

Affordable Housing in Rwanda

3. Demand-side analysis

November 2021



Introduction

Rwanda has a developing housing and housing finance sector – but there are constraints. While Rwanda’s mortgage to GDP ratio (3,35 percent) is relatively high for the region, mortgage lending is concentrated at the upper end of the income pyramid; and while Rwanda’s microfinance sector is an important source of finance for lower income segments of the market, the products and services of microfinance providers are not typically addressed towards housing. In addition, Rwanda has a critical, but poorly documented residential rental sector. As is the case in most countries, the affordable rental sector operates off the radar, unattended by both policy and finance.

In 2020, the Government of Rwanda partnered with the World Bank to access two grants, one of which is for housing finance. US\$150 million has been approved to fund the Rwanda Housing Financing Project, the main objective of which is to expand access to long term housing finance for the benefit of middle-income segments that have limited or no access to mortgages, while also supporting capital market development. While this is important, it is unlikely to cover the breadth of the need for housing finance, specifically for lower income earners who are outside the scope of mortgage lending. How the end user finance intentions align with the availability of construction finance, and whether this addresses the needs of the so-called informal, or small-scale supply sector (and critically, rental accommodation) is also not clear. To this end, a broader and more detailed understanding of the demand and supply sides, how they intersect, and the specific housing value chains engaged with and served by each, is required.

Rwanda’s Vision 2050 “sets a new pathway that will lead the country to the livings standards of upper middle income by 2035 and high-income countries by 2050”. In line with this vision, the National Land Use Development Management Plan predicts a 2% annual growth rate, such that by 2050, Rwanda’s population will be 22.1 million people. To meet the housing needs of these people, the NLUDMP projects that 5,5 million dwelling units will be required by 2050, or an annual delivery of 150 000 dwelling units between 2020 and 2050. The research finds the urban figure to be an estimated 3,2 million units by 2050. Even just this urban projection demands a higher rate of annual delivery than current formal capacity has been able to achieve. The report finds that most housing in Rwanda is being delivered by smaller scale players and by households themselves, often informally. Meeting the Vision 2050 affordable housing targets both in terms of the anticipated scale and quality will require strong partnerships between market players and with government, while also explicitly leveraging and growing the capacity of smaller scale players.

As Rwanda develops in line with its vision, there is an opportunity for AFR to support the development of a housing finance sector in Rwanda that meets the needs of all residents and all housing supply approaches, with a variety of products and services designed explicitly to engage with the breadth and nuance of their capacity.

This review of Rwanda’s affordable housing sector and its financing explored the overall institutional, policy and legislative environment for affordable housing, scoped the demand side, interrogated the capacity and activities of the supply side, and considered where finance could make a difference. **This report sets out the detailed demand-side analysis.** The full study was presented to Rwandan stakeholders for a validation workshop on 24 August 2021. The team is grateful for the detailed engagement and inputs from all stakeholders and looks forward to further engagement on the recommendations.

Team



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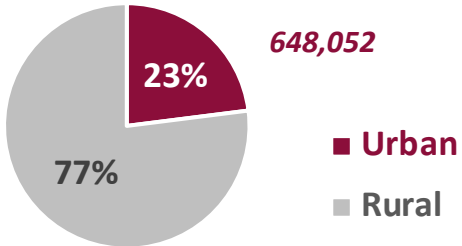
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John Rwirahira

- 1. Housing backlog**
2. Incomes
3. Urban renters and landlords
4. Demand projections
5. Segment profiles

According to FinScope 2020, 23% of households live in urban areas. Most of these households own their dwellings and there are typically 4 to 5 members per household

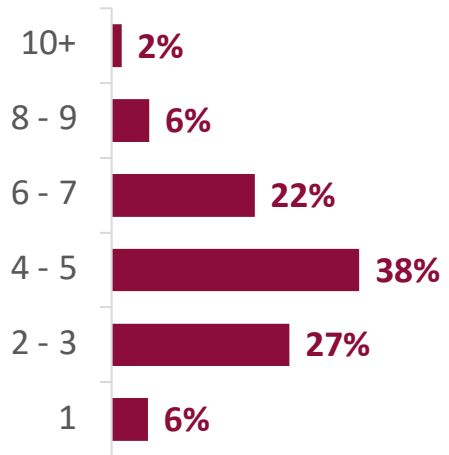
HOUSEHOLDS LIVING IN URBAN AREAS

Total households; 2.79 million



URBAN HOUSEHOLD SIZE

Urban households; 0.65 million

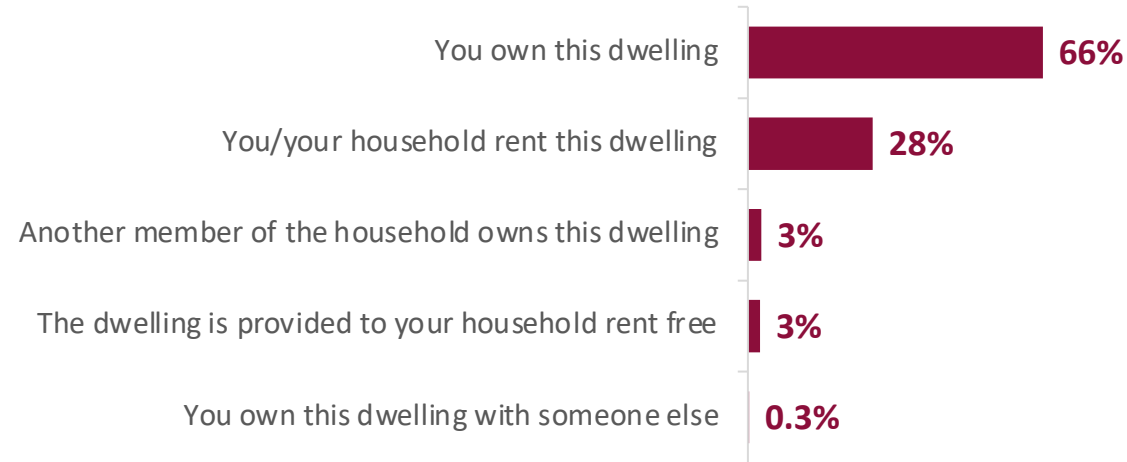


4.52
Average household size

Average urban household sizes
EICV 5 (2016/17): 4.19
DHS (2015): 4.13

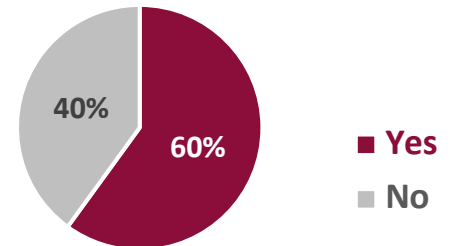
URBAN HOUSEHOLD OCCUPANCY STATUS

Urban households; 0.65 million



URBAN HOUSEHOLD TITLE DEED FOR LAND OR PLOT

Urban households; 0.65 million

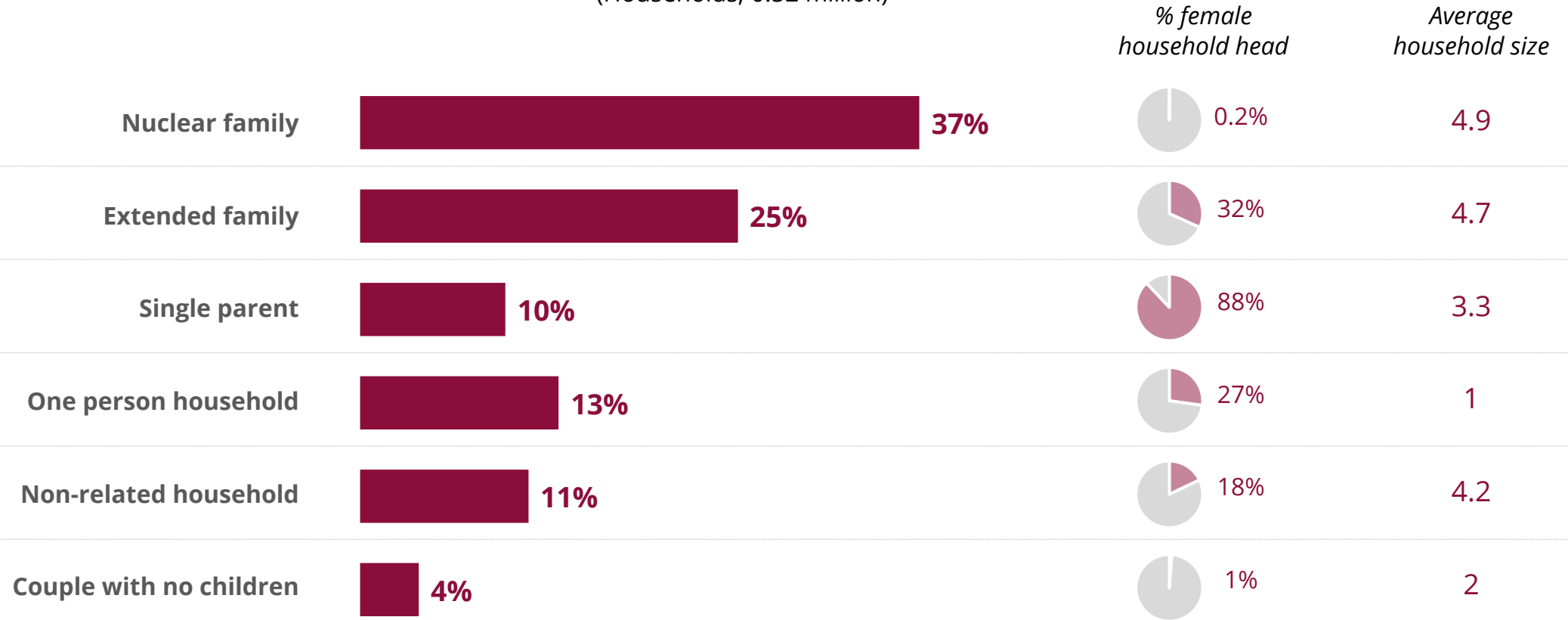


Source: FinScope 2020

Nuclear and extended families are the most common household compositions. One person households and non-related households make up just under a quarter of households in urban areas

URBAN HOUSEHOLD TYPES

(Households; 0.52 million)



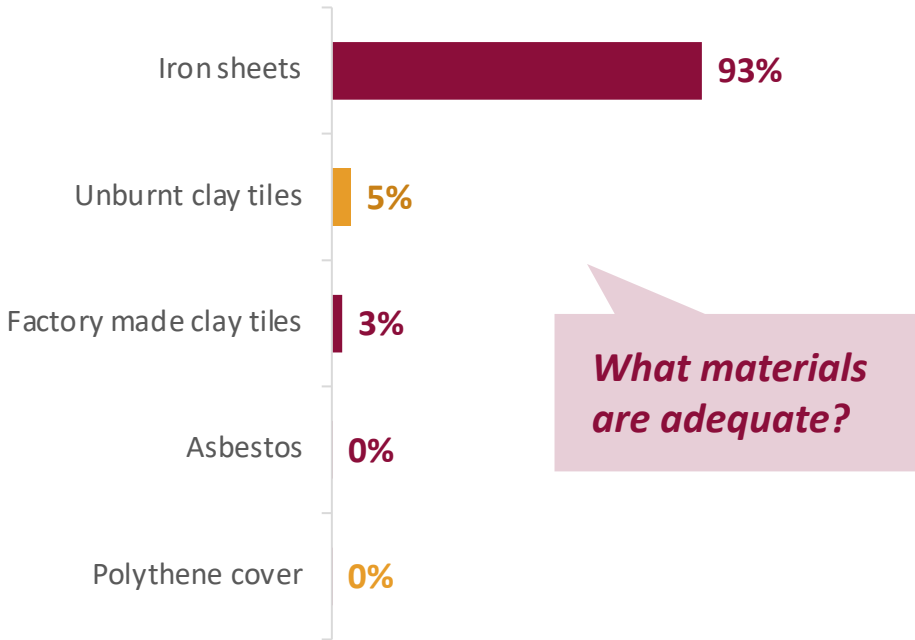
Source: Rwanda Fifth Integrated Household Living Conditions Survey 2016/17 (EICV 5)

What materials can be classified as 'formal' (adequate) or informal? The IGC* includes the following materials as 'sub-standard: Mud bricks, tree trunks with mud, tree trunks with mud and cement, wooden planks, and plastic sheets. CAHF's headline indicator definition of formal dwelling are those with walls and roof made with *finished* products

URBAN HOUSING CONDITIONS

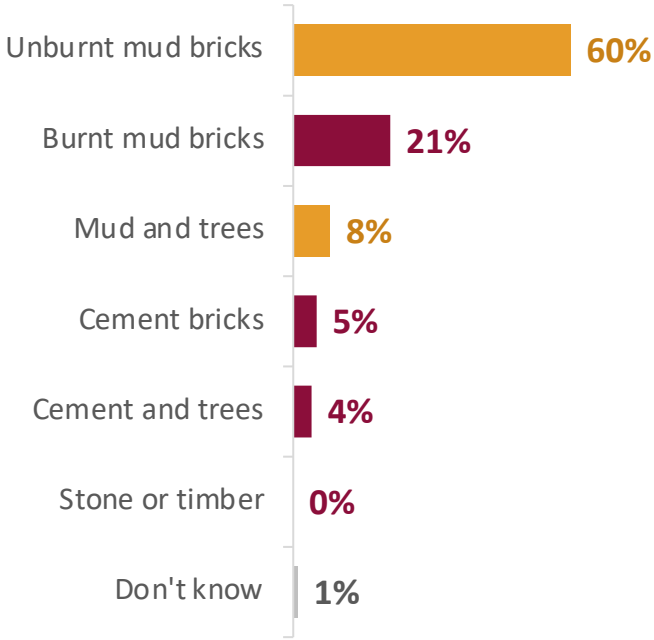
Urban households; 0.65 million

Main materials for roof



What materials are adequate?

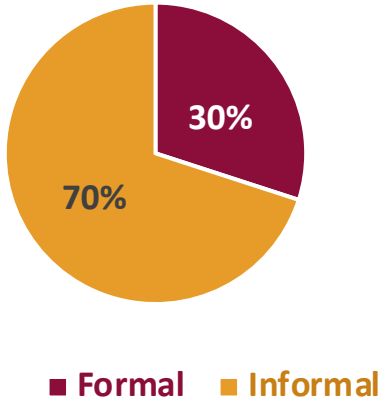
Main materials for external walls



■ Formal materials ■ Informal materials

Type of dwelling

Formal dwellings are defined as those that have formal roof materials AND formal wall materials



Source: FinScope 2020

Note: this questions is asked to the respondent

Note*: <https://www.theigc.org/wp-content/uploads/2019/07/Bower-et-al-2019-Final-report.pdf>

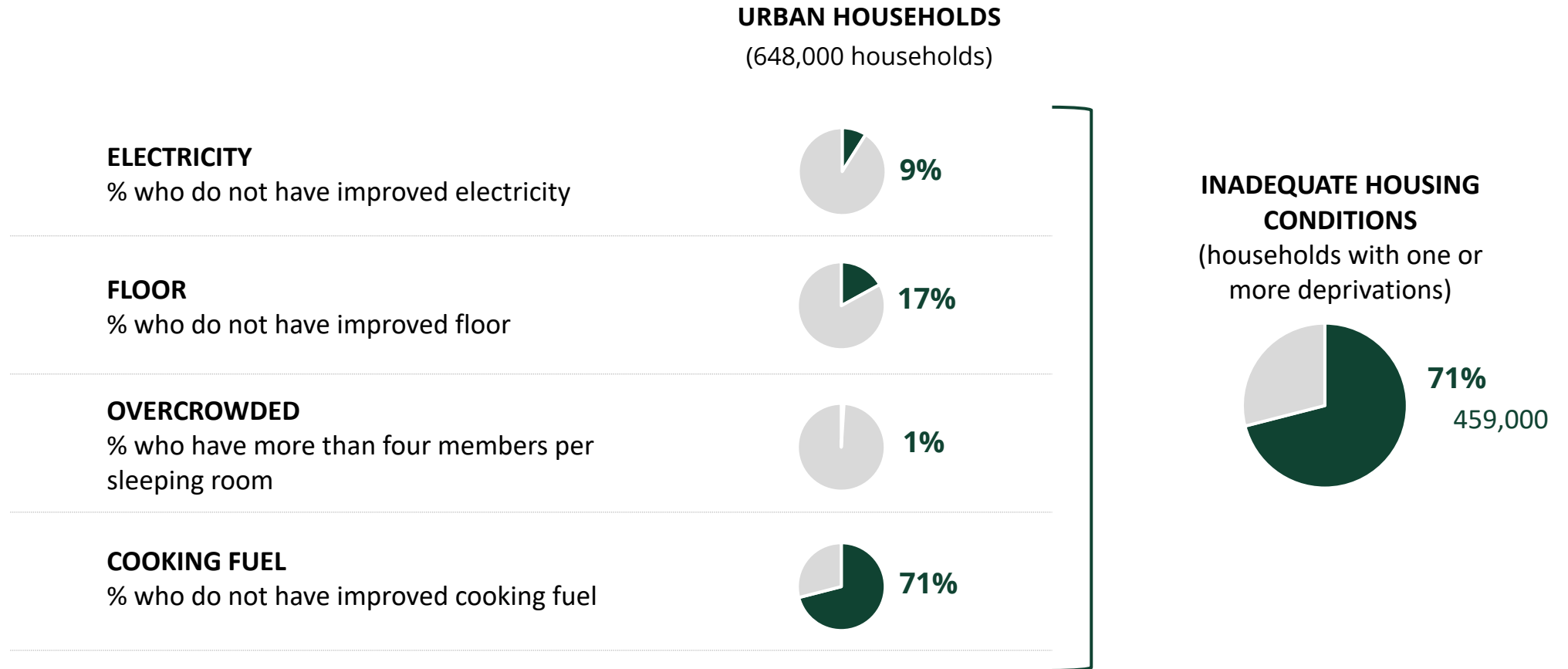
Rwanda's National MPI: Housing Dimensions

The housing dimension of the MPI has four indicators: electricity, floor material, overcrowding and source of cooking material

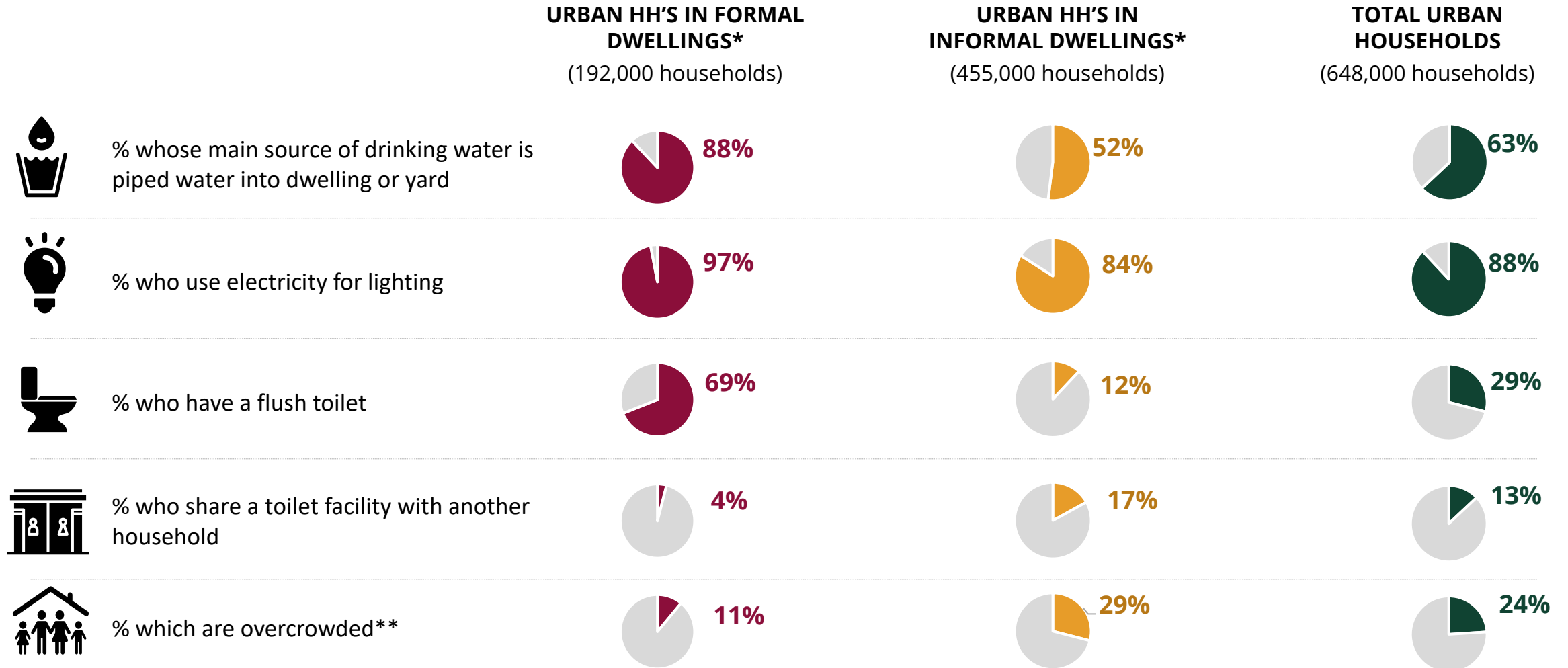
Indicator	Deprivation cut-off	Indicator weight
Electricity	Household does not have improved electricity (not connected to electricity from EWSA or other electricity distributors, bio gas, generator, solar panel, batteries + bulb)	7.5%
Floor	Household does not have improved floor (not wooden floor, clay tiles, cement, or bricks)	7.5%
Overcrowding	Household has more than 4 members per sleeping room	7.5%
Cooking fuel	Household uses non-improved cooking fuel (doesn't use gas, biogas, solar power, electricity, or oil kerosene)	2.5%

The housing dimension has a weight of 25% in the MPI

About 71% of urban households have some form of deprivation in terms of housing conditions



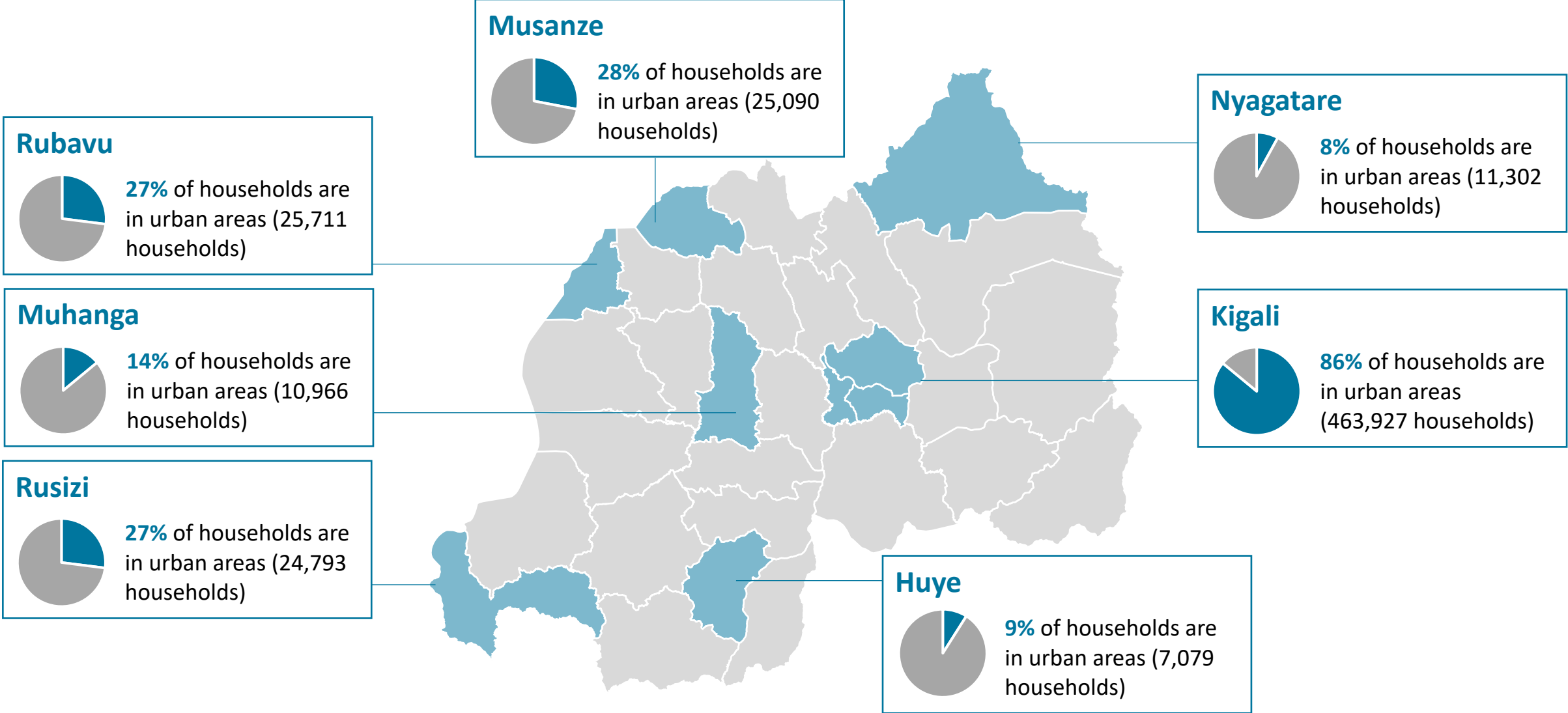
Most urban households have drinking water piped into their dwelling / yard and use electricity for lighting. Access to sanitation is more limited



Source: FinScope Rwanda 2020

Note*: Formal dwellings are defined as those that have formal roof materials (iron sheets, factory made clay tiles or asbestos) **AND** formal wall materials (Burnt mudbricks, cement bricks or bricks and trees, stones or timber) . Note** Over-crowding is defined as more than 3 adults per sleeping room

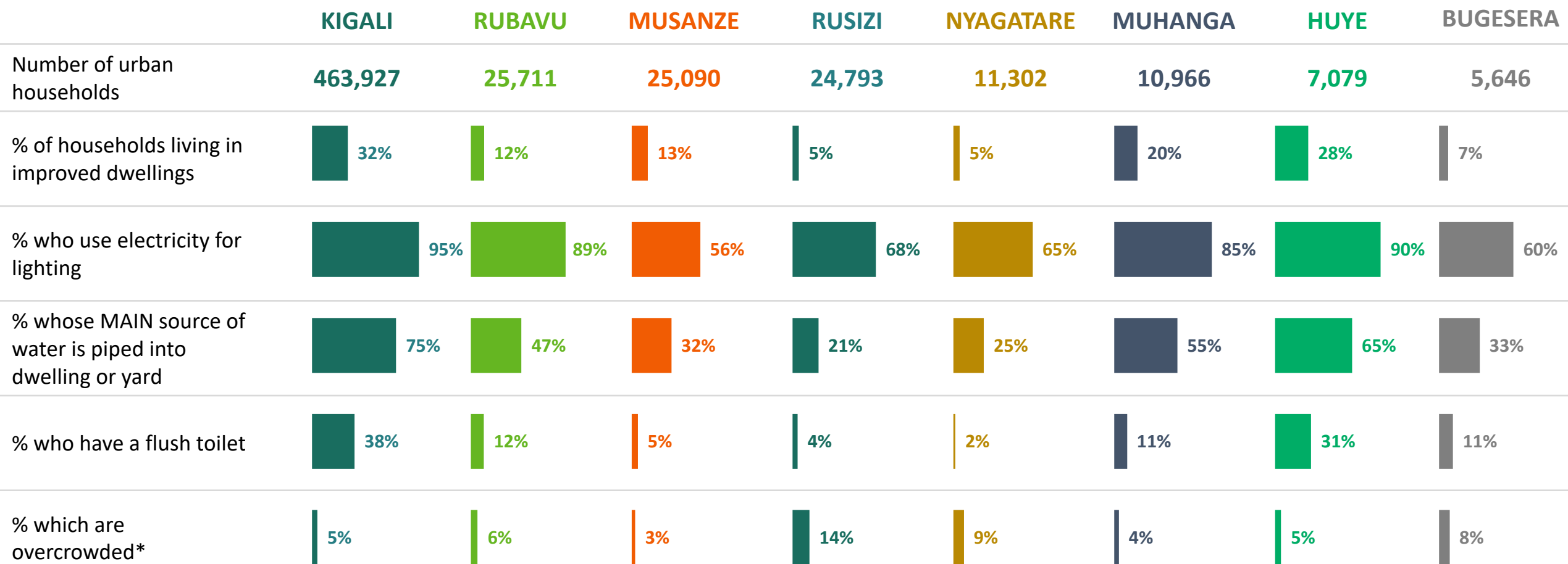
Kigali and the six secondary cities account for 88% of all urban households



Source: FinScope Rwanda 2020

Housing conditions for urban households in the secondary and satellite cities differ widely. According to FinScope, households in Kigali and Huye have better access to services, while households in Rusizi and Nyagatare have limited access to services and just 5% live in dwellings made from improved materials

HOUSING CONDITIONS: URBAN HOUSEHOLDS IN SECONDARY AND SATELLITE CITIES

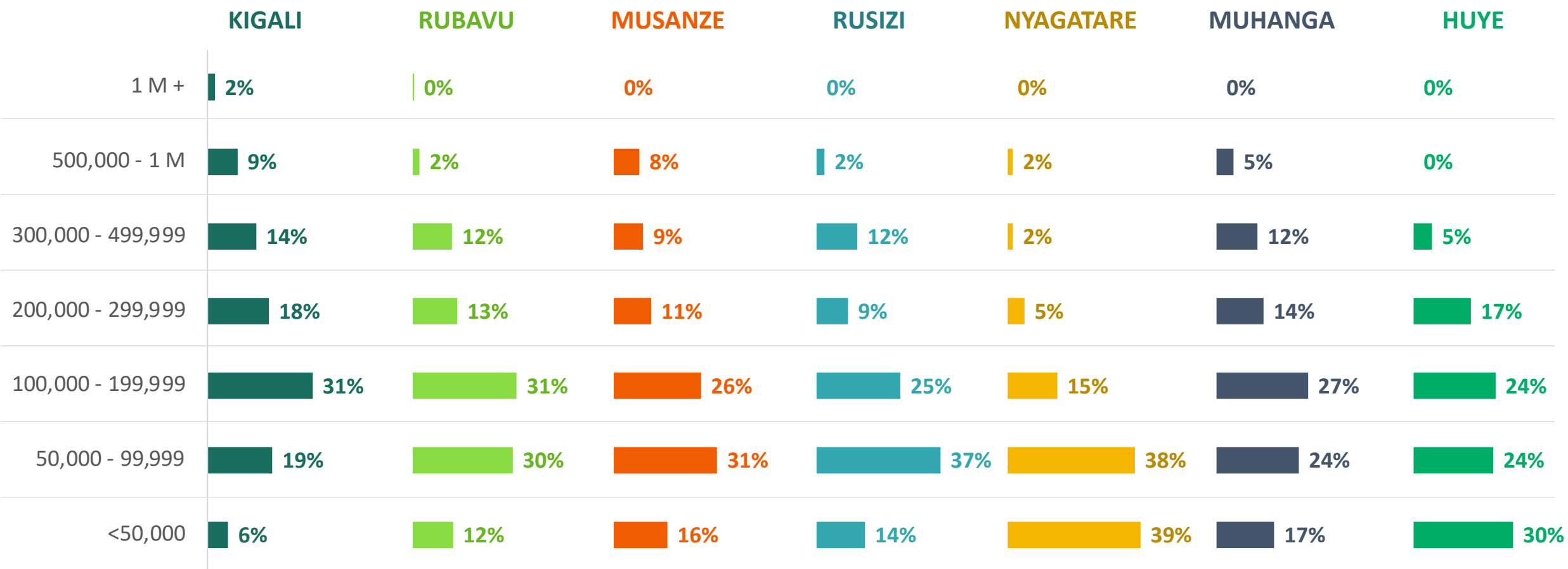


Source: FinScope Rwanda 2020

*Over-crowding is defined as more than 3 adults per sleeping room

Estimated monthly household incomes based on EICV 5 data show that income distributions for urban households in the secondary and satellite cities also differ widely. Urban areas in Kigali and Musanze contain the wealthiest households, while Nyagatare contains the poorest

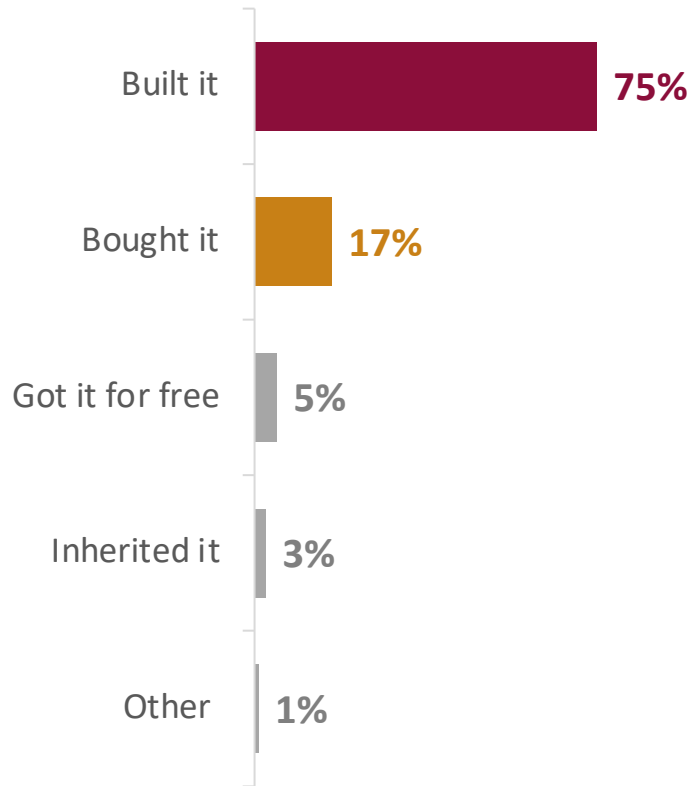
MONTHLY HOUSEHOLD INCOME DISTRIBUTION (Urban households)



Source: EICV 5. Note: Bugesera has been excluded due to small sample size

Two thirds (66%) of urban households own their dwelling. Most owners built their dwellings, 17% bought their dwelling. Most finance the construction/purchase with savings

Urban households: How did you get the dwelling?
(Own dwelling; 0.43 M)



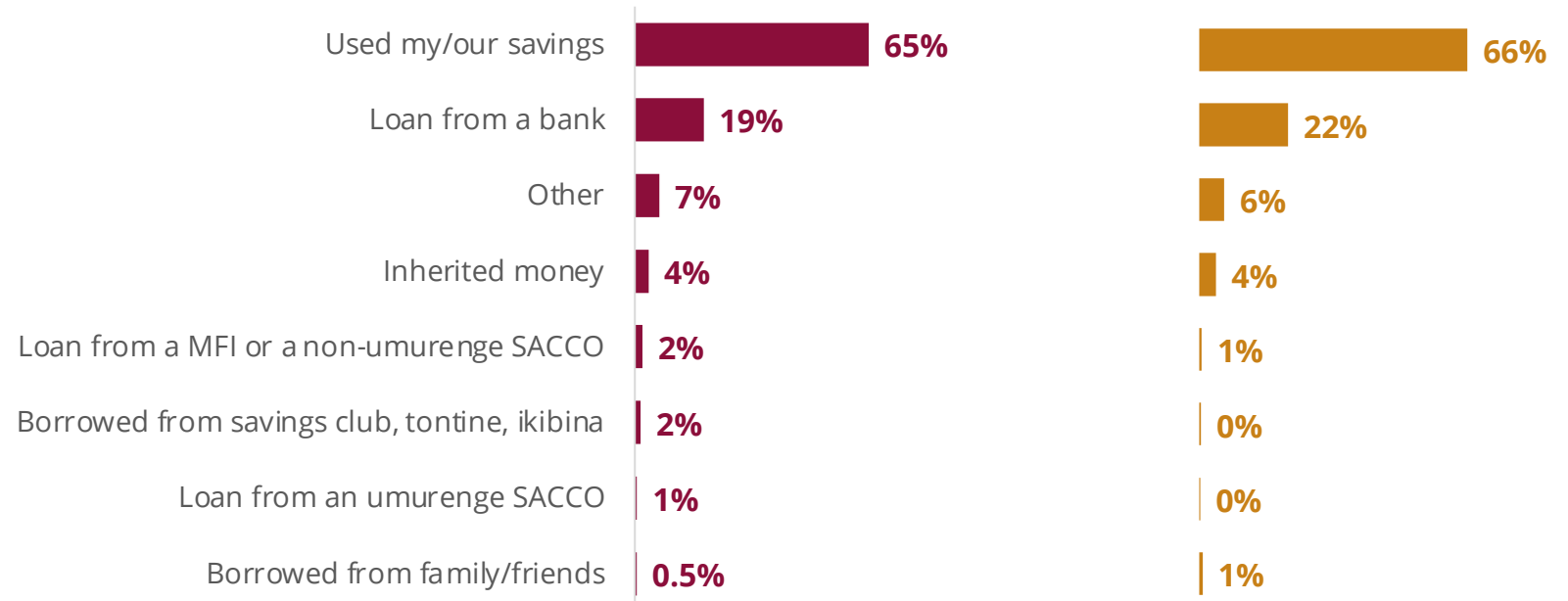
Where you got MOST of the money from to buy or build the house?



SELF-CONSTRUCTION
Urban households; 0.32 M



PURCHASE
Urban households; 72 800

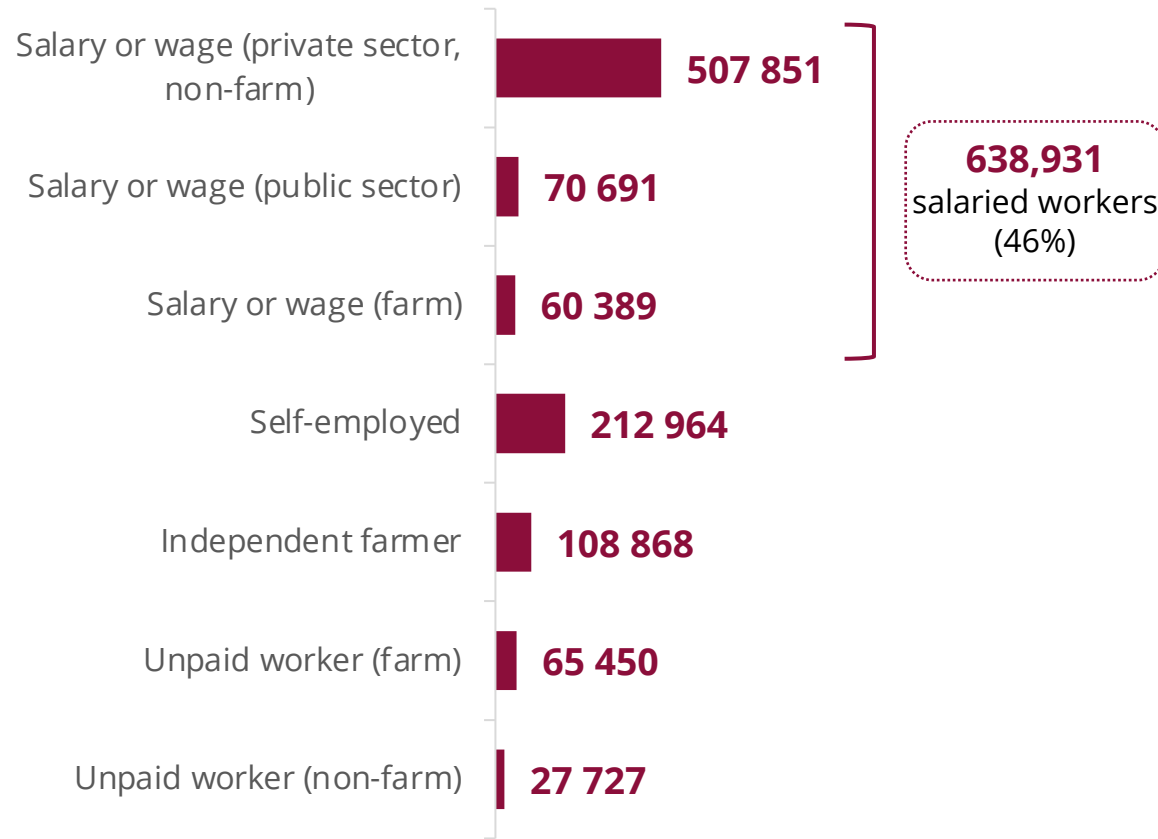


Source: FinScope Rwanda 2020

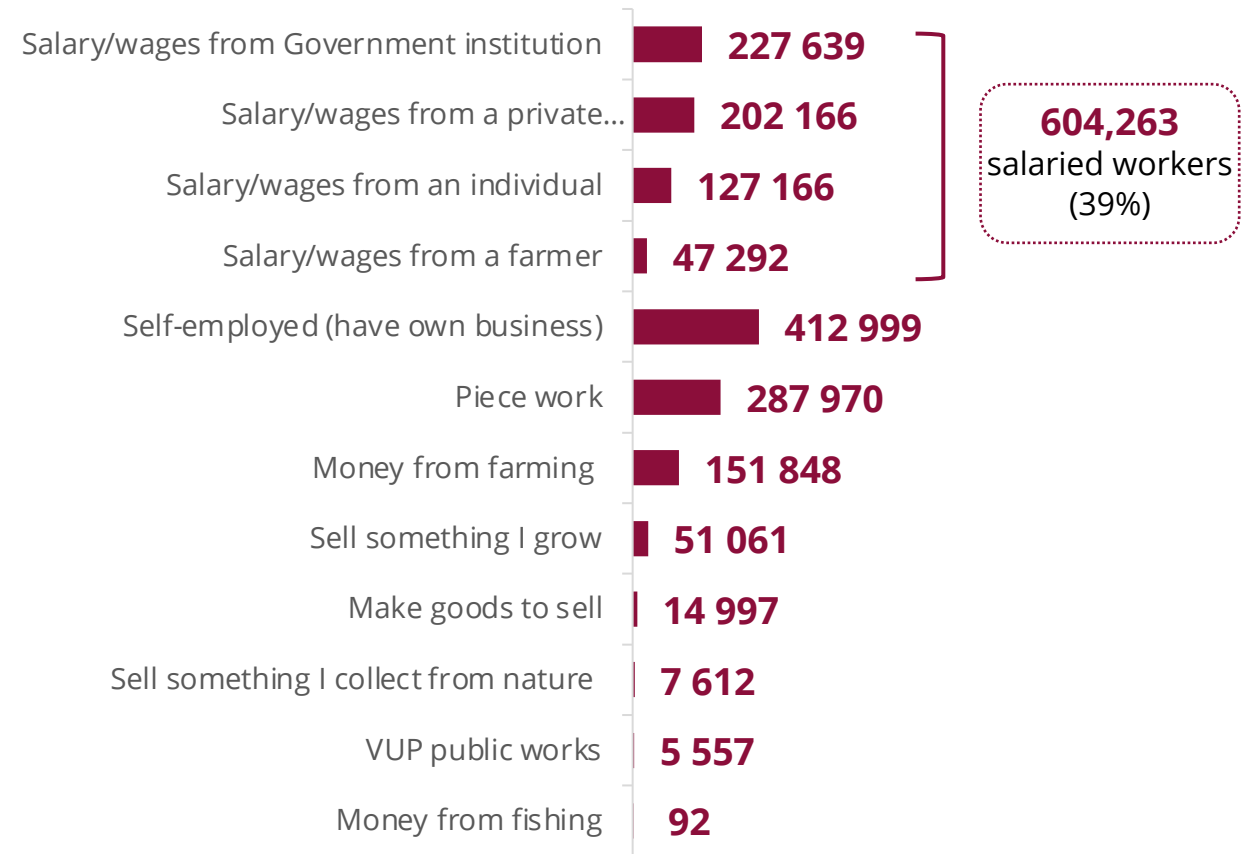
1. Housing backlog
- 2. Incomes**
3. Urban renters and landlords
4. Demand projections
5. Segment profiles

Around 0.64 million urban adults (46% of employed urban adults) say their main income source is a wage or salary

EICV5 (2016): MAIN OCCUPATION FOR URBAN ADULTS
(Employed urban adults 16+; 1.06 million)



FINSCOPE: MAIN OCCUPATION FOR URBAN ADULTS
(Employed urban adults 16+; 1.54 million)

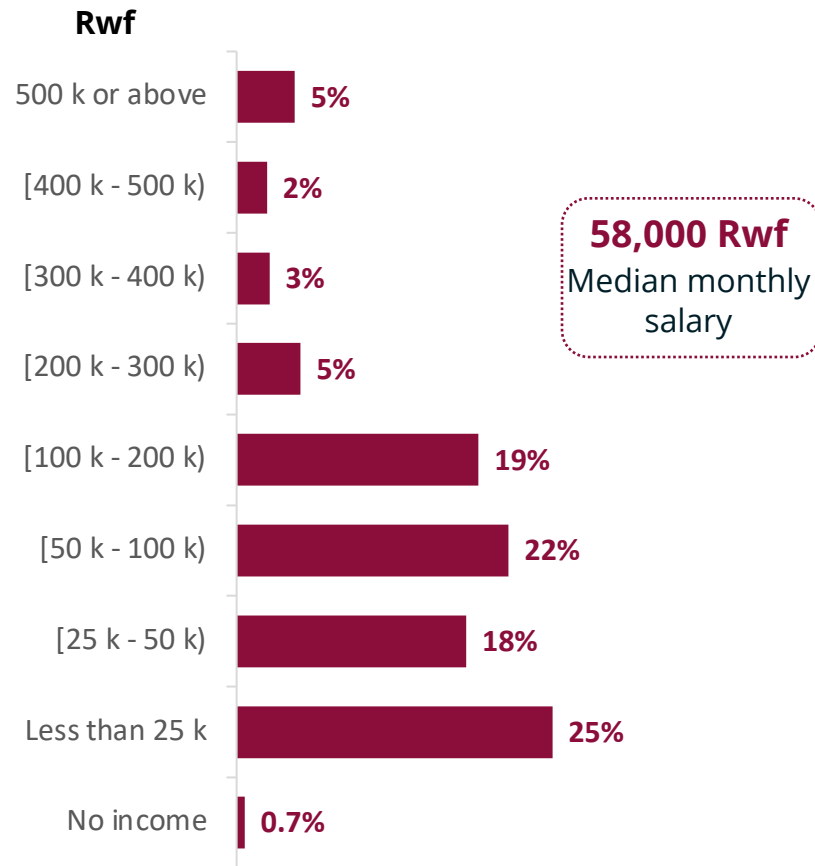


Source: EICV 5, FinScope Rwanda 2020

The median monthly salary of urban workers is around 58,000 Rwf (approx. 58 USD). These appear understated

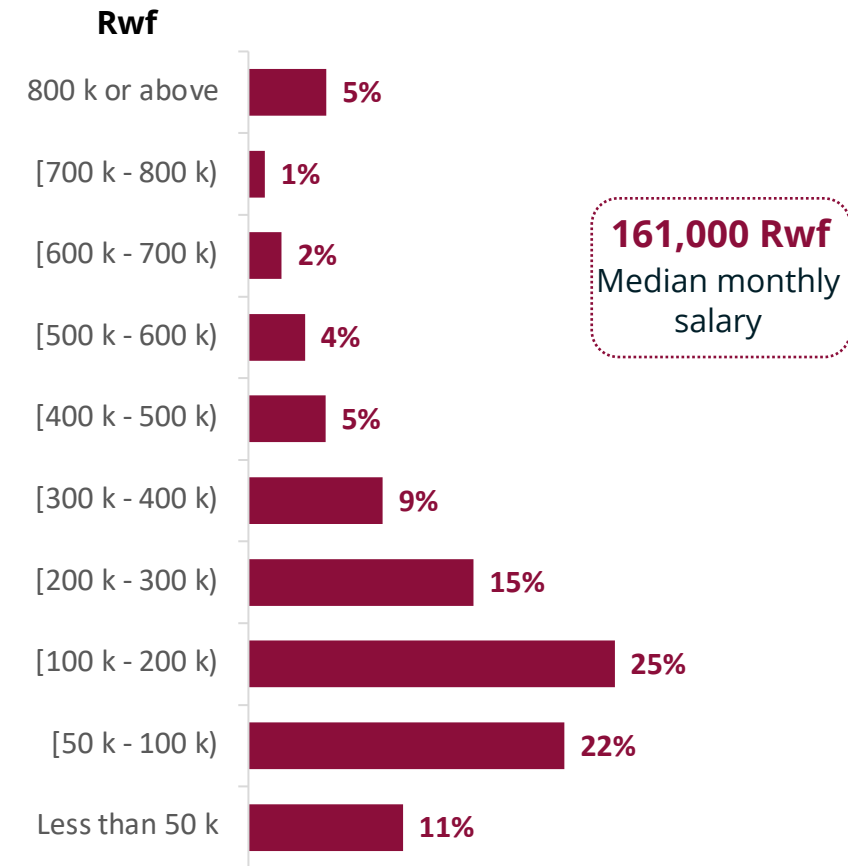
EFFECTIVE MONTHLY* SALARY / WAGE AMOUNTS (URBAN)

Urban salary/wage earners, main occupation; 0.64 million



URBAN MONTHLY HOUSEHOLD INCOME**

Urban households with a salaried worker; 0.39 million



Source: EICV 5

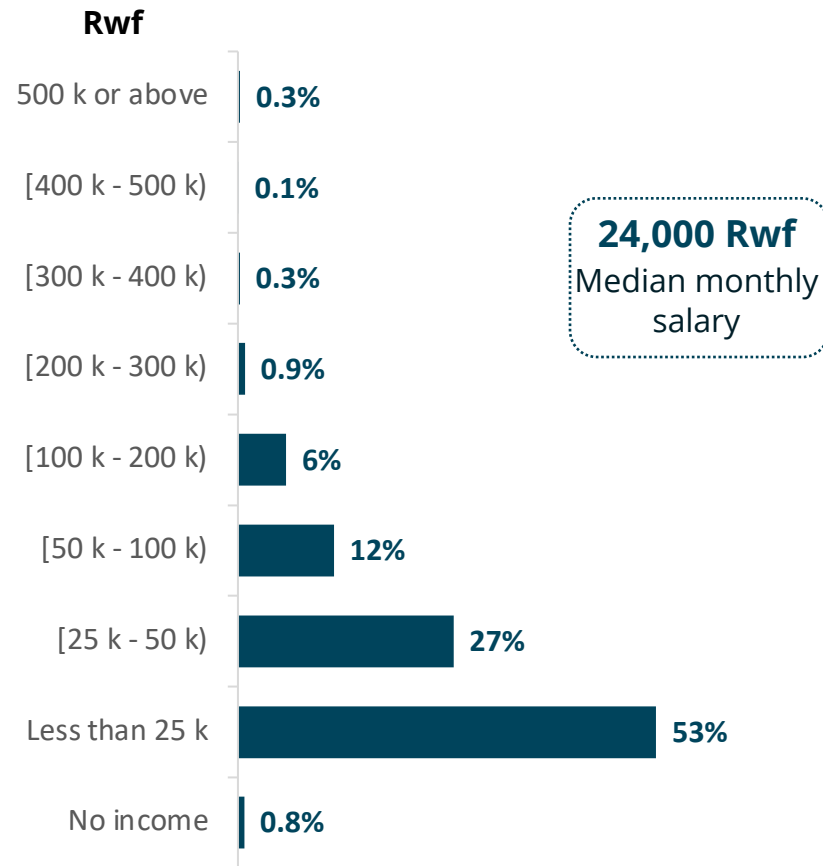
Notes: *Salary/wage amounts provided for a day, week, quarter, or year are converted to monthly amounts.

** Household income is estimated using household expenditure from EICV5. Amounts were inflated from 2017 to 2021

The median monthly salary of rural workers is around 24,000 Rwf (approx. 24 USD)

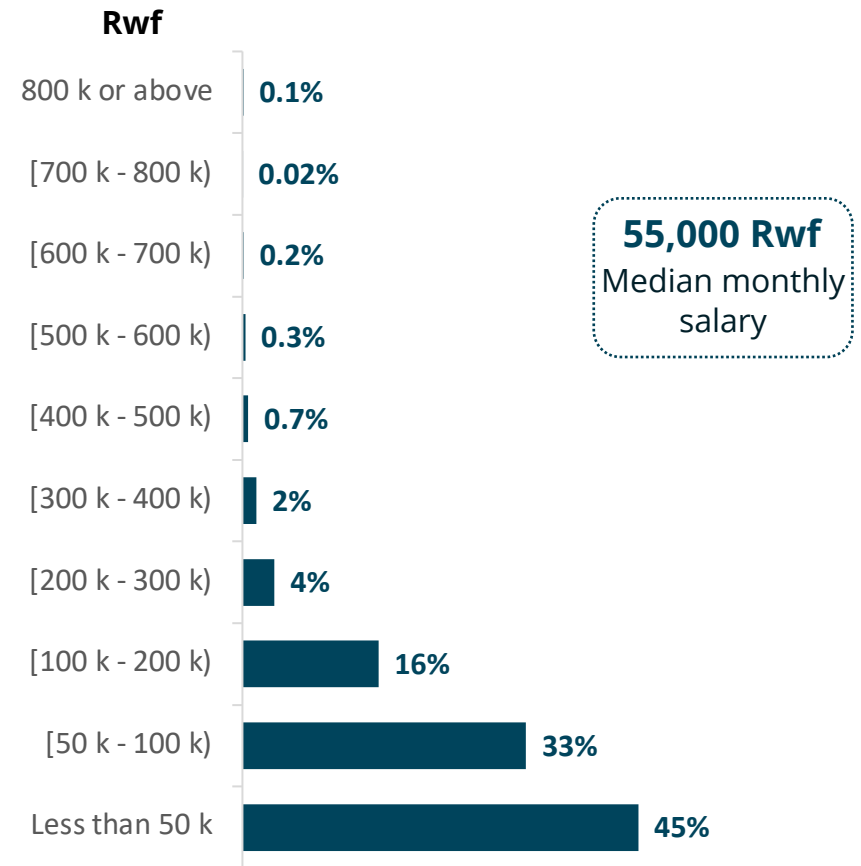
EFFECTIVE MONTHLY* SALARY / WAGE AMOUNTS (RURAL)

Rural salary/wage earners, main occupation; 1.48 million



RURAL MONTHLY HOUSEHOLD INCOME**

Rural households with a salaried worker; 1.03 million



Source: EICV 5

Notes: *Salary/wage amounts provided for a day, week, quarter, or year are converted to monthly amounts.

** Household income is estimated using household expenditure from EICV5. Amounts were inflated from 2017 to 2021

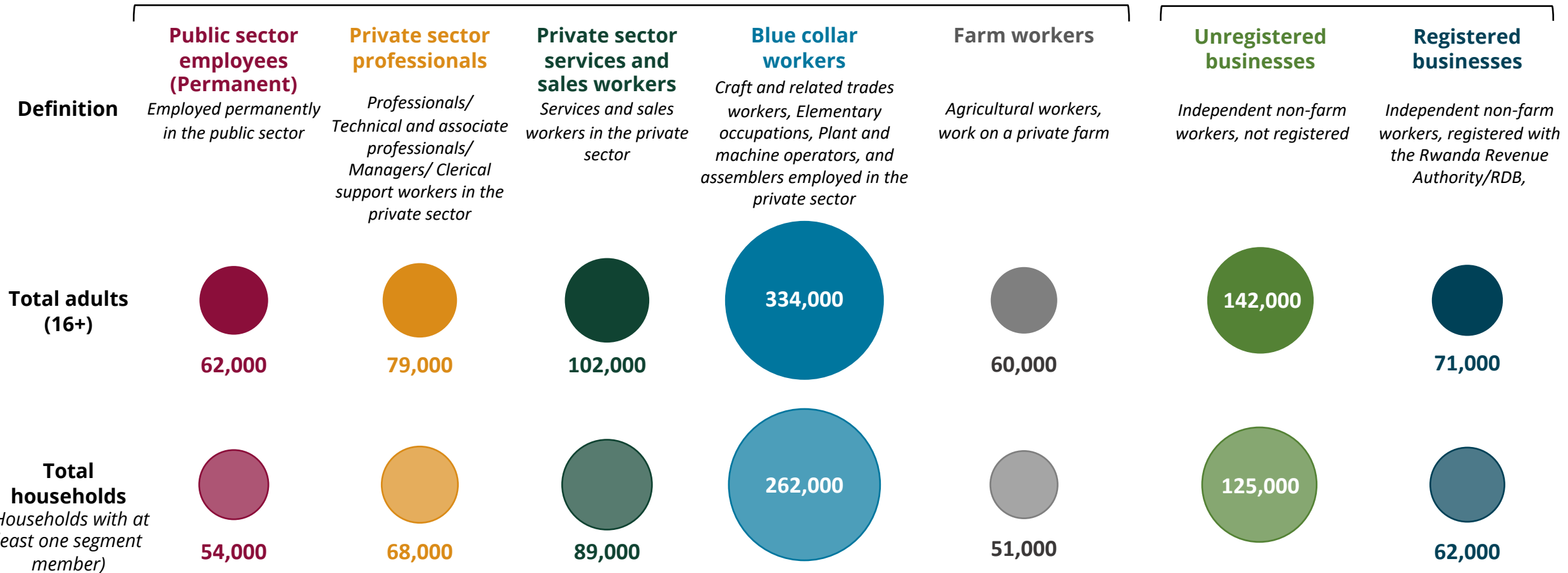
Using the EICV 5 (2016/17), segments were formed based on sector and occupation of urban salaried and self employed adults. The segments cannot be created from the FinScope 2020 data because of limited information on salary and wage earners

Wage/ salary earners in urban areas (main income source)

0.64 million urban adults 16+ (46%)

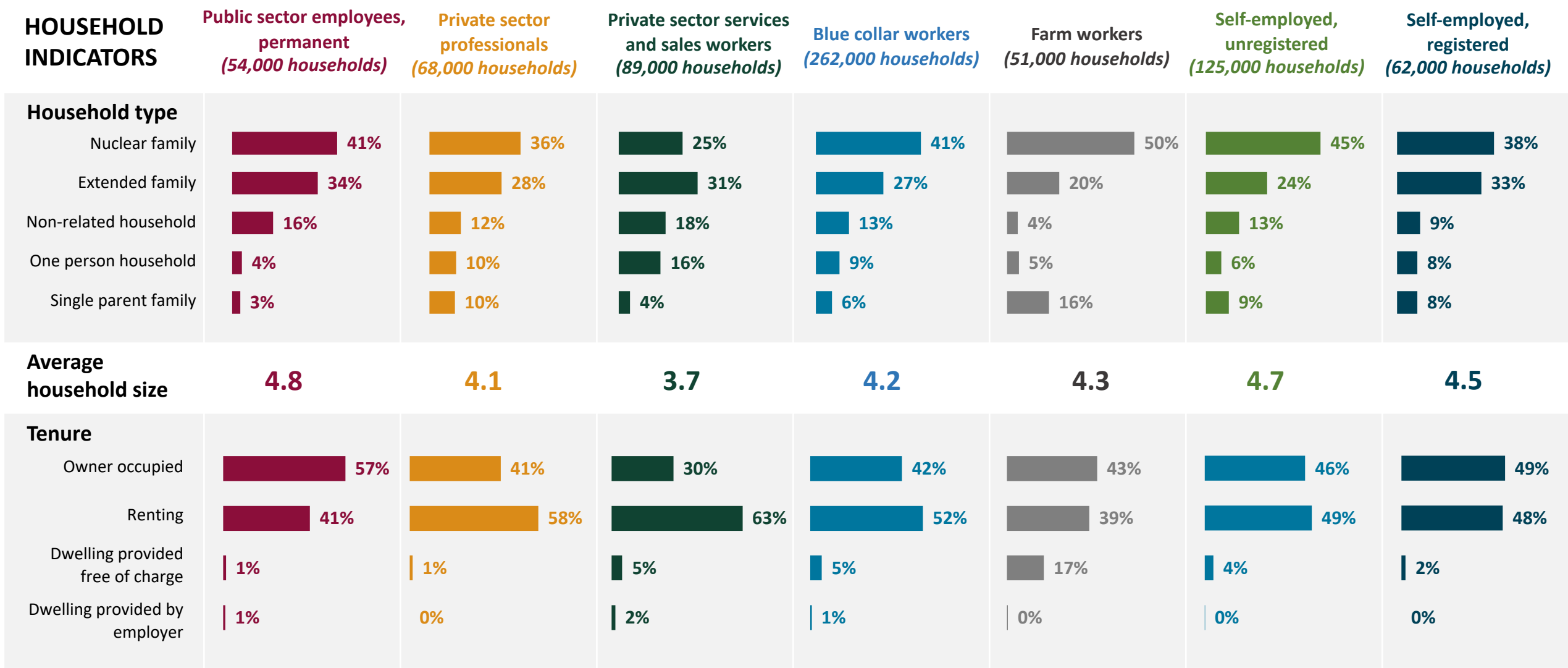
0.39 million households have at least one wage/ salary earner (74%)

Self-employed workers in urban areas (main income source)



Source: EICV 5

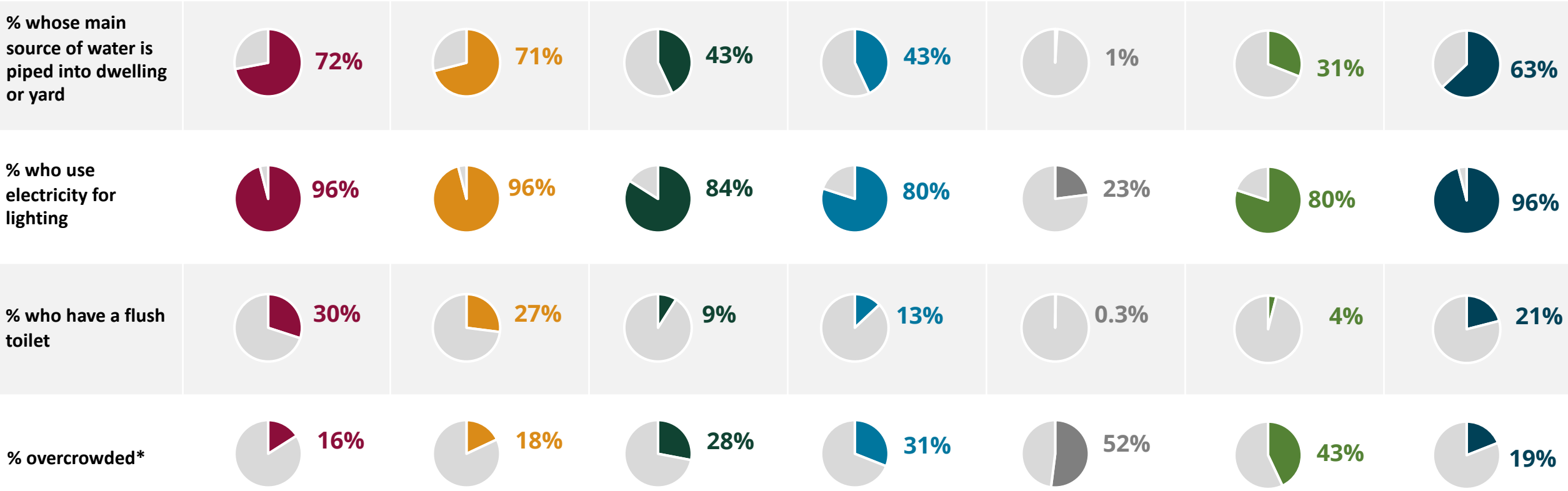
Wage/ salary earners in urban areas (main income source)



Source: EICV 5

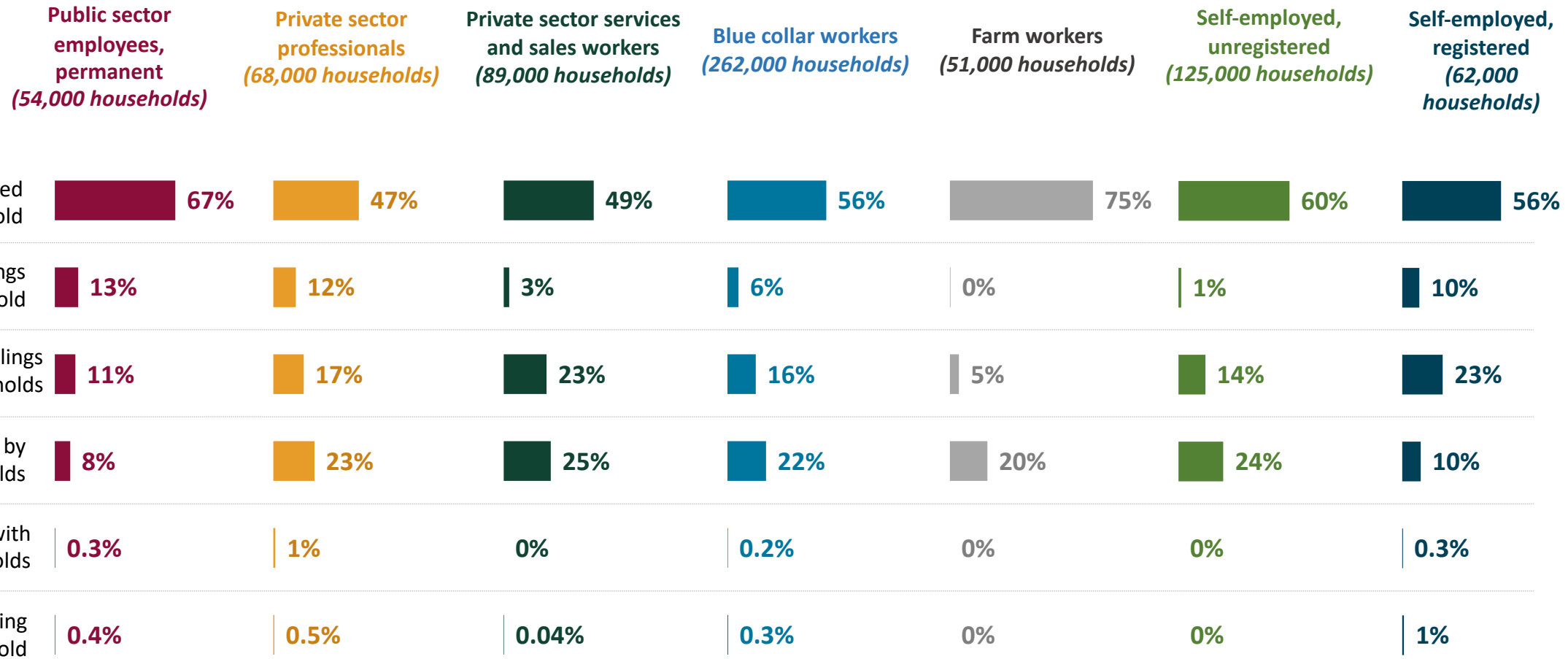
HOUSEHOLD INDICATORS

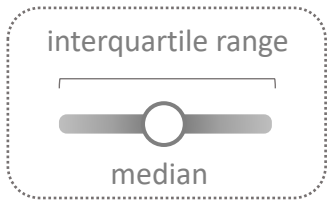
Public sector employees, permanent (54,000 households) Private sector professionals (68,000 households) Private sector services and sales workers (89,000 households) Blue collar workers (262,000 households) Farm workers (51,000 households) Self-employed, unregistered (125,000 households) Self-employed, registered (62,000 households)



Source: EICV 5
 Note*: *Over-crowding is defined as more than 3 adults per sleeping room

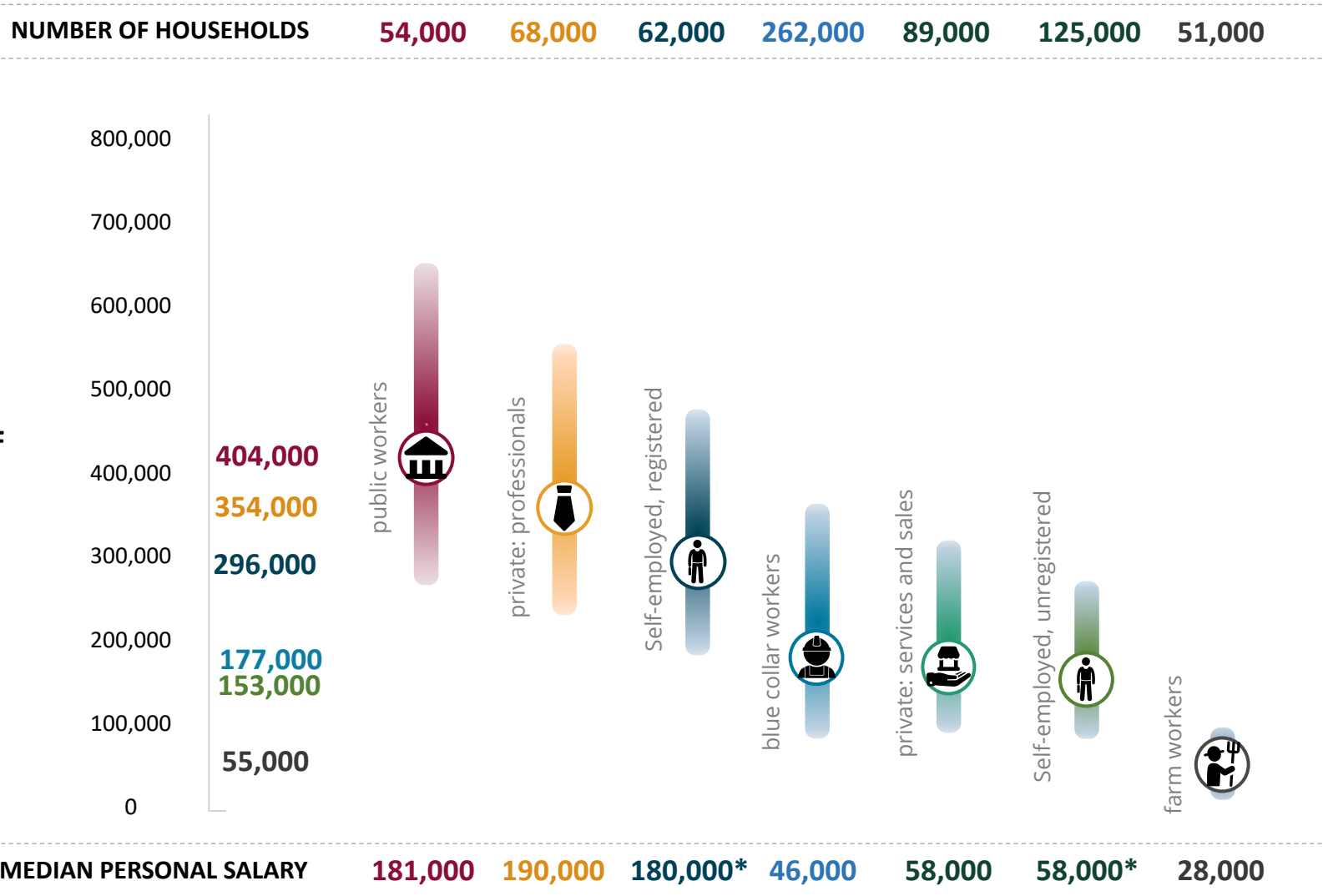
HOUSEHOLD INDICATORS





HOUSEHOLD INCOME DISTRIBUTIONS

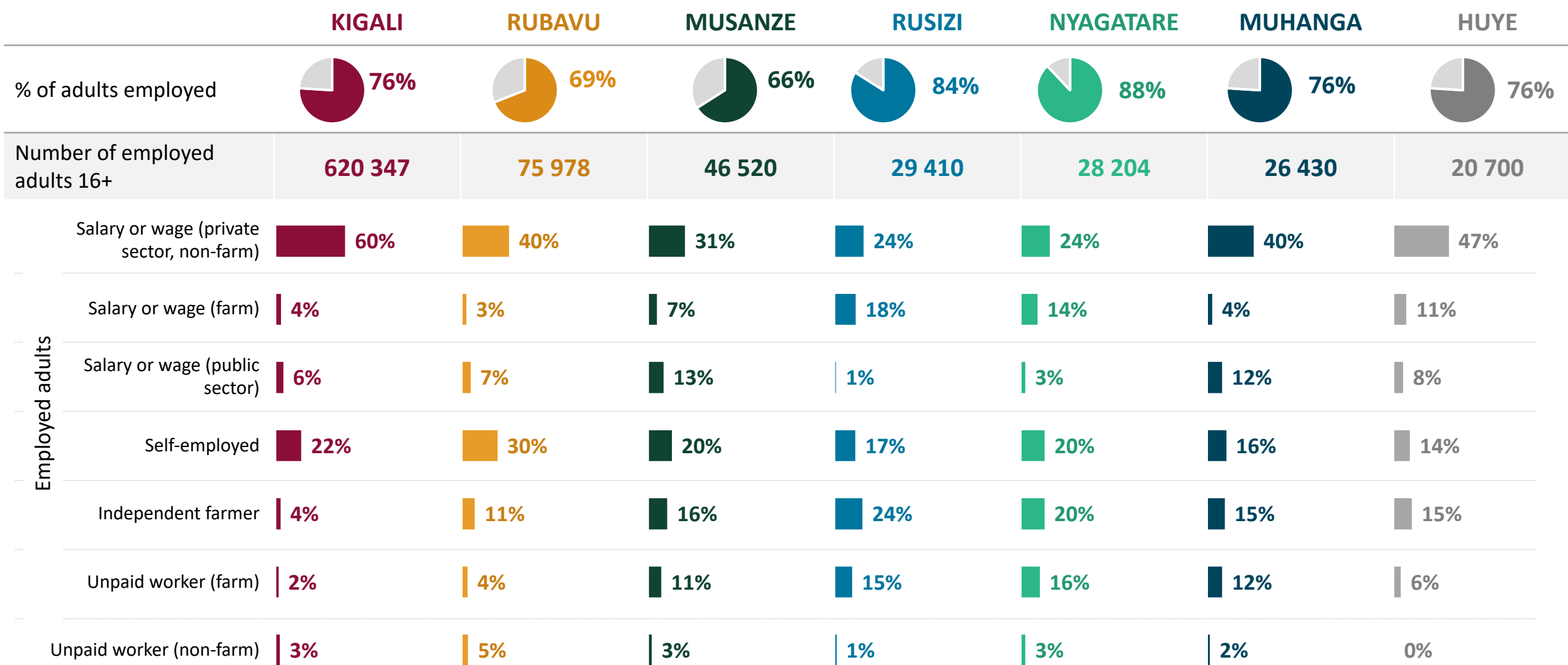
Urban salary / wage earners and self-employed workers



Source: EICV 5
 *Monthly profit estimate
 Note: Household expenditure was used to estimate household income.
 Salary and expenditure amounts provided in the EICV 5 2016/17 were inflated to an estimated current value using the average annual inflation rates from 2017 to 2021

Kigali has the highest proportion of salary or wage earners

URBAN ADULTS IN KIGALI AND THE SIX SECONDARY CITIES: MAIN INCOME SOURCES



Source: EICV 5

Unsurprisingly urban households in Kigali have the highest household incomes, however incomes are still low with the estimated median household income in Kigali of less than RWF 187,000 per month

HOUSEHOLD INCOME* DISTRIBUTION

	KIGALI	RUBAVU	MUSANZE	RUSIZI	NYAGATARE	MUHANGA	HUYE
Median household income, RWF monthly	187 000	122 000	117 000	98 000	72 000	163 000	84 000
800 k or above	■ 7%	1%	■ 4%	0.0%	0.0%	1%	0.0%
[700 k - 800 k)	1%	0.0%	0.6%	0.0%	0.0%	3%	0.0%
[600 k - 700 k)	2%	2%	■ 3%	1%	2%	1%	0.0%
[500 k - 600 k)	■ 4%	2%	■ 3%	2%	2%	1%	2%
[400 k - 500 k)	■ 6%	3%	■ 4%	■ 7%	0%	■ 4%	0.3%
[300 k - 400 k)	■ 10%	■ 8%	■ 7%	■ 4%	2%	■ 14%	■ 7%
[200 k - 300 k)	■ 17%	■ 16%	■ 10%	■ 9%	3%	■ 13%	■ 18%
[100 k - 200 k)	■ 29%	■ 26%	■ 28%	■ 25%	■ 23%	■ 21%	■ 20%
[50 k - 100 k)	■ 19%	■ 31%	■ 28%	■ 36%	■ 37%	■ 26%	■ 25%
Less than 50 k	■ 6%	■ 11%	■ 15%	■ 14%	■ 33%	■ 16%	■ 28%

Source: EICV 5

Note*: Household expenditure was used to provide an estimate for household income. Amounts have been inflated from 2017 to 2021

Secondary cities and Kigali

URBAN ADULTS IN KIGALI AND THE SIX SECONDARY CITIES: LABOUR FORCE SEGMENTS

(Thousands of adults 16+)

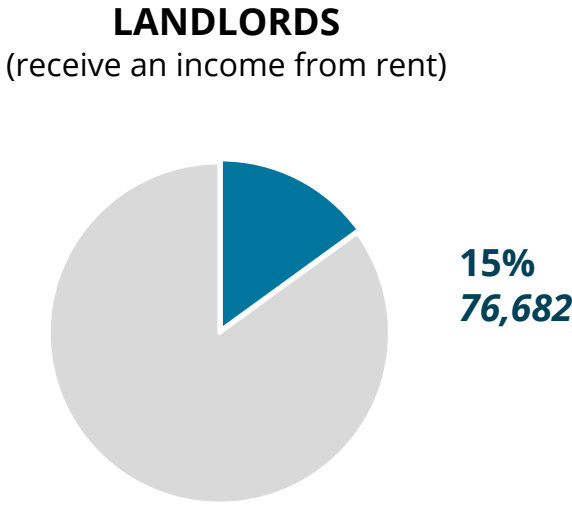
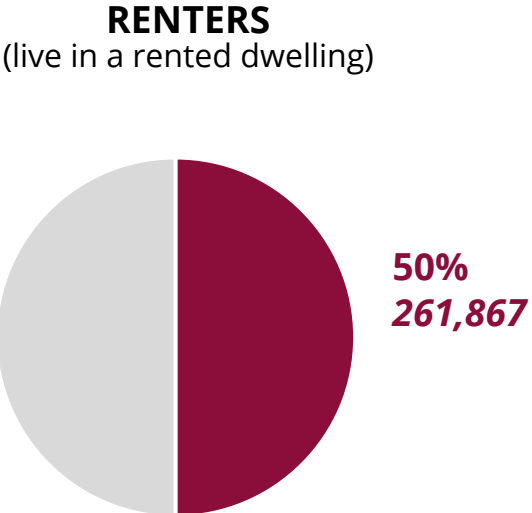
	KIGALI	RUBAVU	MUSANZE	RUSIZI	NYAGATARE	MUHANGA	HUYE
Number of wage earners	432 180	38 170	23 697	12 587	11 653	14 663	13 541
SEGMENT (<i>thousands of adults</i>)							
Public sector employees (Permanent)	33	3.9	5.3	0.2	0.9	2.7	1.5
Private sector professionals	60	4.7	2.6	0.5	1.2	2.1	1.6
Private sector services and sales workers	77	5.1	1.9	2.1	1.6	1.8	1.9
Blue collar workers	236	20.9	10.9	4.6	4.9	6.6	6.3
Farm workers	22	2.2	2.3	5.2	3.1	0.9	2.2

Source: FinScope Rwanda 2020

1. Housing backlog
2. Incomes
- 3. Urban renters and landlords**
4. Demand projections
5. Segment profiles

About half of urban households rent the dwelling they live in and 15% of urban households receive an income from rent

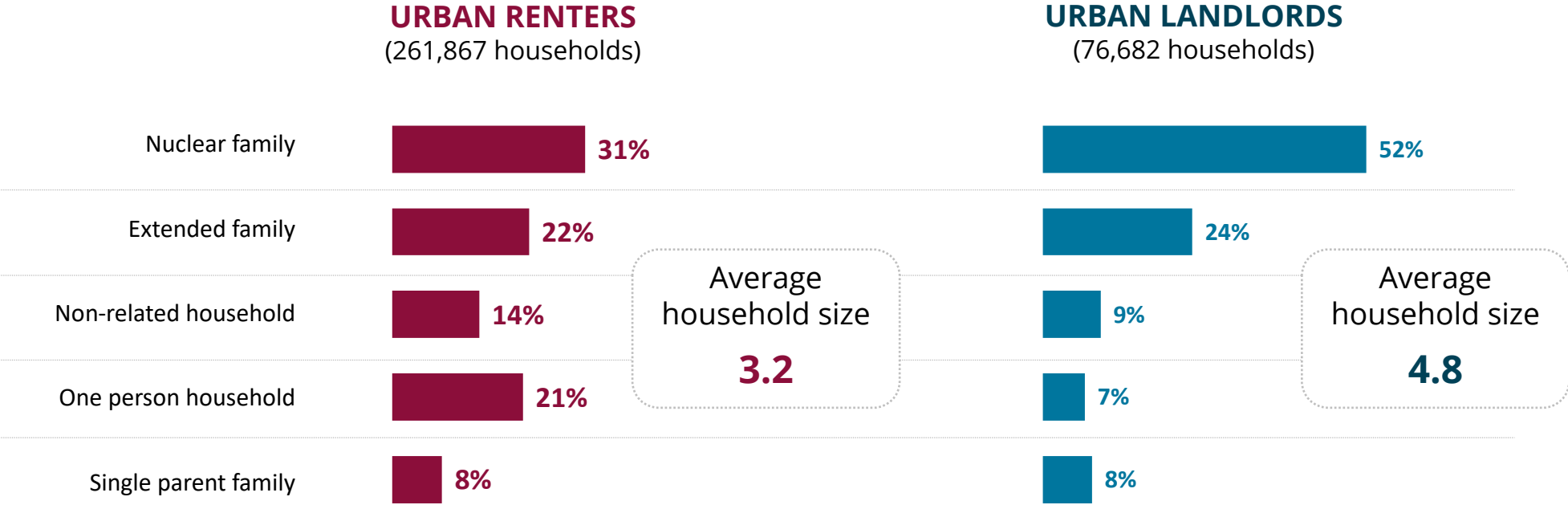
URBAN HOUSEHOLDS 523,812



Source: EICV 5

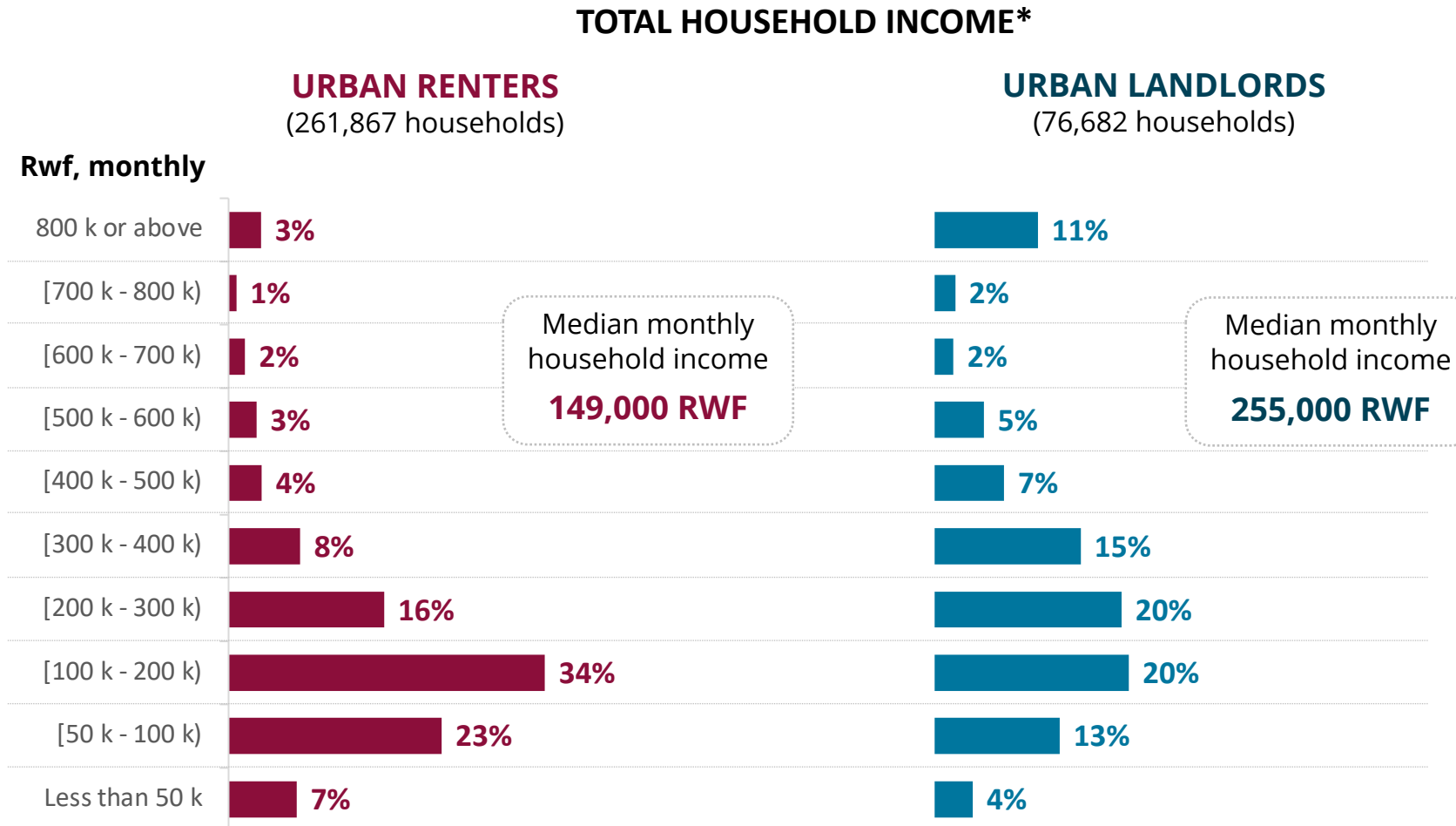
Nuclear families, extended families and one person households are common among renters

HOUSEHOLD TYPES



Source: EICV 5

Renters have a median monthly household income around 149,000 RWF, while landlords have a higher median household income of 255,000 RWF



Source: EICV 5

Note*: Household expenditure was used to provide an estimate for household income. Amounts have been inflated from 2017 to 2021

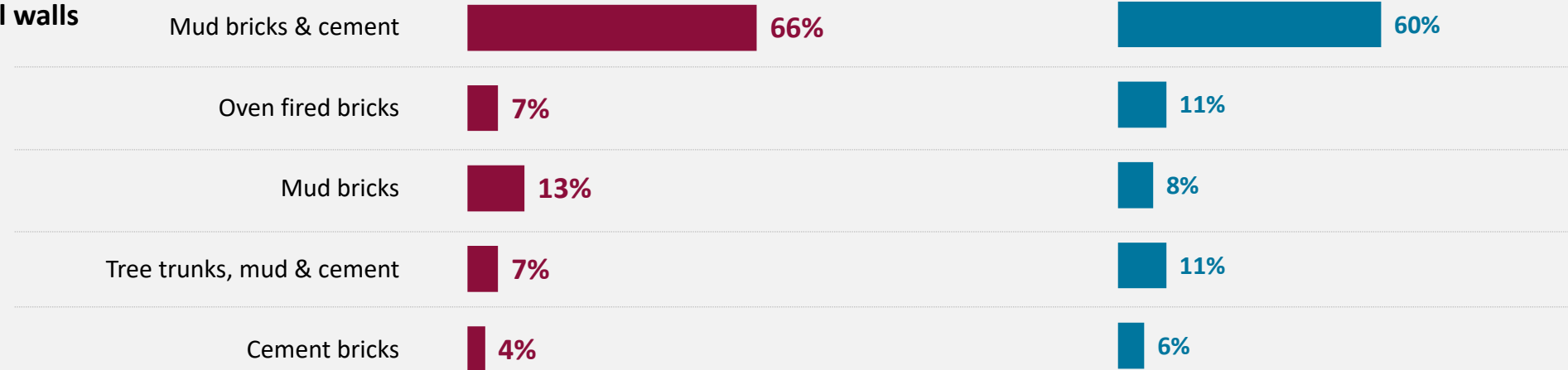
The construction materials used for renters and landlords dwellings are similar

HOUSING CONSTRUCTION MATERIALS

URBAN RENTERS
(261,867 households)

URBAN LANDLORDS
(76,682 households)

Main materials for external walls



Main materials for roof



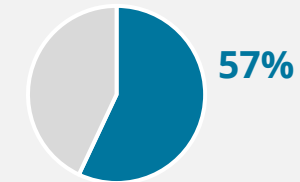
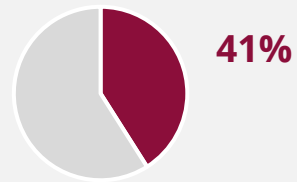
Renters have lower access levels to drinking water piped into their dwelling and flush toilets

ACCESS TO SERVICES

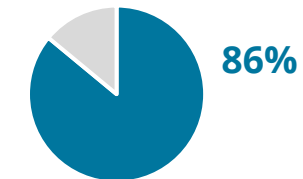
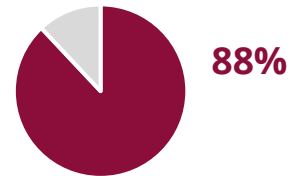
URBAN RENTERS
(261,867 households)

URBAN LANDLORDS
(76,682 households)

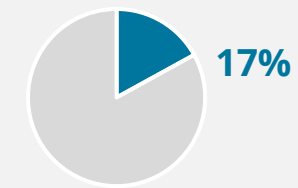
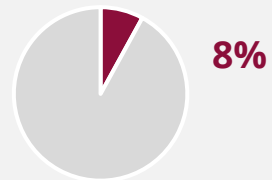
% whose main source of drinking water is piped into dwelling or yard



% who use electricity for lighting



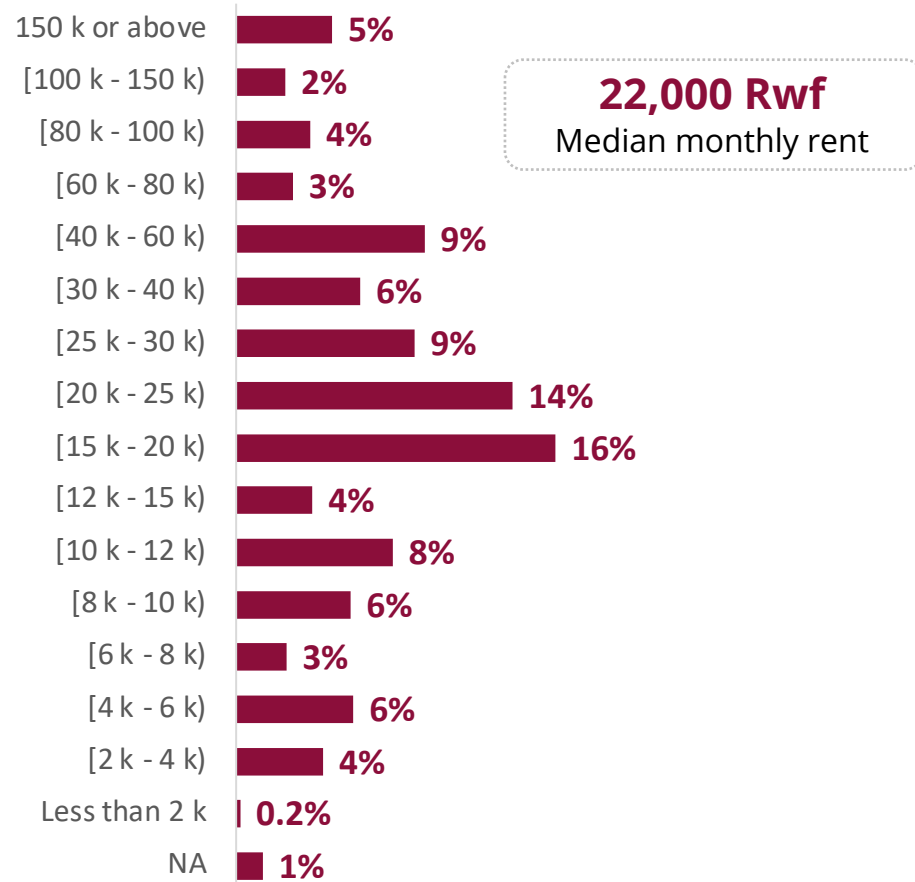
% who have a flush toilet



The median monthly rent amount paid by urban renters is 22,000 Rwf and the median percentage of household income spent on rent is 14%

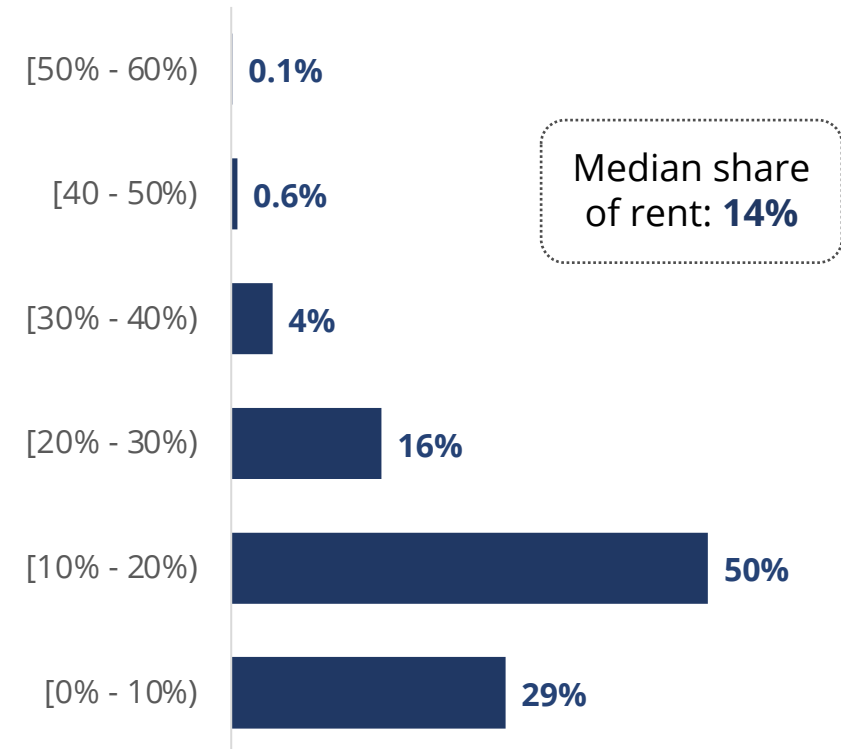
AMOUNT OF RENT PAID IN CASH*

(Urban renters; 261,867 households)



PERCENTAGE OF HOUSEHOLD INCOME SPENT ON RENT

(Urban renters; 261,867 households)



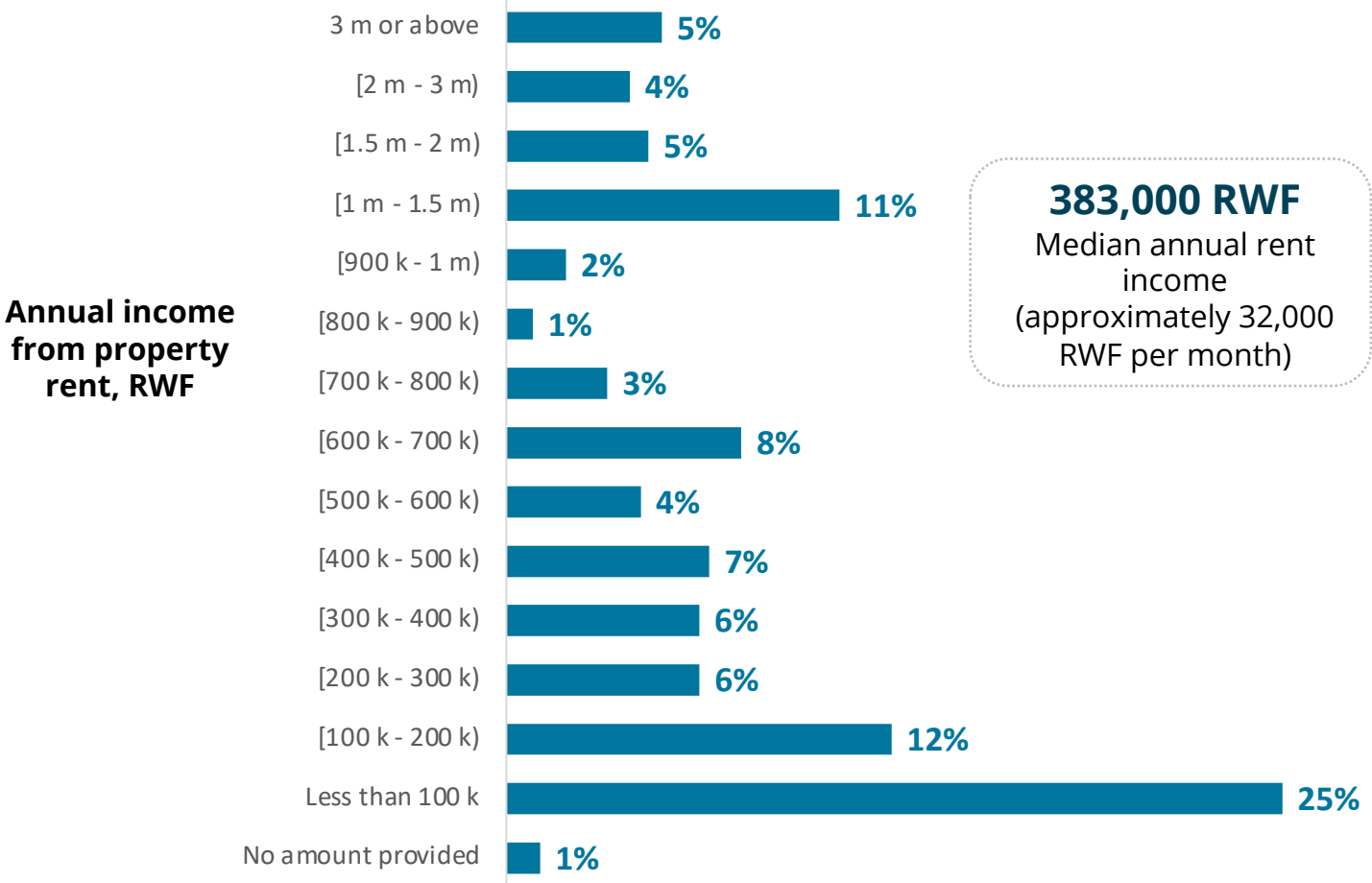
Source: EICV 5

*S5B Q4: "How much is the actual amount of rent paid in cash?". Amounts have been inflated from 2017 to 2021

Urban landlords earn a median annual rent income of 383,000 RWF

HOW MUCH HAVE YOU RECEIVED IN PROPERTY RENT IN CASH DURING THE LAST 12 MONTHS

(Urban landlords; 76,682 households)



Source: EICV 5
Note: Amounts provided have been inflated from 2017 to 2021

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Future housing demand in urban areas was calculated using the methodology deployed by the IGC for Kigali*

NISR has 'low', 'medium', and 'high' growth scenarios. Vision 2050 scenario is higher than NISR 'high' scenario

1

Project urban population & average urban household size to 2050

- Provides indication of new households to be formed
- Data sources: NISR & Vision 2050

2

Determine current backlog & number of households per dwelling

- Backlog is all potentially inadequate dwellings**
- Households per dwelling is derived from EICV 5 survey
- Data sources: NISR & FinScope 2020

Households per dwelling is a key parameter for determining number of houses needed

3

Supply of houses required per year to meet demand & eradicate backlog



* Bower, J. and Murray, S. (2019). Housing need in Kigali. C-38406-RWA-1. <https://www.theigc.org/wp-content/uploads/2019/07/Bower-et-al-2019-Final-report.pdf>

** Potentially inadequate dwellings have walls, or a roof built using informal materials, are overcrowded, or have no flush toilet. This definitions is still under review

Future housing demand in urban areas was calculated using the methodology deployed by the IGC for Kigali*

Project urban population & average urban household size to 2050

1

- NISR low: 5% growth p.a. from 2020 to 2050
- NISR medium: 5.3% growth p.a. from 2020 to 2050
- NISR high: 5.5% growth p.a. from 2020 to 2050
- Vision 2050: 7.6% growth p.a. from 2020 to 2035, 3.5% growth p.a. from 2035 to 2050
- Household size: 3.7 in 2020 down to 3.1 in 2032 and constant thereafter



Determine current backlog & number of households per dwelling

2

- 520 710 urban households live in inadequate dwellings
- According to EICV 5 (2016/17), there are 1.27 urban households per urban dwelling
- Current backlog** is equal to 408 722 houses
- Can adjust with urban households per urban dwelling assumption (e.g. 1 or 1.1, etc.)



Supply of houses required per year to meet demand & eradicate backlog in 5 years

3

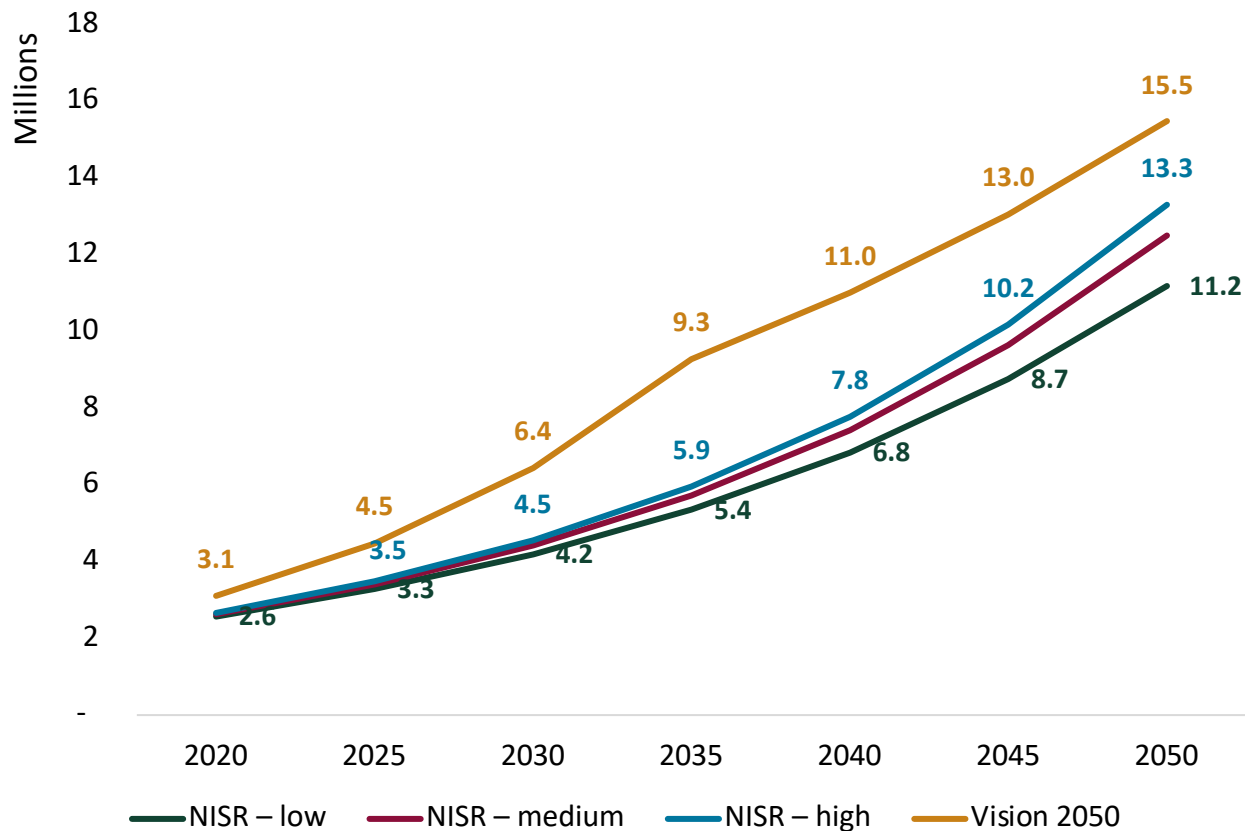
- NISR low: 2.7m new houses between 2020 and 2050
- NISR medium: 3.0m new houses between 2020 and 2050
- NISR high: 3.2m new houses between 2020 and 2050
- Vision 2050: 3.7m new houses between 2020 and 2050

* Bower, J. and Murray, S. (2019). Housing need in Kigali. C-38406-RWA-1. <https://www.theigc.org/wp-content/uploads/2019/07/Bower-et-al-2019-Final-report.pdf>

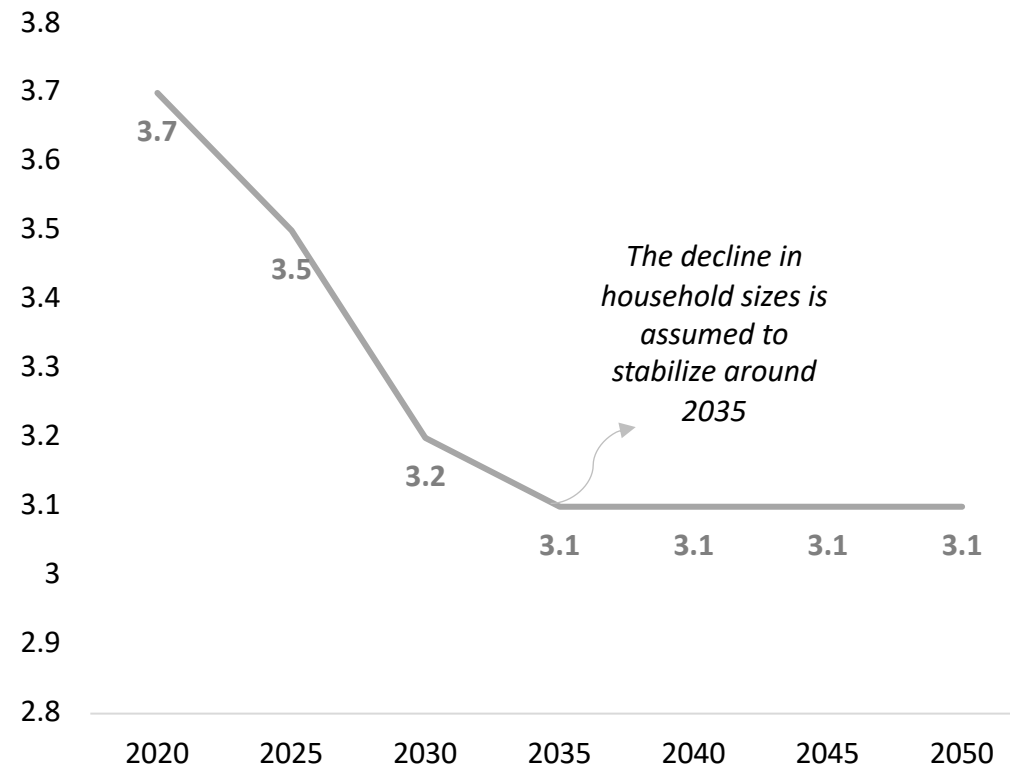
** Potentially inadequate dwellings have walls, or a roof built using informal materials, are overcrowded, or have no flush toilet.

Vision 2050 predicts that there will be 15.5 million Rwandans living in urban areas by 2050. This is significantly higher than the NSIR 'high' scenario of 13.3 million people

Projected urban population

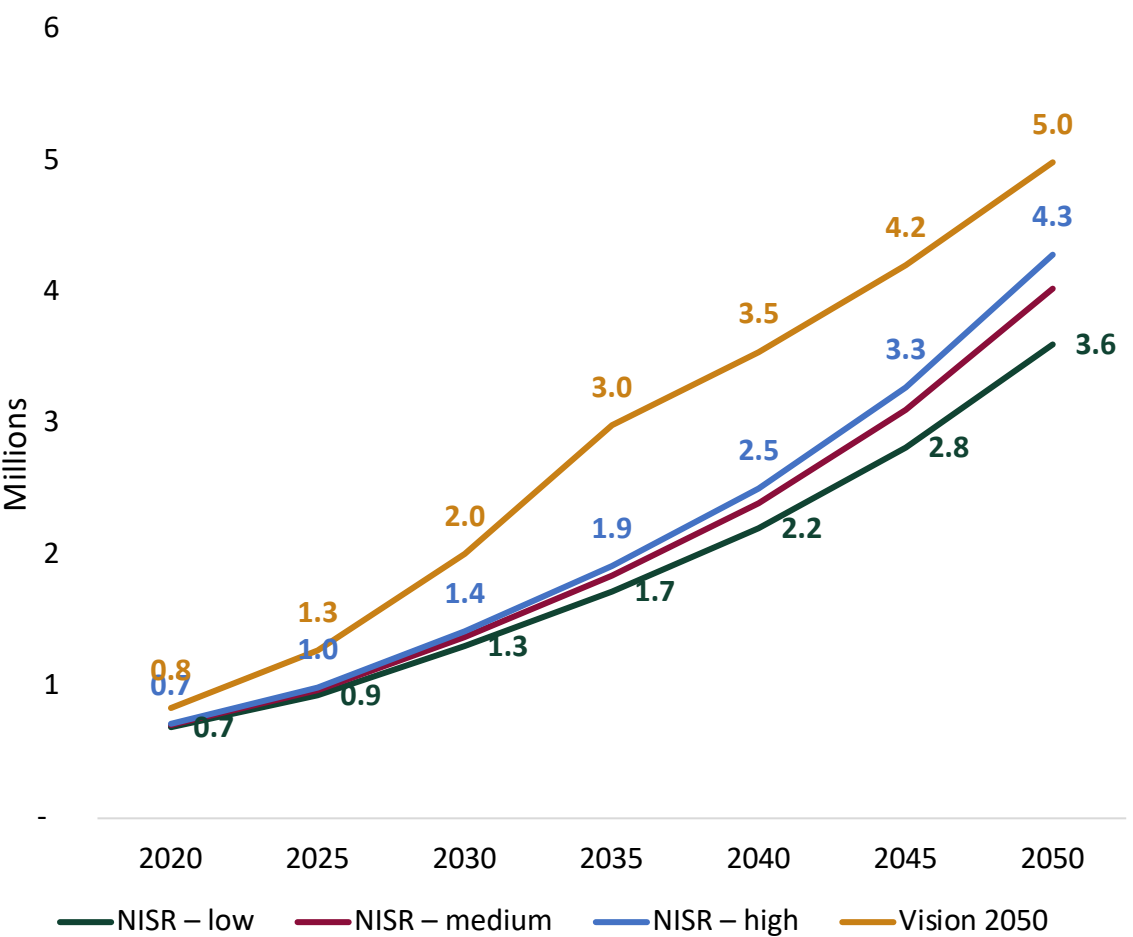


Projected urban household size

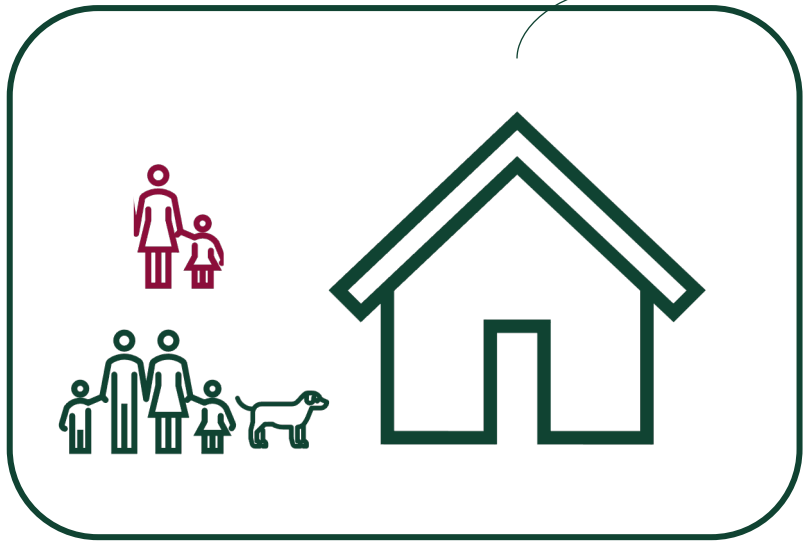


By 2050, there are projected to be 3-4.5 million new urban households. Because urban households often share dwellings, this does not mean that the same number of houses need to be built

Projected urban households

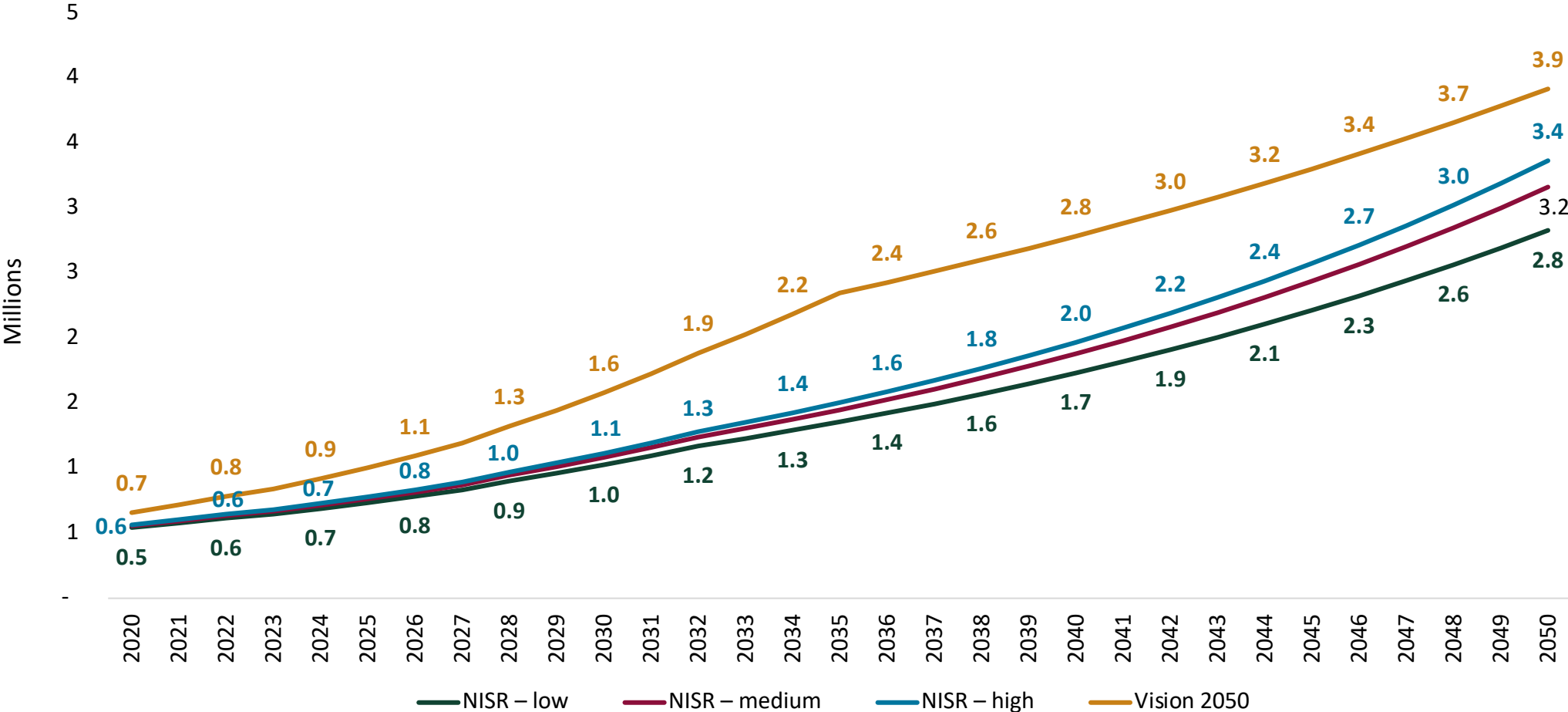


According to EICV 5 (2016/17), there are 1.27 urban households for every urban house



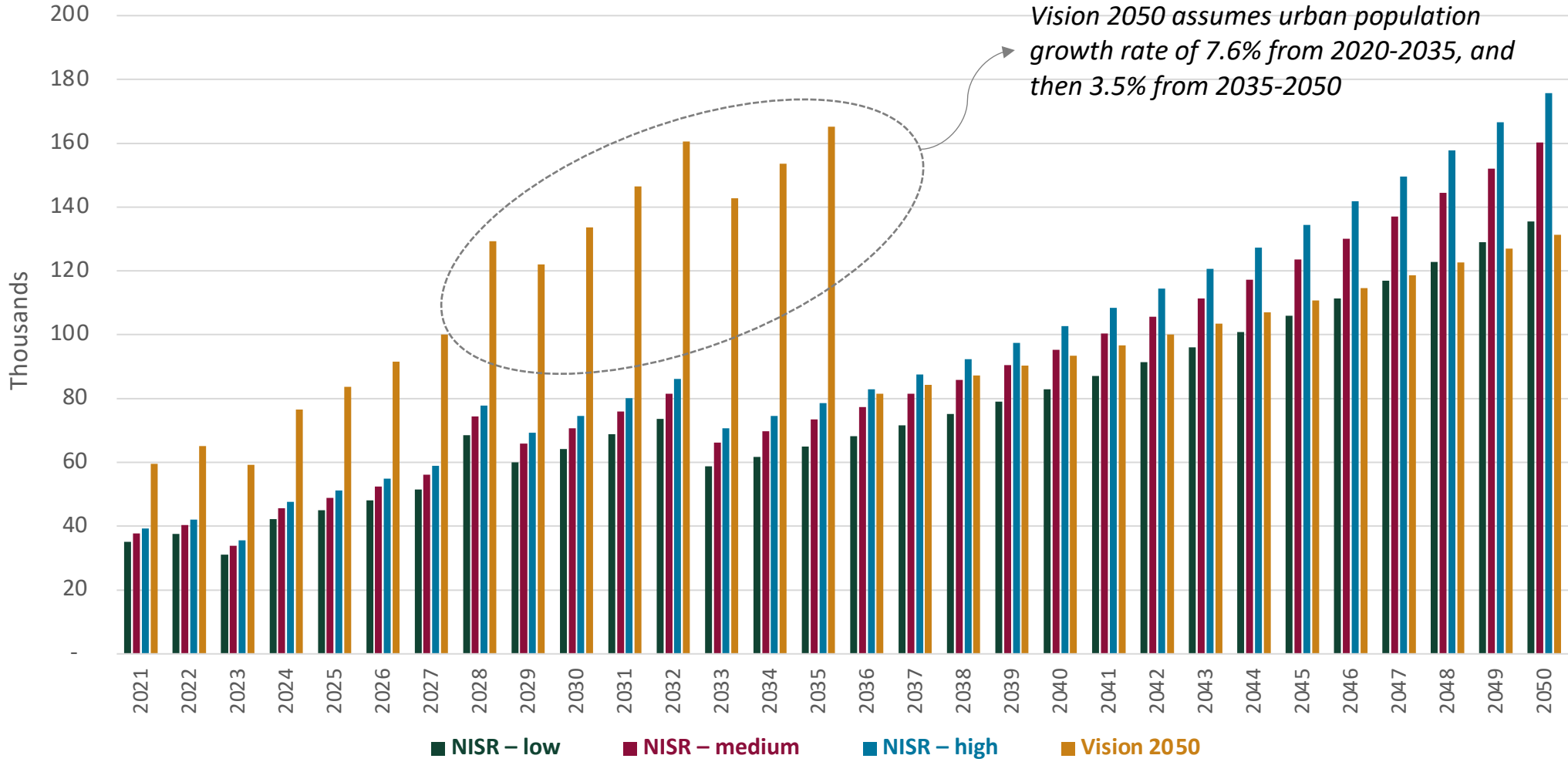
Using assumptions on the number of households per dwelling, the total dwelling units, or housing demand can be calculated. Depending on the scenario, the total housing demand in urban areas in 2050 will range from 2.8 million dwellings to 3.9 million dwellings

Projected urban housing demand

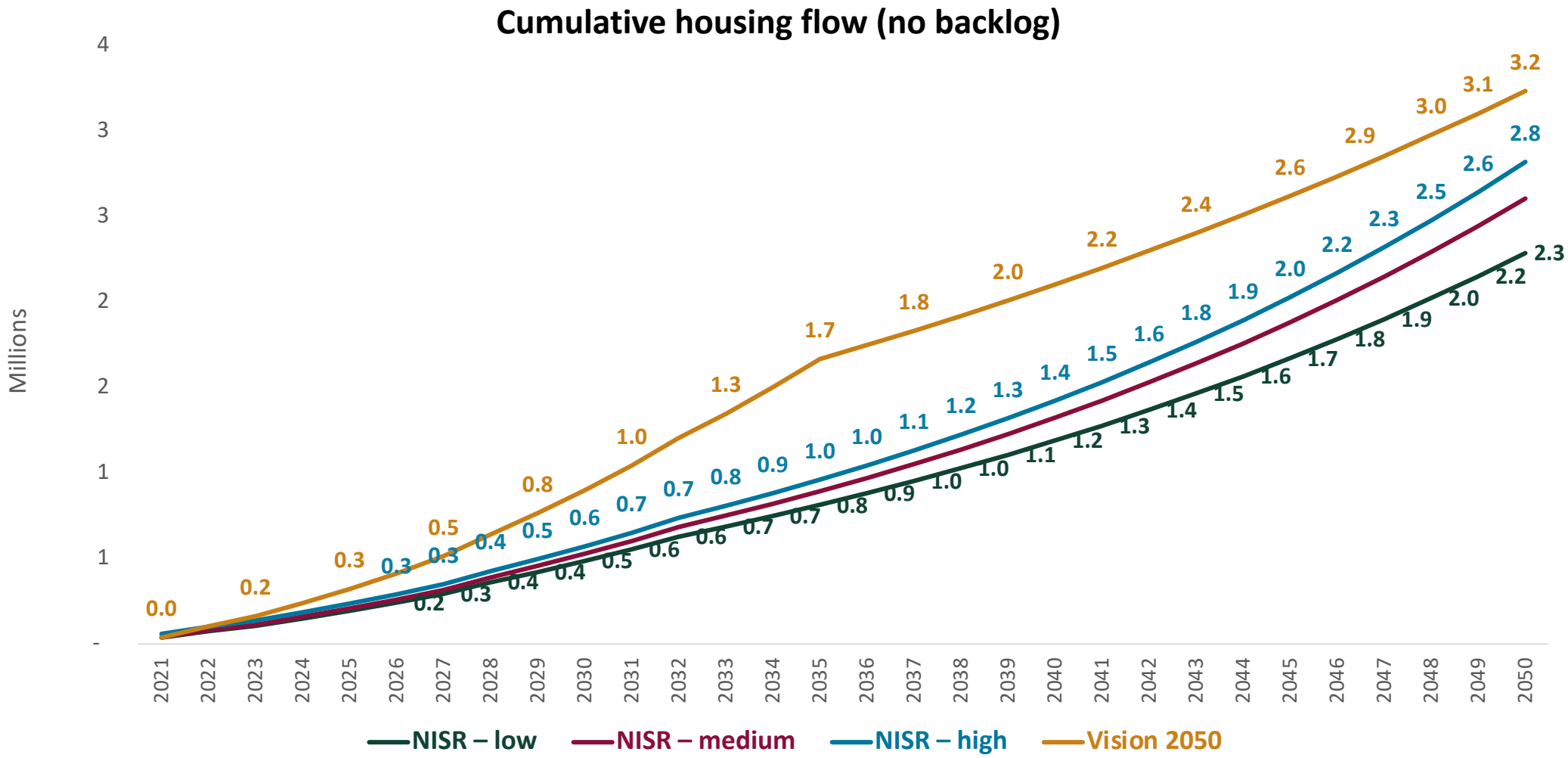


Assuming there is no backlog, the additional dwelling units required to meet the increase in demand is significant. For example in 2025 between 45,000 and 84,000 dwelling units will be required to meet demand

New houses required per year (no backlog)



A cumulative view indicates that in the five years between now and 2050, between 2.3 and 3.2 million dwelling units are required to keep up with demand – however, the data does not allow us to determine the distribution of housing demand, or the relative price brackets in which such units would need to be offered.



1. Housing backlog
2. Incomes
3. Urban renters and landlords
4. Demand projections
- 5. Segment profiles**

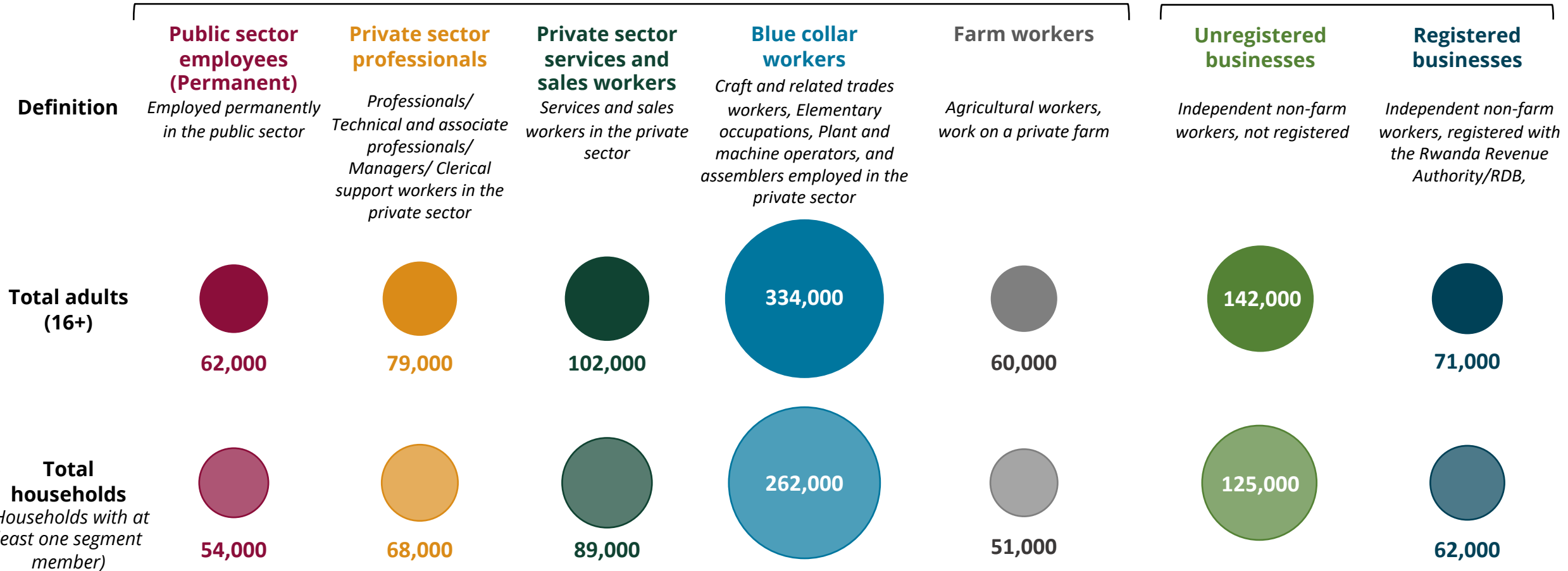
Using the EICV 5 (2016/17), segments were formed based on sector and occupation. The segments cannot be created from the FinScope 2020 data because of limited information on salary and wage earners

Wage/ salary earners in urban areas (main income source)

0.64 million urban adults 16+ (46%)

0.39 million households have at least one wage/ salary earner (74%)

Self-employed workers in urban areas (main income source)



Source: EICV 5

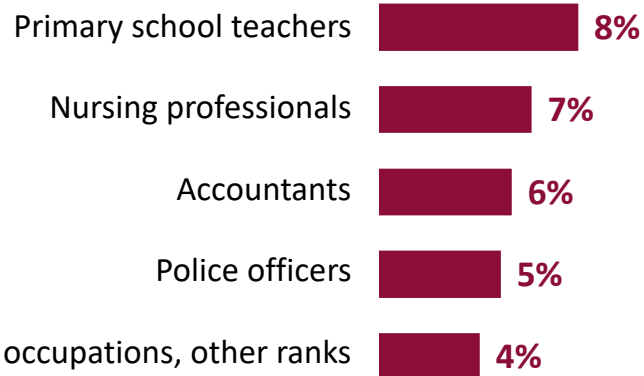
Urban segments

1. **Public sector employees**
2. Private sector professionals
3. Private sector services and sales workers
4. Blue collar workers
5. Farm workers
6. Unregistered self-employed workers
7. Registered self-employed workers

URBAN PUBLIC SECTOR WORKERS

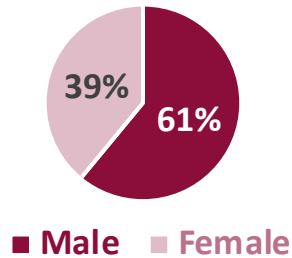
62,000 ADULTS 16+

TOP 5 OCCUPATIONS

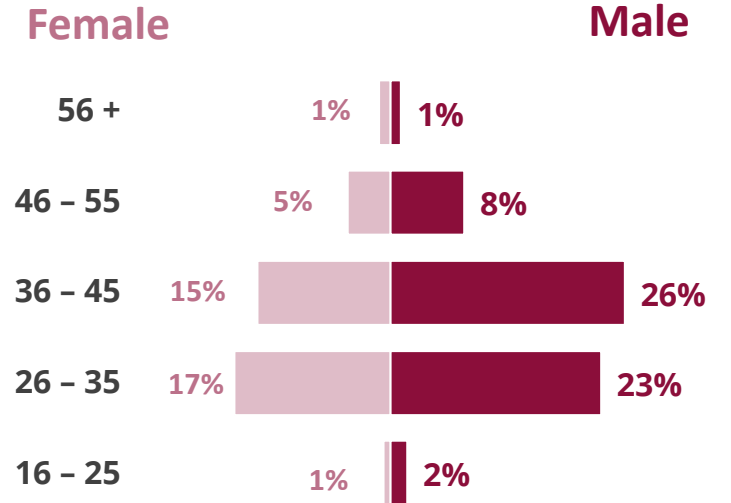


Other includes: Other education occupations, medical occupations, security guards other armed forces among others

GENDER



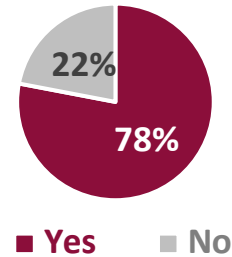
AGE PYRAMID



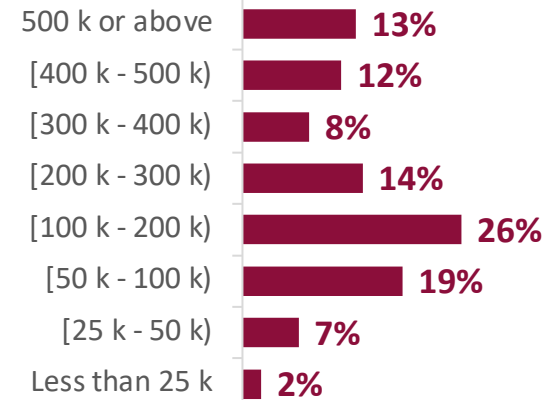
MEDIAN INCOME

RWF 181,000

HAVE A TERTIARY EDUCATION

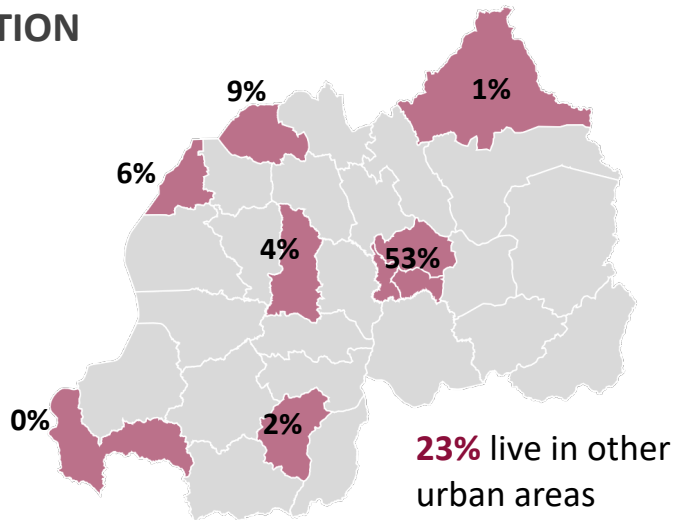


MONTHLY SALARY/ WAGE



13% get subsidised housing from their employer

LOCATION



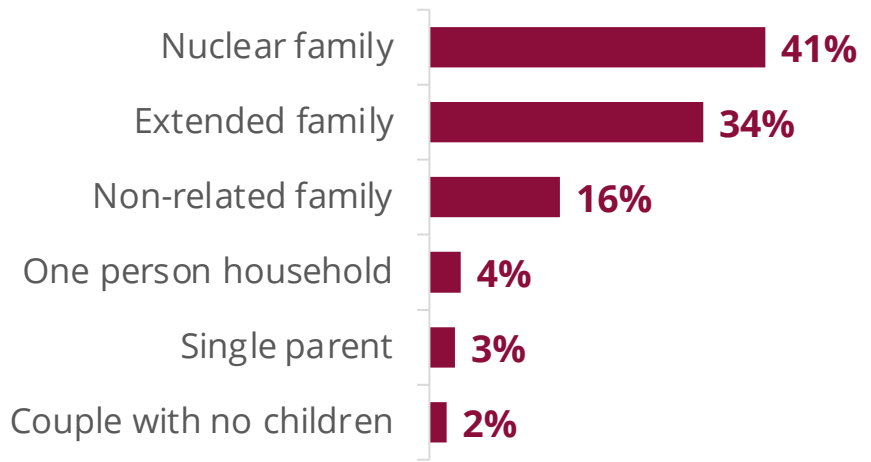
Source: EICV 5

Note: Income amounts provided in the EICV 5 were inflated to an estimated current value using the average annual inflation rates from 2017 to 2021

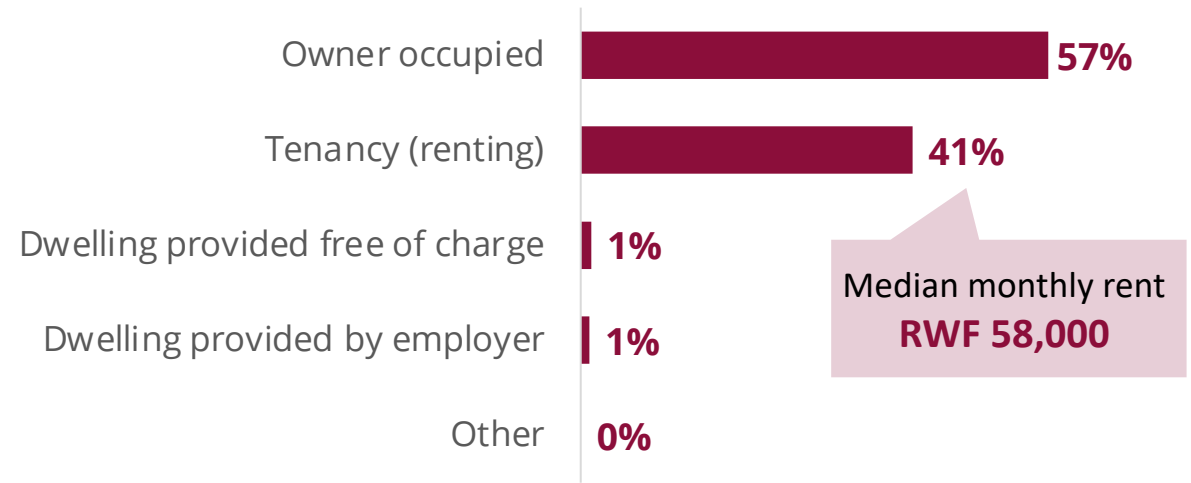
PUBLIC SECTOR WORKER HOUSEHOLDS

54,000 HOUSEHOLDS

HOUSEHOLD TYPE

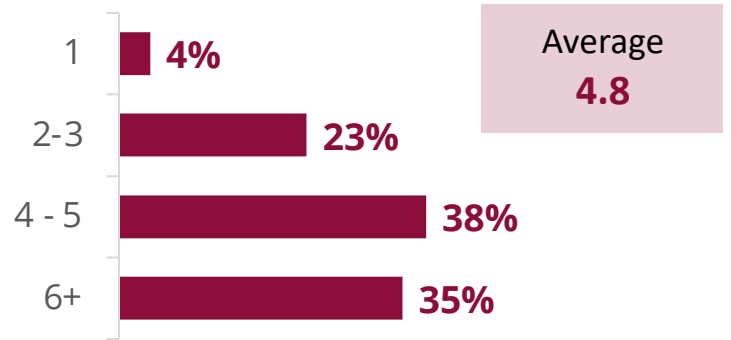


HOUSEHOLD OCCUPANCY STATUS

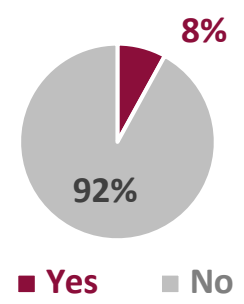


Median monthly rent
RWF 58,000

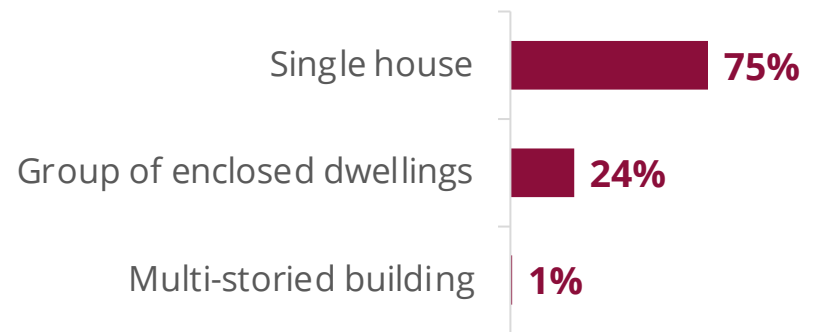
HOUSEHOLD SIZE



MULTIPLE HOUSEHOLDS IN DWELLING



HOUSING TYPE



Source: EICV 5

PUBLIC SECTOR WORKER HOUSEHOLDS

54,000 HOUSEHOLDS

MAIN MATERIALS

■ FORMAL ■ INFORMAL

Materials for roof

- **Metal sheets / corrugated iron** (95%)
- **Local clay tiles** (5%)

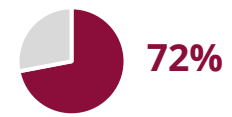
Materials for walls

- **Mud bricks covered with cement** (62%)
- **Oven fired bricks** (21%)
- **Cement bricks** (7%)
- **Tree trunks with mud and cement** (5%)
- **Mud bricks** (5%)
- **Other** (1%)

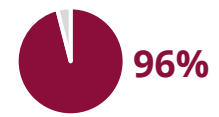
ACCESS TO SERVICES



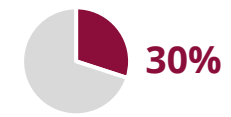
Main source of water piped into dwelling/yard



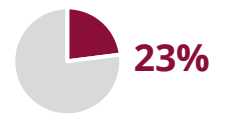
Use electricity for lighting



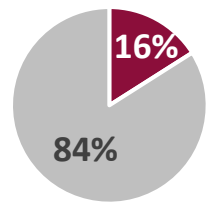
Have a flush toilet



Share toilet facility with another household

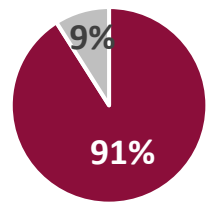


OVER-CROWDED



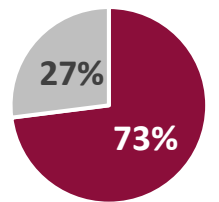
■ Yes ■ No

DWELLING TYPE



■ Formal ■ Informal

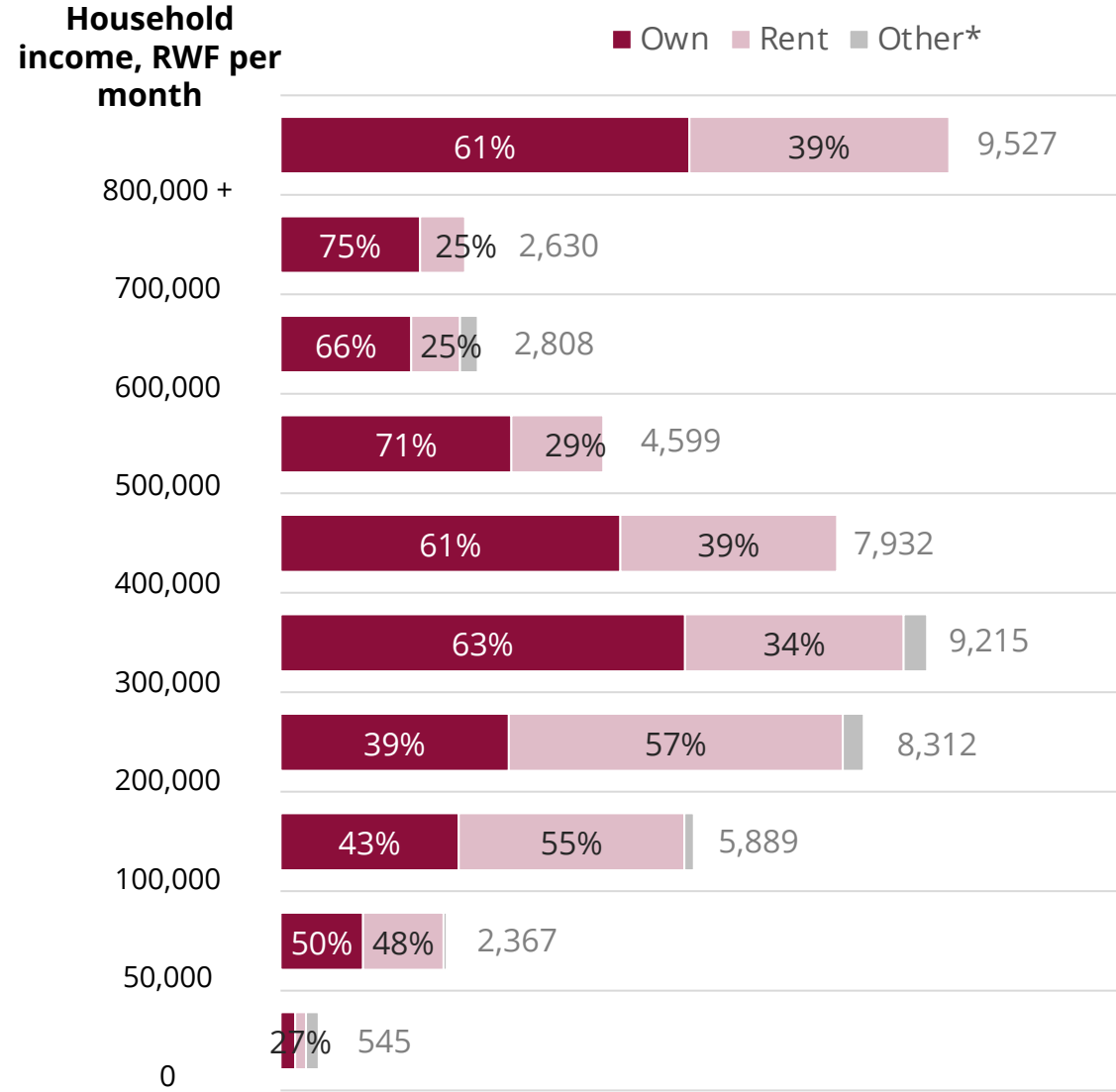
POTENTIALLY INADEQUATE



■ Yes ■ No

Source: EICV 5
 Note: Potentially inadequate dwellings are defined as dwellings that are either informal, overcrowded or do not have a flush toilet. Formal dwellings have walls constructed from cement bricks, mud bricks covered with cement, oven fired bricks, stones, tree trunks with mud and cement, and roofs constructed from metal sheets/ corrugated iron, industrial tiles, concrete

HOUSING DISTRIBUTION PYRAMID
(Public sector worker households; 54,000 2016/17)



Typical mortgage product**

49%

27,000 households can afford a 12.5 million RWF house, with a 30% deposit

Source: EICV 5
 *Other: "Dwelling provided by employer", "Dwelling provided free of charge", "Temporary camp or settlement" and "Other". **Loan terms: Interest rate of 15% p.a., loan term of 15 years, and 30% of household income used to make monthly loan instalments.
 RWF 12.5 million is the lowest price of a house built by a developer. Calculations assume that households are able to pay the required deposit amount.
 Note: Household expenditure was used to provide an estimate for household income. Amounts were inflated from 2017 to 2021.

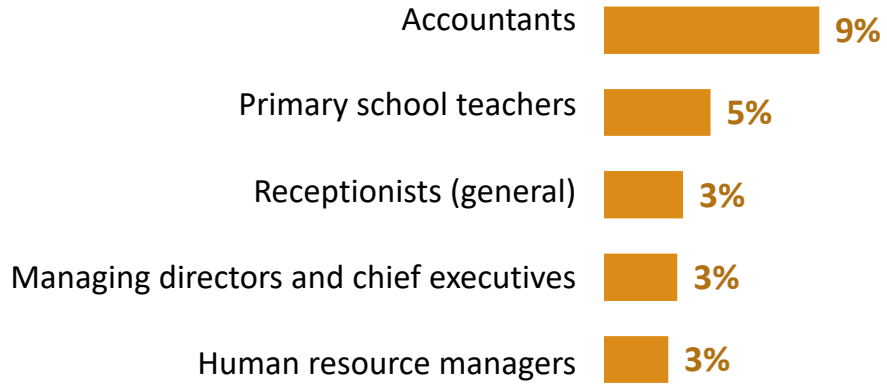
Urban segments

1. Public sector employees
- 2. Private sector professionals**
3. Private sector services and sales workers
4. Blue collar workers
5. Farm workers
6. Unregistered self-employed workers
7. Registered self-employed workers

URBAN PRIVATE SECTOR PROFESSIONALS

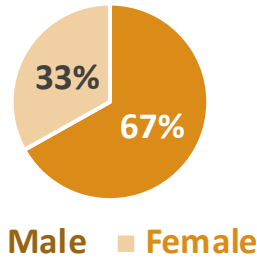
79,000 ADULTS 16+

TOP 5 OCCUPATIONS

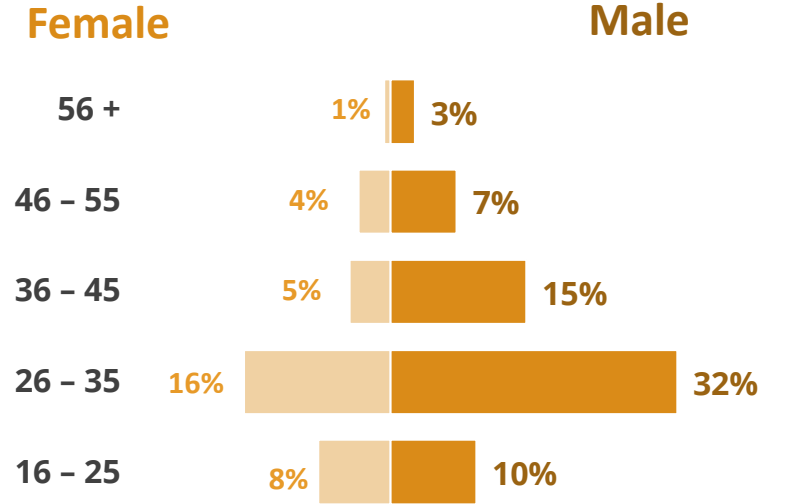


Other includes: Other education occupations, Bank tellers, finance managers, interior designers, other clerks and others

GENDER



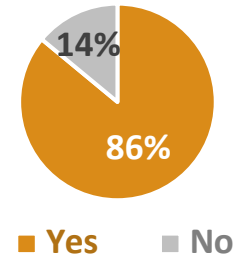
AGE PYRAMID



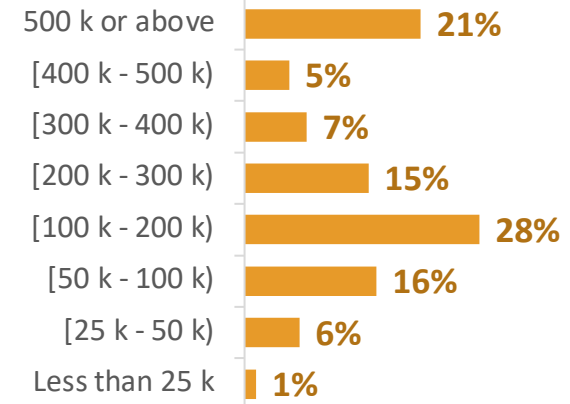
MEDIAN INCOME

RWF 190,000

HAVE A TERTIARY EDUCATION

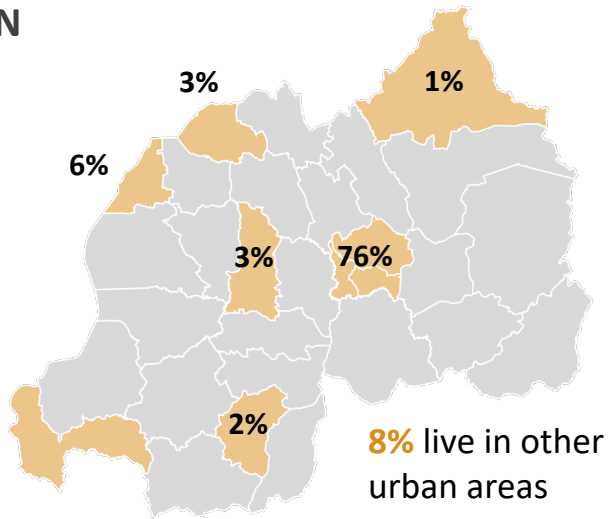


MONTHLY SALARY/ WAGE



5% get subsidised housing from their employer

LOCATION

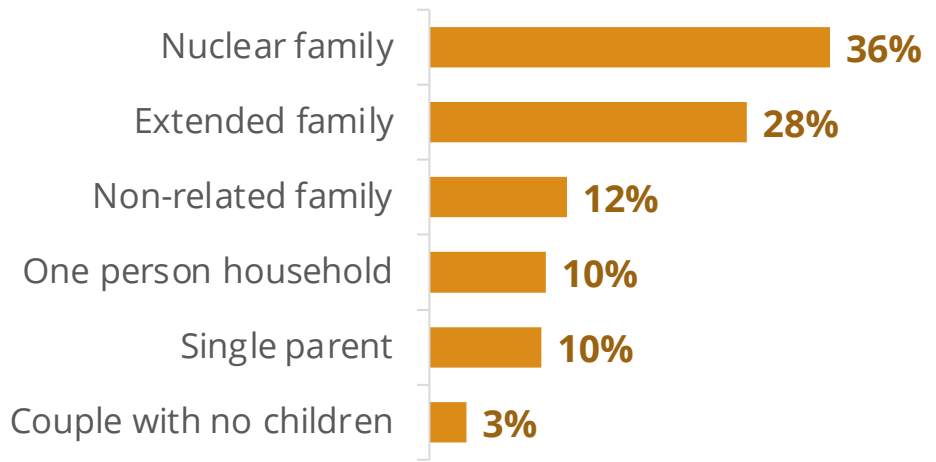


Source: EICV 5

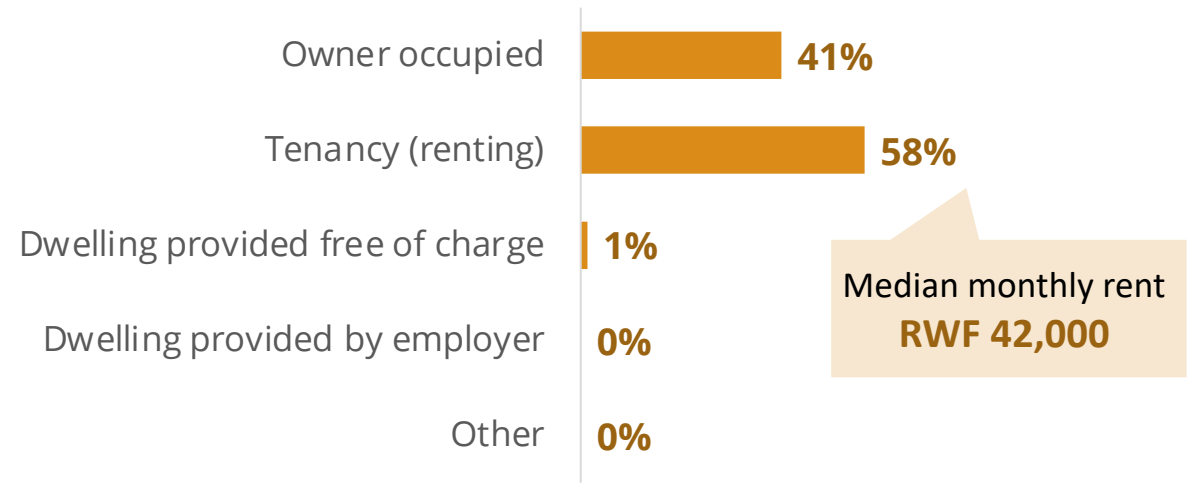
PRIVATE SECTOR PROFESSIONAL HOUSEHOLDS

68,000 HOUSEHOLDS

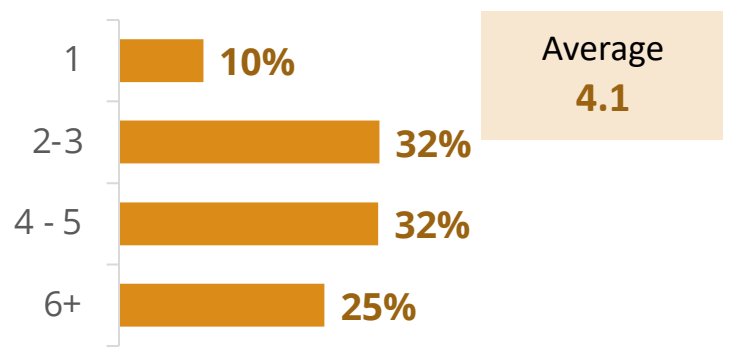
HOUSEHOLD TYPE



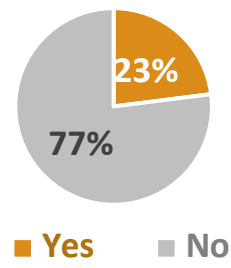
HOUSEHOLD OCCUPANCY STATUS



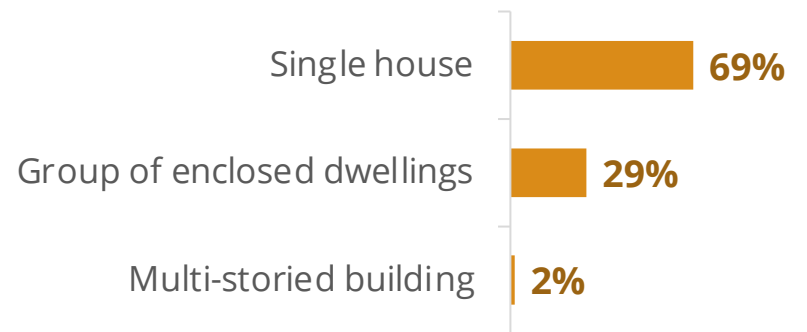
HOUSEHOLD SIZE



STAY IN A HOUSE OCCUPIED BY MULTIPLE HOUSEHOLDS



HOUSING TYPE



Source: EICV 5

PRIVATE SECTOR PROFESSIONALS

68,000 HOUSEHOLDS

MAIN MATERIALS

■ FORMAL ■ INFORMAL

Materials for roof

- Metal sheets / corrugated iron (96%)
- Local clay tiles (4%)

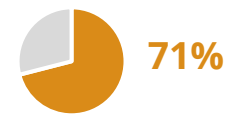
Materials for walls

- Mud bricks covered with cement (67%)
- Oven fired bricks (19%)
- Cement bricks (7%)
- Tree trunks with mud and cement (4%)
- Mud bricks (2%)
- Other (1%)

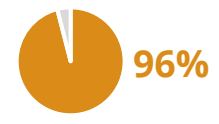
ACCESS TO SERVICES



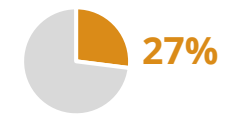
Main source of water piped into dwelling/yard



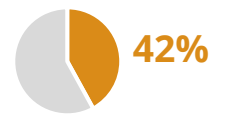
Use electricity for lighting



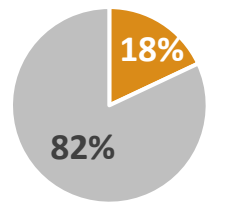
Have a flush toilet



Share toilet facility with another household

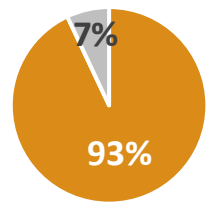


OVER-CROWDED



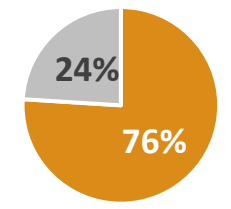
■ Yes ■ No

DWELLING TYPE



■ Formal ■ Informal

POTENTIALLY INADEQUATE

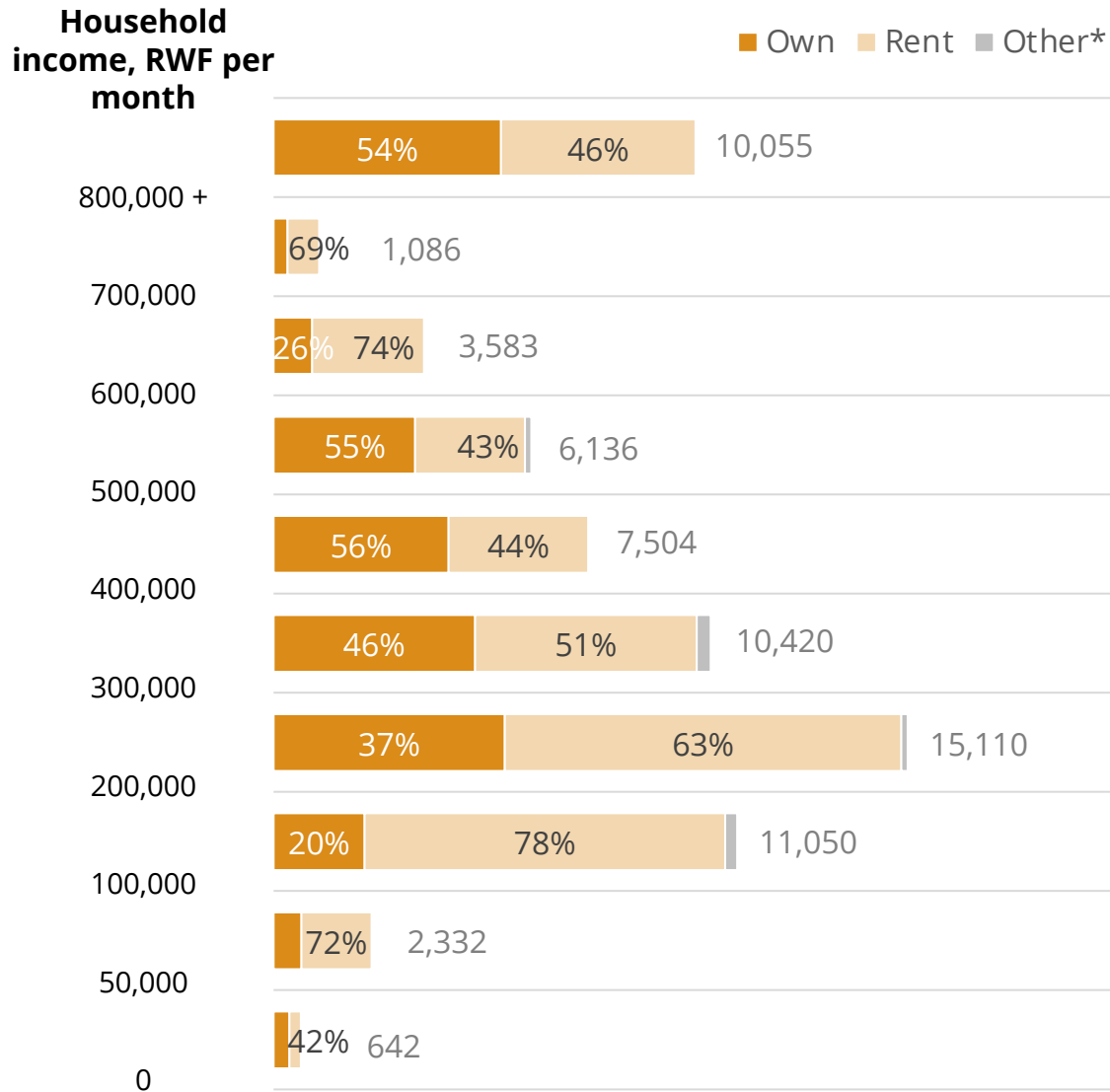


■ Yes ■ No

Source: EICV 5
 Note: Potentially inadequate dwellings are defined as dwellings that are either informal, overcrowded or do not have a flush toilet. Formal dwellings have walls constructed from cement bricks, mud bricks covered with cement, oven fired bricks, stones, tree trunks with mud and cement, and roofs constructed from metal sheets/ corrugated iron, industrial tiles, concrete

HOUSING DISTRIBUTION PYRAMID

(Private sector professional households; 68,000 2016/17)



Typical mortgage product**

41%

28,000 households can afford a 12.5 million RWF house, with a 30% deposit

Source: EICV 5
 *Other: "Dwelling provided by employer", "Dwelling provided free of charge", "Temporary camp or settlement" and "Other". **Loan terms: Interest rate of 15% p.a., loan term of 15 years, and 30% of household income used to make monthly loan instalments. RWF 12.5 million is the lowest price of a house built by a developer. Calculations assume that households are able to pay the required deposit amount.
 Note: Household expenditure was used to provide an estimate for household income. Amounts were inflated from 2017 to 2021.

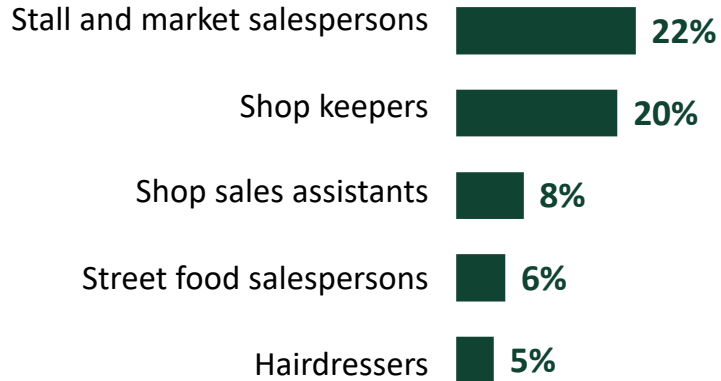
Urban segments

1. Public sector employees
2. Private sector professionals
- 3. Private sector services and sales workers**
4. Blue collar workers
5. Farm workers
6. Unregistered self-employed workers
7. Registered self-employed workers

URBAN SERVICES AND SALES WORKERS

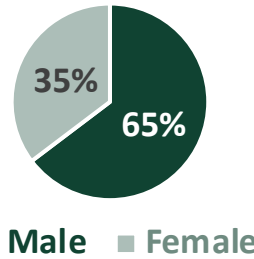
102,000 ADULTS 16+

TOP 5 OCCUPATIONS

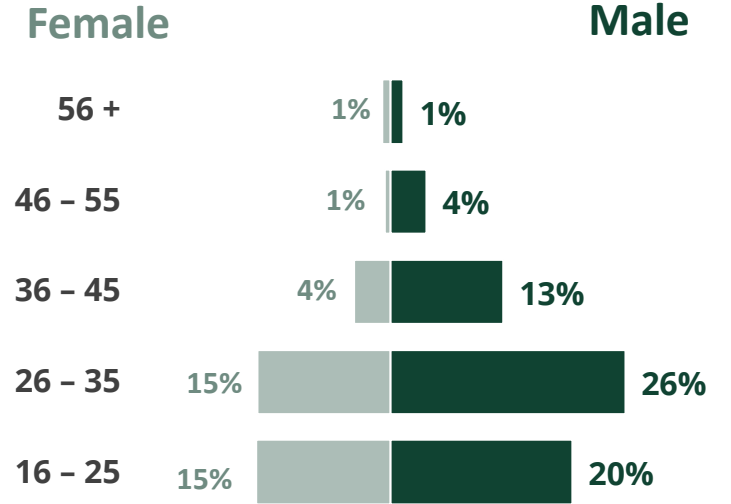


Other includes: Cashiers, waiters, bartenders, cooks, shop assistants, and others

GENDER



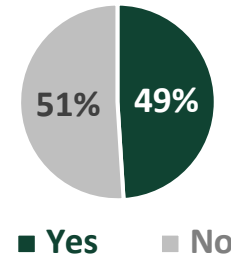
AGE PYRAMID



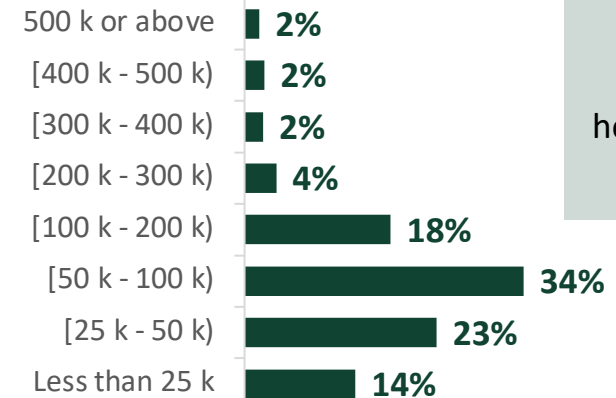
MEDIAN INCOME

RWF 58,000

COMPLETED SECONDARY SCHOOL

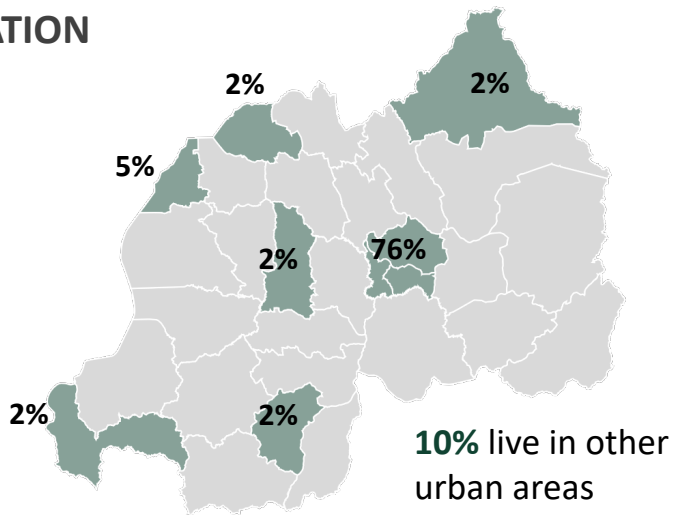


MONTHLY SALARY/ WAGE



8% get subsidised housing from their employer

LOCATION



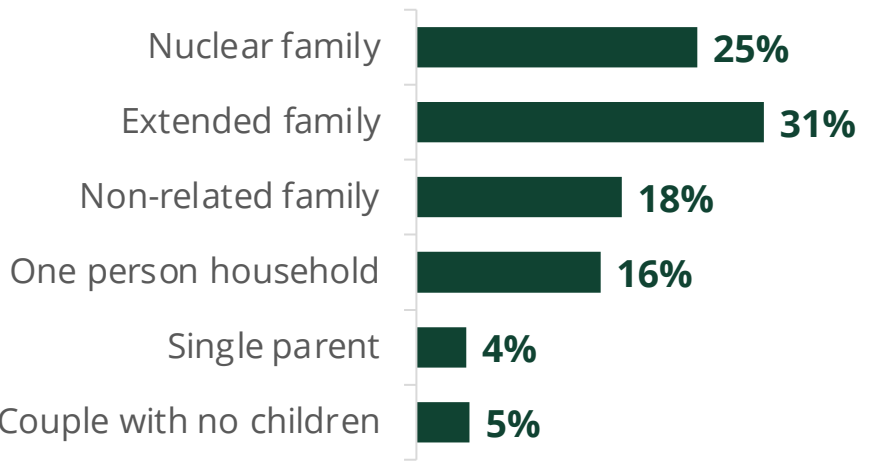
10% live in other urban areas

Source: EICV 5

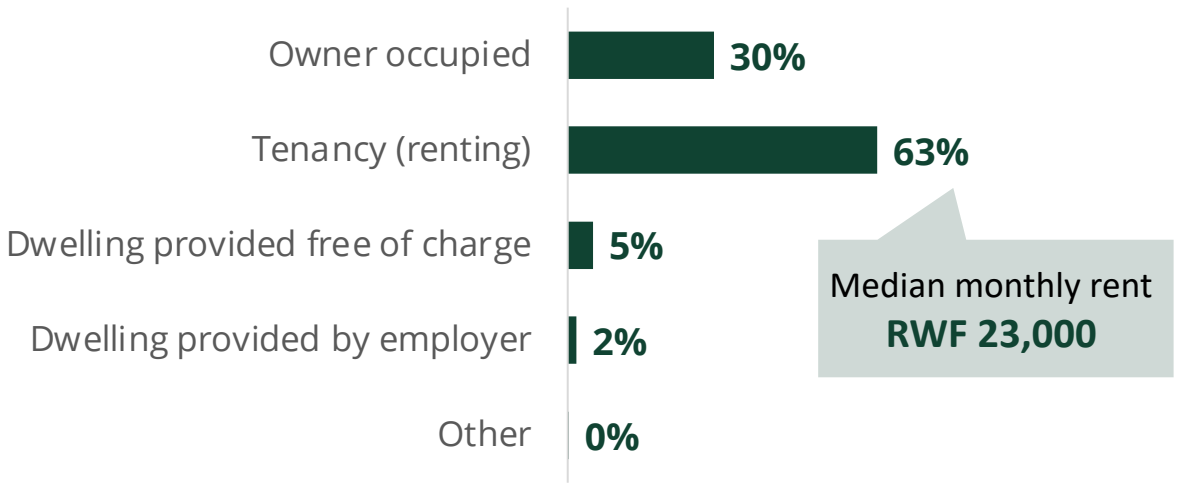
SERVICES AND SALES WORKER HOUSEHOLDS

89,000 HOUSEHOLDS

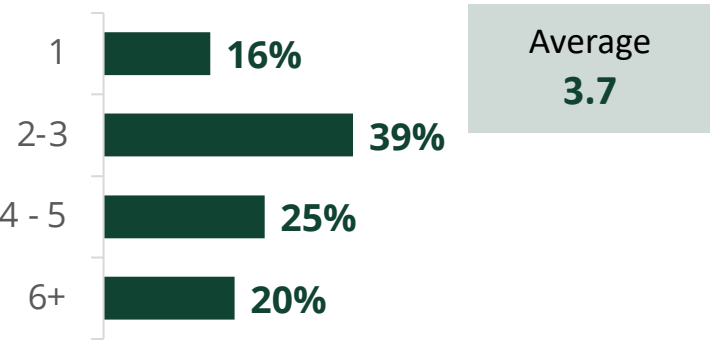
HOUSEHOLD TYPE



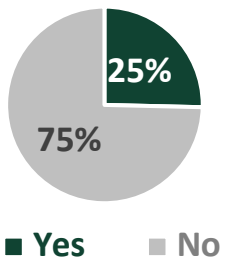
HOUSEHOLD OCCUPANCY STATUS



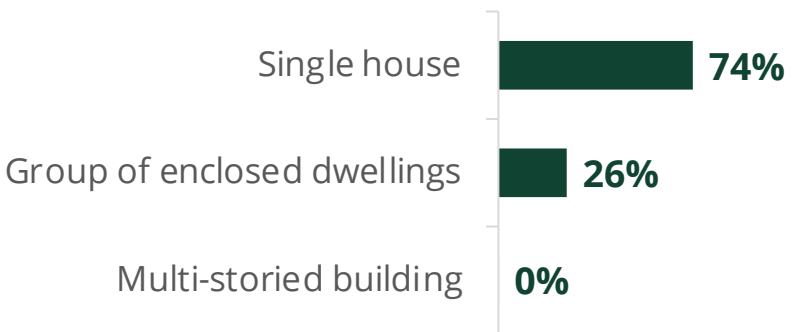
HOUSEHOLD SIZE



STAY IN A HOUSE OCCUPIED BY MULTIPLE HOUSEHOLDS



HOUSING TYPE



Source: EICV 5

SERVICES AND SALES WORKER HOUSEHOLDS

89,000 HOUSEHOLDS

MAIN MATERIALS

■ FORMAL ■ INFORMAL

Materials for roof

- Metal sheets / corrugated iron (97%)
- Local clay tiles (3%)

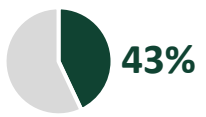
Materials for walls

- Mud bricks covered with cement (63%)
- Mud bricks (13%)
- Oven fired bricks (9%)
- Tree trunks with mud and cement (7%)
- Cement bricks (4%)
- Other (1%)

ACCESS TO SERVICES



Main source of water piped into dwelling/yard



Use electricity for lighting



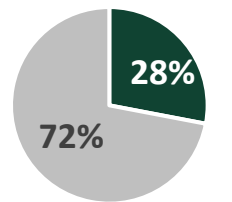
Have a flush toilet



Share toilet facility with another household

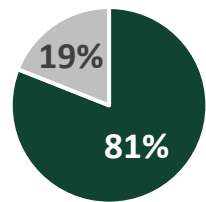


OVER-CROWDED



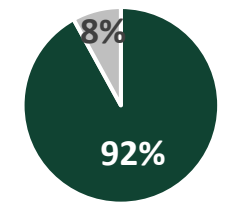
■ Yes ■ No

DWELLING TYPE



■ Formal ■ Informal

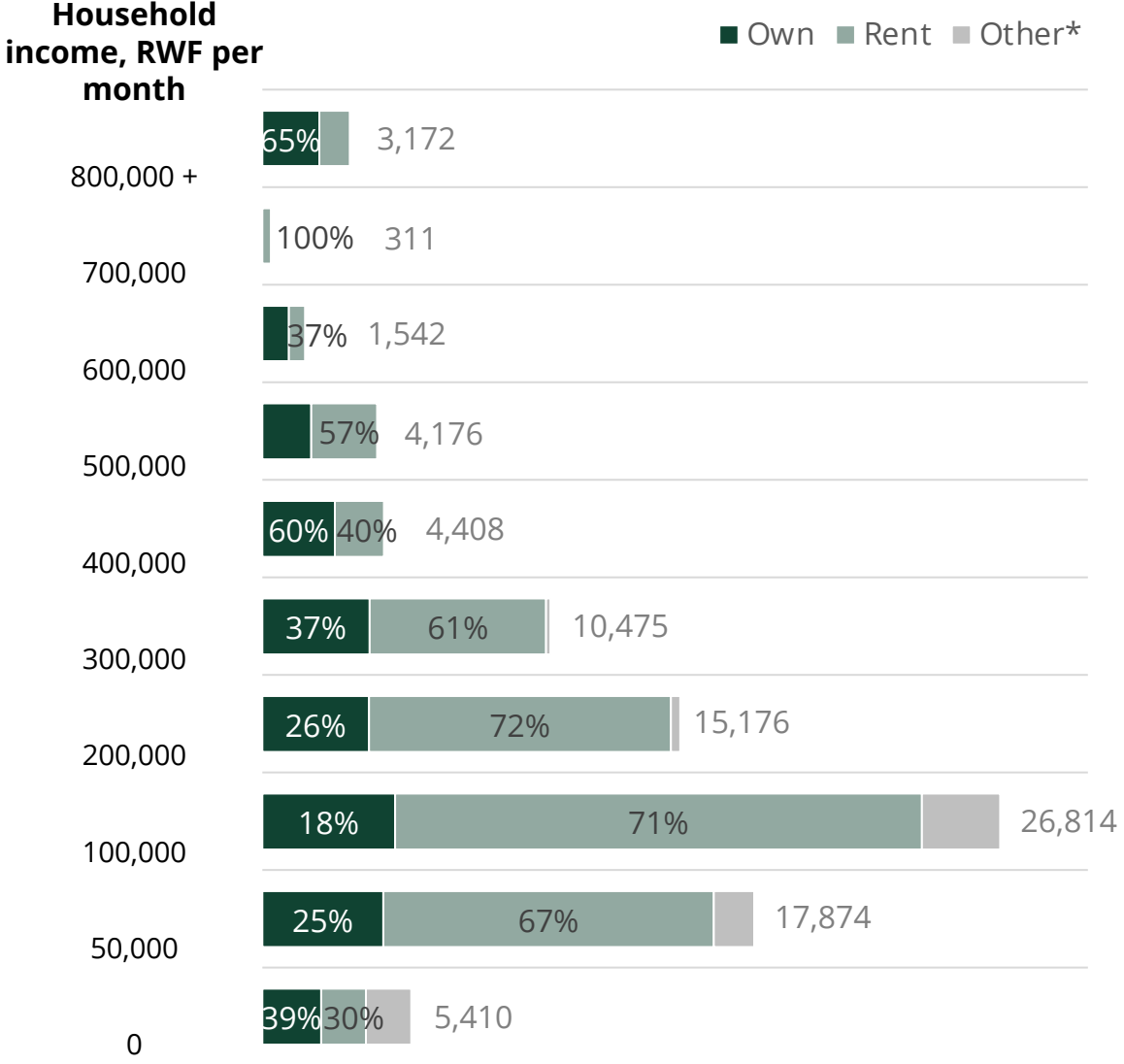
POTENTIALLY INADEQUATE



■ Yes ■ No

Source: EICV 5
 Note: Potentially inadequate dwellings are defined as dwellings that are either informal, overcrowded or do not have a flush toilet. Formal dwellings have walls constructed from cement bricks, mud bricks covered with cement, oven fired bricks, stones, tree trunks with mud and cement, and roofs constructed from metal sheets/ corrugated iron, industrial tiles, concrete

HOUSING DISTRIBUTION PYRAMID
 (Service and sales worker households; 89,000 2016/17)



Typical mortgage product**

15%

13,000 households can afford a 12.5 million RWF house, with a 30% deposit

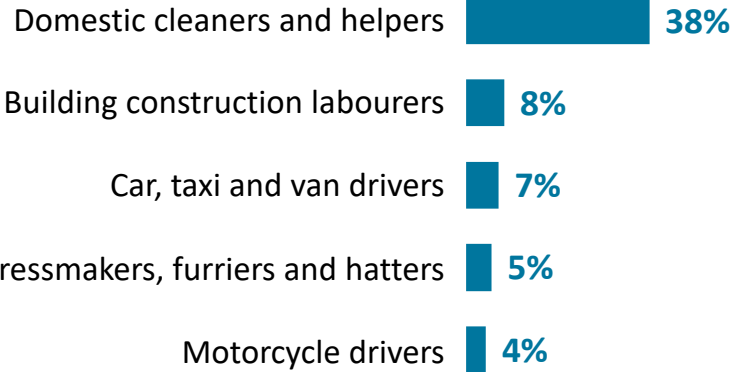
Source: EICV 5
 *Other: "Dwelling provided by employer", "Dwelling provided free of charge", "Temporary camp or settlement" and "Other". **Loan terms: Interest rate of 15% p.a., loan term of 15 years, and 30% of household income used to make monthly loan instalments.
 RWF 12.5 million is the lowest price of a house built by a developer. Calculations assume that households are able to pay the required deposit amount.
 Note: Household expenditure was used to provide an estimate for household income. Amounts were inflated from 2017 to 2021.

Urban segments

1. Public sector employees
2. Private sector professionals
3. Private sector services and sales workers
- 4. Blue collar workers**
5. Farm workers
6. Unregistered self-employed workers
7. Registered self-employed workers

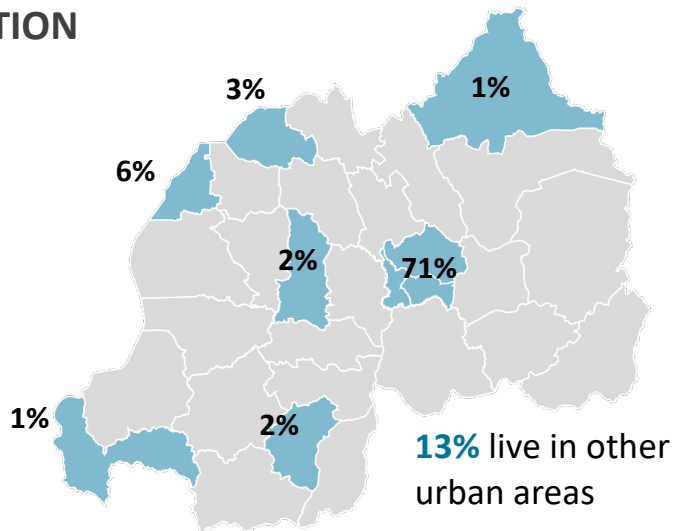
DEMOGRAPHICS

TOP 5 OCCUPATIONS



Other includes: car and taxi drivers, office cleaners, carpenters and joiners, and water and wood collectors, and others

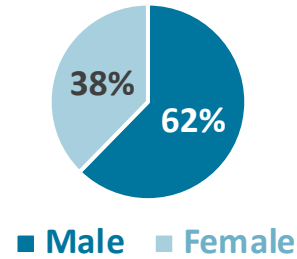
LOCATION



URBAN BLUE WORKERS

334,000 ADULTS 16+

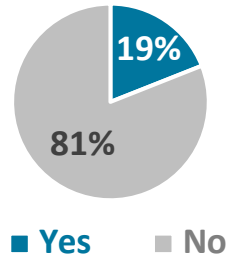
GENDER



MEDIAN INCOME

RWF 46,000

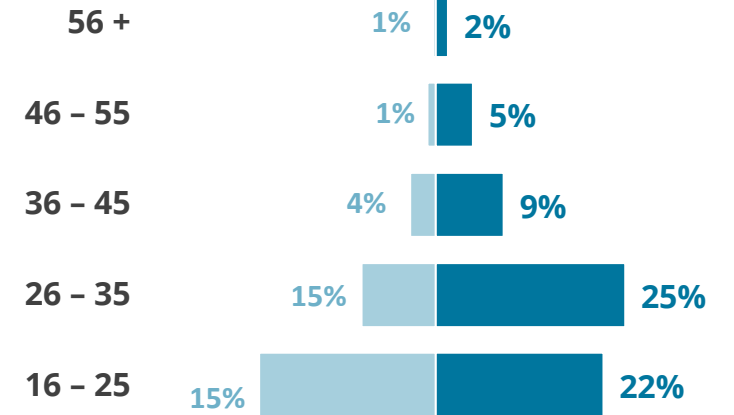
COMPLETED SECONDARY SCHOOL



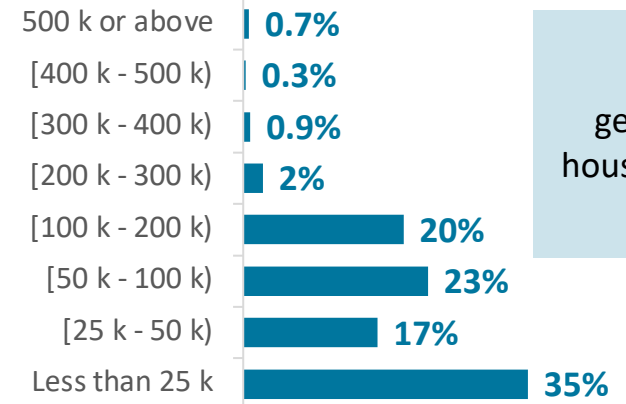
AGE PYRAMID

Female

Male



MONTHLY SALARY/ WAGE



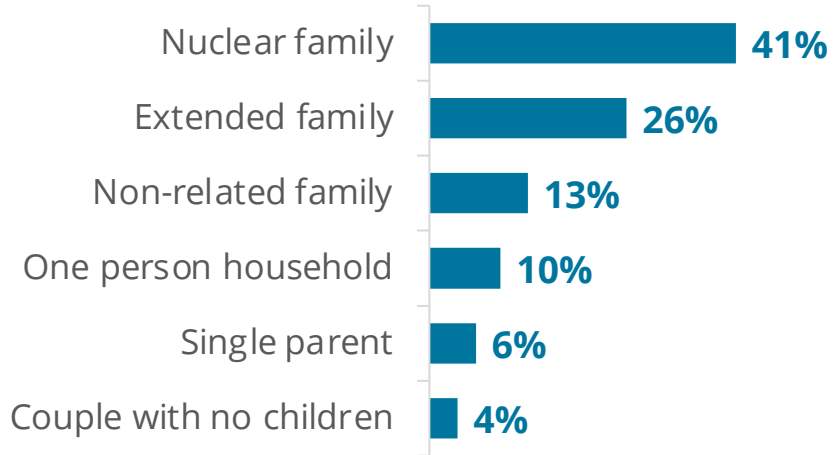
33% get subsidised housing from their employer

Source: EICV 5

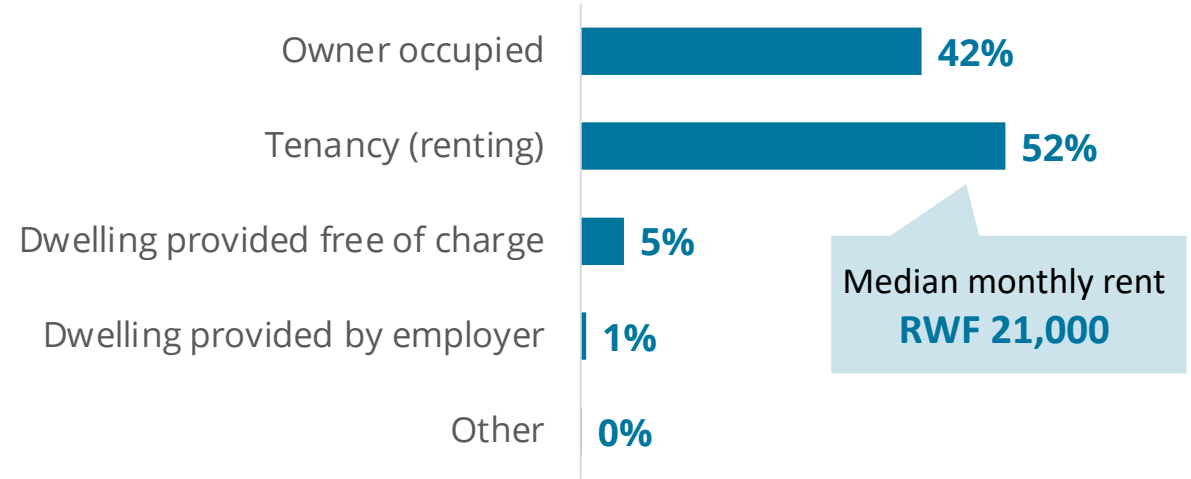
BLUE COLLAR HOUSEHOLDS

262,000 HOUSEHOLDS

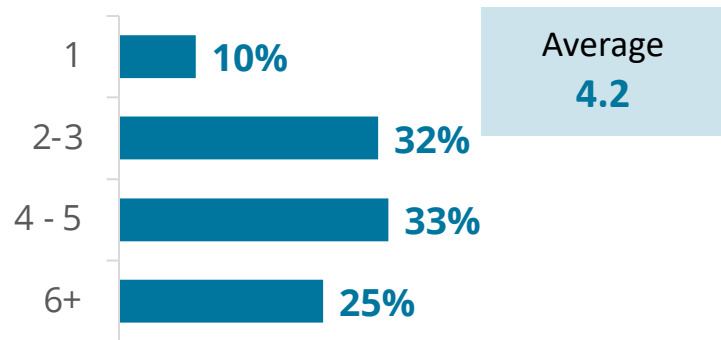
HOUSEHOLD TYPE



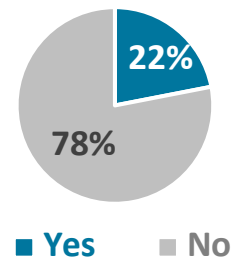
HOUSEHOLD OCCUPANCY STATUS



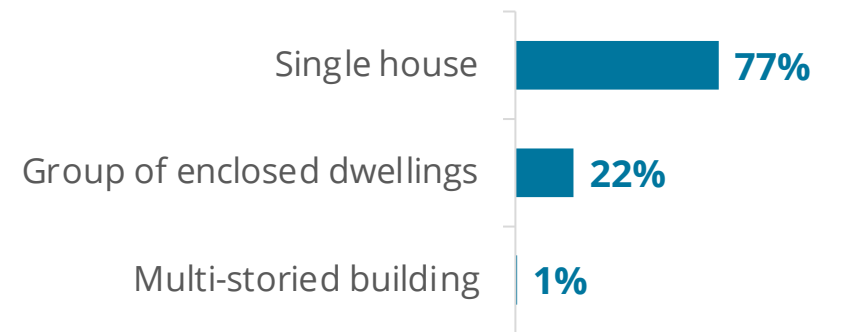
HOUSEHOLD SIZE



STAY IN A HOUSE OCCUPIED BY MULTIPLE HOUSEHOLDS



HOUSING TYPE



Source: EICV 5

BLUE COLLAR HOUSEHOLDS

262,000 HOUSEHOLDS

MAIN MATERIALS

■ FORMAL ■ INFORMAL

Materials for roof

- **Metal sheets / corrugated iron** (93%)
- **Local clay tiles** (6%)

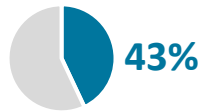
Materials for walls

- **Mud bricks covered with cement** (59%)
- **Mud bricks** (17%)
- **Oven fired bricks** (10%)
- **Tree trunks with mud and cement** (6%)
- **Cement bricks** (4%)
- **Other** (3%)

ACCESS TO SERVICES



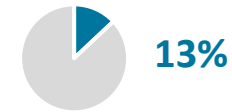
Main source of water piped into dwelling/yard



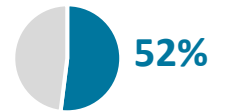
Use electricity for lighting



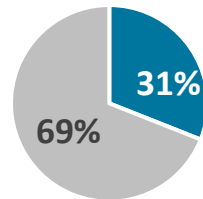
Have a flush toilet



Share toilet facility with another household

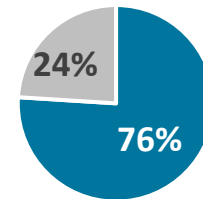


OVER-CROWDED



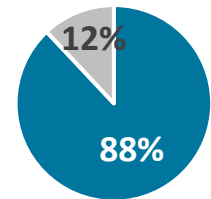
■ Yes ■ No

DWELLING TYPE



■ Formal ■ Informal

POTENTIALLY INADEQUATE

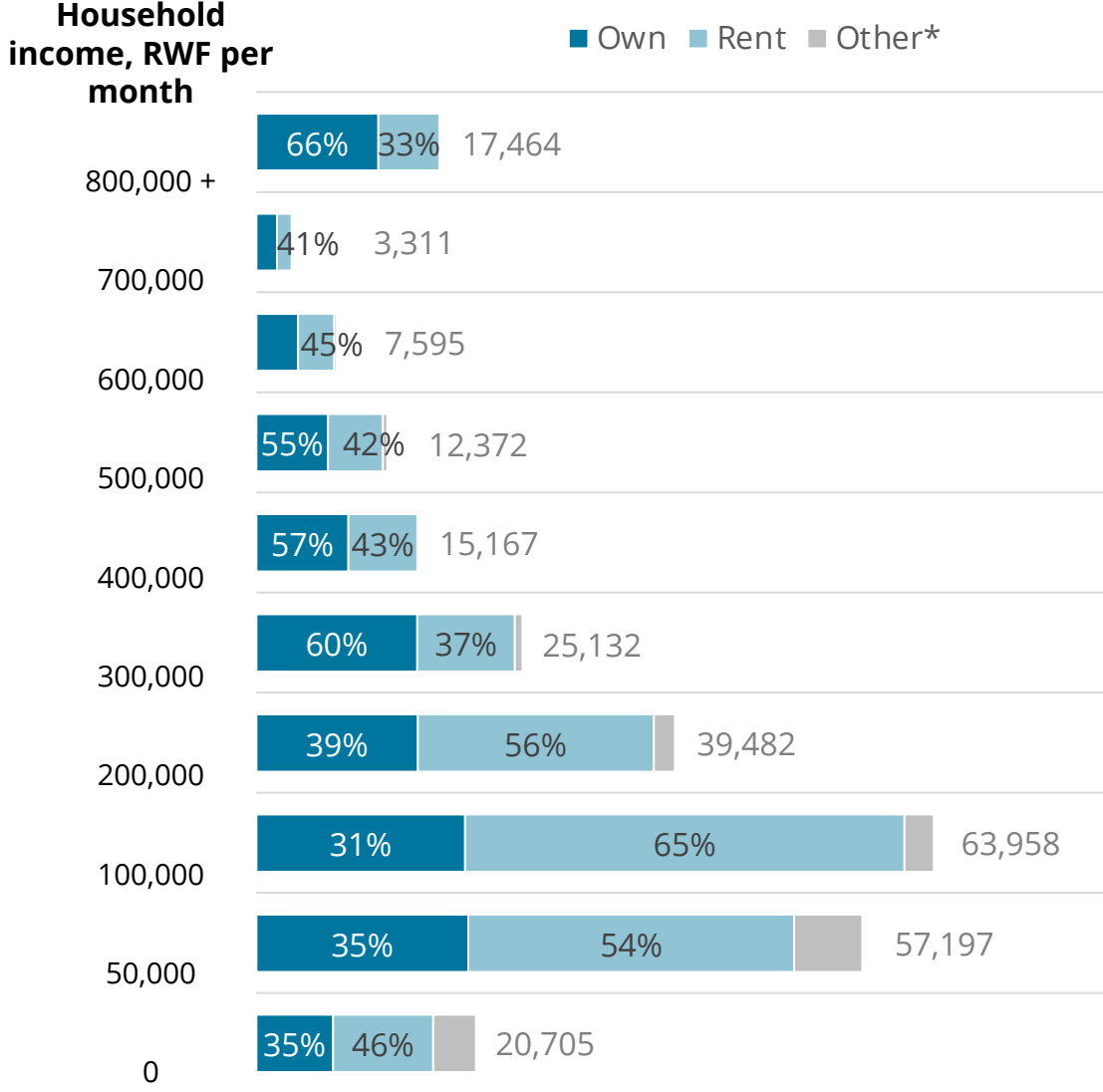


■ Yes ■ No

Source: EICV 5

Note: Potentially inadequate dwellings are defined as dwellings that are either informal, overcrowded or do not have a flush toilet. Formal dwellings have walls constructed from cement bricks, mud bricks covered with cement, oven fired bricks, stones, tree trunks with mud and cement, and roofs constructed from metal sheets/ corrugated iron, industrial tiles, concrete

HOUSING DISTRIBUTION PYRAMID
(Blue collar worker households; 262,000 2016/17)



Typical mortgage product**

21%

54,000 households can afford a 12.5 million RWF house, with a 30% deposit

Source: EICV 5
 *Other: "Dwelling provided by employer", "Dwelling provided free of charge", "Temporary camp or settlement" and "Other". **Loan terms: Interest rate of 15% p.a., loan term of 15 years, and 30% of household income used to make monthly loan instalments.
 RWF 12.5 million is the lowest price of a house built by a developer. Calculations assume that households are able to pay the required deposit amount.
 Note: Household expenditure was used to provide an estimate for household income. Amounts were inflated from 2017 to 2021.

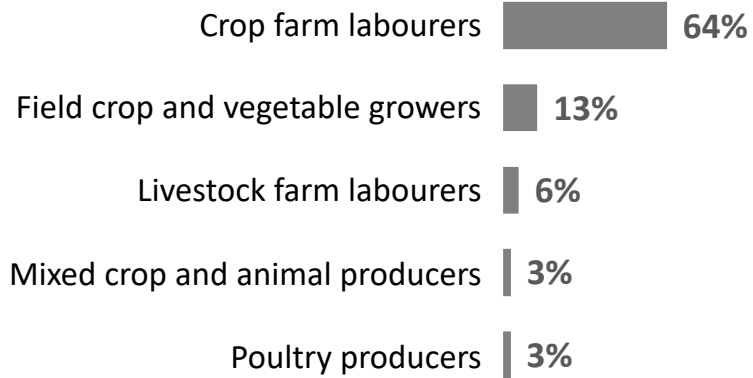
Urban segments

1. Public sector employees
2. Private sector professionals
3. Private sector services and sales workers
4. Blue collar workers
- 5. Farm workers**
6. Unregistered self-employed workers
7. Registered self-employed workers

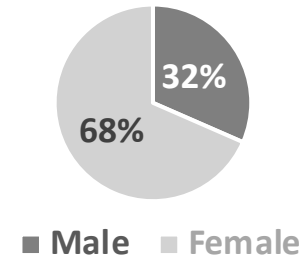
URBAN FARM WORKERS

60,000 ADULTS 16+

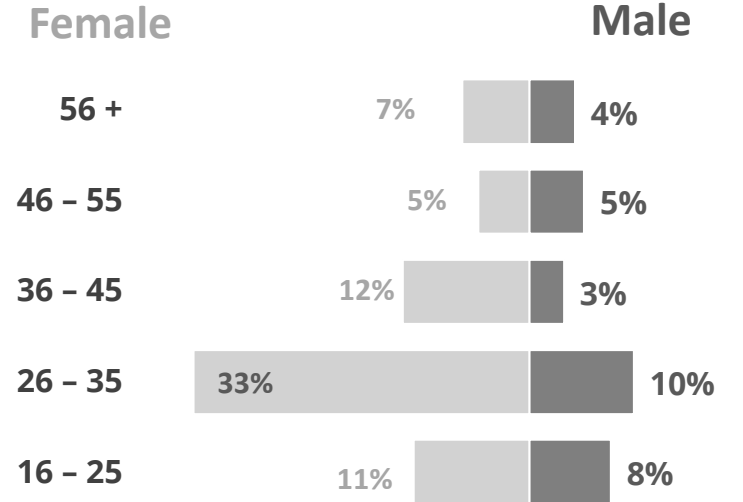
TOP 5 OCCUPATIONS



GENDER



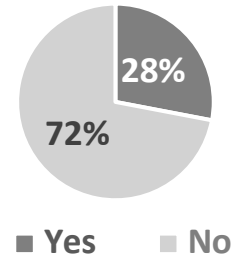
AGE PYRAMID



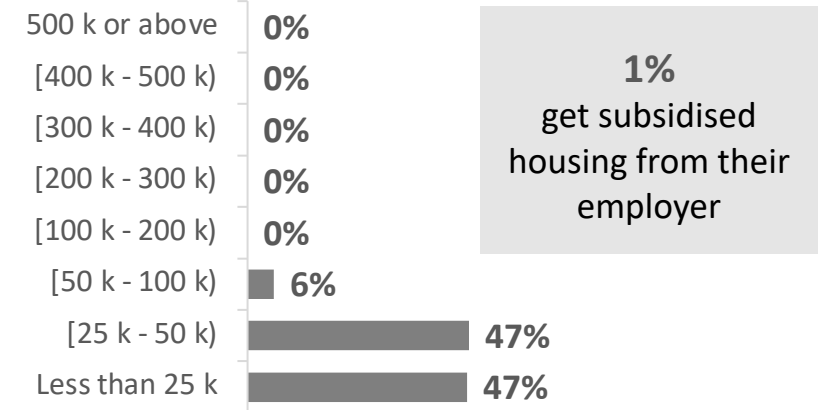
MEDIAN INCOME

RWF 28,000

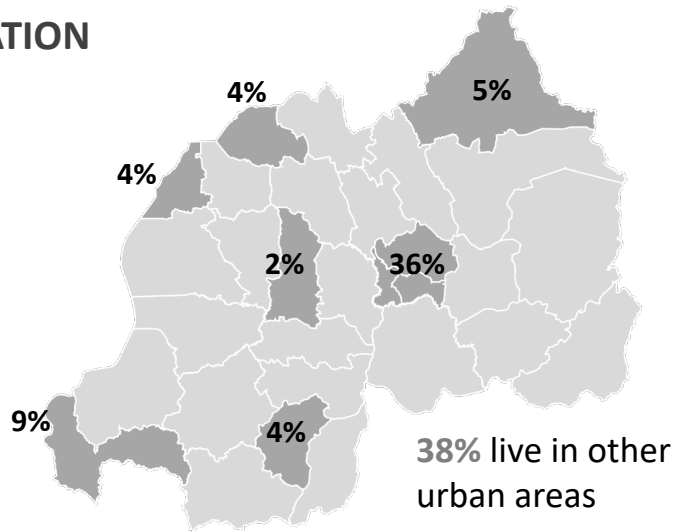
COMPLETED PRIMARY SCHOOL



MONTHLY SALARY/ WAGE



LOCATION

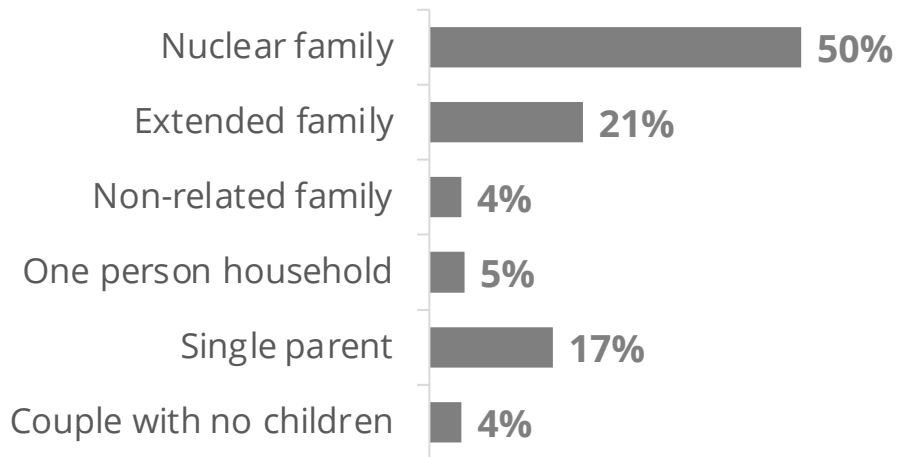


Source: EICV 5

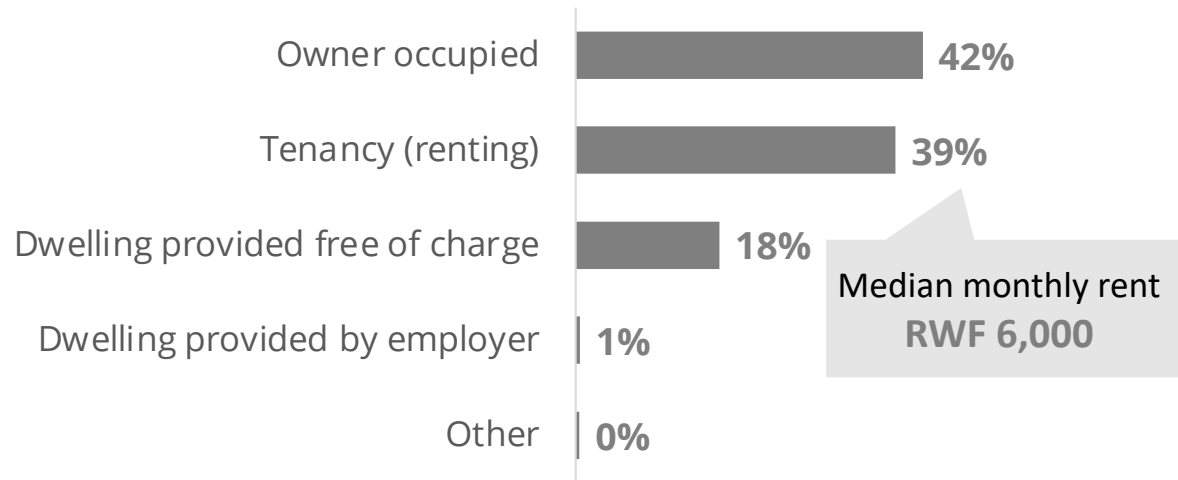
FARM WORKER HOUSEHOLDS

51,000 HOUSEHOLDS

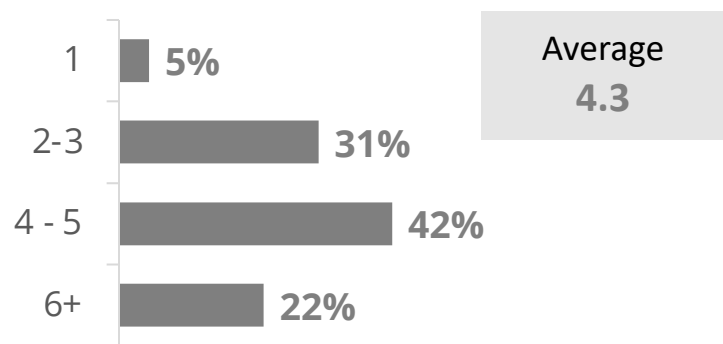
HOUSEHOLD TYPE



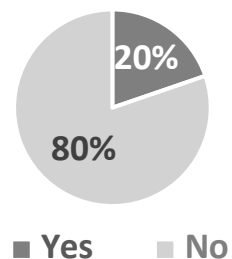
HOUSEHOLD OCCUPANCY STATUS



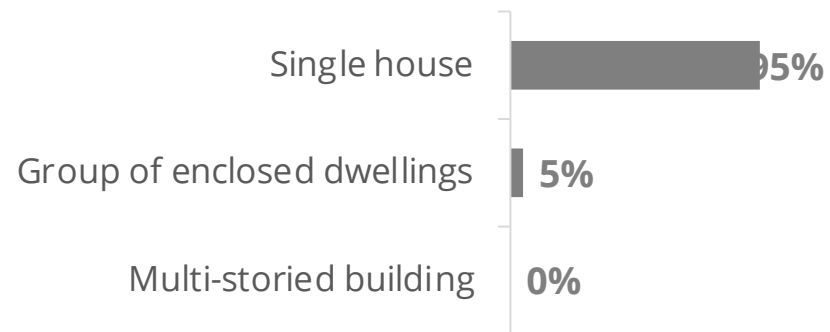
HOUSEHOLD SIZE



STAY IN A HOUSE OCCUPIED BY MULTIPLE HOUSEHOLDS



HOUSING TYPE



Source: EICV 5

FARM WORKER HOUSEHOLDS

51,000 HOUSEHOLDS

MAIN MATERIALS

■ FORMAL ■ INFORMAL

Materials for roof

- Metal sheets / corrugated iron (83%)
- Local clay tiles (17%)

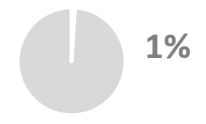
Materials for walls

- Mud bricks (44%)
- Mud bricks covered with cement (36%)
- Tree trunks with mud (12%)
- Tree trunks with mud and cement (6%)
- Other (2%)

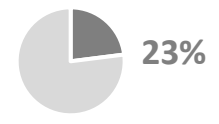
ACCESS TO SERVICES



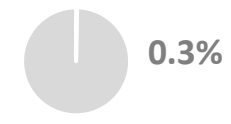
Main source of water piped into dwelling/yard



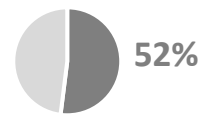
Use electricity for lighting



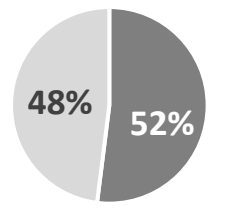
Have a flush toilet



Share toilet facility with another household

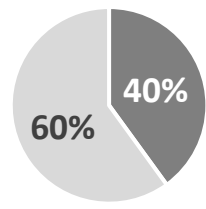


OVER-CROWDED



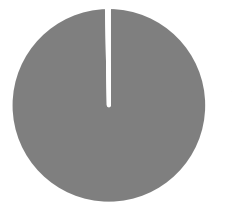
■ Yes ■ No

DWELLING TYPE



■ Formal ■ Informal

POTENTIALLY INADEQUATE

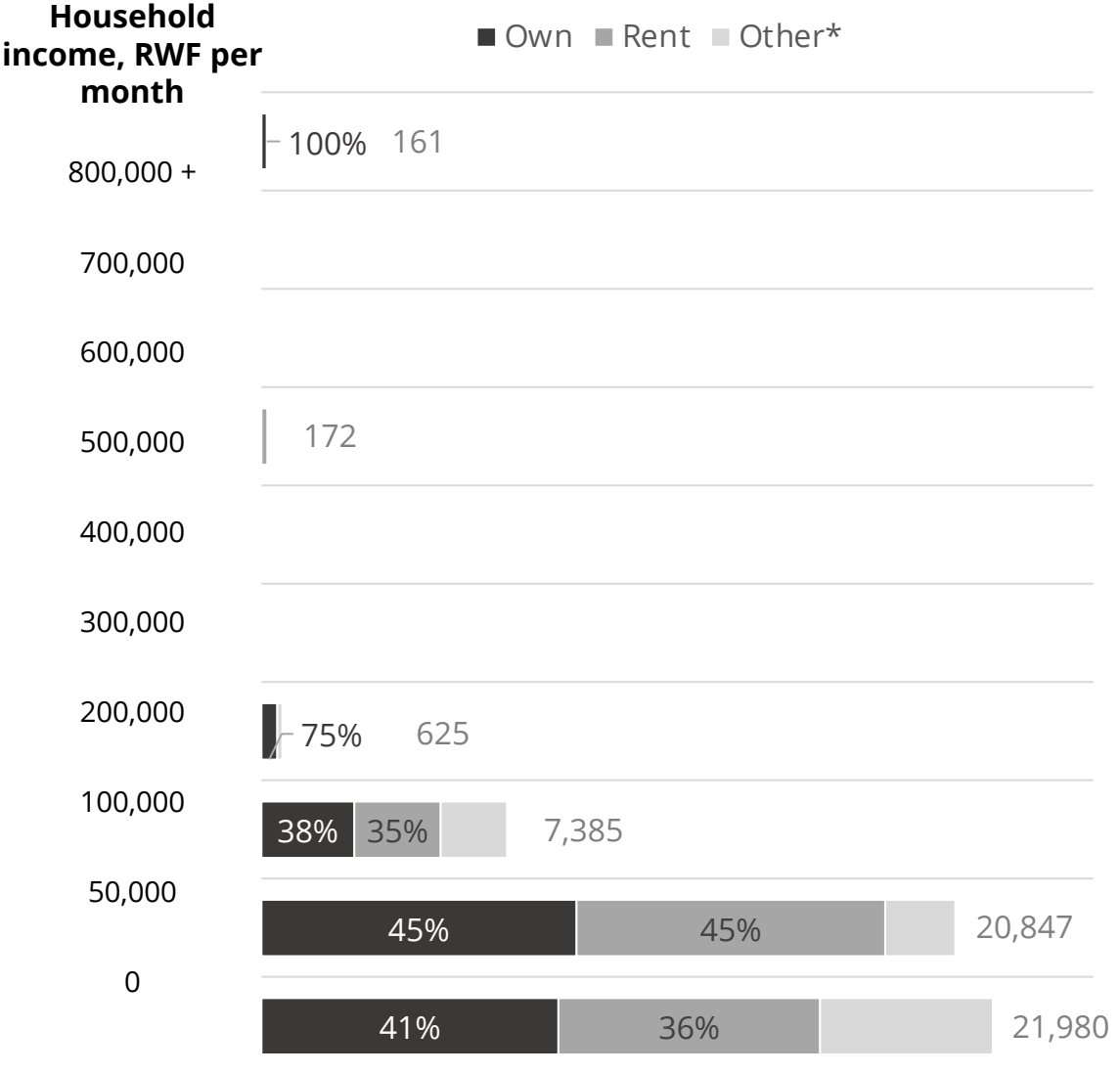


■ Yes ■ No

Source: EICV 5
 Note: Potentially inadequate dwellings are defined as dwellings that are either informal, overcrowded or do not have a flush toilet. Formal dwellings have walls constructed from cement bricks, mud bricks covered with cement, oven fired bricks, stones, tree trunks with mud and cement, and roofs constructed from metal sheets/ corrugated iron, industrial tiles, concrete

HOUSING DISTRIBUTION PYRAMID

(Blue collar worker households; 51,000 2016/17)



Typical mortgage product**

0.7%

300 households can afford a 12.5 million RWF house, with a 30% deposit

Source: EICV 5
 *Other: "Dwelling provided by employer", "Dwelling provided free of charge", "Temporary camp or settlement" and "Other". **Loan terms: Interest rate of 15% p.a., loan term of 15 years, and 30% of household income used to make monthly loan instalments.
 RWF 12.5 million is the lowest price of a house built by a developer. Calculations assume that households are able to pay the required deposit amount.
 Note: Household expenditure was used to provide an estimate for household income. Amounts were inflated from 2017 to 2021.

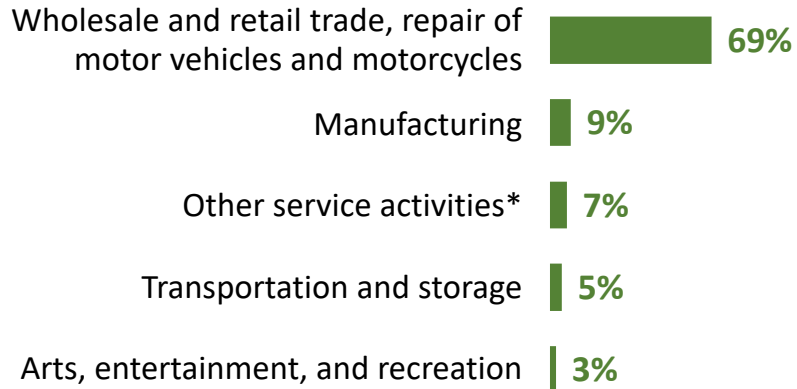
Urban segments

1. Public sector employees
2. Private sector professionals
3. Private sector services and sales workers
4. Blue collar workers
5. Farm workers
- 6. Unregistered self-employed workers**
7. Registered self-employed workers

URBAN SELF-EMPLOYED WORKERS, UNREGISTERED

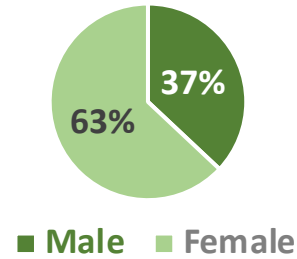
142,000 ADULTS 16+

TOP 5 INDUSTRIES



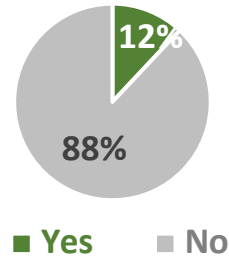
Other includes: Other education occupations, medical occupations, security guards other armed forces among others

GENDER

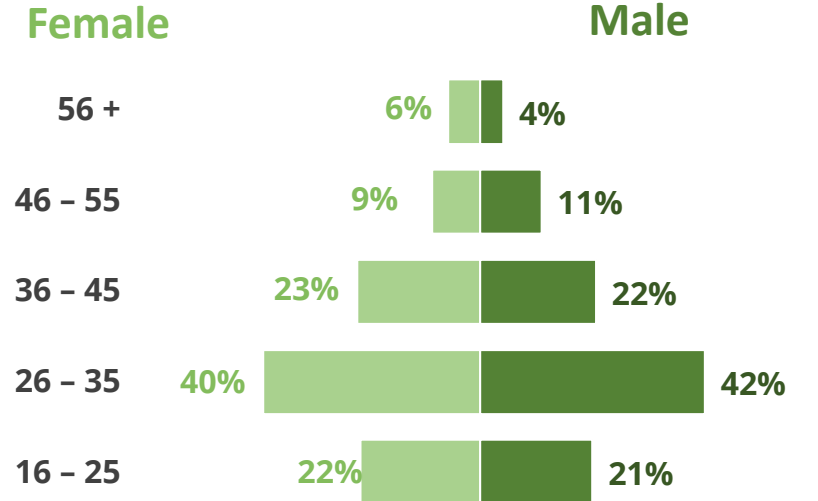


MEDIAN MONTHLY PROFIT
RWF 58,000

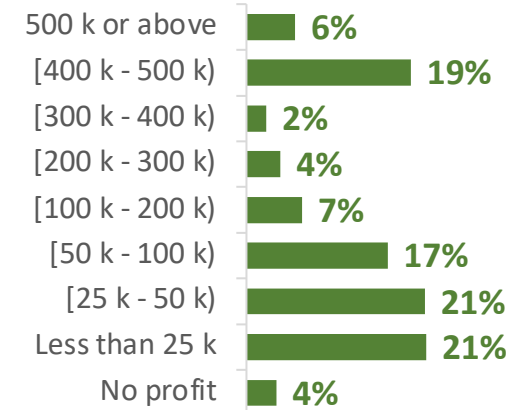
COMPLETED SECONDARY SCHOOL



AGE PYRAMID

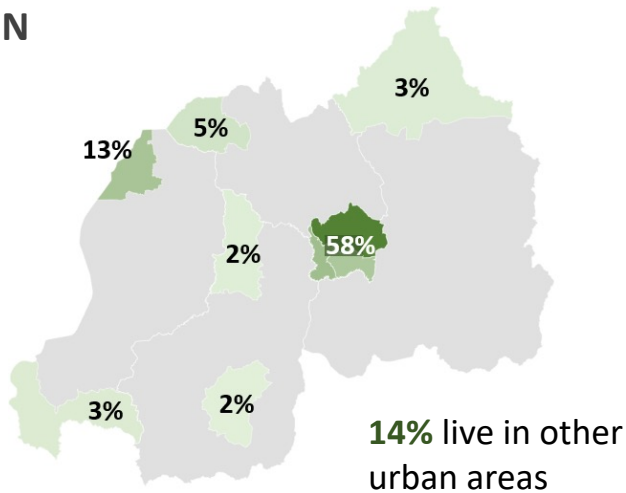


MONTHLY PROFIT



2% maintain accounts regularly

LOCATION

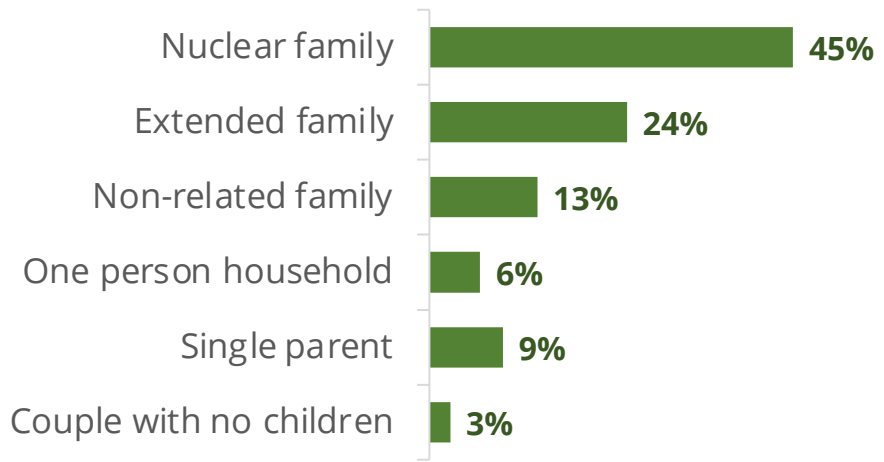


Source: EICV 5
 *Services other than accommodation, food, administrative and support services
 Note: Profit amounts provided in the EICV 5 were inflated to an estimated current value using the average annual inflation rates from 2017 to 2021

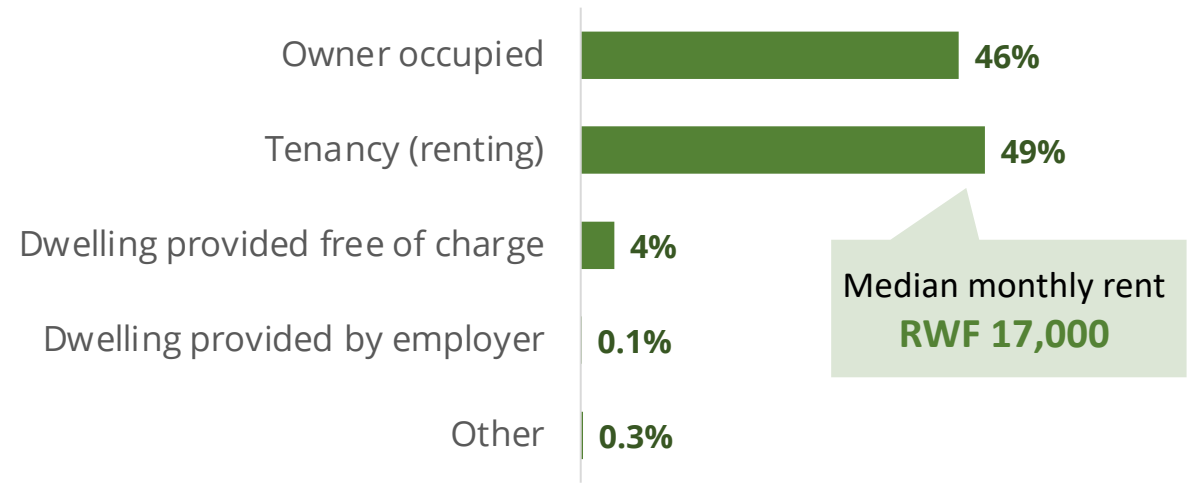
SELF-EMPLOYED WORKER HOUSEHOLDS, UNREGISTERED

125,000 HOUSEHOLDS

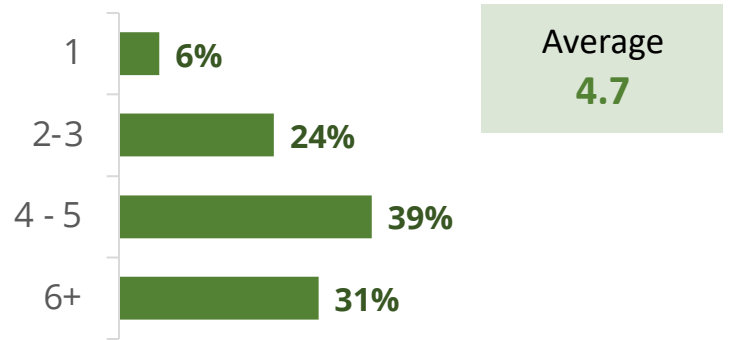
HOUSEHOLD TYPE



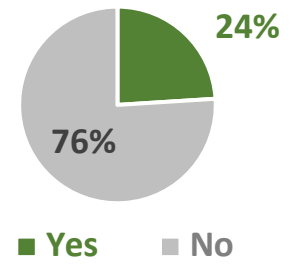
HOUSEHOLD OCCUPANCY STATUS



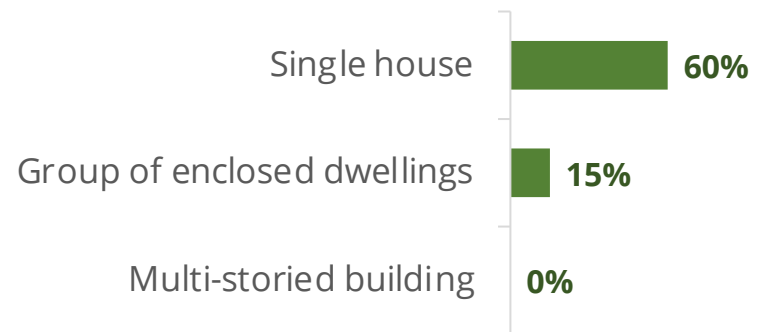
HOUSEHOLD SIZE



STAY IN A HOUSE OCCUPIED BY MULTIPLE HOUSEHOLDS



HOUSING TYPE



Source: EICV 5

SELF-EMPLOYED WORKER HOUSEHOLDS, UNREGISTERED

125,000 HOUSEHOLDS

MAIN MATERIALS

■ FORMAL ■ INFORMAL

Materials for roof

- **Metal sheets / corrugated iron** (92%)
- **Local clay tiles** (8%)

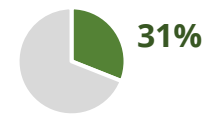
Materials for walls

- **Mud bricks covered with cement** (61%)
- **Mud bricks** (15%)
- **Tree trunks with mud and cement** (13%)
- **Oven fired bricks** (4%)
- **Cement bricks** (2%)
- **Other** (1%)

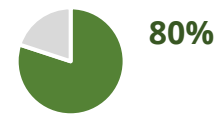
ACCESS TO SERVICES



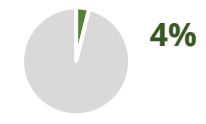
Main source of water piped into dwelling/yard



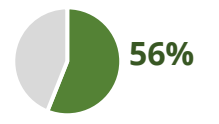
Use electricity for lighting



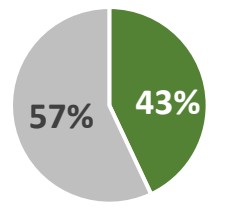
Have a flush toilet



Share toilet facility with another household

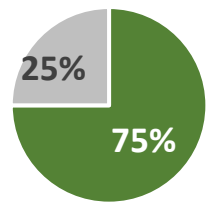


OVER-CROWDED



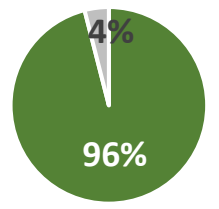
■ Yes ■ No

DWELLING TYPE



■ Formal ■ Informal

POTENTIALLY INADEQUATE

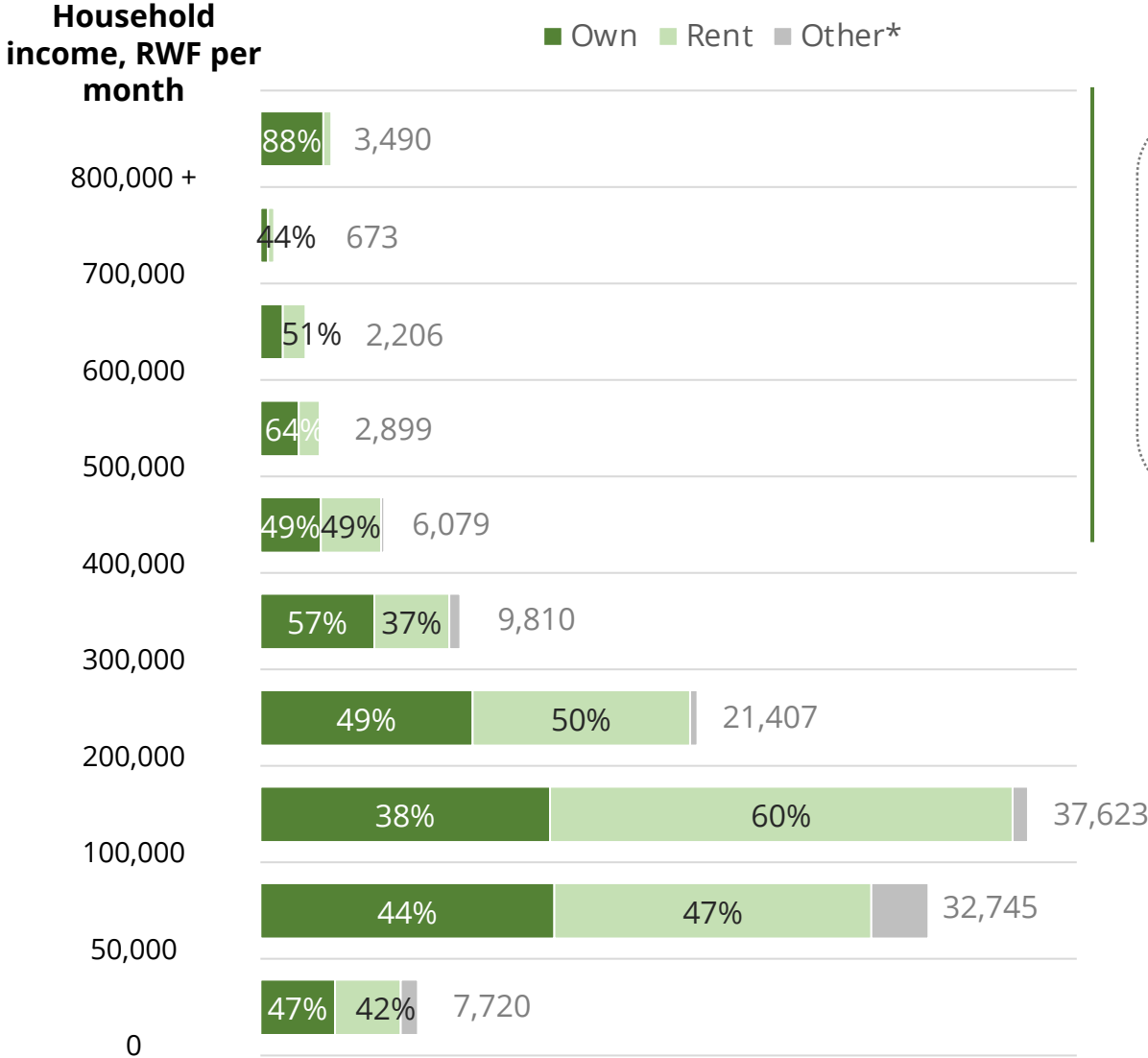


■ Yes ■ No

Source: EICV 5
 Note: Potentially inadequate dwellings are defined as dwellings that are either informal, overcrowded or do not have a flush toilet. Formal dwellings have walls constructed from cement bricks, mud bricks covered with cement, oven fired bricks, stones, tree trunks with mud and cement, and roofs constructed from metal sheets/ corrugated iron, industrial tiles, concrete

HOUSING DISTRIBUTION PYRAMID

(Unregistered self-employed worker households; 125,000 2016/17)



Typical mortgage product**

12%

15,000 households can afford a 12.5 million RWF house, with a 30% deposit

Source: EICV 5
 *Other: "Dwelling provided by employer", "Dwelling provided free of charge", "Temporary camp or settlement" and "Other". **Loan terms: Interest rate of 15% p.a., loan term of 15 years, and 30% of household income used to make monthly loan instalments.
 RWF 12.5 million is the lowest price of a house built by a developer. Calculations assume that households are able to pay the required deposit amount.
 Note: Household expenditure was used to provide an estimate for household income. Amounts were inflated from 2017 to 2021.

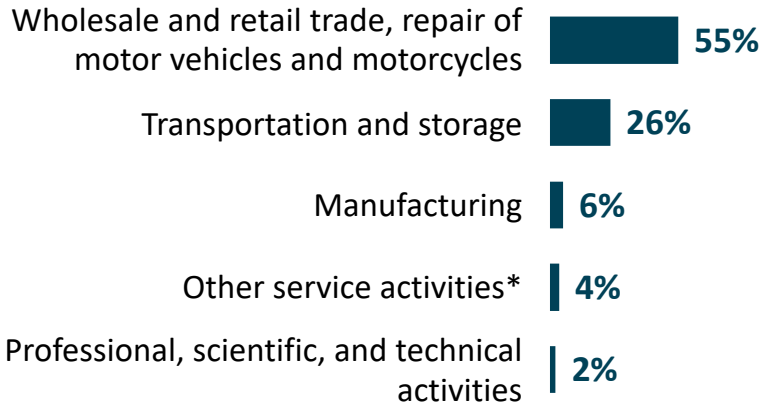
Urban segments

1. Public sector employees
2. Private sector professionals
3. Private sector services and sales workers
4. Blue collar workers
5. Farm workers
6. Unregistered self-employed workers
- 7. Registered self-employed workers**

URBAN SELF-EMPLOYED WORKERS, REGISTERED

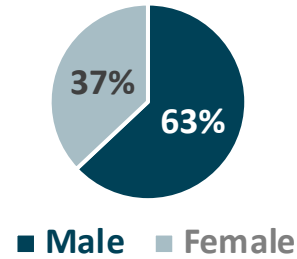
71,000 ADULTS 16+

TOP 5 INDUSTRIES

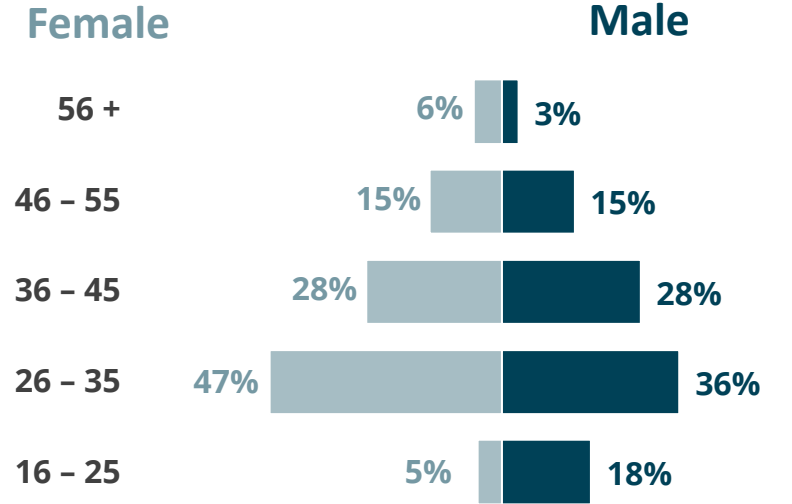


Other includes: Other education occupations, medical occupations, security guards other armed forces among others

GENDER

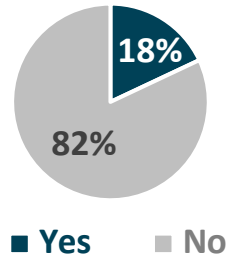


AGE PYRAMID

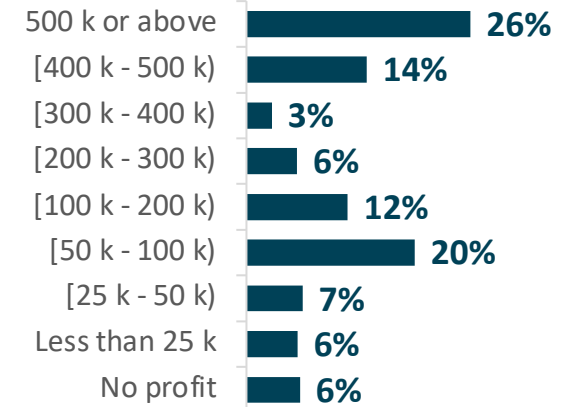


MEDIAN MONTHLY PROFIT
RWF 180,000

COMPLETED SECONDARY SCHOOL

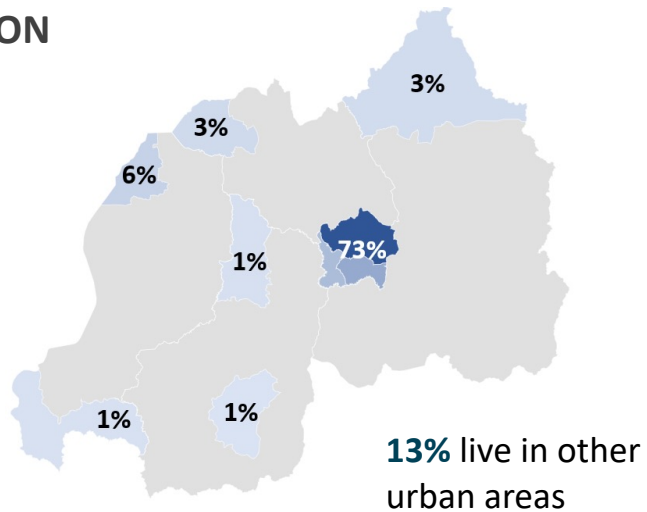


MONTHLY PROFIT



17% maintain accounts regularly

LOCATION



Source: EICV 5

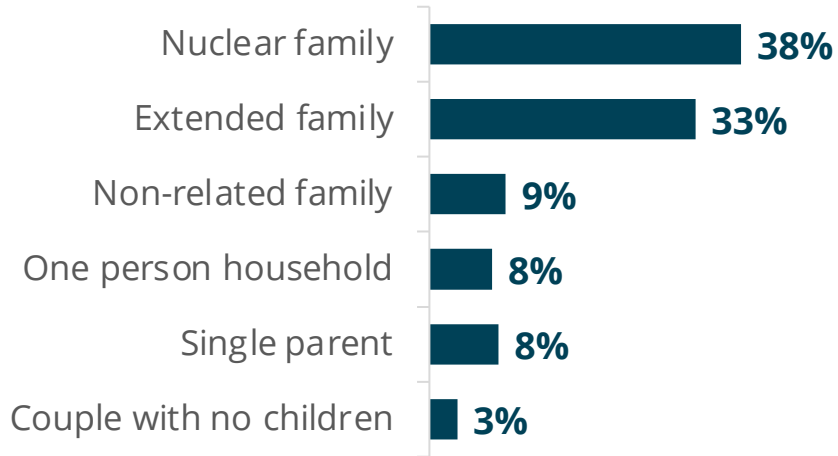
*Services other than accommodation, food, administrative and support services

Note: Profit amounts provided in the EICV 5 were inflated to an estimated current value using the average annual inflation rates from 2017 to 2021

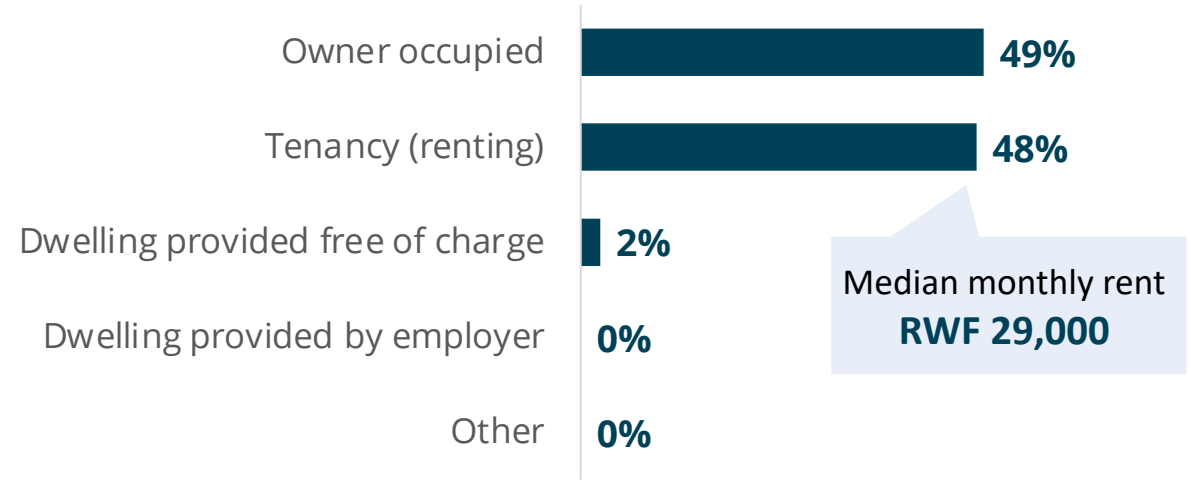
SELF-EMPLOYED WORKER HOUSEHOLDS, REGISTERED

62,000 HOUSEHOLDS

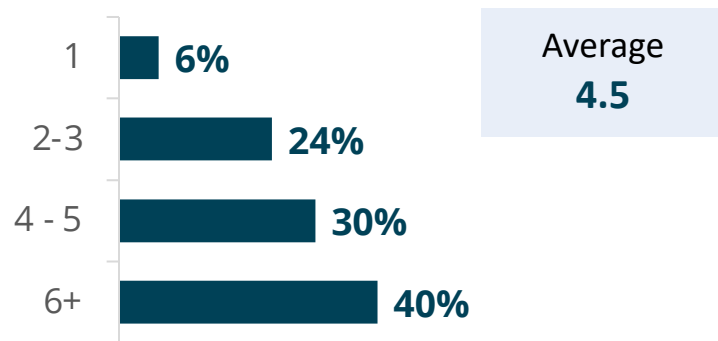
HOUSEHOLD TYPE



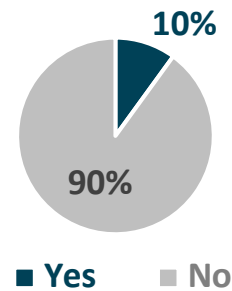
HOUSEHOLD OCCUPANCY STATUS



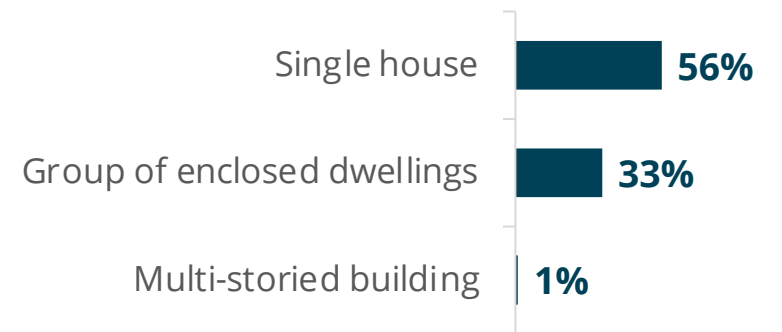
HOUSEHOLD SIZE



STAY IN A HOUSE OCCUPIED BY MULTIPLE HOUSEHOLDS



HOUSING TYPE



Source: EICV 5

SELF-EMPLOYED WORKER HOUSEHOLDS, REGISTERED

62,000 HOUSEHOLDS

MAIN MATERIALS

■ FORMAL ■ INFORMAL

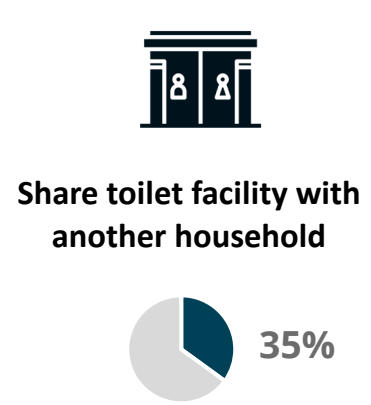
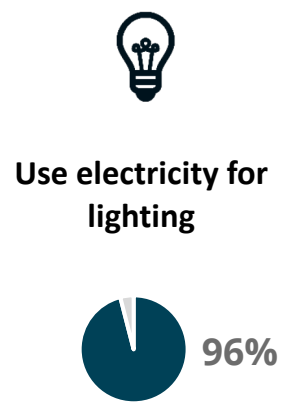
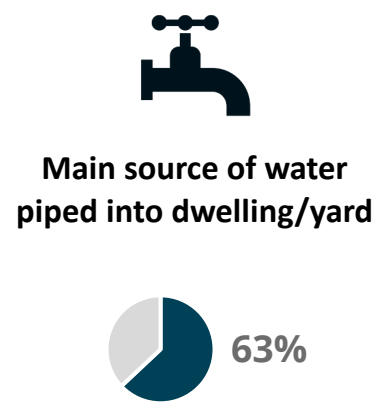
Materials for roof

- **Metal sheets / corrugated iron** (96%)
- **Local clay tiles** (3%)

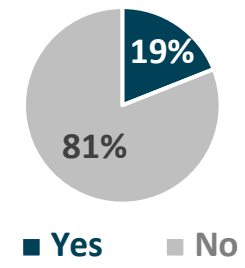
Materials for walls

- **Mud bricks covered with cement** (68%)
- **Oven fired bricks** (14%)
- **Cement bricks** (7%)
- **Tree trunks with mud and cement** (5%)
- **Mud bricks** (4%)
- **Other** (2%)

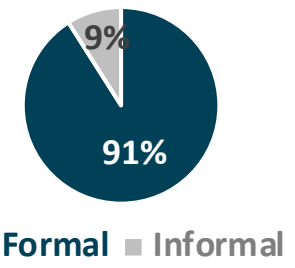
ACCESS TO SERVICES



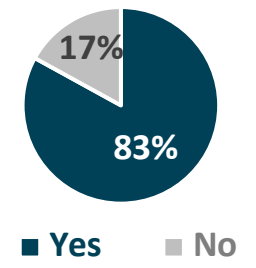
OVER-CROWDED



DWELLING TYPE

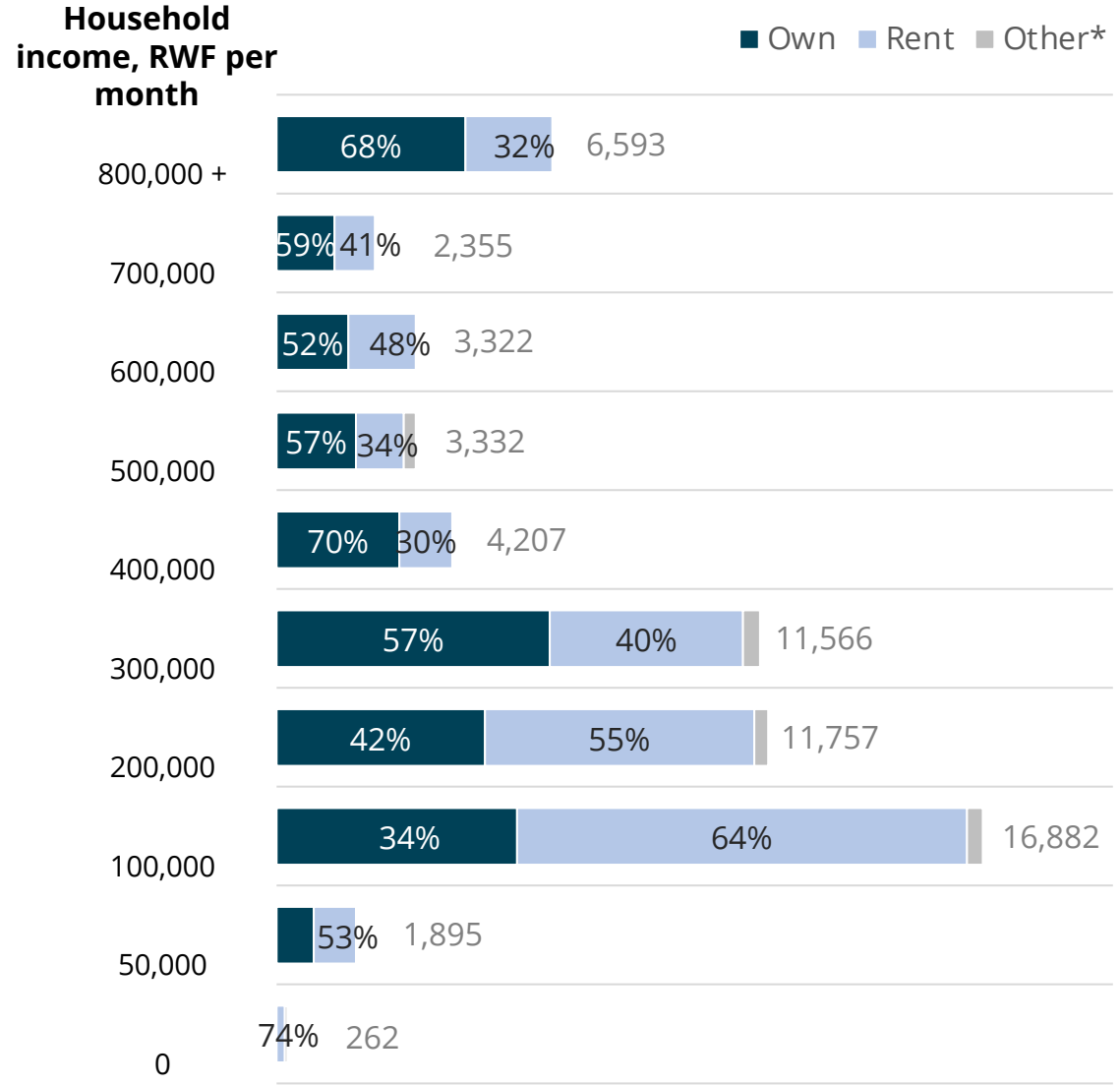


POTENTIALLY INADEQUATE



Source: EICV 5
 Note: Potentially inadequate dwellings are defined as dwellings that are either informal, overcrowded or do not have a flush toilet. Formal dwellings have walls constructed from cement bricks, mud bricks covered with cement, oven fired bricks, stones, tree trunks with mud and cement, and roofs constructed from metal sheets/ corrugated iron, industrial tiles, concrete

HOUSING DISTRIBUTION PYRAMID
 (Registered self-employed worker households; 62,000 2016/17)



Typical mortgage product**

31%

19,000 households can afford a 12.5 million RWF house, with a 30% deposit

Source: EICV 5
 *Other: "Dwelling provided by employer", "Dwelling provided free of charge", "Temporary camp or settlement" and "Other". **Loan terms: Interest rate of 15% p.a., loan term of 15 years, and 30% of household income used to make monthly loan instalments.
 RWF 12.5 million is the lowest price of a house built by a developer. Calculations assume that households are able to pay the required deposit amount.
 Note: Household expenditure was used to provide an estimate for household income. Amounts were inflated from 2017 to 2021.

Data sources

Access Finance Rwanda (2020). Finscope Survey 2020. <https://www.statistics.gov.rw/file/9343/download?token=X40OYCel>

NISR. (2017). Integrated Household Living Conditions Survey 5 (EICV 5). <https://www.statistics.gov.rw/datasource/integrated-household-living-conditions-survey-5-eicv-5>

NISR. (2019). Labour Force Survey 2019

NBR

- Mortgage extracted from the NBR's Electronic Data Warehouse by the Financial Stability Directorate

World Bank

- World Development Indicators Database
- Ease of Doing Business Database
- Global Findex Report 2017

Other

- ILOSTAT Database
- UNDP Database
- Transparency International 2019 Report
- Rwanda Stock Exchange data on Government Bond Yields
- RLUMA Land Dashboard
- RRA Firm level tax data
- DHS Rwanda Survey 2014-15
- Marchal Real Estate Developers
- CAHF Housing Economic Value Chain Report on Rwanda
- Local Building Store in Kabeza Kigali
- Commercial banks: Banque Populaire du Rwanda and Zigama CSS

ADDITIONAL DOCUMENTS

The following documents are available as separate files:

1. Scoping Rwanda's Affordable Housing Demand & Supply: Full Report
2. Scoping Rwanda's Affordable Housing Demand & Supply: Executive Summary
3. **Affordable Housing in Rwanda: Demand-side analysis**
4. Affordable Housing in Rwanda: Housing Finance Access Frontiers
5. Affordable Housing in Rwanda: Housing Submarkets
6. Affordable Housing in Rwanda: Sale and rent prices in Rwanda's housing market
7. A Review of the Data Landscape in Rwanda's Housing Ecosystem
8. Rwanda's affordable housing sector: overview of the institutions, policies and legislation that shape the sector