

**Urban Development in Africa:
Preliminary Report on the Addis Ababa SEDRI Study**

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Executive Summary

Context

Africa is one of the most rapidly urbanizing regions in the world. The United Nations estimates that, by 2035, nearly half of the continent's population will be living in cities. Policymakers thus face a critical question: what policies can ensure that urbanization unlocks a process of sustainable economic growth that lifts millions out of poverty? How to ensure that infrastructural needs keep up with the population?

To start answering these questions, the Stanford Economic Development Research Initiative (SEDRI) has launched a case study of Addis Ababa, the capital of Ethiopia. The rapid expansion of Addis Ababa in the last two decades follows a long period of conflict and economic stagnation from 1974 to 1991, followed by recovery and then accelerating growth. Ethiopia has been the fastest growing country on the continent, averaging double digit GDP over the past decade, while remaining one of the poorest countries in the region. The economy is expected to continue growing at an average annual rate of 6.2% through 2022¹. As such, Addis Ababa epitomizes the issues raised by rapid urban expansion in Africa. The objective of the SEDRI study is to survey individuals, firms and local government over time in order to document the pattern of urban growth from multiple angles, and to cast light on important policy issues that arise in the process.

In particular, rapid urban growth means that the capital city's footprint is gradually expanding into neighboring administrative units. City expansion induces many changes in these newly reached areas, possibly contributing to political and ethnic tension. This general observation applies to our study area as well. For instance, The Addis Ababa City Administration has overseen the widespread demolition of low-income residential areas near the city center to repurpose them for commercial and developmental uses. This has resulted in the relocation of thousands of households. Our data suggests that many of them seem to have moved outside of the current city boundaries in search of affordable accommodation, an evolution susceptible of creating tensions with existing residents.

The purpose of this report is to document what SEDRI has done in its first wave of data collection in Addis Ababa. We also provide a first look at some of the patterns that we have observed.

What we did

We have sampled 54 woredas (the administrative unit below the region and zone) in a doughnut shape around the Addis Ababa City Center. The study includes woredas adjacent to the city limits from the inside, as well as woredas just outside the administrative boundary of the city, in an area called the "Oromia Special Zone". We also areas just outside the city that are in the process of urbanizing; the SEDRI sample covers all woredas sharing a border with

¹ IMF Economic Outlook - 2017

Addis Ababa and represents a full census of medium-to-large towns within 50km of the capital boundaries.

We conducted (1) a listing exercise that collected information on basic dwelling and household characteristics for a representative sample of 5,200 households within the 54 selected woredas; (2) a detailed survey with a representative sample of around 3,618 individuals drawn from these households; (3) a detailed survey with 1,243 firms operating in the 54 selected woredas or in Addis city center; (4) interviews with 1,570 local government officials (woreda mayors and their bureau chiefs) from 147 woredas (in addition to the 54 sampled, we added all woredas within Addis city center; (5) revenue sheets and budgets for the 147 woredas.

Some key facts we have learned so far

The detailed data that we have collected is unique in its coverage – urban and peri-urban – as well as in its scope – individuals, firms and local government. This allows us to shed light on a number of critical issues. It will take time to take full stock of the wealth of information we have collected. Here are some of the key issues that we have identified so far:

- There is substantial heterogeneity across woredas in their income levels, income sources, and migrant share.
- As anticipated, the share of migrants in our study population is large: 25% of respondents have moved into their current town/city in the past 5 years. Recent migrants tend to be younger than non-migrants: 72% are under 30, compared to 38% of non-migrants. They are also more likely to be female than no-migrants, and are slightly more educated.
- The migration flows into peri-urban areas come from two distinct sources: rural migrants moving in closer to the city; and city dwellers relocating at the outskirts of the city due to land pressure inside the city. These two types of migrants have different characteristics.
 - Recent migrants to Addis Ababa represent nearly 1 in 5 respondents in the sample. They tend to be younger, are less likely to be married, and have smaller families relative to individuals relocating from the capital. However, rural-to-urban migrants tend to have more assets, higher incomes, and are much more likely to be formally employed at a wage-paying job.
- Infrastructure has not kept pace with growth, and coverage of basic services is poor in many outlying areas of the city. For example, our survey data reveals that families with active grid connections spent an average of 13 out of the last 30 days without any access to water and eight of the last 30 days with power cuts.
- A primary concern for individuals is employment. Only a quarter of individuals in our study area have wage employment. 30% report no income source at all.
- Firms list lack of access to finance and land as their primary barriers to growth; these issues are especially prevalent for firms located in Addis Ababa. They display high levels of dissatisfaction with infrastructure like electricity and water supply in both

Oromia and Addis Ababa, and about 50% of firms mention having difficulty retaining employees. This is consistent with high observed levels of employee turnover.

- Local government officials are only partially aware of the challenges faced by community members.

Areas of ongoing and future research

Here is a non-exhaustive list of topics on which research is ongoing or planned:

- It is reasonable to expect that providing information to local officials about their citizens' satisfaction levels with public services might enable them to make more informed investments in these services. We are testing this hypothesis by offering report cards that document citizen satisfaction with a range of public services to government officials in a random subset of woredas.
- Firms report high levels of turnover, yet many local residents report struggling to find employment. What is the friction preventing firms and workers to match?
- The recent introduction of the Addis metro system has reduced commuting costs. To what extent has this helped individuals find employment and improved match quality between firms and employees?
- SEDRI data collection coincided with a period of political unrest in Oromia. How will this unrest impact individual livelihoods and local governance?

Next Round of Data collection

The second round of data collection is planned to begin in October 2018 and last until June 2019. It will include the following components:

- Wave 2 with households listing, individual survey, firm survey and government officials.
- Will resurvey sample respondents as wave 1 for the individual survey and firm survey, to generate panel data.
- Will augment with new respondents to create a representative sample in the cross-section.

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1. Introduction

Africa is one of the most rapidly urbanizing regions in the world. The United Nations estimates that, by 2035, nearly half of the continent's population will be living in cities. Rising urban populations offer tremendous opportunities for economic growth and prosperity, but they also pose big challenges for infrastructure development, job creation, and access to basic services. Policymakers thus face a critical set of questions: what policies can ensure that urbanization unlocks a process of sustainable economic growth that lifts millions out of poverty? How to ensure that infrastructural needs keep up with the population?

The Stanford Economic Development Research Initiative is a comprehensive research program that focuses on Sub-Saharan Africa's urbanization and the long-run impacts of rural-urban migration on household welfare and economic growth. SEDRI comprises a series of wide-ranging multiyear studies of the changing social, economic, and political conditions in two of Africa's largest cities—the capital of Ethiopia, Addis Ababa, and the economic capital of Côte d'Ivoire, Abidjan. Through rigorous analyses of the complex web of interactions among individuals, service providers, and local officials that together determine a community's quality of life, SEDRI aims to produce groundbreaking insights that help policymakers, business leaders, and academics design and implement policies and programs in those cities and beyond.

This report presents some of the preliminary results from the project's first wave of surveys in and around Addis Ababa.

2. Sampling

2.1 Ethiopia Administrative Overview

Ethiopia is divided into nine ethnically-based National Regional States: Tigray, Afar, Amhara, Oromia, Somali, Benishangul-Gumuz, Southern Nations Nationalities and People Region (SNNPR), Gambella, and Harari. There are two additional chartered cities: Addis Ababa and Dire Dawa. The regional governments are responsible for economic and social policy oversight in accordance with national directives. Decentralization of public services and administration from the national to the regional and sub-regional levels has been a stated goal for the Ethiopian government over a decade, although the process of decentralization has progressed heterogeneously across regions.

Each regional state and city administration is further subdivided into zones or sub-cities. Zonal responsibilities outside of chartered cities have decreased in recent years as woredas have steadily become more important as the primary units for public service delivery. The 10 sub-cities of Addis Ababa are roughly zonal equivalents, albeit with greater policy influence. Underneath the country's zones are woredas. While accountable to the regional, town, and sub-city governments, the woreda interacts more directly with its population. Woredas in Addis Ababa tend to have less autonomy than regional woredas and are the smallest administrative unit the city.

The smallest Ethiopian governmental unit is the kebele. No longer used as an administrative unit in Addis Ababa, kebeles enjoy less autonomy than the previously mentioned governmental units do. In rural areas, they are the primary government point of contact for average citizens. Underneath the kebele are non-administrative divisions (gotes, ketenas) that exist for the purposes of community monitoring and political organization.

2.2 Sampling Area

SEDRI intends to document the impact of urbanization on both urban and peri-urban areas around Addis Ababa. As a result, the individual survey sampling frame was created to include areas within the Addis Ababa city limits and others in the surrounding Oromia region. The city of Addis Ababa and the Oromia region are administrated separately so sampling was done independently to reflect the different administrative structures. While it is also the administrative capital of the Oromia Region, Addis Ababa is governed by a city administration that reports directly to the federal government.

Addis Ababa has been growing outward for some time. Contained by hills on multiple sides, there is relatively little undeveloped land left within the city limits. Plans for further outward expansion that would have incorporated large portions of the surrounding Oromia region were formalized in the since abandoned Addis Ababa Master Plan.

Based on growth projections from the 2007 Ethiopian census and interviews conducted by the SEDRI team with town and low-level administrators, SEDRI researchers targeted areas with high potential for growth due to the city's expansion. Within Addis Ababa, the team included all administrative units that bordered Oromia, thereby excluding internal administrative units. In Oromia, the team included all incorporated towns within approximately 50-60km of Addis Ababa (more on this below).

In order to build a representative sample for this area, updated population statistics from each administrative unit were required. The most recent aggregated data on town and administrative unit population was from the 2007 census, with simplistic projections that were not used whenever more recent statistics were available. Consequently, SEDRI researchers collected updated population statistics independently from each administrative unit. Given heterogeneous data collection practices, there was no consistent source from which to get the population statistics.

2.2.1 Addis Ababa

The sampling unit within Addis Ababa is the woreda. This is the smallest administrative unit of consequence following the city's reorganization in 2011. At the time of sampling, there were 118 woredas in Addis Ababa split between its 10 sub-cities: Addis Ketema, Akaki Kality, Arada, Bole, Gullele, Kirkos, Kolfe Keranyo, Lideta, Nifas Silk Lafto, and Yeka.

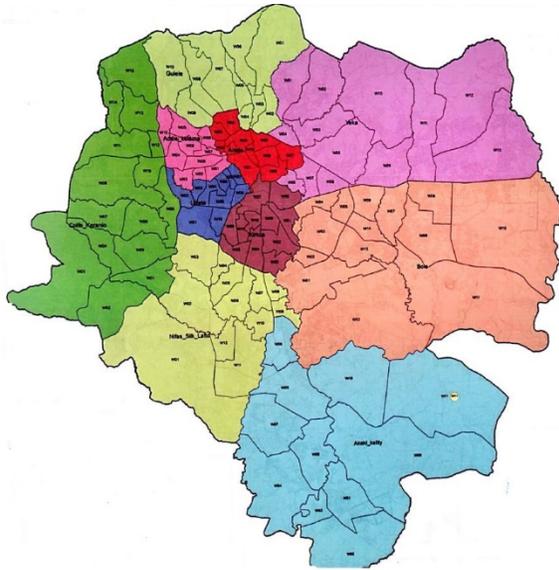


Figure 1. Addis Ababa Woredas

SEDRI selected all 28 woredas that share a border with Oromia. These woredas tended to be less developed than the city’s interior and more likely to undergo significant changes as the city grows. These 28 woredas were spread between six sub-cities:

Sub-city	Woredas
Akaki Kality	2, 3, 4, 9, 11
Bole	10, 11, 12
Gullele	1, 6, 7, 8, 10
Kolfe Keranyo	2, 3, 7, 8, 11, 14, 15
Nifas Silk Lafto	1, 13
Yeka	1, 2, 10, 11, 12, 13

Ultimately, 920 households, or 17.8% of all households sampled by SEDRI were selected in Addis Ababa. For the firm survey, 635 firms were sampled in Addis Ababa, comprising 51% of the full sample. All 118 woredas in the city were included in the local government survey. This represents the first full census of woreda administrators and public service coordinators.

2.2.2 Oromia

Oromia is the largest region in Ethiopia both geographically and by population. SEDRI samples from the 30 woredas closest to the Addis Ababa border. This includes a full census of substantial towns within 20km of the capital border and a near-census of towns within 50km of the capital border. Towns were selected based on their estimated propensity for growth. A small subset of currently rural kebeles, that seem less likely to grow as the city expands, were selected to serve as points of comparison.

2.3 Household Listing

Kebele-level population estimates were used to estimate the number of households in a given area by dividing total unit population by five; this is standard practice for Ethiopian household surveys. These estimates were then used to determine the kebele-level target for listed households, where each kebele was categorized by size. We established categories by looking at natural discontinuities in the kebele populations outside of Addis Ababa. The details of each group are as follows:

- i. Group 1: 1000 households or less: total=1/20; n=20
- ii. Group 2: 1001-2000 households: total=1/30; n=30
- iii. Group 3: 2001-4000 households: total=1/100; n=40
- iv. Group 4: 4001+ households: total=1/200; n=40

So, 5% of households from Group 1 were listed, 3.33% of households in Group 2 were listed, 1% of households in Group 3 were listed, and .5% of households in Group 4 were listed. The “n” above refers to the number of households counted between each listed household, also referred to as the “listing rule”. For Groups 1 and 2, the interval between listed households is also the denominator that determined the total number of households to be listed. Hence, with a perfect population estimate, enumerators would cover the entire kebele/woreda for units in these groups. ‘Total’ and ‘n’ diverge in groups 3 and 4 due to the higher population density of kebeles in these groups. The interval between listed households was capped at 40 out of consideration for enumerator time and to prevent counting errors.

By listing households in this manner, Group 1 and Group 2 are effectively oversampled. The large variance in kebele size would have resulted in small kebeles frequently having only one or two total listed households had we determined the listing strategy strictly based on a kebele’s proportion of the sampling frame population. The decision to oversample small areas is consistent with the SEDRI goals of maintaining a large number of administrative units for future work on public service delivery and the belief that some of these areas will experience the higher levels of future growth.

For kebeles in Oromia, 30.8% (41/133) of kebeles are in Group 1, 18.8% (25) in Group 2, 21.8% (29) in Group 3, and 28.6% (38) in Group 4. Given the higher population density of woredas within Addis Ababa, 85.7% (24/28) of woredas are in Group 4, 7.1% (2) are in Group 3, and 3.6% (1) are in Group 1 and Group 2, respectively.

Households were selected following a right-hand rule. Enumerators began in the poorest gote/ketena in a given kebele or woreda and proceeded to count every occupied household following the rules outlined above. In order to prevent clustering of the sample in a single area in dense sampling units (Groups 3 and 4), we built a “jump rule”, such that after listing the number of households established by the jump rule, the enumerator would break from the right-hand rule and move to a different part of the sampling unit. This move could be to a new gote/ketena but did not necessarily have to be. The enumerator would then continue with the jumping pattern until that unit’s total number of households has been listed, attempting to conduct surveys in all eligible gotes or ketenas.

2.4 Selection of Individuals for In-Depth Survey

Given that household composition frequently changes in the medium-to-long term, we decided to focus on sampling individuals rather than households. This simplifies the process of tracking for follow-up surveys. In order to obtain a sample of young individuals who were more likely to be employed and migratory over the course of the study, we dropped all households consisting only of adults >65 years old. This represented less than 2% of households in the typical kebele.

We then sampled individuals in each kebele, stratified by gender. We endeavored to select at most one individual from a household in a given kebele. Exceptions to this rule were made for some kebeles with few listed households. Sampling weights were assigned at the individual level, as an individual's probability of selection was a function of the characteristics of the households listed at the kebele-level as well as that individual's household size and gender composition.

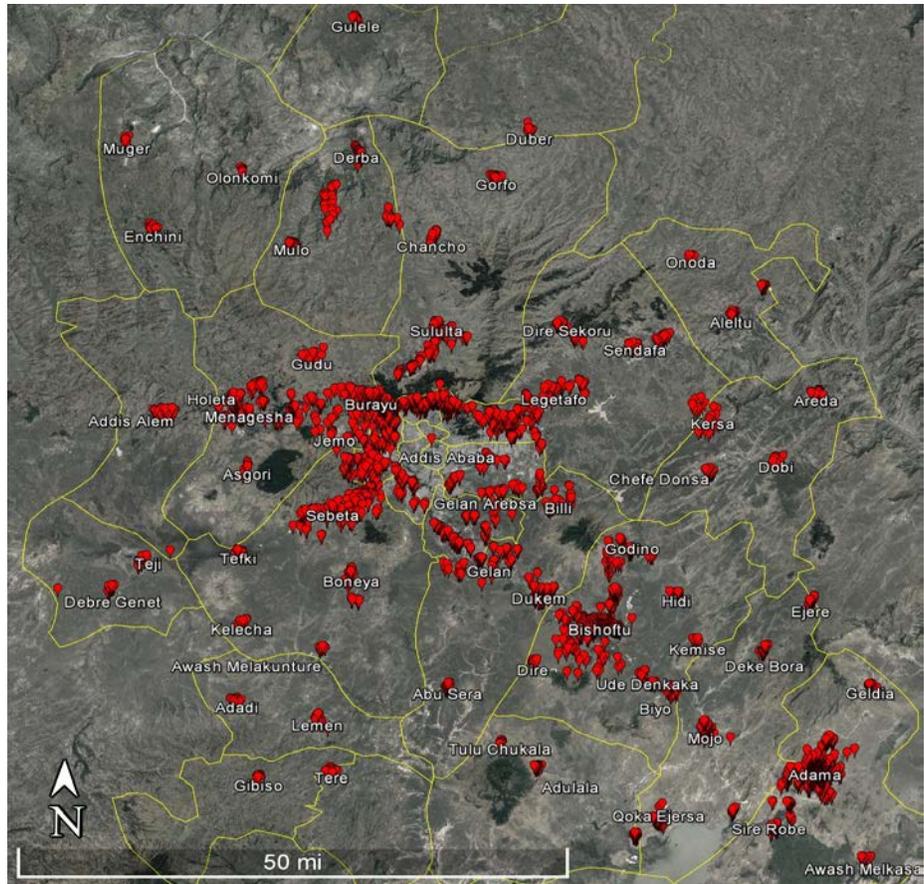


Figure 2. Map of Sampled Households

From 11,698 individuals listed during the household listing, we randomly selected 4,000. The target sample size for the individual survey was 3,500, so 500 additional individuals were sampled to proactively compensate for attrition due to relocation or refusals. Thus, kebele-level sampling targets were 34.2% of each strata under the condition that only a single individual from a household could be sampled.

An additional 100 households living in condominiums were sampled separately.

2.5 Firm Sampling Overview

One goal of the SEDRI project in conducting establishment level surveys was to provide a clear picture of employment opportunities in a given administrative unit. This is different from a firm-level survey, which would include information on firm branches that may be located throughout the country and thereby fall outside of the SEDRI sampling frame. SEDRI focused on medium-to-large firms, defined as having five more employees. Firm surveys were completed in each woreda where SEDRI individual survey respondents were located when any eligible firms were present. The project included only for-profit enterprises and further excluded any for-profit schools or medical centers. The intention was for 50% of firms in the sample to be in Addis Ababa and 50% in Oromia.

There is no complete listing of firms in either Oromia or Addis Ababa. Consequently, we endeavored to build complete sampling frames for each of the project's selected administrative units. Differing data quality in Oromia and Addis Ababa necessitated separate sampling strategies for each region. Appendix A provides details of the firm survey sampling strategy.

2.6 Administrator Sampling Overview

Woreda and town administrators were surveyed as part of the administrator survey. In each woreda, the top administrator was questions about general woreda administration. Questions about particular public services, the woreda budget, and human resources were directed to sector bureau managers who work under the primary administrator. Woreda administrations are structured similarly in both Oromia and Addis Ababa, however there is some variation in the delegation of responsibilities between woredas. As a result, in each woreda we interviewed 8-11 sector bureau managers in addition to the primary woreda administrator. The sectors bureaus included were:

- 1) Municipality and Community Participation
- 2) Civil Service and Human Resources
- 3) Finance
- 4) Land Management and Housing
- 5) Health
- 6) Education
- 7) Trade
- 8) Roads
- 9) Revenue
- 10) Micro and Small Enterprise Development
- 11) Water and Sanitation

The project interviewed officials from all 118 woredas in Addis Ababa, including to the 28 woredas from the SEDRI sampling frame used for the individual and firms. This survey represents the first full census of woreda administrators in the city. Administrators from all 30 woredas in Oromia that were included in the sampling frame for the individual and firm surveys were interviewed as part of the administrator survey.

3. Results from Household Listing: Summary Statistics and Spatial heterogeneity

3.1. Summary Statistics

All tables are presented in Appendix B. **Table 1** present some of the basic population characteristics as determined by the household listing. These reflect the data from all 12,000+ listed adults. The categories were defined as follows:

- Rural: unincorporated kebele that was not part of any town or a recently incorporated kebele on the outskirts of town that was still categorized as rural by town officials
- Peri-urban: smaller towns consisting of a single kebele
- Urban (Oromia): areas fully urbanized just outside the city limit.
- Urban (Addis): areas inside Addis City Limit

Main observations:

- Even in the most urban areas, we still see large majorities of homes with mud walls and iron roofs.
- Home ownership is much less common in urban areas than in rural ones.
- Across these categories, we only see small differences in age, and gender composition.
- Household sizes tend to be slightly larger in rural areas.
- There are large differences in educational attainment with respondents in Addis Ababa being significantly more educated, followed by people in Urban Oromia kebeles. Respondents in rural kebeles were much less likely to have completed primary education.
- Most recent migrants live in urban areas outside of Addis Ababa.
- In general, there seems to be much more migration to Oromia than there is to Addis Ababa. This is consistent with reports of forced relocations from Addis Ababa and higher growth rates in Urban Oromo towns.
 - o As expected, rural areas have a low share of recent migrants (.10) but surprisingly this is identical to the percentage of recent migrants to Addis Ababa.
 - o Urban and peri-urban towns in Oromia have significantly higher shares of recent migrants (.19 and .23 respectively) which indicates that the majority of recent migration has not been into Addis Ababa proper but rather into the surrounding towns and cities.
- Employment in the private sector is much more common in Urban Oromia and Addis Ababa. Farming is the most common economic activity in rural areas while being relatively uncommon in urban areas.

3.2. Intra-regional Heterogeneity

While useful for broad comparisons, the categories above mask significant variation within regions and woredas. This is particularly true in Urban Oromo kebeles and Addis Ababa. Using data collected during the household listing, Maps 1-11 in Appendix C display this intra-regional variation.

- Ethnicity:
 - o Addis Ababa has a relatively low proportion of people who were born in Oromia compared to rural kebeles to the north and south of the city. [MAP 1]
 - o There is some evidence of ethnic clustering. We use the question about where an individual was born as a proxy for ethnicity. Individuals born in Amhara are more likely to live in Addis Ababa, Sululta, and Sendafa. Relatively fewer live in Bishoftu, Adama, and the cities North of Sululta. People born in SNNP seem to cluster in the East and West of Addis Ababa. [MAPS 2 & 3]
 - o People born in Addis Ababa tend to either stay there or move to one of the cities just to the outskirts of the city. Their prevalence decreases as one travels further from the capital. [MAP 4]
- Gender:
 - o Higher proportions of men live in the industrial areas on the outskirts of Burayu, Derba, Chanco, and Adama. [MAP 5]
 - o We see relatively high shares of women living to the West of Addis Ababa, consistent with female employment in the flower industry in that area.
- Age:
 - o The youngest areas tend to be on the outskirts of major towns and in some rural areas, but not in Addis Ababa. [MAPS 6, 7, & 8]
 - o The oldest area in our sampling frame are woredas in the northern part of Addis Ababa. [MAP 9]
- Migration:
 - o We see large percentages of migrants clustered in a few major towns in Oromia. In particular, Sululta, Sendafa, Adama, Dukem, and Sebeta seem to attract large numbers of migrants. [MAP 10]
 - o In contrast, Bishoftu and the more rural kebeles have larger proportions of respondents who have lived in that areas since birth. [MAP 11]

4. Results from Individual Survey: Income Sources and Employment

Despite substantial economic growth and the development of a manufacturing sector, the majority of Ethiopian households still rely on agriculture as their primary source of income. However, agricultural employment is much less common in and around Addis Ababa. Historically, large portions of the urban economy have been in the informal sector. In order to promote revenue collection and worker protection, formalization of employment has been a focal

point for the Ethiopian government in recent years. SEDRI documents substantial variation in employment across geographic regions and subsets of the population.

- General

- Overall, about 24% of the sample count wage employment as a primary source of income; 18% own a business from which the profits represent a primary source of household income; 12.6% count farm income as a primary source of income.
- Primary sources of income differ significantly between men and women. Men are more likely than women to list wage employment, farming, and casual labor as a primary income source. By contrast, women are more likely to list home production and transfers or rent.
- Men are much more likely to be involved in the labor market – women are over three more likely to have no sources of income. Many of these women are not looking for work: women are substantially less likely to have searched for a job in the past 12 months (26% of men v. 16% of women).
 - Consequently, men report average monthly and yearly incomes that over three times as large as those of women.
- Respondents living in Addis Ababa are over twice as likely to have searched for a job in the past 12 months as respondents living in rural and peri-urban Oromia.
- Average monthly and yearly incomes are lowest in rural areas and highest in Addis Ababa. Respondents in peri-urban towns report making more than respondents in urban Oromo towns. This may be driven, at least in part, by Urban Oromia towns having higher shares of young people and recent migrants, who tend to make less and higher unemployment rates.
- In general, respondents in Addis Ababa make more than respondents in Oromia.

- Wage employment

- In this sample, those that count wage employment as a primary source of income are in the minority. This subgroup tends to be male, educated, and more urban than non-wage earners.
- Conditional on formal wage employment, men make nearly three times as much as women at their wage-paying job(s). This difference exists despite men and women working roughly the same number of days per week; men report working approximately 4 hours more per week than women.
- Only about 8.3% of those with no education count wage employment as a primary source of income, compared to 27.6% of those with at least some education.
- About 33.1% of those living in Addis Ababa count wage employment as a primary source of income, compared to 13.6% of those in a rural town.
- Among the wage employed, about 82.4% have a contract with their employer.
 - Gender and region have little effect on the likelihood of having a contract.
 - Wage employed recent migrants are significantly less likely to have a contract than non-migrants.

- Among the wage employed, 86.6% of those over thirty have a contract, compared to only 78.1% of those under thirty.
 - Among the wage employed, only 66.1% of those with no education have a contract, compared to 83.6% of those with some education.
- Farming
 - About 18.7% of the sample engaged in agriculture on owned or rented land in the prior year. However, of those only about 2 in 3 count their farm income as a primary source of income.
 - Respondents whose father farmed when they were growing up are significantly more likely to farm themselves and significantly more likely to count farming as a primary source of income.
 - Those that count farm income as a primary source of income tend to be male, over thirty, and less educated than non-farmers.
 - Recent migrants are significantly less likely to count farm income as a primary source of income than non-migrants.
- Factory work
 - About 16.4% of the sample current works at a factory, though nearly 32.6% have applied.
 - Women are significantly less likely to work at a factory, though they are only slightly less likely to apply.
 - Those under thirty are slightly more likely to work at a factory than those over thirty.
 - There is no significant difference in the likelihood of working at a factory between migrants and non-migrants, and between those with no education and those with some education. This is consistent with the majority of manufacturing work in Ethiopia being unskilled.

5. Results from Individual Survey: Migration

Similar to other capital cities in Sub-Saharan Africa, a large portion of the growth of Addis Ababa has been attributed to rural-to-urban migration. However, given the challenges associated with data collection in urban Ethiopia, and the lack of panel datasets in the area, there is no consensus of the extent or impact of this rural-to-urban growth in the Ethiopian context. While research indicates that migrants to urban centers tend to earn more than they would had they stayed in a rural community, it's unclear how successful rural migrants to Addis Ababa have been.

Migration issues in Ethiopia are further complicated by re-development within the capital city limits. The Addis Ababa City Administration has overseen widespread demolitions of low-income residential communities near the city center, repurposing these areas for commercial or developmental use. This has resulted in the forced relocation of thousands of households, many of whom move outside of the city in search of affordable housing.

SEDRI is well positioned to measure not only the extent, but also the long-run impacts of migration to and from Addis Ababa. The project purposefully selected communities near the border of the capital that are believed to have high probabilities of rapid urbanization. These urbanizing areas can be expected to attract a disproportionate number of rural migrants and households relocating from the re-developing city center.

Table 2 presents characteristics of migrants, comparing them to non-migrants. We consider two types of migrants: “new arrivals” – migrants from rural areas who are now living in or near Addis; and “relocated individuals” – former inner city dwellers who have relocated on the outskirts of the city.

4.1 Who migrates?

25% of respondents have moved into their current town/city in the past 5 years. 19% have migrated from rural areas (other parts of Oromia or other regions) to the Oromia Special Zone or Addis Ababa (Rural→Urban, RtU). 6% have moved from Addis Ababa to the Oromia Special Zone (Inner→Outer, ItO). This doesn't include respondents who may have relocated from central Addis Ababa to its outskirts while still living within the city.

- Recent migrants tend to be younger than non-migrants: 78% of RtU migrants and 53% of ItO migrants are under 30 years old, compared to 38% of non-migrants
- Recent migrants are more likely to be female than non-migrants and men (41%) are more likely to stay in their town of birth than women (28%)
- Recent migrants are more likely to have attended school (81% RtU, 83% ItO, 75% non-migrants) but the percentages of respondents with high school or college degrees is similar across groups
- Recent migrants tend to have fewer children than non-migrants (1.2 RtU, 1.4 ItO, 1.8 non-migrants), and have smaller overall household size (3.5 RtU, 3.7 ItO, 4.5 non-migrants)
- Migration history
 - The majority of recent migrants (52.8%) came from Oromia. A substantial portion of respondents moved within the Oromia region – 58.8% of migrants in Oromia were previously living somewhere else in the region while 20.7% of migrants to Oromia were previously living in Addis Ababa.
 - The majority of RtU migrants are Oromo (63%) versus 33% of ItO migrants
 - 90% of all migrants came from 4 regions: Oromia, Addis Ababa, Amhara, and the SNNPR.
 - Only 28.3% of migrants to Addis Ababa were previously living in Oromia indicating that it attracts more people from other regions.

4.2 Why do they migrate?

Most recent migrants moved for either family- or work-related reasons. Motivations for moving were different for men versus for women: 54.3% of men listed work as their primary reason for

moving, compared to 27.7% of women. By contrast, 50.7% of women listed family as their primary reason for moving, compared to 22.2% of men.

Region of origin had some influence on reasons for moving. The differences were most significant for those moving from Addis: recent migrants from Addis were more likely than those from other regions to cite land-related reasons (land shortages or government expropriation) and less likely to cite work- or education-related reasons for moving.

4.3 What are the outcomes to migration?

- Migrants are less likely to own land or livestock than non-migrants and are much more likely to be non-home owning tenants (57% RtU, 37% ItO, 27% non-migrants)
- Non-migrants are much more likely to engage in farming as a source on income than recent migrants (5% RtU, 0% ItO, 16% non-migrants)
- Recent migrants live in homes that are on average smaller and cheaper than non-migrants. However, recent migrants do not seem to experience more service outages than non-migrants. Non-migrants report experiencing about one additional day without electricity per month compared to recent migrants (7.5 RtU, 7.6 ItO, 8.5 non-migrants)
- The data suggest that recent migrants are less politically engaged than non-migrants.
 - o 25.3% of recent migrants had attended a community meeting in the prior month, compared to 44.4% of non-migrants. Only 2.8% of recent migrants had served as a local representative at a community meeting, compared to 6.6% of non-migrants.
 - o Recent migrants were less likely than non-migrants to know someone who had lodged an official complaint about service delivery in the prior year.
 - o Nevertheless, migrants and non-migrants were about equally satisfied with the services provided by the local government administration.

6. Results from SME module and Firm Survey: Barriers to Growth

Table 3 presents results from the firm survey and business owners in the individual survey. The firm survey focused on medium-to-large businesses having 5 or more employees; business owners in the individual survey tended to own micro firms for which they were the only employee.

- Firms in Oromia tended to be much larger than firms located in Addis Ababa (104 v. 22 employees average). This is driven by land constraints within the capital boundaries forcing large-scale and labor-intensive firms to locate in the surrounding region.
- A much higher proportion of firms in Oromia were in the agricultural sector, broadly defined to include agricultural (flowers, milk, etc.) and foodstuff production (26% Oromia, 3% Addis Ababa)
- Firms in Addis Ababa were more likely to be in the manufacturing (41% Oromia, 54% Addis Ababa) and services sectors (15% Oromia, 27% Addis Ababa).

- Firms in Oromia were much more likely to have ownership by foreign nationals (23% Oromia, 3% Addis Ababa). This is consistent with observed location of large-scale foreign investment in the Oromia Special Zone.
- Lack of access to finance and land were the most commonly mentioned barriers to firm growth in Addis Ababa, while electricity was the most commonly mentioned barrier in Oromia
 - o Access to finance as a barrier to growth: Oromia – 27%, Addis Ababa – 45%
 - o Access to land as a barrier to growth: Oromia – 23%, Addis Ababa – 37%
 - o Electricity provision as a barrier to growth: Oromia – 34%, Addis Ababa – 21%
- Firms in Oromia tended to choose their locations based on the affordability of land and buildings, quality of infrastructure, and proximity to customers and suppliers.
- Firms in Addis also chose their location based on affordability of land and buildings and proximity to customers/suppliers, but were much more likely to have had their location chosen or recommended by authorities than firms in Oromia (20% Oromia, 31% Addis Ababa)
- Most firms in both Addis Ababa and Oromia had active electricity connections while firms in Addis Ababa were much more likely to have an on-site water source (50% Oromia, 74% Addis Ababa)
- There were high levels of dissatisfaction with electricity and water supply by firms in both Oromia and Addis Ababa. Large majorities of firms reported losing revenue in the past 12 months due to electricity outages while nearly half of firms reported revenue losses due to insufficient water supply
- Roughly 50% of firms mentioned having difficulty in retaining un-skilled (non-manager) employees. This is consistent with high levels of observed and reported employee turnover in both regions.

7. Infrastructure and Public Service Delivery

Tables 4 and 5 show some summary statistics on infrastructure access and public service delivery. Additionally, **Graphs 1 and 2** display individual satisfaction with public services and priorities for public service delivery.

Water and Electricity

- While almost every household surveyed had access to water and electricity on their compound, effective coverage of basic urban amenities appears low. Households report spending an average of 8 out of the last 30 days without any access to water and 8 of the last 30 days with electricity interruptions.
 - o Electricity outages increase as one moves further from the center of Addis Ababa while the piped water in the center is particularly unreliable.
- Other areas with high levels of dissatisfaction include road quality (poor quality increases transportation times) and garbage collection. **[Figure 3]**

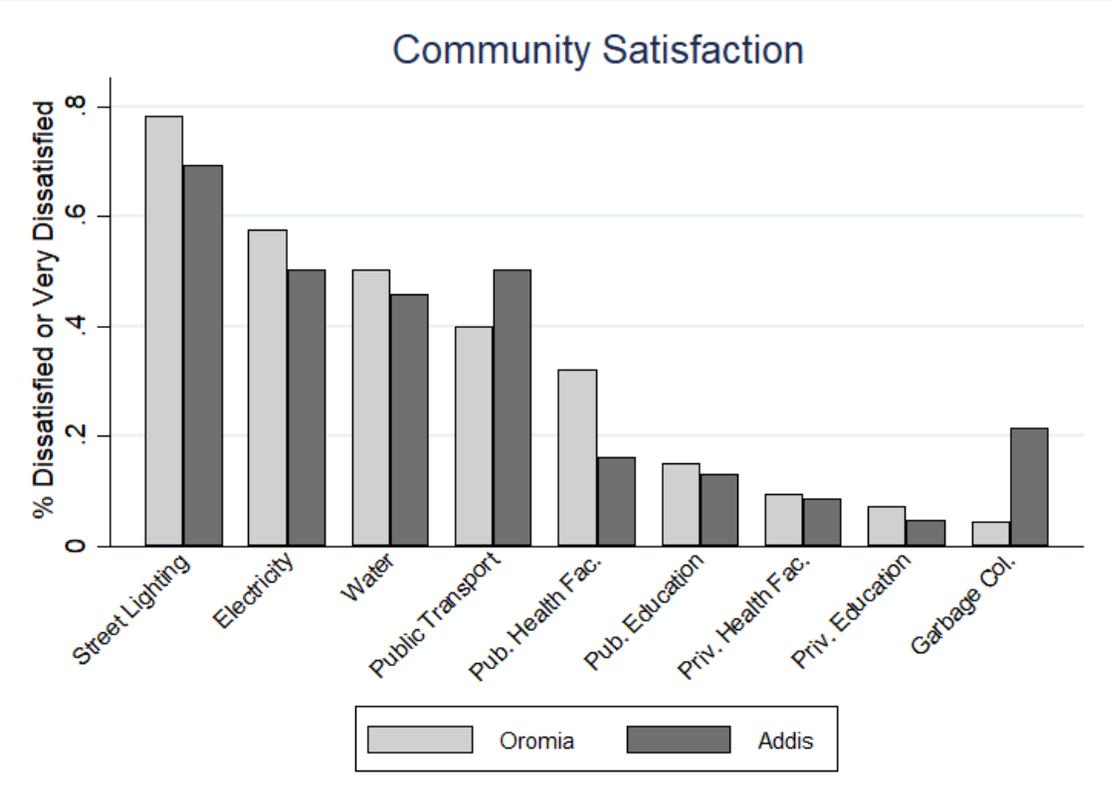


Figure 3: Community Satisfaction

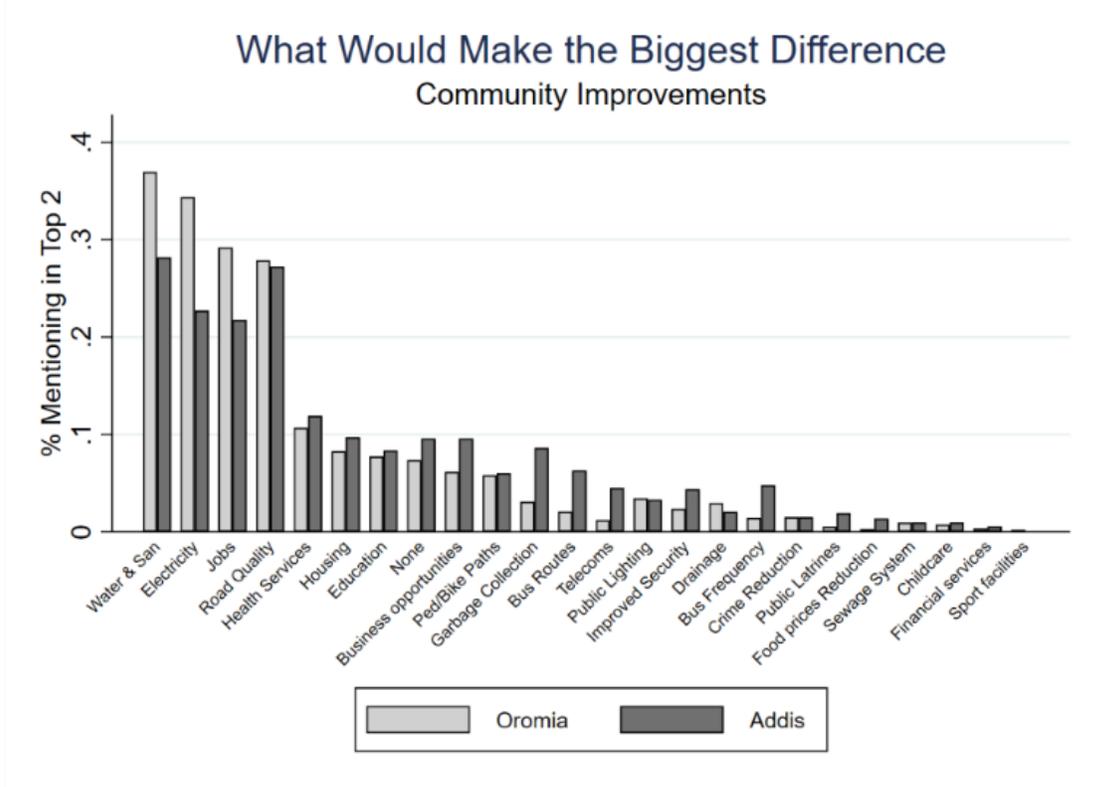


Figure 4: Community Preferences

- When asked what improvements would make the biggest difference in their community, over 30% of respondents mentioned water and sanitation services as the first or second public service most in need of attention, while 29% expressed desire for improved road quality. **[Fig 4]**
- The generally low levels of satisfaction seem to translate into substantial demand for improved services in the peri-urban area in and around Addis Ababa, as our survey data indicate that the population is proactively lodging formal complaints with their local administrations.
 - o Approximately 24% of respondents reported having complained to a local official about electricity issues while 18% reported filing a complaint about water quality or availability.
 - o Only 21% and 12% of the electricity and water complaints respectively were reported to have been adequately resolved.
 - o The data also show that substantial portions of the population might have considered filing a complaint but either didn't know how or were skeptical that it would be addressed.

Healthcare

- The majority of respondents (56% Oromia, 60% Addis Ababa) prefer public health centers for their primary care
 - o This preference seems to be driven by cost, with large majorities of respondents who prefer public health services mentioning cost as their primary consideration
- There is evidence of a quality gap between public and private healthcare services
 - o Few respondents who primarily use public health services mention quality as a reason for this preference (14% Oromia, 9% Addis Ababa)
 - o Large majorities of respondents who prefer private health services for their primary care mention quality as a reason for this preference (80% Oromia, 70% Addis Ababa)
- Respondents in Addis Ababa are more likely to be satisfied or very satisfied with public healthcare services (50% Oromia, 68% Addis Ababa)
- Conditional on having an opinion about the service, respondents are more likely to be satisfied or very satisfied with private health care services in Oromia (69%) while they are slightly less satisfied with private health care services, relative to public ones, in Addis Ababa (66%)

Education

- Among households with school-age children, the vast majority of the sample (88%) have used education services in the past 12 months
 - o The rate of non-use is slightly higher in Oromia compared to Addis Ababa (19% Oromia, 13% Addis Ababa)
- Respondents in Addis Ababa are much more likely to have used private education than those in Oromia (27% Oromia, 51% Addis Ababa)

- The difference is especially stark for respondents living in rural and peri-urban areas who report private education usage rates of 3% and 7% respectively
- The primary reason mentioned for not using private education services in Oromia is lack of availability (39% rural, 72% peri-urban). Conversely, only 7% of respondents in Addis Ababa mention lack of access as their reason for not using private education.
- The most common reason for not using private education in Addis Ababa is the high cost (49%)
- The majority of respondents in both Oromia and Addis Ababa were satisfied or very satisfied with public education
- Satisfaction with private education tends to be lower than satisfaction with public education in Oromia (59% v. 49%) while satisfaction rates are between public and private education are similar in Addis Ababa (65% v. 69%)

The responsiveness of local administrations and service providers to these challenges, as well as to the new opportunities that urbanization can bring about, is an important determinant of the well-being of both old and new urban dwellers. As population growth and urban density increase demand for public services, the need for efficient service provision becomes more pronounced. If new residential areas or increased industrial activity lead to severe and regular electricity or water outages, a responsive local official would want to lobby for increased local generation or additional piped water capacity.

In ongoing work, we explore the role of three potential, non-mutually exclusive, reasons for why the responsiveness of local officials to local needs is low: (1) they lack *information* on the citizen's priorities; (2) they lack the incentives to respond to citizen's priorities because they are *not held accountable* for citizen's well-being; (3) they lack the *autonomy* (i.e. the power to access the resources) to respond to citizen's priorities.

We explore these issues by comparing survey responses of local officials (both elected officials and bureaucrats) on what they perceive as the local community's priorities to the actual priorities revealed in the surveys conducted with citizen. We also gauge the gap between officials' stated priorities and what their budget allocations reveal. We are also piloting a "report card" treatment intervention in which we report summary information on citizen's concerns and needs. The report cards are shared with officials at different levels of both the political and bureaucratic hierarchy. We will then trace the extent to which the report card intervention affects budget allocations and policy choices.

8. FEATURED GOVERNMENT POLICY: The Condominiums Project

Over the last decade, demand for land and the price of housing have skyrocketed in Addis Ababa and the Oromia Special Zone; low and middle-income Ethiopians have increasingly found themselves without affordable accommodation around the capital. In response to this housing shortage, the Ethiopian federal government has made massive investments into block-style condominiums on the outskirts of Addis Ababa and in neighboring towns in Oromia. As of 2017, more than 250,000 units have been completed with many more currently under construction².



The government subsidizes the purchase of condominium units, with subsidy levels that have ranged from 60-90% of the unit's value over the course of program. This subsidy is repaid by recipients over an extended period. Recipients are selected via lottery after saving enough for a pre-determined down payment. However, demand for units far outpaces supply with hundreds of thousands of people currently on waiting lists. This undersupply persists despite the fact that the standard 40% down payment is largely unattainable for much of the country's low income population³. While over 15% of the SEDRI sample not currently living in condominiums had submitted an application for one, only 0.6% of respondents had so far won a lottery for a condominium apartment. Less than 25% of SEDRI respondents believe the

lotteries for condominium apartments to be fair, consistent with sporadic reports of corruption in the lottery system.

There has been relatively little research into how effective the condominium program has been in providing housing solutions for low and middle-income Ethiopians, or for the populations currently living in condominiums. We also know little about the impact of condominium construction on the neighborhoods and towns in which they are built. SEDRI hopes to reduce this gap in knowledge.

The SEDRI project selected a small sample of current condominium dwellers to be included in the survey. These individuals were selected from 13 condominium areas in Oromia and 9 in Addis Ababa. The project found that in general, condominiums were occupied by young families. Condominium dwellers tend to be younger, significantly more educated, and wealthier than the rest of the SEDRI sample. In particular, we find that 85% of condominium dwellers have at least

² <https://www.theguardian.com/cities/2017/dec/04/addis-ababa-ethiopia-redesign-housing-project>

³ <https://www.economist.com/news/middle-east-and-africa/21727920-poor-ethiopians-can-no-longer-afford-flats-offer-government-ethiopia>

a primary school education versus 55% in the full sample. Using proxies for home quality, the project finds, unsurprisingly, that the living conditions in condominiums are of higher quality than those found in the typical dwelling in the SEDRI sample. Consistent with other research on the subject, we find that the majority of condominium dwellers do not own their unit but rather rent it from the owner. This runs counter to the originally stated purpose of the condominium program, as expressed by the Ethiopian Ministry of Urban Development and Housing, which was for condominium apartments to serve as long-term residences for lottery winners.

- General characteristics
 - Condo dwellers are on average slightly younger than non-condo dwellers, and are more likely to be female.
 - About a third of condo dwellers are recent migrants, compared to a quarter of non-condo dwellers.
 - Condo dwellers tend to have significantly higher educational attainment than non-condo dwellers (about 14 years of schooling vs. 8 years of schooling), and very few have no education at all (about 1%).
 - Condo dwellers appear to have fewer children than non-condo dwellers (1.3 vs. 1.7 respectively), but overall family sizes are insignificantly different.
- The data are consistent with the hypothesis that condo dwellers are socioeconomically better off than non-condo dwellers.
 - Condo dwellers eat meat and dairy at higher rates than non-condo dwellers: 58.7% ate meat and 65.3% ate dairy recently, compared to 41.2% and 29.5%, respectively, for non-condo dwellers
 - Condo dwellers received about 99 USD more in total income annually than non-condo dwellers.
 - About 34.7% of condo dwellers count wage income as a major source of income, compared to 23.6% of non-condo dwellers.
 - Of condo dwellers that count wage income as a major source of income, the average receives 607.14 USD in annual wages, compared to 345.37 USD for non-condo dwellers.
- Living conditions are better for condo dwellers compared to non-condo dwellers.
 - 85.3% of condo dwellers receive piped water at home, compared to 60.1% of non-condo dwellers.
 - Only 9.3% of condo dwellers count a public tap as their main source of water, compared to 24.4% of non-condo dwellers.
 - 97% of condo dwellers have electricity at home, compared to 86.3% of non-condo dwellers.
- The data are consistent with the hypothesis that condo dwellers are less politically engaged than non-condo dwellers.
 - 16% of condo dwellers had attended a community meeting in the previous month, compared to 40.2% of non-condo dwellers, and only 1.3% had served as a local

- representative at a community meeting in the prior twelve months, compared to 5.8% of non-condo dwellers.
- Condo dwellers were much more likely to receive information about local government activity via TV and radio than non-condo dwellers, and less likely to receive information about local government activity via community leaders, government agents, or a community bulletin board.
 - Condo dwellers were less likely than non-condo dwellers to know someone who has lodged an official complaint about service delivery. Condo dwellers were also less likely to have *ever* complained to local authorities about drinking water, electricity, public education, public transit, or streetlights.
 - However, even though condo dwellers were less likely than non-condo dwellers to know someone who has complained “many” times about the same issue in the prior 12 months, they were about as likely to have their complaint addressed.
 - Overall, condo dwellers were about as likely as non-condo dwellers to be satisfied with the services provided by the local government administration

Appendix A. Details of the Firm Survey Sampling Strategy

2.5.1 Oromia

We built firm lists for each Oromia woreda from a variety of sources: woreda investment, trade, industry, and revenue bureaus. There was no standard data format and not all bureaus in each woreda were willing or able to share data. Consequently, the composition of the final list of firms varies between woredas.

Records are kept for establishments in Oromia even if the firm is headquartered in Addis Ababa. Data from the Oromia Regional Investment Bureau was added for the relatively large towns of Adama, Burayu, Holeta, Sululta, and Sendafa. We were concerned that some of the largest firms would bypass registration and reporting at the woreda level and report directly to the region. While we were assured by woreda officials that even the largest firms should appear in their lists, we determined that it was worth the risk of possibly listing a firm multiple times in order to ensure that the right tail of the firms size distribution was included in the sampling frame. Basic checks were completed to ensure that the largest and most well-known firms (e.g. Abyssinia Cement in Chancho) were always included on our lists.

We did our best to have the list created in each woreda represent a full census of medium-to-large firms in the administrative unit. However, data quality varied substantially by woreda: it is unlikely that this was totally successful in some cases. After all firms lists in a woreda were collected and appended, the team systematically attempted to remove firms that appeared multiple times in a given list based on name and phone number matching. We then attempted to remove firms from ineligible sectors – schools (public and private), health centers/clinics, public administrative offices, NGOs/non-profits, and bank branches. Finally, we tried to remove firms with fewer with five employees.

In the event that no information was known about number of employees, we proxied for firm size by using “paid-up capital”. This can be thought of as the firm owner’s initial investment at the time of the firm’s opening. However, the measure is inconsistently reported and is prone to calculated distortion. In Oromia, we used the “paid-up capital” cutoff of 400,000ETB, which we expected to correspond roughly to employing five people. This was a conservative estimate based on piloting and was intended to be over-inclusive since ineligible firms could be filtered during the enumerator visit.

Once a final list of firms was established, firms were sampled directly from the lists, where the number sampled was a function of the total number included in the woreda’s list. The original sample was for 586 firms. The rules for sampling were as follows:

- 1) Sample all firms in woredas with <20 listed firms
- 2) Sample 50% of firms in woredas with ≥ 20 and <50 listed firms (floor of 20)
- 3) Sample 25% of firms in woredas with ≥ 50 and <200 listed firms (floor of 20)
- 4) Sample 15% of firms in woredas with ≥ 200 and <400 listed firms

5) Sample 10% of firms in woredas with ≥ 400 listed firms

Within a woreda, all firms that were included on the original list were sampled with an equal probability. Any firm that wasn't included in the sample was considered a replacement and randomly ranked. When we were unable to reach our target in a given woreda due to firms not being found, being ineligible, or refusing to be surveyed, we moved to the replacements in the order of their ranking. So the first ranked replacement should have always been visited and interviewed, conditional on being eligible, prior to an enumerator moving on to the second ranked replacement.

There were six reasons that a sampled firm may not have been surveyed:

- 1) The firm refused to be surveyed
- 2) The firm was from an ineligible sector - low quality data left us with some firms that were from one of the ineligible sectors described above, even after cleaning
- 3) The sampled firm was listed multiple times on the firm list
- 4) The firm had fewer than five employees
- 5) The firm was not found
- 6) The firm had not yet begun operation or had permanently closed

There were cases when firm lists were appended, edited, or completely re-built during the course of sampling. This was done in response to additional or supplementary firms lists that were either superior to the previous list or included firms that had not been included originally. These were dealt with case-by-case. Specifically:

- We effectively added these new lists to the replacements and only reached them if we needed to go that far down the replacement list. So they had $P=0$ of being included in the original sample but some non-zero probability of eventually being surveyed
- The new lists were much better than our original such that one that we discarded the old list and completely resampled using the new list.
- We updated our target number of firms to reflect a substantially larger sampling frame built using newly acquired data.

2.5.2 Addis Ababa

The lists of firms operating in Addis Ababa were very incomplete; there is no comprehensive list of all firms in the city. We built a sampling frame relying primarily on a partial census of firms interviewed by the Addis Ababa Labor and Social Affairs Bureau. This list under-represented manufacturing firms so firms lists from the Addis Ababa Industry Office, Addis Ababa Investment Office, Ethiopian Development Research Institute, and Federal Micro and Small Enterprise Development Agency were added to build a more representative frame.

The sampling frame in Addis Ababa did not represent a census of firms in the city, however it was built to be representative of businesses in the city at the firm-sector, the firm-size, and

woreda levels. These distributions were validated through consultation with the Ethiopian Development Research Institute who had previously worked on representative firm sampling in the capital.

We then sampled firms at the woreda level, proportional to the number of firms located that woreda in the sampling frame. The targeted number of firms in a given woreda varied from 10-40, where each firm in a given woreda had an equal probability of selection. We then tried to find each firm that was sampled and each was (1) surveyed; (2) refused to be surveyed; (3) not found; (4) ruled ineligible using the same eligibility criteria as was employed in the Oromia firm sampling.

- (1) If the firm was surveyed, we then used the “snowball method” until we found another eligible firm from the same **sector**. This approach allowed us to preserve our firm-sector distribution. If the enumerator listed 25-30 firms through the snowball method, none of which were from the same sector, they were allowed to survey the next eligible firm that they encountered.
- (2) , (3) If the firm was not found or refused, the enumerator was tasked with finding two other firms from the same sector as the originally sampled firm using the same snowball method.
- (4) If the firm was ineligible due to having too few employees, we would try to find two eligible firms from the same sector as the originally sampled firm with the snowball method as described above. If a firm was from an ineligible sector (e.g. school, medical clinic), this was due to errors in our data – prior to sampling, all firms were assigned an eligible sector. Subsequently, we then looked for two firms from the sector that was incorrectly assigned in the data, again maintaining our sector-level distribution.

When using the snowball method of sampling, we listed every firm regardless of eligibility, size, or sector. Encountered firms that were ineligible or were eligible but from a different sector than the one for which we were searching, were asked for basic information during the snowball portion did not receive the full firm survey. As a result, we built a list of thousands non-surveyed firms in the proximity of the surveyed firms that can be used to further verify the representativeness of the sampling frame.

Appendix B. Tables

Table 1. Household and Individual level characteristics

	Oromia Region				Addis Ababa	All
	Rural	Peri-Urban	Urban	All		
# Kebeles	11	36	86	133	28	161
<i>Household-level characteristics</i>						
# of households	324	1016	2926	4266	930	5196
Num Adults (Avg/HH)	2.47	2.19	2.35	2.32	2.72	2.39
Num Children (Avg/HH)	2.31	1.75	1.48	1.61	1.5	1.59
Household Size (Avg/HH)	4.78	3.94	3.83	3.93	4.22	3.98
Mud walls (% of HHs)	0.97	0.94	0.8	0.84	0.65	0.81
Iron roof (% of HHs)	0.97	0.97	0.96	0.97	0.97	0.97
Non-standalone house (% of HHs)	0.06	0.31	0.48	0.41	0.62	0.45
Renting (% of HHs)	0.07	0.28	0.4	0.35	0.4	0.36
<i>Individual-level characteristics</i>						
# of individuals	800	2222	6863	9885	2506	12391
Adult Age (Avg)	36.31	34.78	34.23	34.52	34.62	34.54
Age: 18-24 (%)	0.27	0.29	0.28	0.28	0.27	0.28
Age: 25-34 (%)	0.25	0.29	0.31	0.3	0.3	0.3
Age: 35-44 (%)	0.18	0.19	0.19	0.19	0.2	0.19
Age: 45-54 (%)	0.14	0.11	0.1	0.11	0.1	0.11
Male (%)	0.51	0.47	0.48	0.48	0.46	0.47
Married (%)	0.64	0.59	0.59	0.59	0.54	0.58
Ed: Less than primary (%)	0.71	0.59	0.45	0.5	0.27	0.45
Ed: Primary or above (%)	0.29	0.41	0.55	0.5	0.73	0.55
Ed: Secondary or above (%)	0.13	0.21	0.32	0.28	0.47	0.32
Ed: Above secondary (%)	0.04	0.08	0.12	0.11	0.19	0.12
Lived in town < 5 years (%)	0.10	0.19	0.23	0.21	0.10	0.19
Lived in town since birth (%)	0.65	0.43	0.35	0.39	0.4	0.39
Lived in HH < 5 years (%)	0.15	0.21	0.24	0.23	0.22	0.23
Business Owner (%)	0.07	0.19	0.15	0.15	0.15	0.15
Public Sector/Civil Servant (%)	0.04	0.08	0.07	0.07	0.09	0.07
Private Organization (%)	0.03	0.04	0.12	0.09	0.16	0.11
Casual worker (%)	0.05	0.08	0.12	0.11	0.09	0.1
Domestic/Farm worker (%)	0.33	0.2	0.07	0.12	0.05	0.11
Not working (%)	0.07	0.07	0.1	0.09	0.12	0.1
Student (%)	0.07	0.07	0.08	0.08	0.09	0.08
Housewife (%)	0.27	0.19	0.22	0.22	0.19	0.21
Phone access (% of adults)	0.46	0.69	0.83	0.77	0.88	0.79

Notes: Data from household listing/census conducted in Spring 2016.

Table 2. Characteristics of Migrants, by Type

	Migrants		Stayers	N
	Rural --> Urban	Inner --> Outer		
# of Obs	697	203	2718	3618
% of total sample	0.19	0.06	0.75	3618
Years in current location	2.43	2.52	24.78	3618
<i><u>Demographics</u></i>				
Resp. Age	26.52	31.29	35.15	3618
Under 30 years old (%)	0.78	0.53	0.38	3618
Married (%)	0.56	0.72	0.64	3618
Oromo (%)	0.62	0.33	0.56	3618
Amhara (%)	0.25	0.38	0.28	3618
Read and Write Amharic (%)	0.58	0.74	0.66	3618
Attended School (%)	0.81	0.83	0.75	3618
High School (%)	0.22	0.25	0.20	3618
College or Above (%)	0.06	0.02	0.04	3618
<i><u>Household and Dwelling Characteristics</u></i>				
Num Adults in HH	2.24	2.31	2.68	3618
Num Children in HH	1.24	1.42	1.84	3618
Total Household Size	3.48	3.73	4.52	3618
Owns Dwelling (%)	0.29	0.52	0.64	3618
Non-Owned Dwelling - Tenant (%)	0.57	0.37	0.27	3618
Dwelling- Number of Rooms	1.75	2.31	2.40	3591
Dwelling - Iron Roof (%)	0.95	0.98	0.97	3618
Dwelling - Mud Walls (%)	0.82	0.79	0.85	3618
Dwelling - Dirt/Dung Floors (%)	0.52	0.43	0.47	3618
Drinking Water - Home Piped (%)	0.59	0.63	0.61	3618
Drinking Water - Public Tap (%)	0.25	0.23	0.24	3618
Drinking Water - Num Days With No Water Last 1 Month	11.91	13.97	11.89	2352
Total water cost in last 1 month (ETB)	64.42	70.64	60.38	2815
Has electricity (%)	0.89	0.97	0.85	3618
Monthly electricity expense (ETB)	79.30	111.73	92.98	2597
Number of days without electricity in last 1 month	7.52	7.58	8.48	3091
HH Own Land (%)	0.14	0.06	0.24	3618
HH Rent Land (%)	0.06	0.04	0.09	3618
HH Land Taken (%)	0.02	0.03	0.07	3618
HH Own Livestock (%)	0.21	0.11	0.39	3618
Worried about food in last 12 months (%)	0.16	0.12	0.14	3618
Food situation worse or much worse now than last year	0.29	0.35	0.32	3618
Food situation better or much better now than last year	0.33	0.26	0.31	3618
<i><u>Income and Employment</u></i>				
Total Income - last month	1877	1441	1946	3618
Total Income - 12 months	20669	16199	21993	3618
No Income Sources (%)	0.34	0.38	0.30	3618
Primary Income - Wage Employment (%)	0.30	0.16	0.23	3618
Primary Income - Casual Labor (%)	0.14	0.11	0.10	3618
Primary Income - Owned Business (%)	0.14	0.27	0.18	3618
Primary Income - Farming (%)	0.05	0.00	0.16	3618
Searched for Job in Last 12 Months (%)	0.26	0.19	0.20	3618
Searched for Job in Last 1 Month (%)	0.14	0.09	0.10	3618
Num of Factories in Area	6.25	5.23	5.77	1935
Currently work at factory (%)	0.18	0.06	0.17	1937

Table 3. Firms and the Challenges they face

	Firm Survey (Firms >5 employees)		Individual Survey (Business Owners)	
	Oromia	Addis Ababa	Oromia	Addis Ababa
Number of firms surveyed	608	635	653	100
Sector - Agriculture	0.26	0.03	0.05	0.03
Sector - Manufacturing	0.41	0.54	0.29	0.33
Sector - Service	0.15	0.27	0.30	0.35
Sector - Trade	0.02	0.07	0.38	0.31
# Employees	104.05	22.05	0.33	0.60
Foreign Owned (Any)	0.23	0.03	0.00	0.00
Domestic Owned	0.74	0.75	1.00	1.00
Gov't Owned	0.01	0.00	0.00	0.00
Firm Age (years)	9.57	6.33	6.61	6.64
Barrier - Access To Finance	0.27	0.45		
Barrier - Access To Land	0.23	0.37		
Barrier - Access To Inputs	0.12	0.12		
Barrier - Access To Foreign Currency	0.12	0.03		
Barrier - Access To Market	0.14	0.26		
Barrier - Electricity	0.34	0.21		
Barrier - Water	0.13	0.12		
Loc. Choice - Affordable Land/Building	0.42	0.37		
Loc. Choice - Good Infrastructure	0.22	0.10		
Loc. Choice - Prox To Suppliers/Customers	0.35	0.37		
Loc. Choice - Availability Of Workers	0.18	0.13		
Loc. Choice - Security/Safety	0.08	0.10		
Loc. Choice - Did Not Choose/Rec. By Gov't	0.20	0.31		
Electricity Connection	0.88	0.86		
Electricity - Dissatisfied	0.27	0.32		
Electricity - Very Dissatisfied	0.44	0.27		
Electricity - Insufficient Supply Last 12Mo	0.86	0.89		
Elec - Rev Lost Due To Outtages (% of firms)	0.81	0.79		
Elec - # Days With Inter. Per Month (Avg)	13.46	10.29		
Private Water Connection	0.50	0.74		
Days Without Water Per Month (Avg)	8.56	8.70		
Water - Dissatisfied	0.19	0.21		
Water - Very Dissatisfied	0.34	0.31		
Water - Insufficient Supply Last 12Mo	0.63	0.71		
Water - Rev Lost Due To Outtages (% of firms)	0.44	0.47		
Difficulty Retaining Managers	0.37	0.30		
Difficulty Retaining Non-Managers	0.47	0.51		
Difficult Getting A Business License	0.18	0.22		

Table 4. Service Delivery: Water, Electricity, Health Care

	Oromia Region				Addis Ababa	All	N
	Rural	Peri-Urban	Urban	All			
Water source - unprotected	0.43	0.10	0.02	0.07	0.02	0.06	3573
Water source - public tap	0.31	0.50	0.37	0.39	0.23	0.36	3573
Water source - home piped	0.16	0.28	0.53	0.44	0.69	0.50	3573
Water - any source in compound	0.19	0.39	0.59	0.51	0.72	0.56	3573
Water - days no water per month (avg)	4.32	7.25	8.43	7.82	9.17	8.09	3518
Flush toilet in home	0.00	0.00	0.04	0.03	0.14	0.05	3573
Bathing facility with tap in home	0.01	0.02	0.11	0.08	0.09	0.08	3573
Time to drinking water	48.19	29.89	32.34	33.80	19.11	31.92	1647
Water - concerned with quality	0.35	0.23	0.26	0.26	0.48	0.31	3573
Water - very satisfied	0.07	0.10	0.07	0.08	0.05	0.07	3560
Water - satisfied	0.25	0.33	0.33	0.33	0.39	0.34	3560
Water - Made formal complaint	0.24	0.19	0.18	0.19	0.17	0.18	3573
Electricity - Connected to grid	0.48	0.76	0.92	0.85	0.97	0.87	3573
Elec - Days w/ interruptions per month (avg)	10.63	8.39	8.59	8.64	6.84	8.23	3076
Elec - Interruption duration (hours on average)	8.69	9.79	7.74	8.23	7.49	8.05	2882
Electricity - Very Satisfied	0.01	0.07	0.05	0.05	0.04	0.05	3484
Electricity - Satisfied	0.25	0.23	0.26	0.25	0.33	0.27	3484
Electricity - Made formal complaint	0.27	0.19	0.20	0.20	0.33	0.23	3573
Health - very sick in past 12 mos	0.20	0.29	0.27	0.27	0.25	0.27	3573
Health - diarrhea outbreak in home area past	0.13	0.12	0.07	0.08	0.17	0.10	3515
Sought medical care in past 12 months	0.34	0.38	0.38	0.37	0.45	0.39	3573
Preferred primary care - public	0.52	0.67	0.53	0.56	0.60	0.57	3573
Preferred primary care - private	0.44	0.28	0.41	0.38	0.36	0.38	3573
Pub healthcare - satisfied	0.53	0.54	0.42	0.46	0.63	0.49	3285
Pub healthcare - very satisfied	0.01	0.06	0.04	0.04	0.05	0.04	3285
Private healthcare - satisfied	0.69	0.60	0.62	0.62	0.58	0.61	2986
Private healthcare - very satisfied	0.01	0.11	0.07	0.07	0.08	0.08	2986
Any visits from health ext. work past 12 mos	0.47	0.42	0.31	0.35	0.59	0.39	3469
If prefer public HC - b/c of quality	0.17	0.16	0.13	0.14	0.09	0.13	2041
If prefer public HC - b/c of proximity	0.06	0.25	0.07	0.12	0.15	0.12	2041
If prefer public HC - b/c of cost	0.66	0.55	0.78	0.70	0.75	0.71	2041
If prefer private HC - b/c of quality	0.70	0.84	0.81	0.80	0.70	0.78	1352
If prefer private HC - b/c of proximity	0.16	0.12	0.13	0.13	0.22	0.15	1352

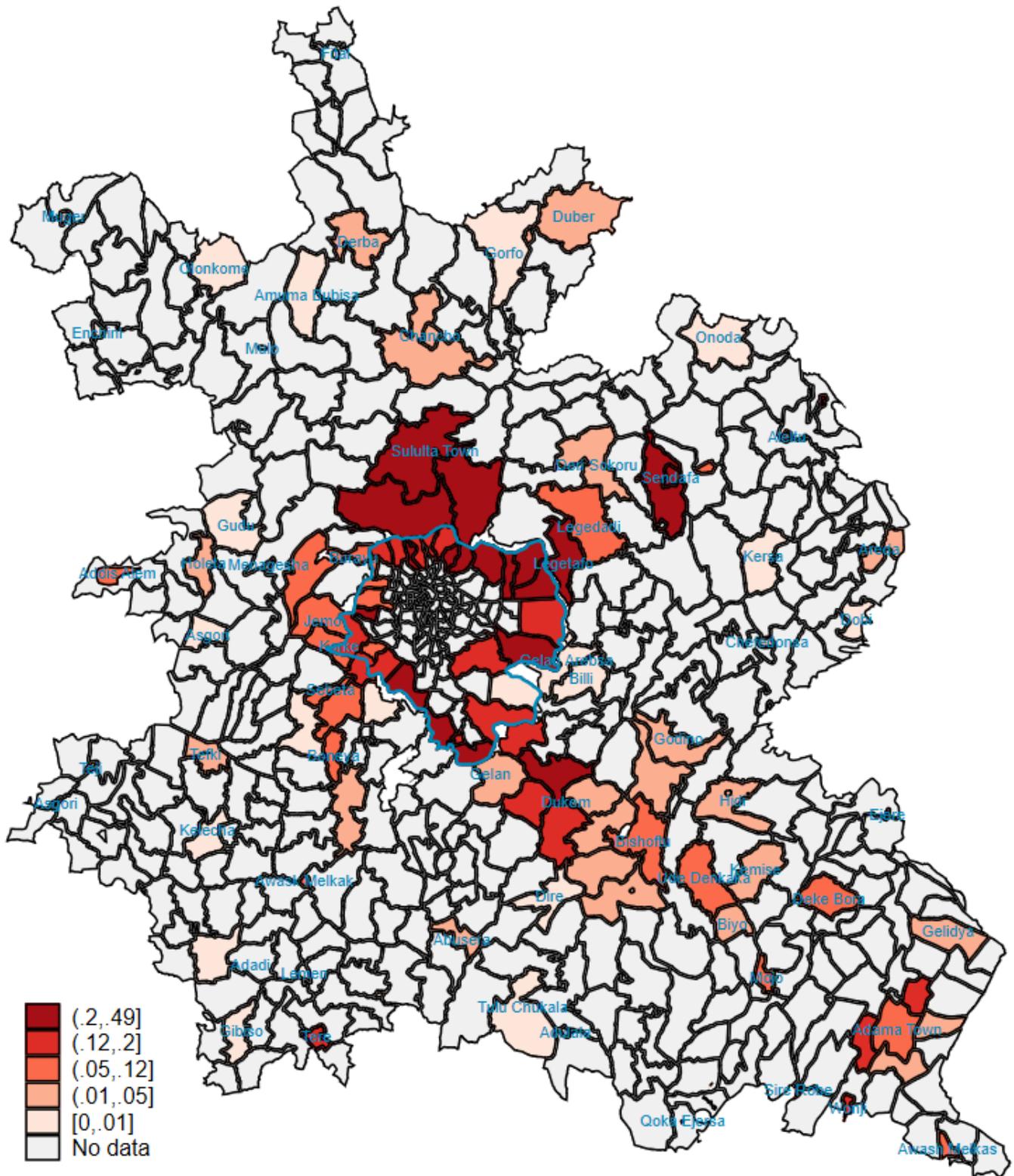
Notes: Data from individual survey.

Table 5. Service Delivery: Education

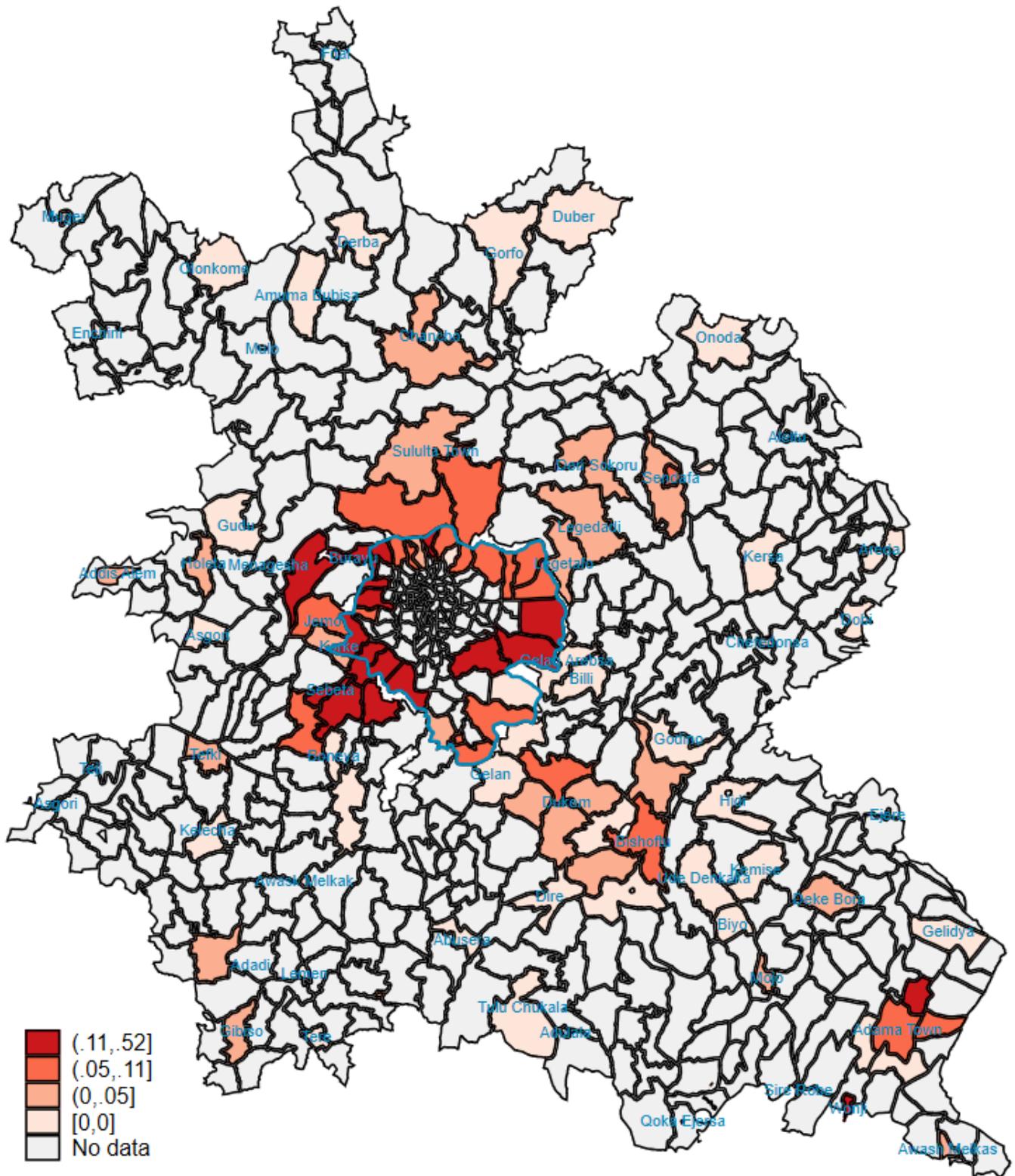
	Oromia Region				Addis Ababa	All	N
	Rural	Peri-Urban	Urban	All			
No Education use past 12 mos	0.16	0.19	0.19	0.19	0.13	0.18	2499
Public Education - used past 12 mos	0.80	0.77	0.56	0.64	0.51	0.61	2499
Private Education - used past 12 mos	0.05	0.07	0.38	0.27	0.51	0.32	2499
Pub Ed - Not used b/c not available	0.03	0.03	0.11	0.10	0.11	0.10	968
Pub Ed - Not used b/c high cost	0.03	0.00	0.01	0.01	0.01	0.01	968
Pub Ed - Not used b/c prefer private	0.16	0.12	0.22	0.20	0.40	0.25	968
Pri Ed - Not used b/c not available	0.39	0.72	0.24	0.41	0.07	0.36	1696
Pri Ed - Not used b/c high cost	0.28	0.18	0.43	0.34	0.49	0.36	1696
Pri Ed - Not used b/c prefer public	0.38	0.10	0.18	0.18	0.31	0.20	1696
Pub Ed - very satisfied	0.04	0.12	0.03	0.05	0.05	0.05	2803
Pub Ed - satisfied	0.66	0.58	0.50	0.54	0.60	0.55	2803
Pri Ed - very satisfied	0.00	0.03	0.03	0.03	0.12	0.06	2029
Pri Ed - satisfied	0.33	0.25	0.50	0.46	0.57	0.49	2029
Pub Ed - Made formal complaint	0.10	0.11	0.09	0.10	0.12	0.10	3573

Notes: Data from individual survey.

Ethnicity - Amhara

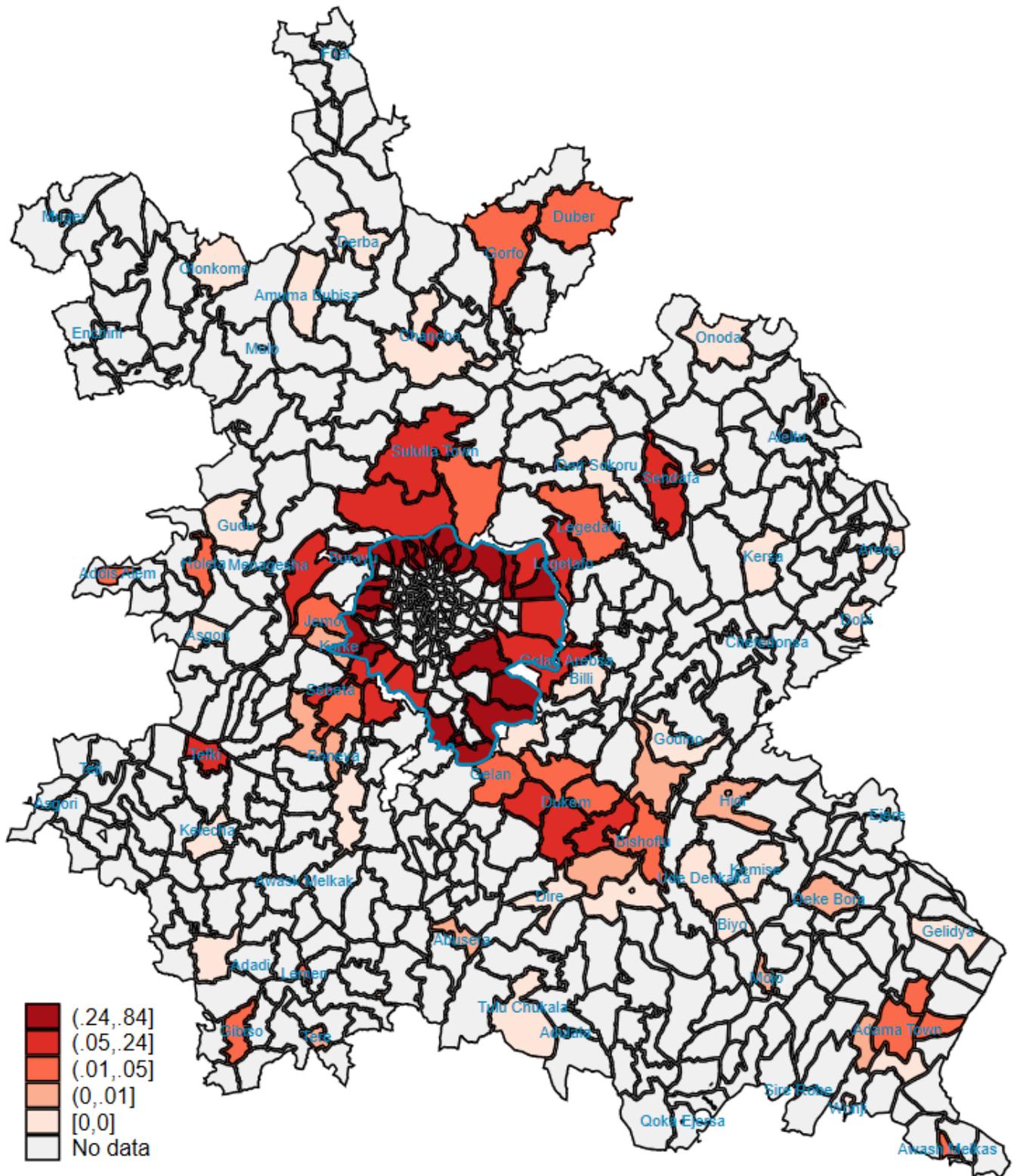


Ethnicity - SNNP

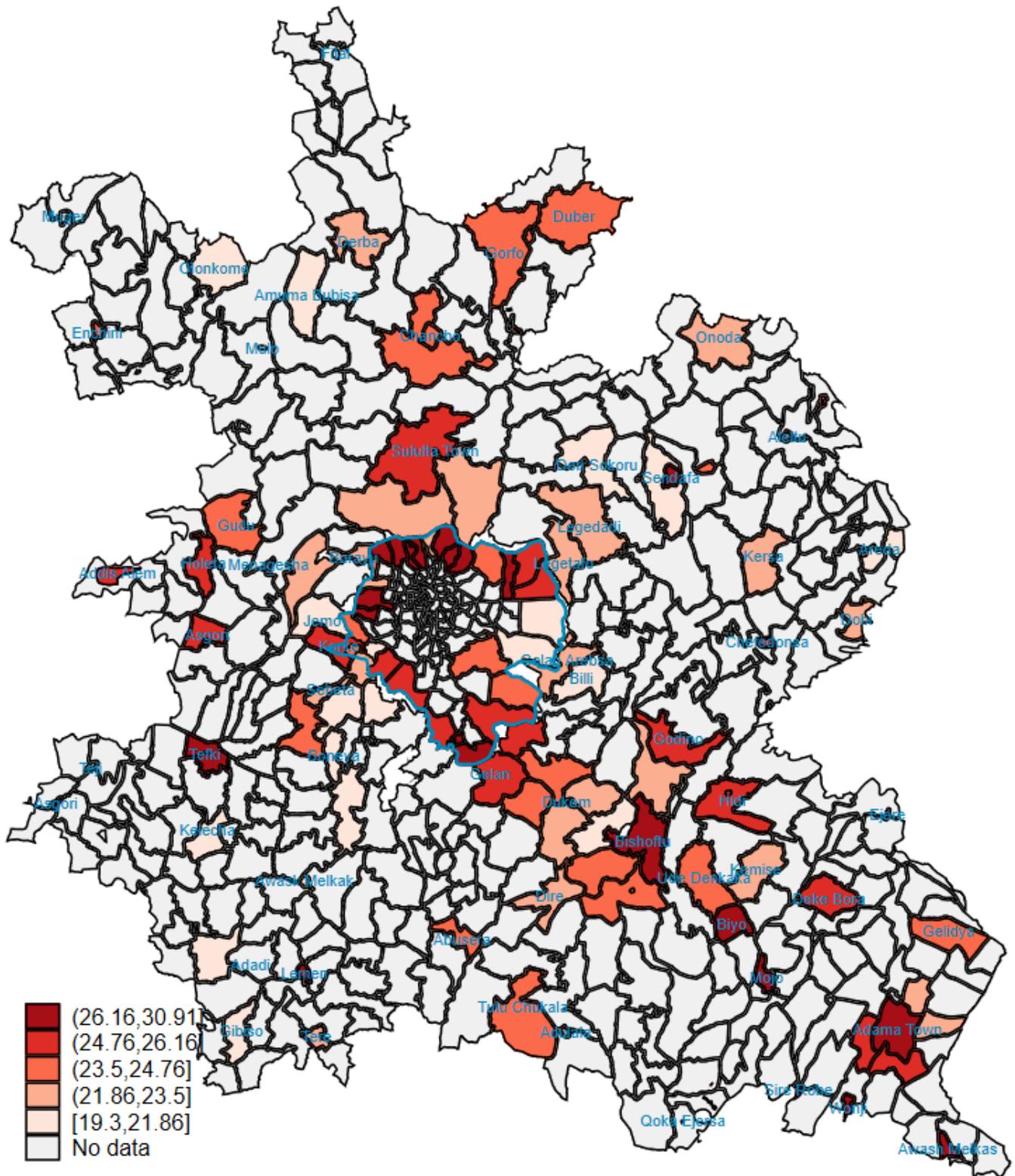


Map 4. Born in Addis Ababa

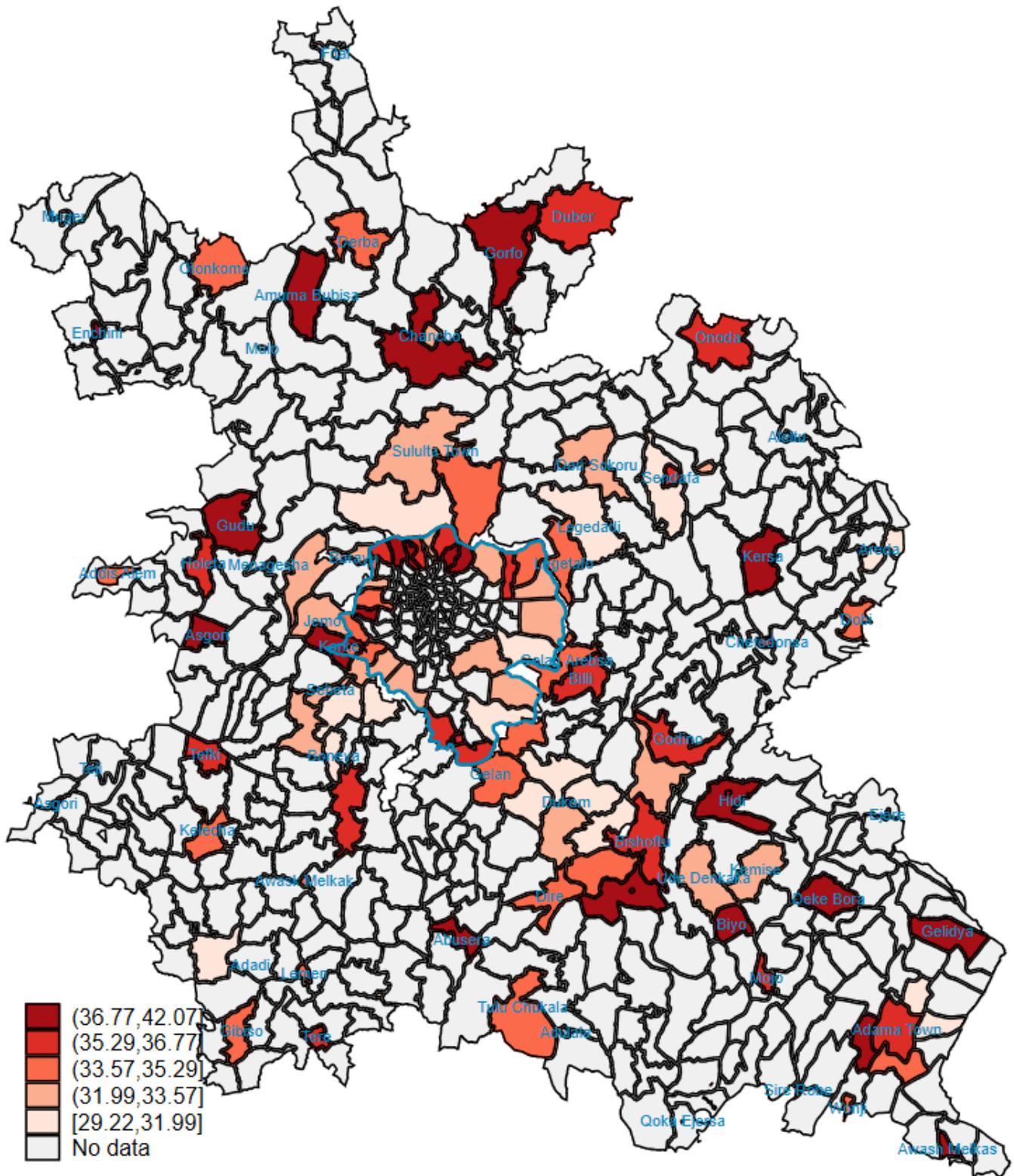
Born in Addis Ababa



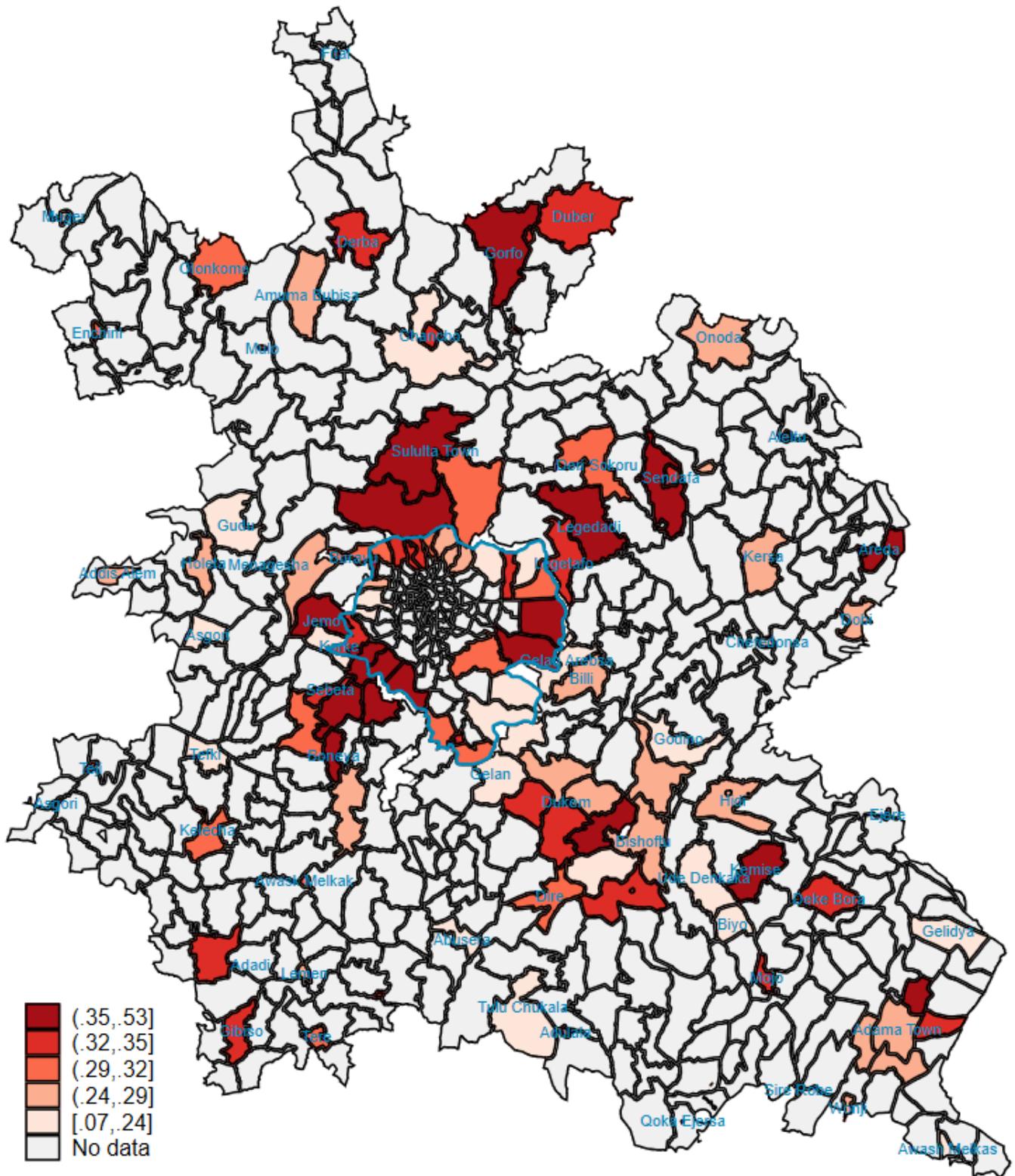
Average Age



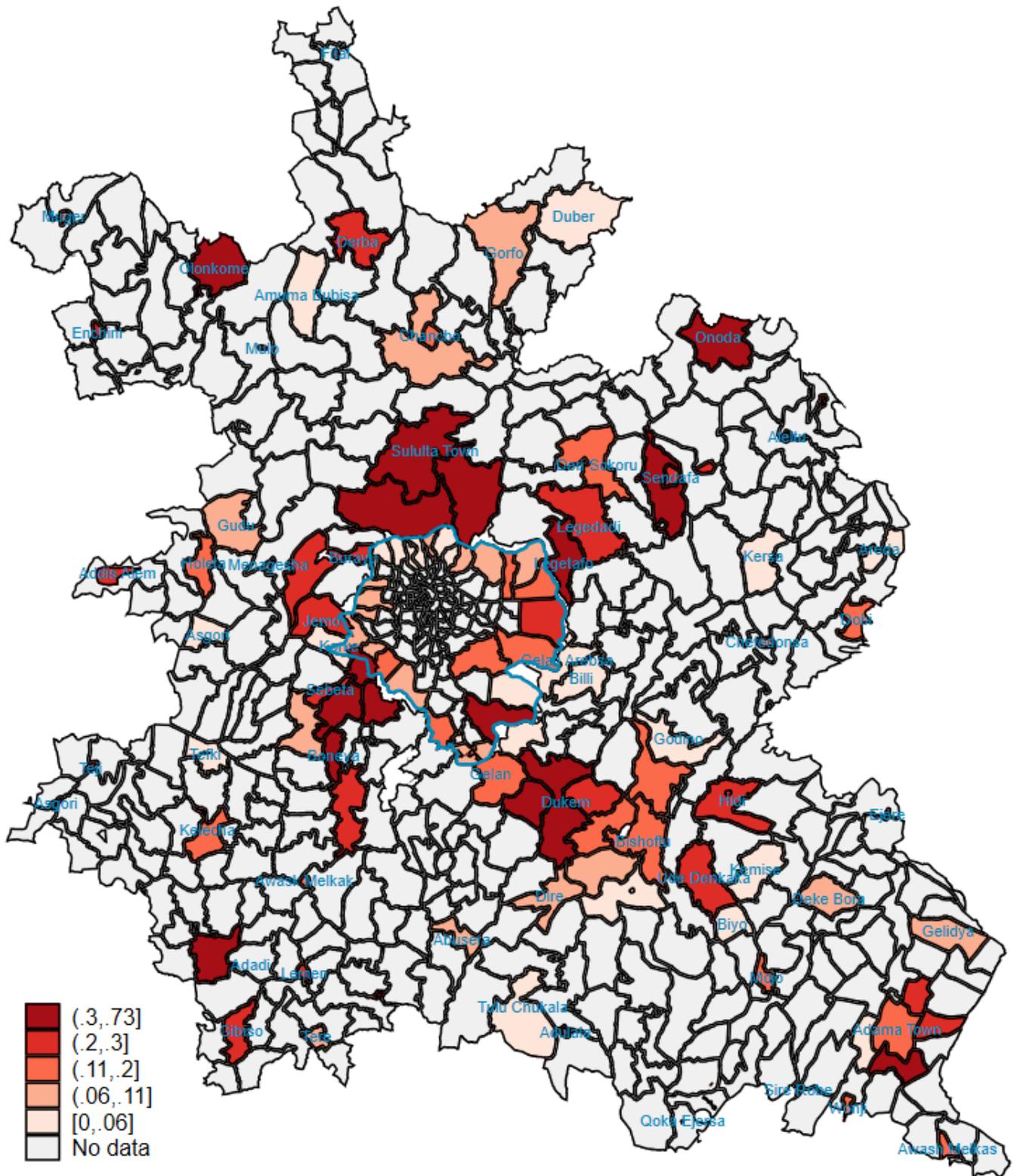
Adult Age - excludes <18



Age: 25-34



Migrants: Less than 5 years in town



Map 11. Migration – Town since Birth

Non-migrants: In town since birth

