonal pattern of decreases in population size early in the year.

The estimated population of both Accra Metropolitan Area and, to a lesser extent, the wider Accra Metropolis has grown faster than projected by GSS based on the growth rates estimated from the 2021 national census.

FIGURE 5.5: LONG-TERM POPULATION ESTIMATES FOR ACCRA METROPOLITAN AREA AND WIDER METROPOLIS, JANUARY 2020 TO DECEMBER 2024



5.3 | Population Trends and Relocations for Kumasi Metropolis

The relocation of over 102,000 people out of Kumasi in May resulted in a sharp decrease of the population to approximately 1.38 million, before the relocation of just under 100,000 into Kumasi in June leading to the population being over 1.42 million.

Over 154,000 people relocated out of the Kumasi Metropolis again in September, with further net negative relocations between October and December reducing the population to 1.33 million through the end of 2024.

FIGURE 5.6: ESTIMATED MONTHLY POPULATION AND TOTAL MONTHLY RELOCATIONS TO AND FROM KUMASI, WITH SPECIFIC FOCUS ON THE METRO DISTRICTS, IN 2024

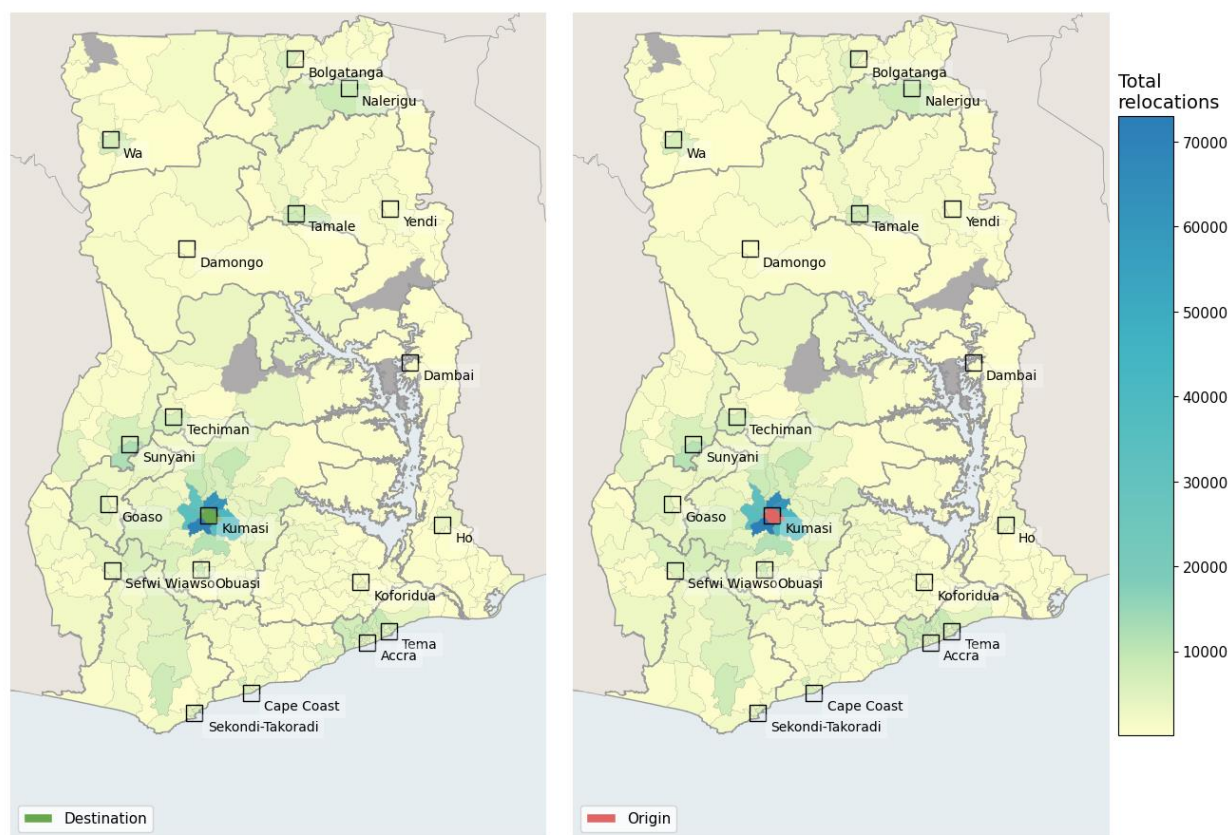


Note: The monthly change in population does not align fully with the net relocations as the population estimates take into account district-level population growth rates.

The majority of relocations into and out of Kumasi Metropolis in 2024 were with the adjacent districts of Atwima-Kwanwoma (70,600 arrivals into and 73,000 departures out of Kumasi), Afigya Kwabre South (62,000 arrivals and 66,800 departures) and Kwabre East (over 62,000 arrivals and 61,100 departures).

Other districts with the highest notable numbers of people relocating to or from Kumasi in 2024, included Accra Metropolitan Area, Cape Coast Metropolitan Area, Nalerigu, Sunyani Municipal, Tamale Metropolitan Area, and Wa Municipal.

FIGURE 5.7: ANNUAL NUMBER OF RELOCATIONS TO KUMASI FROM OTHER DISTRICTS (LEFT) AND FROM KUMASI TO OTHER DISTRICTS (RIGHT) IN 2024



Note: Cumulative monthly estimates include multiple counts of individuals relocating more than once.

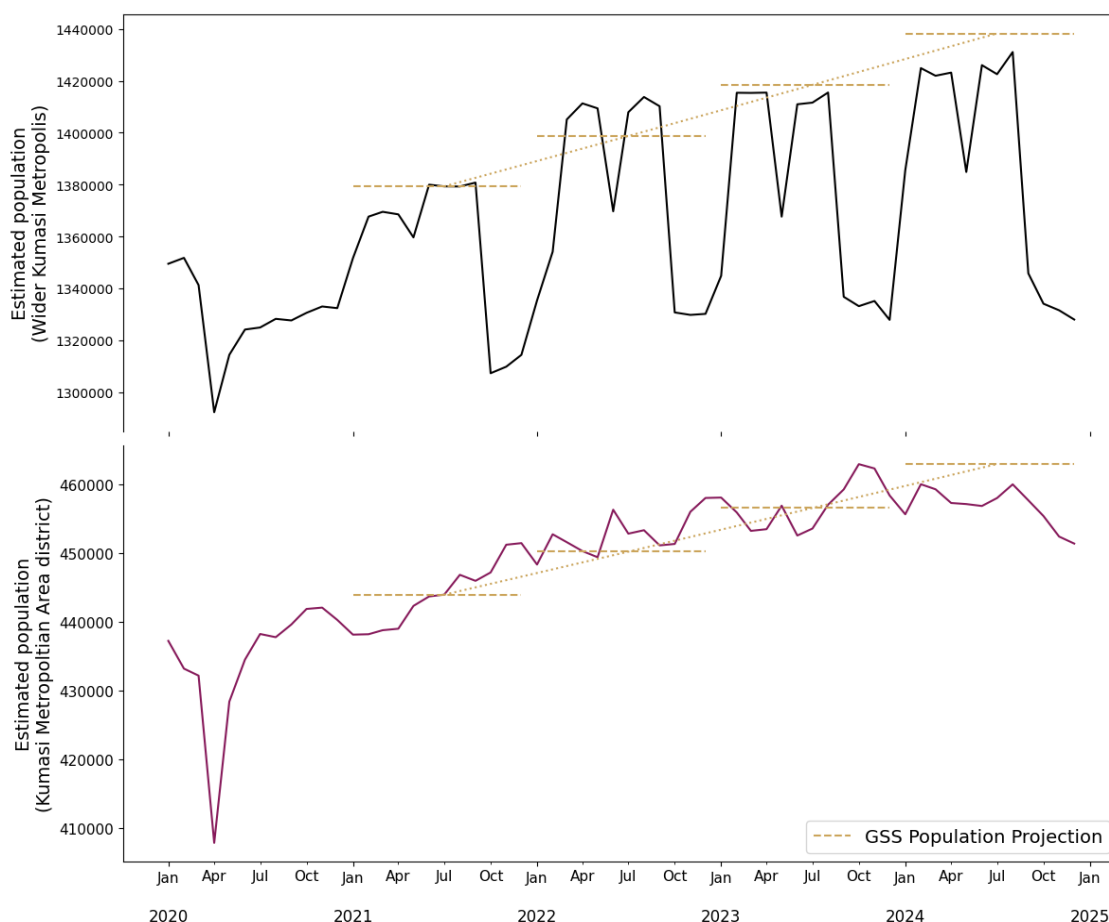
The estimated population of both the Kumasi Metropolitan Area district and the wider Kumasi Metropolis experienced sharp decreases in April 2020 to under 408,500 and under 1.3 million people, respectively.

From January 2021 to December 2024, the estimated population of Kumasi Metropolis followed a distinctive seasonal pattern of large increases in January and February, a sharp decrease in May, an increase in June, then a large decrease in September and October.

The relative variation in population in the Kumasi Metropolitan Area district is smaller but mirrors the seasonal pattern of the wider metropolis.

The population of Kumasi Metropolitan Area and the wider Kumasi Metropolis, seasonal fluctuations aside, is estimated to have increased in line with the population projections calculated by GSS based on population growth rates estimated from the 2021 national census.

FIGURE 5.8: LONG-TERM POPULATION ESTIMATES FOR KUMASI METROPOLITAN AREA AND WIDER METROPOLIS, JANUARY 2020 TO DECEMBER 2024

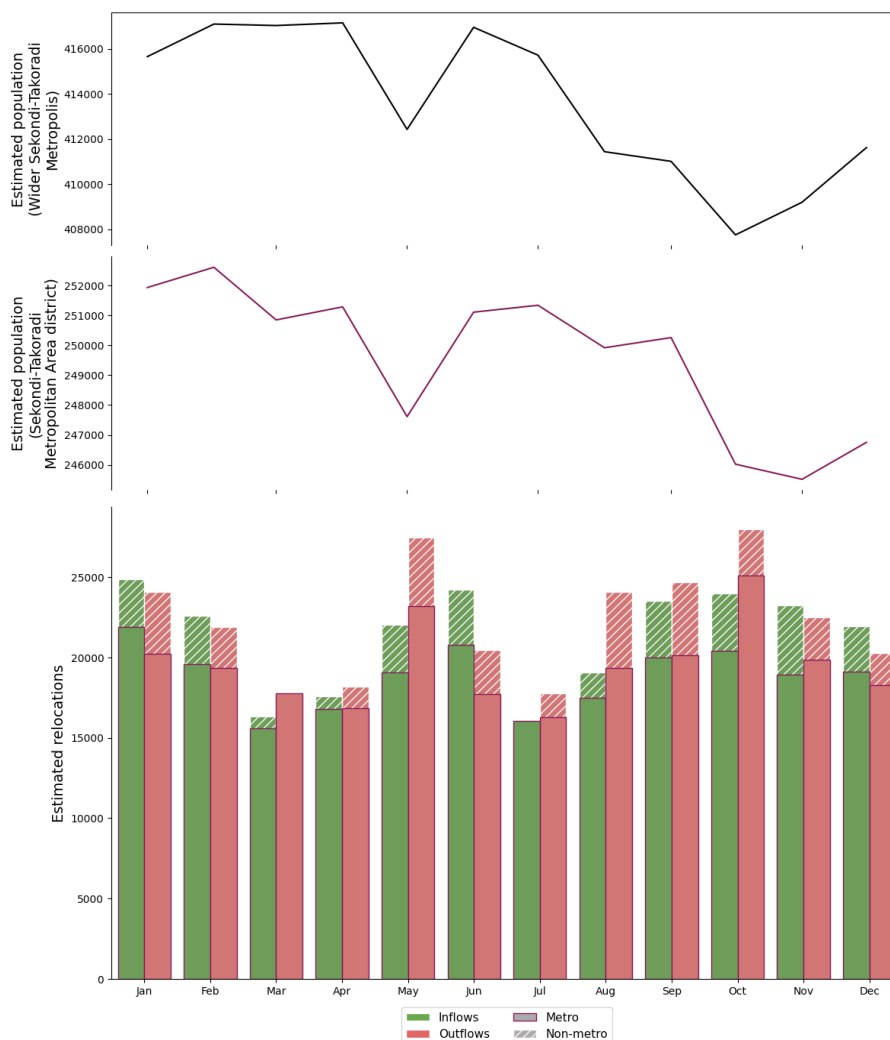


5.4 | Population Trends and Relocations for Sekondi-Takoradi

The population of Sekondi-Takoradi Metropolis increased to over 417,000 in February and remained stable. In May there was an increase in both relocations in and out of Sekondi-Takoradi to over 17,500 and 18,000, respectively, but the larger increase in relocations out of the metropolis resulted in a sharp decrease in population to 412,000.

Sekondi-Takoradi Metropolitan Area district followed a similar pattern, but experienced an additional decrease in population from 253,000 to under 251,000 in March due to an increase in relocation out of the metro district.

FIGURE 5.9: ESTIMATED MONTHLY POPULATION OF AND TOTAL MONTHLY RELOCATIONS TO AND FROM SEKONDI-TAKORADI, WITH SPECIFIC FOCUS ON THE METRO DISTRICTS, IN 2024.

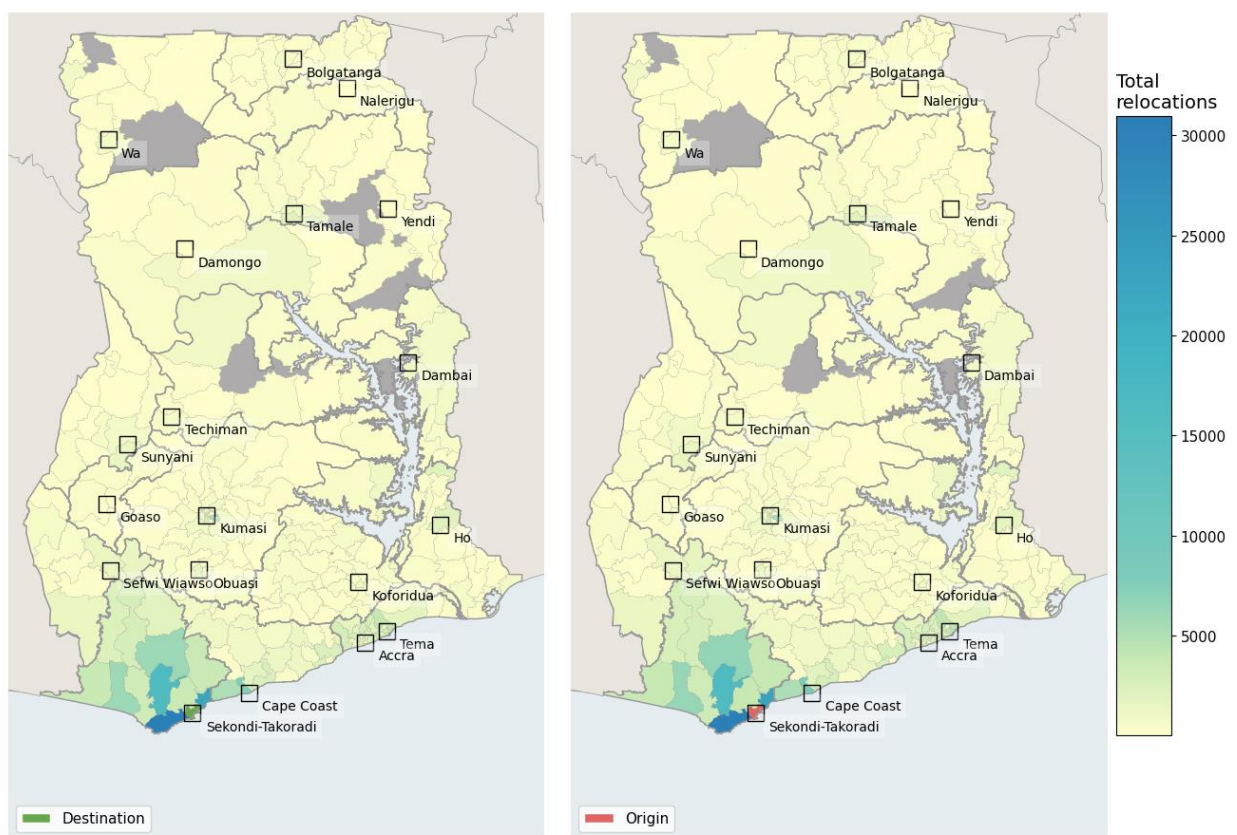


Note: The monthly change in population does not align fully with the net relocations as the population estimates take into account district-level population growth rates.

Most relocations to and from Sekondi-Takoradi Metropolis in 2024 were with nearby districts in Western Region, most commonly Ahanta West (30,400 arrivals into and 31,000 departures out of Sekondi-Takoradi) Shama (22,300 arrivals and 22,300 departures), and Tarkwa-Nsuaem (16,400 arrivals and 16,300 departures).

Cape Coast Metropolitan Area was also a notable origin and destination for relocations to and from Sekondi-Takoradi, with over 7,500 relocations into Sekondi-Takoradi and over 8,200 from Sekondi-Takoradi.

FIGURE 5.10: ANNUAL NUMBER OF ESTIMATED RELOCATIONS TO SEKONDI-TAKORADI FROM OTHER DISTRICTS (LEFT) AND FROM SEKONDI-TAKORADI TO OTHER DISTRICTS (RIGHT) IN 2024.

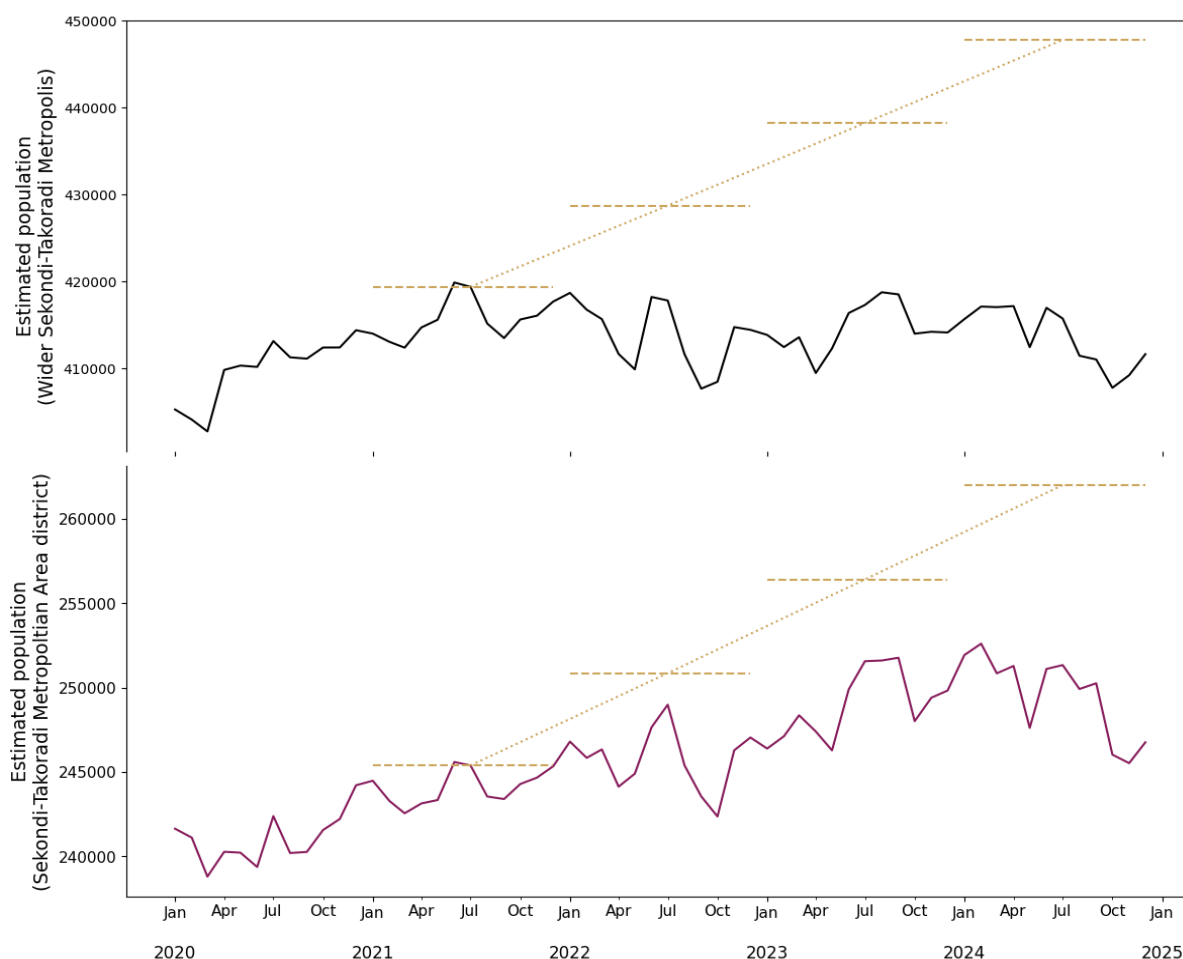


Note: Cumulative monthly estimates include multiple counts of individuals relocating more than once.

The estimated population of the wider Sekondi-Takoradi Metropolis experienced a sharp increase in April 2020 to over 410,000 people, when other metropolises experienced decreases. The population of the wider Sekondi-Takoradi Metropolis has remained roughly stable between 2021 and 2024 compared to the population growth projected by GSS.

The estimated population of Sekondi-Takoradi Metropolitan Area increased from a low of under 239,000 in March 2020 to a high of over 252,000 in February 2024. Over this period the population experienced some fluctuation, including a decrease from 249,000 to 242,000 people between July and October 2022. The population of Sekondi-Takoradi Metropolitan Area has increased substantially more slowly between 2021 and 2024 than projected by GSS based on population growth estimated from the 2021 national census.

FIGURE 5.11: LONG-TERM POPULATION ESTIMATES FOR SEKONDI-TAKORADI METROPOLITAN AREA AND WIDER METROPOLIS, JANUARY 2020 TO DECEMBER 2024



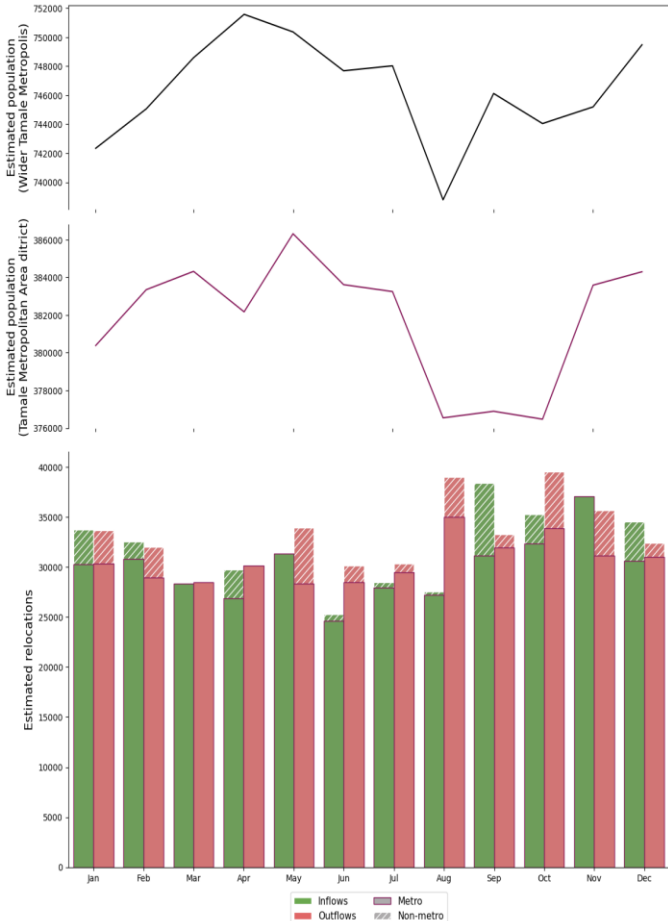
5.5 | Population Trends and Relocations for Tamale Metropolis and Wider Metropolitan Area

The estimated population of Tamale Metropolis increased between January and April 2024 to a peak of over 750,000, with positive net relocations into the urban area.

The population of Tamale Metropolitan Area similarly increased in March but then decreased in April due to an increase in estimated relocations out of the metro district of over 30,000 people, before the relocation of over 31,000 people into the district in May increased the population to a peak of 386,000.

The population of both the Tamale Metropolitan Area district and the wider metropolis are estimated to have decreased to 376,000 and 739,000, respectively, in August, due to a large number of relocations out of Tamale.

FIGURE 5.12: ESTIMATED POPULATION OF AND TOTAL MONTHLY RELOCATIONS TO AND FROM TAMALE, WITH SPECIFIC FOCUS ON THE METRO DISTRICTS IN 2024

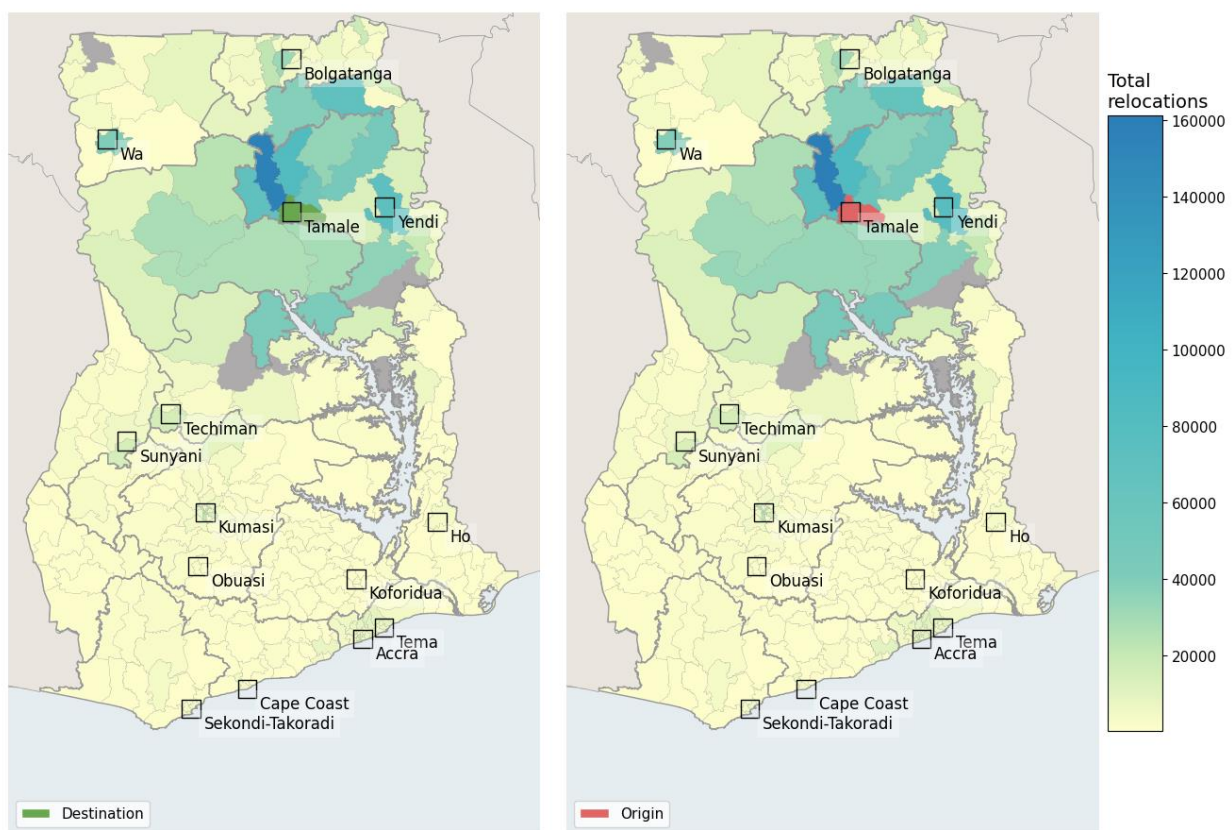


Note: The monthly change in population does not align fully with the net relocations as the population estimates take into account district-level population growth rates.

The largest number of estimated relocations to and from Tamale in 2024 were with the nearby district of Kumbungu with over 31,200 relocations into Tamale and over 34,500 relocations out of Tamale.

Other large flows were with more distant districts, in particular, to and from the Nalerigu (18,800 and 17,300 relocations to and from Tamale in 2024, respectively), Yendi (16,200 and 16,900 relocations, respectively) and Wa (9,600 and 9,000 relocations, respectively).

FIGURE 5.13: ANNUAL NUMBER OF RELOCATIONS TO TAMALE FROM OTHER DISTRICTS (LEFT) AND FROM TAMALE TO OTHER DISTRICTS (RIGHT) IN 2024

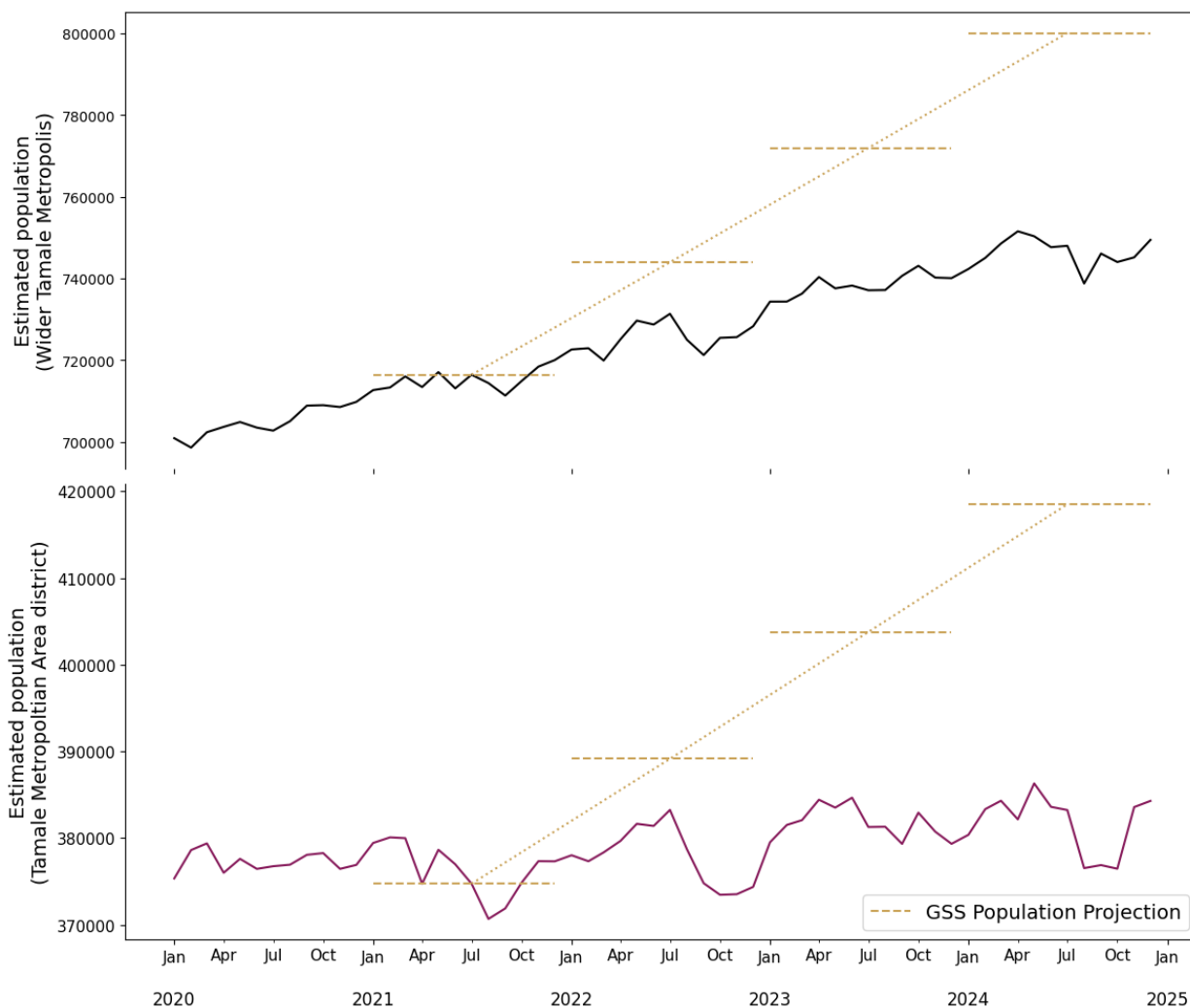


Note: Cumulative monthly estimates include multiple counts of individuals relocating more than once.

The estimated population of the wider Tamale Metropolis has increased from under 700,000 in February 2020 to a peak of over 751,000 in April 2024. This increase, however, is substantially smaller than the population increases projected by GSS based on the population growth rates estimated from the 2021 national census.

The estimated population of the Tamale Metropolitan Area has experienced large fluctuations between 2021 and 2025, with the large decreases in population recorded between June and October in both 2021 and 2024. The population of the Tamale Metropolitan Area has remained roughly stable between 2021 and 2024 compared to the population growth projected by GSS.

FIGURE 5.14: LONG-TERM POPULATION ESTIMATES FOR TAMALE METROPOLITAN AREA AND WIDER METROPOLIS, JANUARY 2020 TO DECEMBER 2024



6. CONCLUSIONS

This thematic brief provides insights into the population distribution and the long-term mobility across major cities in Ghana between January and December 2024. The findings contribute to understanding and analysing Ghana's population trends and dynamics, facilitating evidence-based decision making for a number of policies and interventions for the country.

Connectivity between regions is greatest in the south of the country, especially between Greater Accra and Central, Eastern, Ashanti and Volta regions. Connectivity is lower between north and south and between northern regions.

More than half of districts experienced estimated population trends over the course of 2024 which were consistent with existing population projections and limited fluctuations in population. This suggests little impact of mobility on population growth, with inflows and outflows approximately balanced and no large seasonal inflows or outflows. However, this does not mean that there is low population mobility in these districts, and many may have high turnover in residents, even if the numbers remain relatively stable.

Accra Metropolis (including Tema) experienced substantial increases in estimated population in 2024, greater than projected based on the 2021 national census, driven by the movement of people in this area. However, a number of other cities experienced substantial decreases in population, including Bolgatanga, Ho, Koforidua, Sunyani, and Wa. Similarly, the Sekondi-Takoradi and Tamale Metropolises experienced substantially slower growth than projected based on the 2021 census, resulting in substantially smaller populations than expected. Understanding these population trends can inform policies around demand for adequate housing stock as well as access to services (e.g. healthcare, sanitation, education) and demand for resources.

Districts with large education campuses experience large variations in estimated population, likely driven by the movements of the student population. The high variation in population, and therefore potential demand for certain services, may warrant consideration when planning the distribution of resources.

Overall, the thematic brief provides useful insights into patterns of mobility and population distributions nationally and in major metropolises for 2024. Importantly, this thematic brief highlights the importance of incorporating internal mobility and migration into population projections and capturing the impact of mobility on variations in population estimates over the course of a year. The findings can be used to support policy-makers across a broad range of applications including: understanding the change in demands on, for example, public health, sanitation, and transportation infrastructure; and understanding the nature and timing of internal mobility and migration for economic opportunity or educational purposes.

7. APPENDIX

TABLE 7.1: ESTIMATED POPULATION BY REGION, JANUARY TO DECEMBER 2024

Region	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ahafo	153,800	581,400	584,400	583,700	588,200	585,700	586,400	588,100	594,700	599,200	600,600	594,700
Ashanti	5,625,600	5,658,900	5,667,600	5,678,400	5,657,000	5,690,500	5,693,200	5,721,300	5,653,800	5,666,600	5,666,000	5,670,100
Bono	1,219,900	1,232,400	1,236,800	1,241,100	1,241,000	1,222,000	1,238,000	1,242,200	1,246,300	1,225,600	1,224,700	1,229,700
Bono East	1,223,900	1,222,300	1,225,100	1,225,300	1,233,300	1,233,100	1,236,800	1,239,100	1,242,700	1,245,300	1,247,300	1,252,500
Central	3,071,600	3,088,000	3,094,700	3,098,400	3,095,900	3,124,700	3,136,500	3,148,300	3,148,700	3,132,300	3,151,800	3,159,900
Eastern	3,011,900	3,012,500	3,015,700	3,013,900	3,023,700	3,026,900	3,029,800	3,037,400	3,055,300	3,055,200	3,050,400	3,047,400
Greater Accra	5,998,000	5,973,300	5,985,800	6,007,900	6,047,800	6,030,100	6,038,200	6,048,900	6,092,500	6,144,100	6,159,600	6,181,200
North East	708,200	696,100	693,700	702,000	708,400	712,400	706,400	700,200	705,000	714,900	720,500	725,200
Northern	2,379,600	2,395,000	2,399,800	2,398,800	2,405,400	2,412,900	2,416,500	2,408,900	2,426,000	2,433,500	2,446,700	2,455,100
Oti	714,300	716,600	717,400	717,700	716,700	720,200	721,700	723,100	725,200	725,800	727,200	729,000
Savannah	718,000	721,100	723,100	728,600	734,300	735,200	739,600	742,800	749,300	754,000	759,100	758,700
Upper East	1,378,500	1,381,000	1,385,600	1,388,500	1,390,200	1,391,700	1,396,300	1,397,100	1,395,900	1,397,800	1,398,200	1,404,400
Upper West	885,300	884,100	886,400	885,200	883,800	889,800	890,200	886,700	885,200	887,300	883,500	886,000
Volta	1,754,800	1,763,000	1,765,600	1,768,400	1,772,600	1,773,100	1,774,300	1,774,200	1,777,900	1,774,900	1,776,900	1,774,600
Western	2,130,000	2,134,000	2,137,500	2,140,600	2,133,900	2,144,700	2,148,400	2,151,100	2,163,700	2,158,900	2,159,500	2,161,400
Western North	927,000	927,000	927,300	927,900	934,200	933,600	934,700	937,800	945,700	952,900	957,000	960,300

Note: Point estimates of de-facto residents, rounded to nearest 100, estimates version 2.1

TABLE 7.2: ESTIMATED POPULATION BY DISTRICT, JANUARY TO DECEMBER 2024

Region	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ahafo	Asunafo North Municipal	153,800	154,600	157,500	153,400	154,000	154,400	154,600	153,900	154,500	158,100	157,600	156,400
Ahafo	Asunafo South	96,600	97,200	99,400	95,900	95,600	97,300	97,400	96,300	96,800	99,700	99,000	97,800
Ahafo	Asutifi North	74,700	75,100	76,600	74,700	75,300	75,000	75,000	74,700	75,500	77,100	76,800	75,700
Ahafo	Asutifi South	69,700	70,100	70,800	69,000	68,100	70,000	69,900	69,600	70,000	70,800	70,900	70,800
Ahafo	Tano North Municipal	93,300	94,200	93,200	92,800	92,200	93,200	92,800	93,900	95,900	98,200	97,200	95,900
Ahafo	Tano South Municipal	95,500	96,800	97,200	95,600	95,300	96,500	96,000	96,000	95,500	96,700	97,700	98,200
Ashanti	Adansi Asokwa	76,200	77,800	78,400	76,200	76,000	76,900	76,900	76,500	76,700	77,900	77,500	77,800
Ashanti	Adansi North	62,400	63,700	64,700	61,800	61,600	63,200	63,100	62,300	62,700	64,600	64,700	64,400
Ashanti	Adansi South	87,600	88,400	90,100	87,700	87,800	87,900	88,200	87,300	88,400	89,900	90,100	89,100
Ashanti	Afigya Kwabre North	82,000	82,800	83,300	81,000	81,900	81,800	81,900	81,800	82,100	83,200	82,700	82,600
Ashanti	Afigya Kwabre South	250,600	252,800	257,800	249,300	250,700	251,900	251,700	249,400	253,400	256,200	255,800	253,700
Ashanti	Ahafo Ano North Municipal	96,200	96,900	97,400	96,200	96,500	96,900	96,700	96,600	96,500	98,500	98,700	97,600
Ashanti	Ahafo Ano South East	70,000	71,600	72,900	69,700	69,600	70,700	70,700	69,700	70,500	72,500	71,800	71,300
Ashanti	Ahafo Ano South West	71,800	72,900	73,400	71,300	71,300	72,200	71,900	71,700	72,300	73,900	73,800	72,800
Ashanti	Akrofuom	50,400	50,900	50,700	50,600	50,400	50,900	51,100	50,400	50,800	50,800	50,700	50,900
Ashanti	Amansie Central	98,400	100,300	100,600	98,400	97,900	99,700	99,300	98,300	99,300	102,000	101,700	100,800

Region	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ashanti	Amansie South	124,100	127,900	131,100	124,100	122,100	126,700	125,700	124,300	125,300	131,700	131,000	129,000
Ashanti	Amansie West	121,600	123,800	126,500	121,200	121,000	122,900	122,300	121,400	122,200	126,700	125,400	124,800
Ashanti	Asante Akim Central Municipal	94,800	96,600	97,400	94,500	94,800	96,000	95,600	94,700	95,700	96,800	96,500	96,700
Ashanti	Asante Akim North Municipal	87,500	85,400	87,700	85,700	83,400	85,100	85,300	87,800	87,500	88,400	89,400	88,000
Ashanti	Asante Akim South Municipal	135,100	137,000	138,800	135,000	135,100	136,600	136,400	135,000	136,300	138,800	137,900	137,600
Ashanti	Asokore Mampong Municipal	198,400	198,200	203,200	193,400	196,200	197,800	197,400	196,000	198,100	203,700	203,100	200,400
Ashanti	Asokwa Municipal	138,100	139,000	141,100	137,700	138,900	138,700	138,000	135,300	136,400	140,400	140,300	139,300
Ashanti	Atwima Kwanwoma	259,000	260,700	271,000	255,700	259,900	260,200	260,200	256,300	261,800	268,400	268,300	264,600
Ashanti	Atwima Mponua	153,400	156,100	159,200	154,000	154,000	155,600	155,000	153,800	154,700	158,600	157,400	156,500
Ashanti	Atwima Nwabiagya North	168,800	168,700	170,500	165,000	165,900	168,900	166,700	168,300	169,700	171,000	171,500	169,600
Ashanti	Atwima Nwabiagya South Municipal	178,800	180,300	184,700	177,400	178,500	179,000	179,400	177,800	180,000	183,700	183,500	181,600
Ashanti	Bekwai Municipal	145,800	147,800	148,200	145,300	145,300	147,000	147,100	145,700	147,200	149,000	148,900	148,700
Ashanti	Bosome Freho	67,300	68,000	68,300	67,600	66,800	67,800	67,400	67,400	67,300	68,400	68,100	67,900
Ashanti	Bosomtwi	179,400	181,100	184,100	177,600	178,100	179,000	178,800	178,800	181,600	183,800	184,400	182,500
Ashanti	Ejisu Municipal	112,500	112,800	115,900	111,000	112,500	112,500	112,800	111,900	111,700	115,200	114,100	113,300
Ashanti	Ejura Sekyedumase Municipal	148,200	148,200	148,700	150,100	152,100	147,300	147,200	150,100	147,900	147,000	147,300	148,300
Ashanti	Juaben Municipal	78,200	79,300	80,700	77,600	78,000	78,600	78,600	78,000	78,700	80,200	80,000	79,600
Ashanti	Kumasi Metropolitan Area (KMA)	457,300	460,000	451,400	460,000	455,700	458,000	456,900	459,300	457,200	452,400	455,400	457,700
Ashanti	Kwabre East	327,100	326,800	333,900	323,400	325,500	325,900	325,300	323,000	326,400	332,000	332,400	329,400

Region	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ashanti	Kwadaso Municipal	155,600	157,000	149,100	153,900	153,500	157,200	157,300	154,400	153,000	149,700	150,100	153,500
Ashanti	Mampong Municipal	118,400	118,300	110,200	122,800	117,300	117,300	116,600	119,100	114,300	110,600	112,700	116,900
Ashanti	Obuasi East	97,900	98,500	98,900	97,100	97,300	97,900	98,500	97,200	98,700	98,300	99,600	98,600
Ashanti	Obuasi Municipal	99,900	100,200	96,300	99,100	98,500	99,800	99,700	99,900	99,100	96,900	97,400	96,800
Ashanti	Offinso Municipal	125,200	122,400	123,900	125,700	125,200	125,300	125,400	125,200	124,500	123,300	124,400	124,000
Ashanti	Offinso North	91,100	92,400	93,000	91,100	90,900	91,800	92,000	91,100	91,500	92,700	92,500	92,100
Ashanti	Oforikrom Municipal	205,700	207,100	108,700	210,100	165,200	206,200	207,100	209,900	170,900	111,500	110,700	121,200
Ashanti	Old Tafo Municipal	118,200	118,400	119,800	121,300	125,300	119,800	119,700	119,100	119,000	119,600	120,600	119,900
Ashanti	Sekyere Afram Plains	35,900	35,400	36,200	35,900	36,100	35,600	35,700	36,200	35,700	36,000	36,100	35,800
Ashanti	Sekyere Central	78,400	79,500	80,000	79,100	78,200	78,900	78,500	79,100	79,200	79,600	79,600	79,600
Ashanti	Sekyere East	78,400	79,500	80,400	79,000	79,100	78,800	78,800	78,100	79,000	80,300	79,400	78,900
Ashanti	Sekyere Kumawu	70,600	72,300	73,000	70,800	70,500	71,600	71,600	70,700	71,200	73,200	73,300	72,600
Ashanti	Sekyere South	132,000	133,100	134,000	126,400	130,400	132,200	132,300	130,900	132,000	134,200	134,100	133,700
Ashanti	Suame Municipal	149,800	151,300	154,600	148,500	150,800	145,000	149,700	148,000	150,400	154,200	154,000	153,700
Bono	Banda	31,800	32,000	33,000	31,600	31,500	32,000	31,900	31,700	31,900	32,800	32,600	32,300
Bono	Berekum East Municipal	99,100	96,900	95,800	98,200	99,700	96,500	97,300	98,500	97,300	94,400	95,700	98,300
Bono	Berekum West	56,600	57,100	57,900	55,500	55,500	56,400	56,500	55,800	56,800	57,600	57,700	57,300
Bono	Dormaa Central Municipal	121,000	120,500	119,500	120,100	118,500	120,000	117,800	120,300	120,900	120,000	120,100	121,600
Bono	Dormaa East	72,400	72,900	73,900	72,200	72,000	72,900	72,800	72,400	72,400	73,600	73,700	73,300
Bono	Dormaa West	52,000	52,700	54,100	51,900	51,800	52,900	52,800	52,100	52,400	53,900	53,500	52,900
Bono	Jaman North	134,800	135,000	136,700	134,400	132,300	134,200	134,500	135,400	135,300	136,800	135,600	135,100

Region	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bono	Jaman South	119,900	120,600	122,200	119,200	118,700	120,300	120,200	120,000	120,700	121,300	121,000	120,600
Bono	Sunyani Municipal	151,300	150,200	137,400	149,000	147,400	149,500	143,200	149,300	148,100	136,900	137,500	148,300
Bono	Sunyani West Municipal	143,900	146,300	137,100	143,100	136,600	146,300	136,900	143,500	146,400	135,700	136,600	146,100
Bono	Tain	124,100	124,300	125,500	123,500	121,800	124,000	124,000	124,100	124,500	126,500	125,900	125,400
Bono	Wenchi Municipal	134,200	133,800	136,500	133,600	134,000	133,000	134,100	133,800	134,100	135,200	135,700	135,100
Bono East	Atebubu Amantin Municipal	166,600	167,700	171,100	169,100	168,000	167,000	166,800	168,100	166,400	168,800	168,900	169,100
Bono East	Kintampo North Municipal	153,500	155,300	156,900	153,700	154,100	158,000	157,000	154,500	156,300	155,900	155,600	155,500
Bono East	Kintampo South	101,300	102,100	103,900	100,500	100,300	101,600	101,400	101,000	101,200	103,100	102,600	102,600
Bono East	Nkoranza North	63,800	64,700	65,600	63,700	63,100	64,200	64,200	64,100	64,200	65,200	64,600	64,700
Bono East	Nkoranza South Municipal	126,100	127,400	128,300	126,000	126,100	126,500	126,300	125,600	126,300	127,700	128,100	127,800
Bono East	Pru East	105,000	107,300	107,500	103,100	103,400	107,000	106,600	104,400	106,200	107,800	107,500	107,900
Bono East	Sene East	76,600	76,900	77,000	76,300	76,100	77,400	77,000	76,700	77,500	77,600	78,000	77,200
Bono East	Sene West	76,900	77,500	79,200	76,700	76,600	77,200	77,100	76,700	77,100	79,200	78,200	77,600
Bono East	Techiman Municipal	237,300	240,100	242,000	235,600	238,900	238,100	236,100	235,700	238,600	240,300	240,100	239,700
Bono East	Techiman North	118,400	120,200	121,100	117,500	117,400	119,900	120,700	118,200	119,500	121,600	121,700	120,600
Central	Abura Asebu Kwamankese	139,600	143,900	143,800	139,700	138,900	142,700	142,200	140,000	142,200	144,500	143,700	144,400
Central	Agona East	108,100	109,900	112,300	108,000	107,800	109,300	109,000	108,300	109,000	111,600	110,900	111,000
Central	Agona West Municipal	135,200	136,300	138,100	134,300	134,900	135,700	135,700	134,000	136,500	137,800	137,800	137,000
Central	Ajumako Enyan Essiam	136,300	140,500	139,200	135,700	133,900	139,100	138,400	135,500	136,300	139,100	138,200	139,500
Central	Asikuma Odoben Brakwa	141,900	144,400	148,600	141,400	141,500	143,900	143,200	141,700	143,100	147,500	146,500	145,200
Central	Assin Fosu Municipal	91,400	92,000	94,200	90,900	90,700	91,800	91,600	91,600	91,500	93,400	93,600	94,000

Region	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Central	Assin North	87,600	89,400	90,900	87,400	87,500	89,100	88,700	88,000	88,500	91,000	90,500	89,800
Central	Assin South	115,500	118,200	119,600	115,500	115,200	117,500	117,000	115,600	116,600	118,600	118,000	118,500
Central	Awutu Senya	176,100	181,700	185,300	178,900	178,700	179,500	170,400	176,100	177,000	184,700	184,100	183,300
Central	Awutu Senya East Municipal	266,300	267,200	273,200	262,500	260,700	265,900	268,200	263,600	271,400	271,600	271,300	270,000
Central	Cape Coast Metropolitan Area (CCMA)	203,700	204,400	192,500	206,200	201,300	207,300	207,300	206,500	201,800	193,900	179,900	188,500
Central	Effutu Municipal	101,400	108,400	82,200	101,800	94,800	108,200	105,000	101,500	85,800	81,900	83,300	104,900
Central	Ekumfi	65,000	65,900	68,000	64,500	64,800	65,800	65,600	64,700	65,400	67,900	66,500	66,200
Central	Gomoa Central	97,700	101,100	102,000	96,800	94,700	100,100	99,700	97,200	99,000	102,200	101,500	100,800
Central	Gomoa East	349,100	349,500	357,600	342,700	344,800	349,400	354,000	347,400	345,500	354,600	356,100	352,500
Central	Gomoa West	144,300	147,900	149,600	144,800	144,600	146,900	146,500	144,900	145,400	149,200	149,300	148,600
Central	Komenda Edina Eguafo Abirem Municipal	173,300	173,200	179,400	173,600	173,200	173,500	172,600	174,000	170,900	178,600	178,300	178,400
Central	Mfantiman Municipal	185,400	187,100	189,400	184,400	185,400	185,700	186,300	184,400	186,700	189,200	189,900	188,900
Central	Twifo Ati Morkwa	105,300	106,100	109,200	104,900	104,500	106,000	105,600	105,200	106,000	109,100	108,900	106,600
Central	Twifo Heman Lower Denkyira	71,400	72,700	73,900	71,200	71,100	72,100	71,800	71,400	72,000	74,000	73,300	73,000
Central	Upper Denkyira East Municipal	116,400	118,800	118,600	115,700	115,200	118,200	117,700	115,800	117,100	118,900	118,800	116,700
Central	Upper Denkyira West	87,500	89,600	92,200	87,300	87,300	88,800	88,200	87,400	88,200	92,500	91,700	90,800
Eastern	Abuakwa North Municipal	78,100	79,200	78,100	78,400	78,500	79,000	79,200	78,600	79,500	77,700	78,800	79,400
Eastern	Abuakwa South Municipal	98,700	99,700	99,400	98,800	97,700	100,000	99,300	98,800	98,700	99,400	99,200	100,600
Eastern	Achiase	59,600	60,700	61,900	59,500	58,900	60,200	60,100	58,800	60,000	61,800	61,800	60,900
Eastern	Akwapim North Municipal	115,600	117,800	117,600	115,900	115,700	116,400	116,800	115,600	116,400	118,300	119,200	119,400
Eastern	Akwapim South Municipal	86,700	89,300	90,100	87,900	87,800	87,900	88,100	88,100	88,400	90,200	90,900	90,500

Region	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Eastern	Akyemansa	92,700	93,600	94,300	93,000	92,900	93,300	93,500	92,800	93,100	94,400	94,600	93,400
Eastern	Asene Manso Akroso	84,000	84,300	85,700	84,100	83,500	84,400	84,100	83,600	84,400	85,300	85,200	84,500
Eastern	Asuogyaman	105,200	106,800	107,900	105,900	105,800	106,700	106,600	105,500	106,500	107,800	107,600	107,100
Eastern	Atiwa East	69,600	69,700	70,400	69,000	69,200	69,400	69,600	69,100	69,800	70,500	70,000	70,200
Eastern	Atiwa West	65,000	66,200	66,800	65,300	64,700	66,200	65,700	65,300	65,600	67,300	66,900	66,700
Eastern	Ayensuano	97,500	98,200	98,500	97,700	97,800	97,800	98,000	97,600	97,900	99,000	98,500	98,300
Eastern	Birim Central Municipal	65,000	64,300	64,200	61,900	64,800	64,900	64,400	65,300	65,300	65,100	65,600	66,100
Eastern	Birim North	75,600	74,600	74,700	75,900	75,900	74,900	75,000	75,900	75,200	75,500	75,900	75,500
Eastern	Birim South	39,800	39,800	40,300	41,600	40,100	39,700	39,800	40,100	39,600	39,900	39,900	40,000
Eastern	Denkyembuor	80,600	81,000	82,300	80,300	80,500	80,700	80,900	80,400	81,000	82,000	82,400	81,400
Eastern	Fanteakwa North	58,400	59,300	60,800	58,600	58,600	59,100	59,000	58,200	58,500	60,800	61,200	60,600
Eastern	Fanteakwa South	57,300	59,000	59,200	58,400	58,000	58,300	58,200	57,800	58,200	59,600	59,400	59,000
Eastern	Kwaebibirem Municipal	125,700	127,100	129,100	125,200	125,800	126,400	126,200	125,600	126,300	128,500	128,100	128,000
Eastern	Kwahu Afram Plains North	62,200	63,600	63,400	62,900	63,200	64,100	63,800	62,500	63,200	63,900	64,100	63,900
Eastern	Kwahu Afram Plains South	77,900	76,500	77,900	77,100	76,500	77,200	77,200	77,900	76,700	77,900	77,500	77,100
Eastern	Kwahu East	84,400	86,600	85,300	85,200	83,800	87,000	86,900	84,800	84,100	86,600	84,400	86,500
Eastern	Kwahu South Municipal	81,900	82,000	81,700	81,600	81,300	81,600	81,200	82,700	82,700	82,700	83,300	83,000
Eastern	Kwahu West Municipal	143,600	144,100	144,200	142,100	143,300	143,000	143,500	142,500	144,500	144,600	145,100	144,800
Eastern	Lower Manya Krobo Municipal	122,900	123,000	123,900	121,900	122,000	121,800	122,900	123,200	123,900	124,200	125,200	124,700
Eastern	New Juaben North Municipal	96,300	96,600	96,600	96,600	96,100	95,600	96,300	96,600	96,100	96,200	98,200	98,600
Eastern	New Juaben South Municipal	122,700	121,800	115,700	121,900	120,500	122,600	121,200	123,300	118,800	116,100	116,900	120,800

Region	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Eastern	Nsawam Adoagyiri Municipal	171,700	172,400	174,500	169,700	172,300	172,600	171,400	171,200	172,100	173,800	174,500	173,800
Eastern	Okere	52,200	52,600	52,300	52,400	52,200	52,500	52,600	52,200	52,300	52,300	52,500	52,600
Eastern	Suhum Municipal	121,800	123,300	125,000	122,500	122,800	122,800	122,200	121,800	122,800	125,100	122,900	123,100
Eastern	Upper Manya Krobo	71,800	72,200	72,900	72,000	71,700	72,200	72,200	71,600	72,000	72,900	72,800	72,600
Eastern	Upper West Akim	102,000	103,300	103,700	101,500	101,600	102,700	102,800	101,600	102,500	103,200	103,700	103,100
Eastern	West Akim Municipal	123,200	123,700	124,700	123,100	123,800	123,800	124,100	123,100	123,900	124,200	124,300	123,800
Eastern	Yilo Krobo Municipal	124,200	125,100	124,100	124,700	124,700	124,900	124,100	123,800	123,600	123,500	124,800	125,600
Greater Accra	Ablekuma Central Municipal	176,700	174,700	177,000	174,600	175,900	175,700	176,100	175,000	177,200	176,600	177,300	174,500
Greater Accra	Ablekuma North Municipal	161,700	161,000	163,600	161,900	162,200	161,700	161,300	162,100	162,300	163,200	163,400	162,400
Greater Accra	Ablekuma West Municipal	162,600	162,700	165,300	162,000	163,100	162,500	162,700	162,000	163,500	164,600	164,700	164,200
Greater Accra	Accra Metropolitan Area (AMA)	321,300	324,600	329,000	319,800	319,100	322,700	321,500	320,200	323,700	330,500	329,300	327,100
Greater Accra	Ada East	82,300	84,400	85,000	82,000	81,800	83,500	83,200	82,400	82,500	84,700	85,100	84,800
Greater Accra	Ada West	87,200	88,100	89,500	87,400	87,400	87,600	87,400	87,000	87,600	89,400	89,900	88,900
Greater Accra	Adentan Municipal	285,800	288,600	296,100	285,600	288,300	287,700	287,300	287,400	288,400	294,200	296,000	293,400
Greater Accra	Ashaiman Municipal	254,300	253,400	253,800	254,500	256,200	253,600	254,500	254,600	255,900	253,800	255,500	254,000
Greater Accra	Ayawaso Central Municipal	102,300	102,000	102,700	102,300	101,800	102,100	102,400	102,000	102,300	102,800	103,200	102,500
Greater Accra	Ayawaso East Municipal	57,300	58,200	58,100	57,200	56,900	57,700	57,400	57,200	57,500	58,800	58,800	58,400
Greater Accra	Ayawaso North Municipal	72,600	73,000	74,200	72,500	72,400	73,000	72,700	72,600	72,600	73,900	73,600	73,300
Greater Accra	Ayawaso West Municipal	77,700	90,200	88,300	81,200	87,000	92,200	93,200	80,200	88,600	87,600	71,900	70,600
Greater Accra	Ga Central Municipal	357,000	359,000	369,400	352,800	355,300	357,600	356,700	354,300	357,200	366,800	366,800	364,600
Greater Accra	Ga East Municipal	307,000	307,500	314,200	306,600	307,300	306,700	306,400	306,400	309,000	313,200	314,200	312,000

Region	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Greater Accra	Ga North Municipal	262,400	262,100	270,500	259,300	262,500	261,000	262,000	260,600	263,300	268,900	268,700	266,000
Greater Accra	Ga South Municipal	380,100	381,800	393,400	378,000	381,700	380,200	379,000	378,700	381,100	390,100	391,900	387,900
Greater Accra	Ga West Municipal	350,300	355,300	364,000	349,400	350,400	353,200	351,200	348,800	352,800	361,500	361,700	359,200
Greater Accra	Korle Klottey Municipal	72,600	74,300	77,900	76,600	73,700	75,700	75,400	73,400	75,000	78,800	74,900	73,700
Greater Accra	Kpone Katamanso Municipal	469,100	472,800	486,600	463,600	467,900	471,600	467,500	466,100	471,700	484,300	483,900	479,900
Greater Accra	Krowor Municipal	122,200	122,400	122,800	121,400	123,000	121,000	121,200	122,000	122,400	122,300	123,800	123,100
Greater Accra	La Dade-Kotopon Municipal	213,400	222,600	232,500	210,400	206,900	220,000	217,700	211,900	216,400	230,500	228,700	225,100
Greater Accra	La Nkwantanang Madina Municipal	229,900	222,700	228,200	219,800	225,100	224,100	230,200	226,200	229,500	228,400	225,800	223,400
Greater Accra	Ledzokuku Municipal	232,100	233,200	236,600	231,300	230,800	233,200	232,300	231,200	233,100	235,700	237,700	237,000
Greater Accra	Ningo-Prampram	239,700	240,100	248,300	236,000	234,400	242,400	239,800	237,200	241,800	246,500	243,300	242,800
Greater Accra	Okaikoi North Municipal	173,100	173,400	176,000	174,500	173,700	173,000	173,000	173,900	172,100	175,500	175,600	173,300
Greater Accra	Shai-Osudoku	121,200	121,300	124,400	120,300	119,400	120,000	121,500	119,700	120,500	124,500	124,300	122,200
Greater Accra	Tema Metropolitan Area (TMA)	174,000	175,600	179,900	174,800	174,200	175,200	174,900	174,000	175,700	179,800	180,300	178,300
Greater Accra	Tema West Municipal	224,900	225,700	231,600	222,900	223,800	226,100	225,100	223,700	226,600	232,100	232,900	229,500
Greater Accra	Weija Gbawe Municipal	236,900	238,400	242,300	234,600	235,800	237,200	236,300	234,800	237,500	240,500	240,800	240,300
North East	Bunkpurugu Nakpanduri	89,200	91,000	95,200	89,800	90,600	91,000	90,300	89,200	90,500	92,900	91,800	91,300
North East	Chereponi	95,000	97,300	99,300	95,900	95,500	96,700	97,400	95,600	96,800	99,700	98,500	97,700
North East	East Mamprusi Municipal	185,100	174,400	183,100	176,600	188,700	181,100	188,900	175,400	186,700	182,300	184,000	177,900
North East	Mamprugu Moagduri	79,100	80,000	82,600	78,900	78,700	80,000	79,600	79,200	79,600	82,600	81,100	80,000
North East	West Mamprusi Municipal	186,400	189,200	194,800	187,300	186,700	189,400	187,900	186,900	186,900	193,600	190,600	189,700
North East	Yunyoo Nasuan	67,200	68,300	70,100	67,700	67,900	68,200	68,300	67,500	67,900	69,500	69,000	68,400

Region	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Northern	Gushegu Municipal	166,900	168,700	172,100	167,500	165,800	169,100	167,900	166,900	168,800	172,200	169,600	170,000
Northern	Karaga	124,100	126,600	129,100	124,700	123,900	126,400	126,100	124,100	125,600	129,100	128,700	127,700
Northern	Kpandai	140,300	142,200	144,900	139,500	138,900	141,500	140,800	140,000	139,600	145,100	145,000	143,500
Northern	Kumbungu	119,900	120,700	125,800	125,600	120,500	121,600	125,800	125,400	125,500	126,000	119,600	119,500
Northern	Mion	104,500	106,900	108,000	104,300	104,000	106,500	106,000	104,100	105,100	108,000	107,600	107,000
Northern	Nanton	58,700	59,700	61,200	58,900	58,600	59,600	58,700	58,200	58,900	60,400	60,500	60,500
Northern	Nanumba North Municipal	210,100	213,000	217,700	209,000	208,100	212,900	211,200	209,900	208,700	216,300	215,600	214,600
Northern	Saboba	105,500	106,800	109,900	105,300	105,700	106,800	105,700	105,500	104,500	108,900	108,200	107,500
Northern	Sagnarigu Municipal	369,400	362,200	365,200	361,700	362,000	364,800	364,100	364,300	364,000	361,600	367,600	369,200
Northern	Savelugu Municipal	138,000	138,900	142,100	136,300	135,900	138,900	139,300	137,100	138,600	141,500	141,600	140,200
Northern	Tamale Metropolitan Area (TMA)	382,200	376,500	384,300	383,300	380,400	383,200	383,600	384,300	386,300	383,600	376,500	376,900
Northern	Tatale Sanguli	82,300	82,800	83,800	81,400	81,400	83,000	82,700	82,200	82,200	83,400	83,300	83,000
Northern	Tolon	132,600	135,200	137,100	133,200	131,800	134,700	135,000	133,200	134,100	137,100	137,100	136,100
Northern	Yendi Municipal	173,500	175,500	179,100	171,700	171,000	175,400	174,400	173,300	172,800	178,700	178,500	177,300
Northern	Zabzugu	91,000	93,100	94,800	92,700	91,600	92,200	91,700	91,400	90,600	94,800	94,200	93,100
Oti	Biakoye	75,400	75,700	76,500	75,200	74,600	75,600	75,600	75,200	75,500	76,000	76,000	75,900
Oti	Guan	30,900	31,500	31,600	30,800	30,600	31,400	31,300	30,600	31,200	31,700	31,200	31,200
Oti	Jasikan Municipal	62,900	63,400	63,900	63,200	62,800	63,300	63,200	63,200	63,100	63,700	63,500	63,600
Oti	Kadjebi	76,100	76,600	77,100	75,700	75,600	76,500	76,700	76,000	76,500	76,500	76,200	76,800
Oti	Krachi East Municipal	114,100	114,900	115,900	114,400	114,000	114,600	114,100	114,400	112,800	115,200	116,200	116,100
Oti	Krachi Nchumuru	83,900	84,600	86,300	83,800	83,500	84,400	83,900	84,000	82,900	86,000	85,500	84,800

Region	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Oti	Nkwanta North	132,200	133,500	134,300	132,000	131,800	133,200	132,700	132,100	132,100	134,500	134,000	133,900
Oti	Nkwanta South Municipal	142,100	142,800	143,400	141,600	141,500	142,800	142,700	141,700	142,600	143,600	143,000	143,000
Savannah	Bole	138,300	142,700	149,700	135,100	134,400	140,900	140,000	136,200	139,900	149,400	147,200	145,200
Savannah	Central Gonja	155,500	158,500	159,900	154,400	153,800	157,800	157,100	154,600	156,500	160,700	159,900	159,300
Savannah	East Gonja Municipal	126,300	126,600	130,100	125,400	124,800	126,500	126,500	124,800	127,300	129,800	128,400	127,800
Savannah	North East Gonja	43,100	44,100	44,500	42,600	42,700	44,300	43,600	42,600	43,300	45,100	44,800	44,400
Savannah	North Gonja	70,100	72,100	72,700	70,000	69,500	72,000	70,800	70,300	70,200	72,400	72,600	72,800
Savannah	Sawla Tuna Kalba	123,500	125,400	126,800	123,200	122,800	125,000	124,500	123,600	124,400	126,600	126,400	125,800
Savannah	West Gonja	71,800	73,300	75,000	70,500	70,000	73,200	72,800	71,000	72,600	75,100	74,800	74,000
Upper East	Bawku Municipal	122,400	124,500	120,200	121,100	121,900	124,400	123,600	122,600	123,100	121,000	123,100	122,900
Upper East	Bawku West	155,100	156,900	158,000	153,900	153,300	156,900	156,400	153,700	156,500	157,300	156,500	156,200
Upper East	Binduri	86,100	86,700	88,300	85,300	85,200	86,500	86,400	86,200	86,300	87,700	87,500	87,100
Upper East	Bolgatanga East	45,200	45,700	46,300	44,400	44,600	45,700	45,100	44,800	45,400	46,200	46,300	46,200
Upper East	Bolgatanga Municipal	126,300	120,900	116,700	125,500	127,700	122,400	124,200	125,500	125,600	116,700	118,800	120,400
Upper East	Bongo	130,300	132,200	135,500	130,000	129,900	131,800	130,900	129,600	130,600	134,300	133,000	132,400
Upper East	Builsa North Municipal	57,000	57,900	56,200	57,300	57,500	57,500	57,300	57,100	57,600	55,900	56,600	57,800
Upper East	Builsa South	40,000	41,000	42,200	40,000	39,900	40,800	40,600	40,000	40,500	42,200	41,300	40,400
Upper East	Garu	78,200	78,900	81,400	77,700	77,500	78,900	78,500	77,800	78,900	80,700	80,800	79,700
Upper East	Kasena Nankana Municipal	106,300	107,400	102,700	105,700	103,400	106,700	105,500	106,200	103,000	102,100	101,800	104,100
Upper East	Kasena Nankana West	99,200	99,300	102,800	99,100	98,900	99,900	99,700	99,100	99,700	101,900	101,200	100,300
Upper East	Nabdam	57,200	58,400	59,300	57,700	57,700	58,100	58,200	57,800	57,600	59,000	58,400	57,900

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Upper East	Pusiga	92,400	93,200	96,400	92,300	91,400	93,200	93,200	92,600	92,700	95,500	95,600	94,900
Upper East	Talensi	97,500	98,200	102,200	96,200	94,900	97,700	96,600	97,200	97,500	101,800	101,500	99,900
Upper East	Tempane	95,200	95,900	96,400	94,900	94,900	95,800	95,400	95,300	95,200	95,800	95,400	95,600
Upper West	Daffiama Bussie Issa	43,500	43,800	44,400	43,800	43,400	43,900	43,600	43,100	44,000	44,100	43,400	43,200
Upper West	Jirapa Municipal	93,500	94,400	95,500	92,700	92,900	94,100	93,800	94,600	94,300	96,600	96,400	94,800
Upper West	Lawra Municipal	62,200	63,400	63,800	62,200	62,300	63,000	63,000	62,600	62,400	64,000	63,900	63,300
Upper West	Nadowli Kaleo	83,400	84,200	84,600	84,200	83,500	84,900	84,500	84,000	83,800	84,300	84,300	85,200
Upper West	Nandom	54,300	55,600	57,900	54,600	55,400	55,900	55,600	54,500	55,100	57,800	56,800	55,500
Upper West	Sissala East Municipal	85,200	84,900	86,500	84,800	85,100	85,000	85,300	85,300	85,200	86,100	85,800	86,100
Upper West	Sissala West	67,100	68,400	69,800	66,700	66,600	68,200	68,000	66,800	67,600	69,500	69,000	68,600
Upper West	Wa East	98,200	99,700	100,900	97,900	97,700	99,400	98,900	98,000	98,600	100,600	100,400	99,700
Upper West	Wa Municipal	193,100	186,700	175,500	193,000	194,100	190,600	191,900	192,600	188,100	173,800	180,600	182,800
Upper West	Wa West	104,800	105,600	107,200	104,200	104,300	105,300	105,200	104,800	104,800	106,600	106,700	105,900
Volta	Adaklu	40,900	41,600	42,000	41,400	40,900	41,300	41,000	40,800	41,100	42,000	41,600	41,600
Volta	Afadzato South	76,900	77,300	77,700	77,600	77,400	77,300	77,200	76,900	77,200	77,100	77,200	77,300
Volta	Agortime-Ziope	43,000	43,100	43,600	42,700	42,500	43,100	43,100	42,700	43,200	43,500	43,200	43,100
Volta	Akatsi North	34,700	35,400	35,300	34,800	34,700	35,000	35,000	34,800	35,100	35,300	35,000	35,100
Volta	Akatsi South Municipal	108,700	108,900	109,500	108,200	108,100	108,600	108,700	108,100	108,300	109,200	110,100	110,100
Volta	Anloga	102,900	104,900	105,000	103,400	103,300	104,100	104,200	103,600	103,700	105,100	105,600	104,600
Volta	Central Tongu	90,900	90,900	92,500	90,600	94,700	90,300	91,000	90,400	91,100	92,000	92,100	91,400
Volta	Ho Municipal	175,700	169,800	155,400	174,000	172,000	173,900	174,200	175,600	173,600	161,900	160,900	165,900

Region	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Volta	Ho West	90,200	90,600	91,500	90,000	89,100	90,400	90,600	90,200	90,200	91,600	91,000	91,200
Volta	Hohoe Municipal	115,200	112,600	108,800	114,700	114,100	114,900	115,300	115,500	115,200	110,400	111,100	114,200
Volta	Keta Municipal	89,400	90,000	90,300	88,500	87,500	89,500	89,200	89,000	90,100	90,800	90,100	90,400
Volta	Ketu North Municipal	122,700	123,500	125,000	122,600	122,700	122,900	122,700	122,700	122,800	124,500	124,200	123,700
Volta	Ketu South Municipal	271,200	275,500	285,900	268,200	268,900	273,900	272,700	269,100	272,600	281,800	280,300	278,300
Volta	Kpando Municipal	59,800	60,100	60,000	59,700	59,600	60,100	60,400	59,500	60,300	60,500	60,800	60,200
Volta	North Dayi	42,100	42,700	42,700	42,300	41,800	42,400	42,400	42,100	42,500	42,300	42,800	42,800
Volta	North Tongu	113,700	116,700	117,700	114,800	108,300	115,500	114,900	114,800	115,000	117,000	116,500	116,000
Volta	South Dayi	60,000	60,900	60,700	60,000	59,600	60,800	60,700	60,100	60,300	60,500	60,800	61,400
Volta	South Tongu	130,300	129,700	131,200	129,500	129,600	130,000	129,800	129,900	130,200	131,500	131,500	130,600
Western	Ahanta West Municipal	161,300	162,000	165,900	160,600	162,400	161,700	161,400	160,900	162,600	164,500	165,000	163,800
Western	Effia Kwesimintsim Municipal	165,900	161,500	164,900	164,500	163,700	164,400	165,800	166,200	164,800	163,700	161,700	160,800
Western	Ellembelle	125,200	125,300	128,500	125,100	124,400	124,300	125,100	124,600	126,600	129,100	128,300	126,700
Western	Jomoro Municipal	134,100	135,300	138,500	133,300	133,600	134,900	134,900	133,800	135,000	137,600	137,200	136,300
Western	Mpohor	56,000	57,000	58,300	56,000	56,200	56,800	56,300	56,000	56,500	58,400	58,100	57,500
Western	Nzema East Municipal	99,000	100,400	100,600	98,700	99,000	100,000	99,800	99,300	100,000	100,800	100,800	100,600
Western	Prestea/Huni Valley Municipal	228,800	230,100	235,500	229,100	230,000	229,400	228,900	228,600	231,500	234,600	235,600	233,000
Western	Sekondi Takoradi Metropolitan Area (STMA)	251,300	249,900	246,800	252,600	251,900	251,300	251,100	250,800	247,600	245,500	246,000	250,300
Western	Shama	128,600	129,100	131,300	127,600	128,300	128,100	128,800	128,100	130,100	130,600	131,000	129,800
Western	Tarkwa-Nsuaem Municipal	238,100	241,000	223,200	235,700	230,600	238,900	236,700	237,300	223,500	224,300	226,400	240,500
Western	Wassa Amenfi Central	124,100	125,200	126,500	123,200	123,200	124,900	124,800	123,500	124,400	127,300	126,800	125,800

Region	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Western	Wassa Amenfi East Municipal	185,600	187,900	191,100	184,500	184,500	187,400	186,700	185,400	187,500	192,100	190,800	189,700
Western	Wassa Amenfi West Municipal	137,500	139,900	142,800	137,200	136,700	139,400	138,100	137,300	137,900	143,200	143,300	141,700
Western	Wassa East	105,100	106,400	107,500	105,900	105,500	106,700	106,100	105,700	106,000	108,000	107,900	107,200
Western North	Aowin Municipal	133,500	134,300	137,000	134,400	133,900	134,000	134,100	133,800	133,600	137,400	136,900	136,600
Western North	Bia East	54,000	54,700	55,000	54,100	54,200	54,700	54,300	53,800	54,000	54,700	54,600	54,500
Western North	Bia West	116,700	118,100	120,700	117,600	118,000	117,800	117,500	116,800	117,100	120,400	119,800	118,600
Western North	Bibiani Anhwiaso Bekwai Municipal	178,200	180,600	185,900	177,300	177,900	180,100	179,800	177,900	181,000	184,200	183,800	181,700
Western North	Bodi	71,300	72,000	73,900	71,300	71,400	71,800	71,800	71,300	71,800	73,200	72,900	71,900
Western North	Juaboso	93,300	94,600	96,000	93,400	93,300	94,500	94,200	93,500	94,000	95,900	96,200	95,400
Western North	Sefwi Akontombra	71,500	72,500	73,200	71,500	71,300	72,200	72,100	71,400	72,100	73,200	73,100	72,900
Western North	Sefwi Wiawso Municipal	169,800	170,800	177,200	167,700	167,500	169,400	169,900	169,300	170,400	176,400	174,200	173,400
Western North	Suaman	39,600	40,300	41,600	39,600	39,500	40,300	39,900	39,600	40,200	41,600	41,300	40,700

Note: Point estimates of de-facto residents, rounded to nearest 100, estimates version 2.1

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ABOUT THE DATA FOR GOOD PARTNERS

Ghana Statistical Service

The Ghana Statistical Service (GSS) provides comprehensive, reliable, quality, relevant, accurate and timely statistical information to guide national development as stipulated in Section 3 of the Statistical Service Act, 2019 (Act 1003). The organisation's vision is to be the trusted provider of official statistics for good governance and its mission being the efficient collection, production, management, and dissemination of quality official statistics based on international standards, using competent and motivated staff for evidence-based decision making, in support of national development.

The Statistical Service produces monthly and quarterly data on important economic indicators such as, Consumer Price Index (CPI) and Inflation, Producer Price Index (PPI) and Inflation, and Gross Domestic Product (GDP). GSS also regularly generates periodic population, housing, demographic and economic data at the locality, district, and national levels from routine surveys, censuses, and administrative data. The statistics generated by GSS is utilised by a wide cross-section of users including the public sector, businesses, academia, civil society organisations and development partners. For more information on the statistics generated by GSS visit www.statsghana.gov.gh.

Flowminder

Flowminder is a global leader in the analysis and use of mobile phone data, geospatial and survey data to improve the well-being of vulnerable populations, particularly in response to social, humanitarian and development challenges in low- and middle-income countries. Their expertise has opened corridors to partners with decision makers and key stakeholders in national and international data systems to produce high-quality data, strengthen capacity, develop new methods and tools, and leverage non-traditional and novel data sources to deliver projects that improve the lives of vulnerable populations. For more information, please visit www.flowminder.org

Telecel Ghana

Telecel Ghana (previously Vodafone Ghana) ensured the availability and continuous access to the mobile phone data in adherence to legal conditions enshrined in data protection laws. Telecel Ghana is the second leading telecommunication company in Ghana, which has grown from a client-base of thousands to multiples of million subscribers since 2000. Telecel's partnership with Ghana Statistical Service is a striving collaboration towards improving the provision of official statistics leveraging mobile phone metadata for the public good. For more information, please visit www.telecel.com.gh



www.statsghana.gov.gh