

# The Taxation of Individuals, Households, and Nonfarm Enterprises in Ethiopia

**FINDINGS FROM THE 2018/19 ETHIOPIA SOCIOECONOMIC SURVEY**

*June 2021*



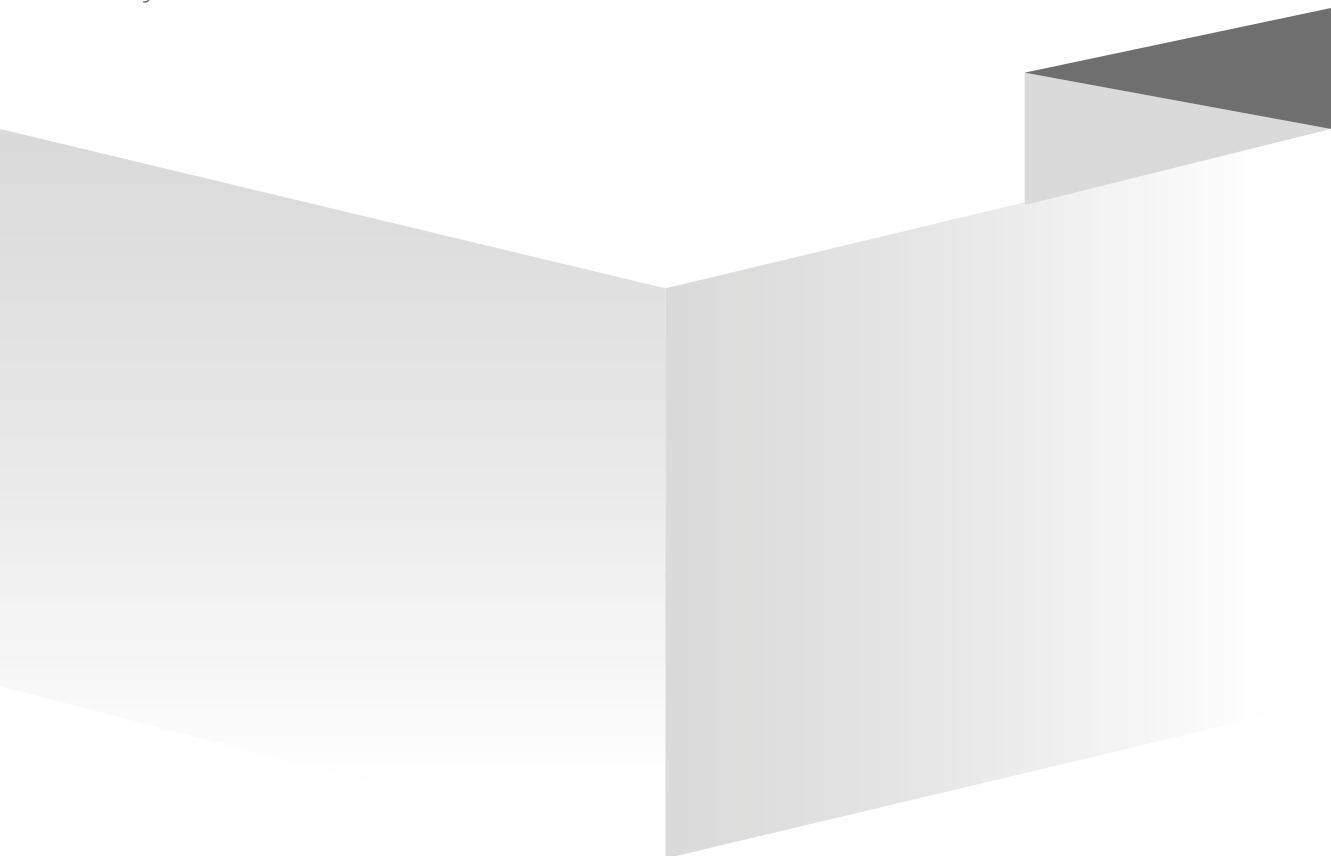


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# 1. Introduction

Designing effective, equitable, and well-targeted tax and spending policies requires an objective, granular evidence base. Here an in-depth understanding of the economic needs and current tax burdens of different subpopulations is crucial. This includes a clear perspective on how tax burdens differ for the groups that are most economically vulnerable, such as those at the bottom of the income and consumption distributions, individuals who own micro- and small enterprises, and women, who have a substantial economic role inside and outside of the home but for whom data and analysis relevant to national tax policy design is minimal. In many low-income countries, administrative data is sparse, and our understanding of the burden on different types of taxpayers is complicated by the fact that formal and informal tax systems often operate in parallel.

To address these data gaps, the nationally-representative, multi-topic Ethiopia Socioeconomic Survey (ESS) 2018/2019<sup>1</sup> included questions about the taxation of individuals, households, and household nonfarm enterprises (NFEs) in relation to different types of formal and informal taxes. The data can be disaggregated and compared with other socioeconomic and demographic variables collected in the survey and can, in turn, contribute to a more nuanced understanding of taxes paid by different groups.

The primary objectives of this report are to:

- Share information about the questions used in the ESS in order to inform future survey design and measurement.
- Provide descriptive analysis of the new tax-related data.
- Highlight issues that will be explored further in future analyses.

*Direct identification of tax burdens* involves analyses of tax data concerning individuals, households, and businesses that is collected either directly by surveys or accessed through administrative sources. If direct micro-level data is not available, *indirect analyses*, such as simulation or imputation approaches, draw information from tax bases, socioeconomic characteristics, and relevant tax laws to shed light on the amounts of tax paid and the distributional effects of different types of tax policies (see, for instance, Lustig 2019; Grown and Valodia 2010; Lustig, Pessino, and Scott 2014; Harris *et al.* 2018; Bachas *et al.* 2020).

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<sup>1</sup> The ESS was conducted by the Central Statistics Agency (CSA), Ethiopia, in collaboration with the World Bank Living Standards Measurement Study (LSMS).

Along with detailed self-reported individual data on basic demographics, education, health, labor and time use, household spending, and asset ownership, the ESS 2018/19 introduced several questions on tax payments and cash and in-kind contributions. Among them were questions about formal and informal taxes levied on individuals and households and questions about taxes levied directly on nonfarm and agricultural enterprises. The ESS also collected detailed data on income earned by casual, wage, and salaried workers; this report incorporates an imputation analysis to understand the tax payments stemming from employment income. The survey also collected data on other household sources of income, impediments to setting up and growing NFEs, and geospatial data on the locations of households and community facilities. This allows for detailed understanding of how tax payments are distributed by sex, economic sector, and geography as well as income.

The ESS is a collaborative project of the Central Statistics Agency of Ethiopia (CSA) and the World Bank. It is financially supported by the Bill and Melinda Gates Foundation as part of the Living Standards Measurement Study-Integrated Surveys on Agriculture (LSMS-ISA) project. The extended tax module in ESS 2018/19 was implemented in collaboration with the Institute for Fiscal Studies (IFS) with financial support from the Foreign, Commonwealth & Development Office of the UK Government. As part of the World Bank Global Tax Program, the LSMS program will also draw on the ESS 2018/19 survey data to examine additional issues in collecting micro survey taxation data, such as how to improve data collection in future rounds of nationally representative surveys.





## 2. ESS 2018/19 Survey Design

The ESS 2018/19 is a multi-topic household survey with several modules that collect socioeconomic and demographic information from individuals, households, and communities. It is part of the LSMS-ISA program, which includes detailed modules on agricultural activities, and the Living Standards and Measurement Study Plus (LSMS+), which is working to improve individual self-reported survey data on selected assets.<sup>2</sup>

### 2.1 SAMPLE

The ESS 2018/19 was sampled from the 2018 pre-census cartographic database of enumeration areas (EAs).<sup>3</sup> The sample is representative of the region as well as of rural and urban areas. A two-stage probability sampling procedure was followed to select households. The first stage selected the primary sampling units, the EAs. Based on probability proportional to the total number of EAs in each region, 535 EAs were selected, 316 rural and 219 urban. The second stage of sampling was to select households from each EA. For rural EAs, 10 to 12 households were sampled from each. Of these, 10 were randomly selected from a fresh list of agricultural households (those engaged in agriculture or livestock activity). Another two households in the same EA were randomly selected from all households not engaged in agriculture or livestock activities, if there were any such households; if not, or if there were only one, the total sample might be 10 or 11. In urban areas, 15 households were selected from the list for each EA. The original sample size was over 7,000 households. During the fieldwork, security issues in some areas meant that some interviews could not be carried out. As a result, the total sample interviewed during this round was 6,770 households.

Table 2.1 presents basic statistics from the ESS 2018/19 on the shares of men and women, aged 18 and older, who are working in different sectors and are self-employed or wage-earners. A large share of workers is self-employed, particularly within agriculture in rural areas, as well as in NFEs in urban areas. Table 2.1 also shows that wage earners are a small proportion of total workers; in urban areas, 27 percent of men

<sup>2</sup> The LSMS-ISA project collects multitopic, household panel data with a special focus on improving agricultural statistics and generating a clearer understanding of the link between agriculture and other sectors of the economy. The project also aims to build capacity, share knowledge between countries, and improve survey methodologies and technology. The LSMS+ program is focused on improving individual self-reported survey data about assets, including residential and non-residential land, financial assets, and mobile phones).

<sup>3</sup> The ESS 2018/19 is a new panel survey. The households included in the 2018/19 round are not the same as those covered in the previous three waves. ESS 2018/19 is a baseline survey for a new cohort of ESS panel households. A follow-up survey is planned for 2021/2022.

are paid wages, compared to 13 percent of women. Among wage earners, payment in kind is also between a third and a quarter of the value of payment in cash, with a higher proportion of in-kind earnings in rural areas.

TABLE 2.1  
Labor Market Participation and Earnings, Individuals 18 and Older, Percent

	Total		Urban		Rural	
	Men	Women	Men	Women	Men	Women
Share participating in the last 7 days in:						
Any agricultural activity (self-employed)	63.1	38.4	13.4	7.3	83.3	55.4
Non-farm enterprise (self-employed)	9.9	10.2	20.0	17.5	5.7	6.2
Wage employment	10.0	5.0	27.0	13.0	3.1	0.8
Share participating in the last 12 months:						
Nonfarm enterprise (self-employed)	15.9	16.4	29.5	26.8	10.5	10.6
Wage employment	15.0	7.6	37.2	17.7	5.9	2.1
Among wage earners: <sup>(3)</sup>						
Annual hours	1,268	1,446	1,506	1,622	656	650
Average annual cash earnings (Birr)	34,750	26,850	41,226	28,418	17,000	18,503
Average annual in kind earnings (Birr)	10,582	7,799	11,928	7,103	6,129	10,103
Number of respondents	4,990	6,358	2,454	3,586	2,536	2,772

Source: ESS 2018/19.

Notes: (1) Estimates are weighted using household sampling weights. Number of respondents/observations is unweighted. (2) Data comes from the individual labor module of the ESS 2018/19. Only self-reporting individuals aged 18 and older are included in the estimates above (in this age group 69 percent of men and 78 percent of women self-reported). (3) Earnings are reported from respondents' main wage employment. For rural women, there were many missing observations in wage earnings, so average earnings are likely driven by outliers.

## 2.2 TAX-RELATED VARIABLES

Box 1 discusses the tax-related questions in the ESS 2018/19. Many individuals and households in Ethiopia may interact more with local formal and informal systems of taxation than with the formal Federal income tax system.

In Ethiopia, formal local taxes are levied and collected by the regional states, municipalities, and *woredas* (districts). The definition of informal taxation is more complex, however, and has been the subject of considerable debate (see, for example,

Prud'Homme 1992; Olken and Singhal 2011; Van den Boogaard 2018). Drawing on the work of Olken and Singhal, the ESS team also refined some previous questions to enable researchers and policymakers to better understand and distinguish between the various informal cash and in-kind labor contributions that individuals and households make locally to state and nonstate actors.

The survey included a series of questions about self-reported payments that can be categorized as follows:

- *Local formal taxes*: Questions about the taxation of small NFEs, livestock, agricultural land, and urban residential property, collected by states in Ethiopia.
- *Informal taxes*: Questions about individual and community cash and labor contributions to community development activities, organized by local public officials.
- *Other informal contributions within the community*: Questions about cash contributions to religious institutions and social insurance mechanisms, which can be distinguished from informal taxes.

Among employees, the ESS already collects detailed information on income earned by wage-earners and salaried workers; tax paid on this income can be estimated using the rate schedule in the income tax laws. In an effort to better understand when such employment is formal and likely to be subject to taxation, the survey included a new question about whether the arrangement between employer and employee is governed by a written contract. For completeness, the ESS 2018/19 also had several questions to elicit information on taxes paid on other sources of individual income, such as pensions and investments, rental income, and revenues from the sale of assets, although it was anticipated that the proportion of respondents paying these forms of taxation was likely to be small.<sup>4</sup>

The responses to these questions will give researchers and policymakers a more detailed understanding of the prevalence and magnitude of local and informal taxes, as well as a more comprehensive picture of the overall tax burden faced by individuals and households.

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<sup>4</sup> Less than 20 respondents paid tax on most income sources, fewer than 100 on rental income, and fewer than 50 on income from sales of agricultural assets.

## BOX 1

**QUESTIONS RELATED TO TAXATION, 2018/19 ESS****1. Individual labor and time use:**

- a. At any time over the last 12 months, was [NAME] employed in any kind of job, including part-time labor, for wage, salary, commission, or any payment in kind, for anyone who is not a member of the household? *(also in earlier ESS rounds)*
- b. Who is the employer in [NAME]'s main wage job? *(also in earlier ESS rounds)*
- c. Does [NAME] have a written contract with [NAME]'s employer?
- d. How much was [NAME]'s last payment for wages/salary? (gross salary)
- e. How much does [NAME] usually receive in allowances or gratuities, including in-kind payments such as uniform, housing, food, and transport, that were not included in the salary just reported? *(also in earlier ESS rounds)*

**2. Nonfarm enterprises (NFEs):**

- a. Is your business registered and does it have a license (work permit)?
- b. Over the last 12 months, how much was paid in total for licenses associated with this enterprise? (Includes renewal or to get a new license).
- c. Over the last 12 months, was any tax paid on the enterprise's profits through the income tax? If so, how much tax was paid?
- d. Over the last 12 months, was any other type of enterprise tax paid, including municipality fees/taxes? If so, how much tax was paid?

**3. Other income:**

During the last 12 months, was any tax paid on the following sources of income. If so, how much tax was paid?

- a. Pension & Investment Income:
  - Interest or other Investment Income
  - Pension Income
- b. Rental Income:
  - Income from shop/store/ house/ rental/ car, truck, other vehicle rental (not NFE)
  - Income from land rental
  - Income from renting agricultural tools
  - Income from renting transport animals
- c. Revenue from Sales of Assets:
  - Income from real estate sales
  - Income from household nonagricultural asset sales
  - Income from household agricultural/fishing asset sales
  - Income from the sale of other assets (business sales, investment share sales)
- d. Other Income: (for example, inheritance/lottery)





**4. Rural land use and agricultural taxes:**

- a. During the last 12 months, did you or any member of your household pay any rural land use fee or agricultural income tax? If so, how much did your household pay in total?
- b. During the last 12 months, did you or any member of your household pay any tax on your livestock? If so, how much did your household pay in total?

**5. Urban land use and housing/property taxes:**

- a. During the last 12 months, did you or any member of your household pay any land use fee and housing tax? (*only for urban areas*)

**6. Informal taxation and other informal contributions at the community level:**

Over the past 12 months, did your household purchase or pay for any of the following:

- a. Household contributions to informal social security institutions (such as IDDIR) (*also in earlier ESS rounds*)
- b. Donations to religious institutions (*also in earlier ESS rounds*)
- c. Contributions to community development activities (road, school, health, water, etc. developments) (*also in earlier ESS rounds*)
- d. Contributions to social and political activities (Red Cross, sport, political parties...) (*also in earlier ESS rounds*)
- e. At any time over the last 12 months, did [NAME] participate in free labor contribution to social and local development activities (such as building public services, roads, and other local works organized by local government or institutions) for nothing in return?
- f. Community-level data: What was or will be the total amount of money contributed by community members for different community/public works projects (*also in earlier ESS rounds*)



### 3. Findings from the ESS 2018/19 Tax Data

#### BOX 2

#### FINDINGS FROM THE ESS 2018/19 TAX DATA

##### Household business taxes:

- About 12 percent of unincorporated household enterprises pay business income tax; of these about three-quarters were urban.
- Business income tax represents only a small proportion of total business costs.
- About 21 percent of enterprises paid a business license fee in the last year (again, mostly urban), and only 5.6 percent paid municipal service fees.

##### Employment income taxes:

- Employment income tax payments were calculated using imputation.
- The share of taxpaying individuals, following the imputation approach, was substantially higher in urban than in rural areas because wage employment and salaries are higher in urban areas.
- In the imputation analysis, the tax/income ratios for the bottom 40<sup>th</sup> percentile of the household per capita consumption distribution was about 13 percent and for the top 60<sup>th</sup> 16 percent when using mean values of taxation and income; with median values, the share of the lower 40% was about 6 percent and for the upper 60<sup>th</sup> 10 percent.

##### Agriculture and land use taxes:

- About 78 percent of rural households pay some type of agricultural tax. Most of these payments are crop income taxes, which are paid by about 74 percent of rural households.
- About 2 percent of rural households pay livestock tax.
- Consumption-poor households also tend to have a higher tax burden and pay a higher share of their annual consumption in these taxes.

##### Urban land use and housing/property taxes:

- About 42 percent of urban households lived in privately-owned dwellings, 57 percent of whom paid property tax.

##### Informal taxes and other informal community contributions:

- About 44 percent of households contribute to informal social security institutions and 40 percent to religious institutions, with rural households more likely to make these payments.
- 22.2 percent of households contribute to local community development activities and 15.2 percent to social and political activities.
- 12.4 percent of individuals in the sample contribute free labor to social and local development activities.

### 3.1 HOUSEHOLD BUSINESS TAXES

#### A. Profile of Household NFEs

The ESS 2018/19 collected detailed information on household NFE activity during the 12 months preceding the survey. Table 3.1 summarizes NFE ownership by type of enterprise. Nationally, 23 percent of households have at least one NFE. About 38 percent of urban households reported having one or more NFEs, compared with only 16 percent of rural households.

Household businesses in Ethiopia are predominantly micro-enterprises. In the ESS 2018/19, 97 percent employ no more than five employees,<sup>5</sup> and about 85 percent of this group are own-account businesses with no employees. In separate estimates, the ESS 2018/19 found that 21 percent of urban NFEs hired one or more employees compared with 9 percent of rural NFEs. On average, NFEs operated 150 days a year, but this varied by location: urban NFEs averaged 198 days and rural only 94 days.

TABLE 3.1  
Households Reporting One or More NFEs, by NFE Activity and Geographical Area, Percent

	National	Urban	Rural
Share of households with any NFE	23.0	38.0	15.7
Across all NFEs, primary activities:			
Nonagricultural business/services from home/shop	10.1	18.9	5.9
Processed agricultural products	3.3	4.2	2.9
Selling on a street or in a market	3.5	6.9	1.9
Offered services and sold goods	1.7	1.3	1.9
Professional	0.6	1.2	0.3
Taxi/ pickup truck	1.2	2.3	0.6
Bar/ restaurant	0.7	1.4	0.3
Other small business	3.8	5.7	2.9
Number of households	6,770	3,655	3,115

Source: ESS 2018/19, non-farm enterprise module.

Notes: (1) Estimates are weighted. Number of observations is unweighted.

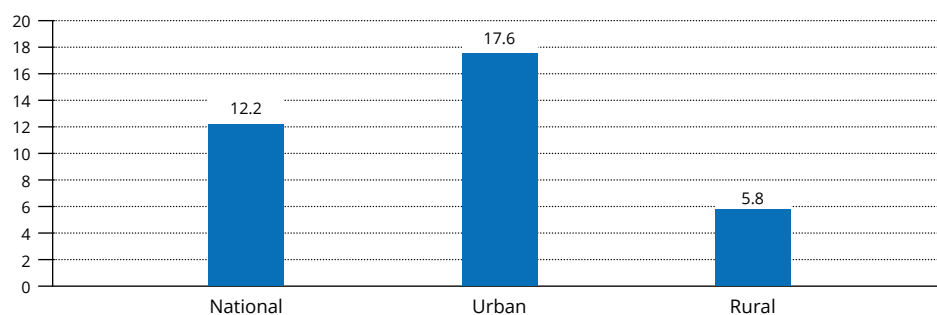
<sup>5</sup> According to the Ethiopian government definition in 2010/2011, enterprise size is determined by the number of people working in the enterprise and its asset value. For example, enterprises with no more than five employees and less than or equal to one million Birr in asset value are considered micro enterprises. This report looks only at the number of employees, due to lack of information on asset value. Hence, small enterprises are those with six or more employees.

## B. Business Income Tax

The Ethiopian business income tax system classifies businesses into three categories—A, B, or C—according to whether or not the business is incorporated, and its turnover; Category C businesses are the smallest. The ESS 2018/19 did not explicitly ask households whether their NFEs were incorporated, but given the statistics in this section, most NFEs are likely to be in Category C. In contrast to Category A and Category B taxpayers, Category C businesses are not required to keep books of accounts because they pay their taxes based on an assessment made by the Ministry of Revenues (MoR).<sup>6</sup> The annual tax liability for a Category C business is based on its estimated turnover; profits are determined based on predefined activity and sector-specific profit rates, of which there are 19. Category C taxpayers must pay their tax liability annually by August 6<sup>th</sup> one month after the end of the government fiscal year.

Figure 3.1 shows that 12.2 percent of NFEs observed in the 2018/19 ESS pay business income tax. The share is higher in urban areas, 17.6 percent, compared to only 5.8 percent in rural areas.

**FIGURE 3.1**  
**NFEs that Reported Paying Tax, Percent**



Note: Estimates are weighted.

Source: ESS 2018/19.

<sup>6</sup> Category C taxpayers can pay according to information from their own books of accounts if the MoR and grants them permission to do so.

Table 3.2a shows that among NFEs that pay employment taxes, the taxes constitute a relatively small share of total business costs, averaging about 2 percent for both urban and rural enterprises, compared to 4 percent for transportation, 9 percent for rent, and 19 percent for raw materials. Most enterprise operating costs in fact go to buy goods for sale. Since nearly all NFEs that pay taxes are in urban areas, the breakdown of costs for the total sample primarily reflects the urban group. Female-owned enterprises pay less business income tax than male-owned enterprises in cash terms (a difference of about 780 Birr, or nearly 25 percent less, annually in Table 3.2b). Further analysis of the data could shed light on the reasons for the gender difference in tax burdens, which may include factors such as size and industry.

TABLE 3.2a  
Average Annual Operating Costs, Non-tax Items (all firms), Firms Paying Taxes

	Average Operating Costs (Birr)	Share of Costs (Percent)
Taxes	2,964	2
Wages	8,923	7
Purchase of goods for sale	79,905	58
Raw materials	25,875	19
Transportation	5,321	4
Rent	10,545	8
All other non-tax operating costs	3,093	2
Observations	298	

Source: ESS 2018/19.

TABLE 3.2b  
Annual Income Tax Paid, Birr

	National		
	Mean (Birr)	Median (Birr)	Obs.
<b>Business income tax</b>			
All firms	2,964	1,200	298
Men owners	3,219	1,500	191
Women owners	2,430	1,140	107

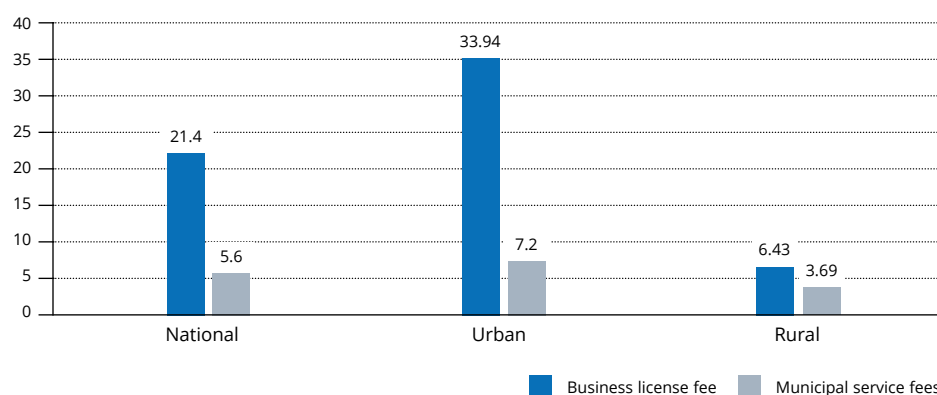
Source: ESS 2018/19

Notes: (1) Estimates for income tax and costs are weighted. The number of observations is unweighted.  
(2) Nearly all (266 out of 298) of these enterprises were in urban areas.

### C. Business License Fees and Municipal Service Fees

According to the ESS 2018/2019, about 21 percent of enterprises had paid a business license fee in the last 12 months, but only 5.6 percent paid municipal service fees (Figure 3.2). As with the other taxes discussed, the bulk of tax-paying enterprises in this group (particularly for business license fees) are in urban areas. Annual business license fees average about 888 Birr (Table 3.3), and municipal service fees a little more than 5,000 Birr, again with significant variation when the mean and the median tax paid are compared (Table 3.3).

FIGURE 3.2  
NFEs Paying Other Fees and Taxes in Ethiopia, Percent



Note: Estimates are weighted.

Source: ESS 2018/19.

TABLE 3.3  
Enterprises Paying Annual Business and Other Fees, Birr

	Total	
	Mean	Median
I. Business license fee	888	300
Observations	503	
II. Municipal service fees	5,076	1,000
Observations	114	

Source: ESS 2018/19.

Notes: (1) Estimates for income tax are weighted. The number of observations unweighted. Sample is for those enterprises that paid tax.

### 3.2 EMPLOYMENT INCOME TAX

According to Federal Income Tax Proclamation 2016,<sup>7</sup> employment income tax (EIT) in Ethiopia is levied each calendar month on the income that the employee receives in that month. An employee's income tax liability is calculated according to the progressive tax schedule shown in Table 3.4. For tax purposes, employment income includes an employee's salary, wages, allowance, bonus, commission, gratuity, and any other remuneration in respect of past, current, and future employment. Fringe benefits are treated as employment income. Pay-As-You-Earn is the most common mechanism for paying EIT. Employers withhold income tax from employee salaries and remit it to the MoR each month on their behalf.

TABLE 3.4  
Employment Income Tax Rates for Ethiopia

Employment Income (per month) Birr	Applicable Rate (%)
0–600	0%
601–1,650	10%
1,651–3,200	15%
3,201–5,250	20%
5,251–7,800	25%
7,801–10,900	30%
Over 10,900	35%

Source: Federal Income Tax Proclamation (No 979/2016).

#### A. Imputed Employment Income Tax Burdens

The EIT section of this report is based on individuals reporting in the ESS 2018/19 on their main wage or salaried job over the last 12 months. The survey collected data on individuals' last gross payment for wage, salary, allowances, and gratuities before any deductions.<sup>8</sup>

<sup>7</sup> See Schedule of A of the Federal Income Tax Proclamation No. 979/2016. 22nd Year No. 144, Addis Ababa 18th August. Source: Federal Negarit Gazette 2016. An "employee" means an individual engaged, whether on a permanent or temporary basis, to perform services under the direction and control of another person, other than as an independent contractor, and includes a director or other holder and an officer in the management of a body, and government appointees and elected person holding public offices.

<sup>8</sup> In pre-survey question testing, nearly all respondents knew whether they were receiving gross or net income. However, to minimize the risk of respondents not knowing whether deductions have been taken, the questionnaire has been designed to carefully elicit gross income, and survey administrators were also given training to ensure that they were collecting gross wage information from respondents.



Different respondents reported their income at different frequencies (weekly, biweekly, monthly, and annually) depending on their work arrangements.

To calculate estimated tax payments based on official tax rates, the earnings data was aggregated to total annual employment income<sup>9</sup> and then converted to a monthly figure. Next, the EIT is computed from the estimated monthly chargeable income using official tax rates for those earning more than the 600 Birr/month threshold for paying taxes.<sup>10</sup> Finally, the monthly tax value is aggregated to obtain the annual EIT. This analysis assumes, however, that all eligible taxpayers are in fact paying tax, which is not necessarily the case.

### B. Imputation Model: Full Sample of Potential Employees

In the ESS 2018/19, about 7 percent of individuals had worked for payment<sup>11</sup> over the last 12 months, of whom about 48 percent had a written contract.<sup>12</sup> Among those who worked for payment, about 67 percent are men and 33 percent are women (the distribution was similar for those with a written contract: 65 percent were men and 35 percent women).

For the full sample, 71.5 percent of individuals employed earned more than the Birr 600 per month threshold.<sup>13</sup> In urban areas, about 82 percent of employees are liable for EIT, but in rural areas only 47 percent are. Moreover, among workers, 73.7 percent of men and 67.3 percent of women are liable for EIT.

Given the skewed nature of the reported employment income distribution—Figures 3.3a–3.3c reflect trends for the total sample, as well as men and women separately in urban and rural areas—there is a major discrepancy between the mean and the median EIT estimates.

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<sup>9</sup> The annual income computation process controlled for outliers of 3 of the right tail and 2 percent of the left by region.

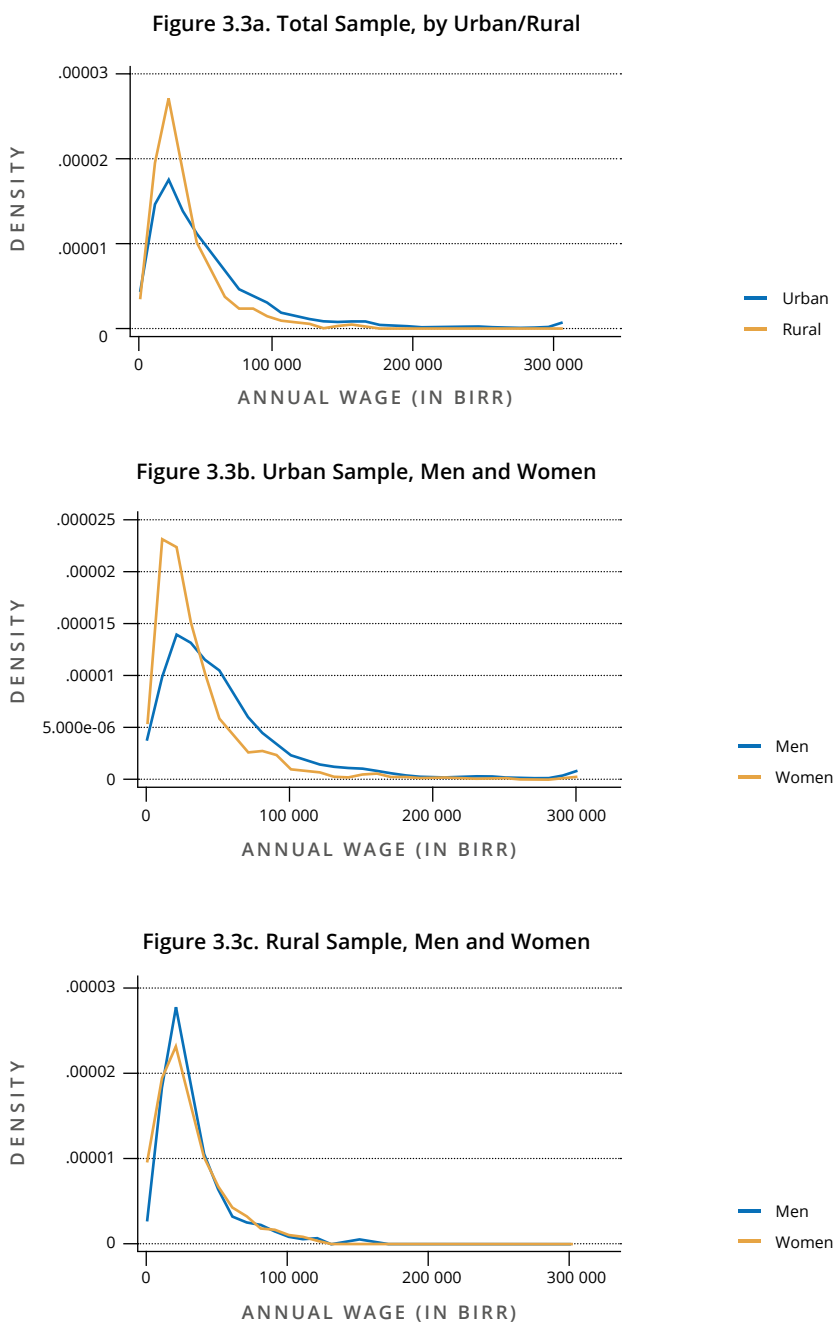
<sup>10</sup> The tax estimate accounts for both progressivity and taxing different components of employees' income at different rates.

<sup>11</sup> These include part-time labor, for wage, salary, commission, gratitude or any payment in kind.

<sup>12</sup> Among those who worked for payment in the last 12 months, 96 percent are 15 and older. About 1.3 percent of those who work for payment are children, aged 7 to 9.

<sup>13</sup> These are weighted estimates. About 28.5 percent of the employed individuals earned below the minimum threshold of Birr 600; of these, 62 percent were men and 38 percent women.

FIGURE 3.3

**Taxable Income Distribution by Place of Residence and Sex:**

Note: Taxable income is any income greater than ETB 600 salary income.

Source: ESS 2018/19.

Table 3.5 shows that, as expected, after applying the imputation method the vast majority of wage or salary earners (and thus EIT payers) reside in urban areas; relying on the imputation analysis, the share of taxpayers to wage income is 82 percent in urban areas and 47 percent in rural areas. Table 3.6 also shows the breakdown of EIT payments by men and women. The estimated share of individuals liable for paying tax is higher for men, about 74 percent, than for women, 67 percent. Average annual employment earnings for women are about three-fourths that of men.<sup>14</sup> Moreover, men's chargeable employment income is above the national average by 8 percent, and they pay 12 percent more in EIT than the national average.

**TABLE 3.5**  
**Imputation Model: Amount of Annual Employment Income and Estimated Income Tax, Birr**

	<b>National</b>		<b>Urban</b>		<b>Rural</b>	
	<b>Mean</b>	<b>Median</b>	<b>Mean</b>	<b>Median</b>	<b>Mean</b>	<b>Median</b>
<b>(A) Annual employment income tax (imputed)</b>	6,616	2,616	7,238	3,156	3,944	1,902
<b>(B) Annual employment income (chargeable)</b>	43,529	28,800	46,110	32,400	32,448	24,040
<b>Share of taxpayers to wage income earners</b>	71.54		81.79		46.51	
<b>Observations</b>	2,146		1929		217	

Source: ESS 2018/19.

Notes: (1) Estimates for income, income tax, and share of paying income tax are weighted. Number of observations is unweighted. (2) This includes individuals above the 600 Birr/month threshold.

**TABLE 3.6**  
**Imputation Model: Annual Employment Income and EIT Paid, by Sex, Birr**

	<b>Women</b>		<b>Men</b>	
	<b>Mean</b>	<b>Median</b>	<b>Mean</b>	<b>Median</b>
<b>(A) Annual employment income tax (imputed)</b>	4,883	1,896	7,407	2,886
<b>Percentage to the national average</b>	73.8	72.5	112.0	110.0
<b>(B) Annual employment income (chargeable)</b>	35,815	24,000	47,056	30,600
<b>Percentage to the national average</b>	72.3	83.3	108.1	106.3
<b>Share of individuals paying tax to all income earners (based on imputation analysis)</b>	67.3		73.7	
<b>Observations</b>	750		1,396	

Source: ESS 2018/19.

Notes: Estimates for income, income tax, and share of paying income tax are weighted. Number of observations is unweighted.

<sup>14</sup> The discrepancy between men and women workers was narrower for those who earned less than Birr 600, as women received about 95 percent of male earnings.

In separate estimates, the average tax/income ratio is 9 percent for women and 10 percent for men and is similar across rural and urban areas; a future, more detailed analysis can shed greater light on the tax/income ratio by the distribution of income.

Table 3.7 categorizes EIT payers according to their household's position in the distribution of consumption (bottom 40 percent: the 1st and 2nd quintiles; top 60 percent: the 3rd, 4th, and 5th quintiles, as measured by spatially adjusted per adult equivalent consumption, which adjusts by regional as well as urban/rural differences).

The share of individuals with taxable employment income is higher for those in the top 60 percent of the distribution (about 79 percent) compared to the bottom 40 percent (49 percent). Using mean values of taxation and income for the top categories, the tax/income ratio is about 16 percent and for the bottom categories about 13 percent. Using median values, the ratios are about 10 percent for the top 60 percent and 6 percent for the bottom 40 percent.

**TABLE 3.7**  
**Imputation Model: Annual Employment Income and Estimated EIT, by Distribution of Consumption**

	Annual EIT, Birr		Annual Employment Income, Birr		Tax/ Income Ratio at Mean	Tax/ Income Ratio at Median	Observations
	Mean (A)	Median (B)	Mean (C)	Median (D)	(A/C)	(B/D)	
<b>Bottom 40%</b>	3,669	1,080	28,845	18,000	0.13	0.06	256
<b>Top 60%</b>	7,210	3,246	46,490	33,000	0.16	0.10	1890

Source: ESS 2018/19.

Notes: (1) Estimates for income and income tax are weighted. Number of observations is unweighted.  
(2) Consumption = spatially adjusted per adult equivalent consumption.

### 3.3 THE RURAL LAND USE FEE AND AGRICULTURAL INCOME TAX

In Ethiopia, farmers in rural households are required to pay a rural land use fee and an agricultural income tax. Each region designs its own system, and the regional rates and schedules vary. The rates are typically determined according to the amount of agricultural land, and in some regions, they also vary between farmers whose land is rain-dependent and those whose land is irrigated. Pastoralists are subject to a livestock income tax according to the number of livestock they own.<sup>15</sup>

Table 3.8 shows that about 78 percent of rural households pay some sort of tax on agricultural activities. This usually takes the form of what is known as the “crop farming income tax,” which is the sum of the rural land use fee and agricultural income tax. Only about 4 percent of households pay a livestock income tax; about 2 percent pay both the livestock and the crop farming tax (Table 3.8).

**TABLE 3.8**  
**Households Paying Rural Land Use Fee and Agriculture Income Tax, Percent**

<b>Crop farming income tax</b>	<b>73.91</b>
<b>Livestock income tax</b>	<b>2.19</b>
<b>Both crop farming and livestock income tax</b>	<b>1.72</b>
<b>Rural households paying neither tax</b>	<b>25.63</b>
<b>Observations</b>	<b>3112</b>

Source: ESS 2018/19.

Notes: (1) Estimates for income tax are weighted. Observations are unweighted.

Consumption-poor households tend to pay out a higher share of their annual budget for both crop and livestock income taxes than wealthier households (Table 3.9). The share of average crop farming income tax is about 2.9 percent for the bottom 40 percent of individuals in the household consumption distribution but just 1.2 percent for the top 60 percent. Similarly, the livestock income tax costs the bottom 40 percent 4.7 percent and the top 60 percent 1.1 percent.

<sup>15</sup> In the Oromia Region, for example, the annual land use fee and agricultural income tax depend on the area of the land. Rain-dependent farmers with 1–2 hectares pay a total of 65 Birr, 30 for the rural land use fee and 35 for income tax (Proclamation No. 131/2007 of the Oromia Regional State). A pastoralist in Oromia Region with 75–100 livestock would pay an annual income tax of Birr 60.

TABLE 3.9  
Annual Agricultural Income Tax by Consumption Quintile

Consumption Quintile	Land use and crop farming income tax (Birr)			Livestock income tax (Birr)			Consumption mean (rural) (Birr)	Ratio: average crop tax/ consumption	Ratio: average livestock tax/ consumption
	Mean	Median	Obs.	Mean	Median	Obs.			
Bottom 40%	201	145	911	327	300	67	6,919	0.029	0.047
Top 60%	253	180	780	234	80	80	20,744	0.012	0.011

Source: ESS 2018/19

Note: (1) Estimates for income tax are weighted. Observations are unweighted.

### 3.4 THE URBAN LAND USE FEE AND HOUSING TAX

Urban taxpayers in Ethiopia are subject to an urban land use fee and a housing tax. The ESS 2018/19 surveyed each urban household to determine whether it paid an urban land use fee and housing tax when it owned the dwelling. The results: about 42 percent lived in dwellings they owned, and of these, 57 percent paid the land use fee and the housing tax. Among households that paid the tax, average annual taxes were about 405 Birr, and roughly similar for both male- and female-headed households.

TABLE 3.10  
Mean and Median Annual Urban Land Use and Housing Tax by Sex of Household Head, Birr

	Total		Female-headed		Male-headed	
	Mean	Median	Mean	Median	Mean	Median
Land Use and housing tax	405.2	220.0	394.6	200.0	409.4	240.0
Observations	743		233		510	

Source: ESS 2018/19.

Note: (1) Estimates are weighted; number of observations is unweighted.

Individuals in the top 60 percent of household consumption paid almost twice as much in housing tax than those in the bottom 40 percent. However, the share of the housing tax in total household consumption is higher for the bottom 40 percent (3 percent) than the top 60 (1 percent).<sup>16</sup>

**TABLE 3.11**  
**Mean and Median Amount of Annual Land Use and Housing Tax by Consumption Quintile, Birr**

	Land Use and Housing Tax		Consumption Mean (Urban)	Ratio: Average Housing Tax/ Consumption	Observations
	Mean	Median			
<b>Bottom 40%</b>	241	140	7,928	0.03	126
<b>Top 60%</b>	445	250	30,723	0.01	617

Source: ESS 2018/19.

Note: (1) Estimates are weighted; number of observations is unweighted.

### 3.5 INFORMAL TAXES, INFORMAL LOCAL CONTRIBUTIONS, AND SOCIAL INSURANCE MECHANISMS

As outlined in Section 2.2, there is a debate about which types of payments constitute informal taxation, given the varieties of contributions that individuals, households, and NFEs make to local actors and institutions, state and non-state. This section gives a preliminary overview of the nature and magnitude of some payments that households make. In future analyses, we will distinguish between the different types of tax and non-tax payments and develop a more comprehensive picture of the overall tax burdens of individuals and households.

Numerous households contribute to the group-based, informal social security institutions (Table 3.12) that are common in Ethiopia. About 41 percent of households contribute to religious institutions, 22 percent to community development activities (in-kind as well as cash contributions), and 15 percent to social and political activities. Across the board, more rural than urban households make informal payments. This may have important implications for understanding how local resources and services are financed.

<sup>16</sup> New house owners in Addis pay both urban land use fees as well as the property tax. However, property valuation in Addis is outdated and does not reflect urbanization as well as personal income. Moreover, the main component in the valuation of the tax rate is the area of the land on which it is built, which does not necessarily take fully into account the size of the house; currently more home owners are building vertically.

Nationally, about 12 percent of individuals contribute free labor<sup>17</sup> to social and local development activities. Free labor is also more prevalent in rural areas (14 percent) than in urban (8 percent).

Even though male-headed households are generally more likely to make such contributions, female-headed households that contribute to informal social security institutions pay about the same amount as male-headed households. Female-headed households also contribute the most on average to a variety of institutions and activities; for men, the greatest average contributions are to religious institutions.

TABLE 3.12  
Households Making Informal Local Contributions in Ethiopia, Percent

Purpose <sup>(1)</sup>	National	Obs.	Urban	Obs.	Rural	Obs.
Social and political activities <sup>(2)</sup>	15.2	6,770	7.1	3,655	19.1	3,115
Community development activities	22.2	6,770	16.3	3,655	25.0	3,115
Religious institutions	40.7	6,770	34.6	3,655	43.7	3,115
Informal social security institutions	44.8	6,770	35.1	3,455	49.4	3,115
Free labor contribution (Individuals) <sup>(3)</sup>	12.4	23,169	7.8	11,486	14.1	11,683

Source: ESS 2018/19.

Notes: Obs. = observations. (1) Unless otherwise stated, includes in-kind as well as cash contributions. (2) Refers to informal state tax. These are mandatory and required by local government structures (state actors). (3) Household members aged 7 and up are included in this sample. (4) Estimates are weighted; number of observations is unweighted.

TABLE 3.13  
Among Tax Payers, Average Local Informal Contributions by Location and Sex of Household Head, Birr

	Urban			Rural			National		
	Total	Male-headed	Female-headed	Total	Male-headed	Female-headed	Total	Male-headed	Female-headed
Social and political activities	116.13	122.49	93.3	61.53	64.46	48.40	69.85	72.99	56.32
Community development activities	327.10	338.94	290.49	202.03	212.14	163.59	231.88	241.34	197.72
Religious institutions	506.50	571.85	347.37	258.68	275.67	194.61	326.95	350.98	247.41
Informal social security institutions	455.1	451.74	467.22	229.2	234.62	203.71	287.04	282.64	303.55

Source: ESS 2018/19.

Notes: (1) Estimates are weighted; number of observations is unweighted.

<sup>17</sup> Among those who provided free labor in the last 12 months, 96.8 percent are age 15 and older; but about 0.6 percent are children aged 7 to 9.



Tables 3.14a–3.14d illustrate informal contributions according to household wealth status, among those making payments. Given the relatively small numbers of households contributing to these activities, the analysis focuses strictly on the amounts paid, to better understand the extent of payments. The top 60 percent contributed higher amounts in the last 12 months than the bottom 40 percent. However, in terms of contribution as a proportion of total consumption, the bottom 40 percent paid a higher share of their annual consumption across the different types of contributions than the top 60 percent.

**TABLE 3.14.**  
**Among Those Paying EIT: Average Local Informal Contributions, Birr,**  
**by Consumption Quintile:**

TABLE 3.14a  
Social and Political Activities

	Social and Political (SP) Activities, Birr	Consumption Mean, Birr	Ratio: Average SP/ consumption	Observations
Bottom 40%	63	7,054	0.008	239
Top 60%	75	25,249	0.003	407

Source: ESS 2018/19.

Note: (1) Estimates are weighted; number of observations is unweighted.  
(2) Consumption = spatially adjusted per adult equivalent consumption.

TABLE 3.14b  
Community Development Activities

	Community Development (CD) Activities, Birr	Consumption Mean, Birr	Ratio: Average CD/ Consumption	Observations
Bottom 40%	164	7,054	0.02	342
Top 60%	272	25,249	0.01	755

Source: ESS 2018/19.

Notes: (1) Estimates are weighted; number of observations is unweighted.  
(2) Consumption = spatially adjusted per adult equivalent consumption.

TABLE 3.14c  
Contributions to Religious Institutions

	Religious Institutions (RI), Birr	Consumption Mean (Birr)	Ratio: Average RI/ Consumption	Observations
Bottom 40%	207	7,054	0.03	657
Top 60%	340	25,249	0.01	1,593

Source: ESS 2018/19.

Notes: (1) Estimates are weighted; number of observations is unweighted.  
(2) Consumption = spatially adjusted per adult equivalent consumption.

TABLE 3.14d  
Informal Social Security Institutions

	Informal Social Security (ISS) Institutions, Birr	Consumption Mean (Birr)	Ratio: Average ISS/ Consumption	Observations
Bottom 40%	196	7,054	0.03	596
Top 60%	346	25,249	0.01	1,452

Source: ESS 2018/19.

Notes: (1) Estimates are weighted; number of observations is unweighted.  
(2) Consumption = spatially adjusted per adult equivalent consumption.

## 4. Summary and Looking Ahead

Analysis of the tax burdens faced by different groups relies on a combination of administrative data and nationally representative survey data collected regularly, which is still not readily available in many low-income countries.

The ESS 2018/2019 provides new, detailed, disaggregated survey data on taxation of individuals, households, and household businesses, and will allow further analyses of how taxes are paid according to other socio-economic and demographic characteristics of these groups. The microeconomic survey data that ESS 2018/2019 collected can complement administrative data to help us better understand of the implications of changes in tax policy and tax administration, both formal and informal, such as how recent tax policy shifts in Ethiopia have affected investments by smaller firms and employment in the informal sector, as well as the effects on earnings and community investments.

This analysis is a first step toward collecting more micro-survey, disaggregated data on taxation. Through collaborations with a variety of partners, the LSMS program also plans to build on this survey effort to understand how survey data can be further analyzed and improved so that it can complement administrative data and inform tax policy.

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