Report on the AUDRI 2019-2020 Côte d'Ivoire Surveys

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This report provides summary statistics on the 2019 household listing and the 2019-2020 individual survey conducted under the auspices of AUDRI in the Greater Abidjan region of Côte d'Ivoire.The household listing and the individual surveys were undertaken in collaboration with IPA-Cote d'Ivoire and with funding from the Stanford King Center on Global Development. Deivy Houeix and Eva Lestant provided research assistance during the fieldwork. Ana Carolina Queiroz provided research assistance for the data analysis.

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Executive summary

A large survey of mostly urbanized areas was conducted in sous-prefectures located within a 50Km radius around Abidjan. Downtown Abidjan proper is omitted from the sample. A household listing exercise taking place in the summer of 2019 identified 26,101 adults and children living in 5,127 households. 2.940 adults randomly selected from this list were then interviewed face-to- face between December 2019 and March 2020.

The main findings from the listing exercise are the following:

- Nuclear household members (household heads, spouses, sons, and daughters) account for 78% of all listed adults.
- 41% of listed adults are single.
- The ethnic composition of listed adults is extremely diverse, with no group representing more than 13% of the total.
- 9% of listed adults were born abroad and 15% report a foreign ethnicity.
- 47% of listed adults report being Muslim, 48% belong to various Christian denominations, and 4.1% are non-religious.
- The average time in the sous-prefecture of current residence is 15 years (median 11).
- 5% of listed adults intend to leave their place of residence in the next six months, of whom 7% plan to move abroad – primarily elsewhere in Africa.
- 68% of adults can read and write; 33% have no formal schooling (women 41%, men 23%).
- 60% of male adults report working, compared to 58% of female adults.
- Dividing the number of those looking for work by the sum of those employed and available for work gives an unemployment rate of 12.8% for men and 13.9% for women.
- Self-employment accounts for 60% of employed adults (women 63%, men 58%). 25% of adults are in permanent wage employment and 7% in casual wage employment.
- 32% of adults are employed in retail trade, 10% in transport and communication, and 10% in agriculture and forestry. The rest are in a variety of manufacturing and service sectors.
- 81% of listed children live in a household where all school-age children attend school.
- 37% of listed adults and children live in their own dwelling; 54% rent.
- 56% live in a compound; 3.3% in low-quality housing; 0.7% in a traditional dwelling.
- 90% of listed individuals live in a dwelling with at most 4 rooms; 18% live in a single room.
- The average occupancy rate is 2.9 individuals per room and 3.9 individuals per bedroom.

- The overwhelming majority live in dwellings with a corrugated iron roof, hard walls, a cement or tile floor, and a toilet inside or outside the building.
- 92% have access to tap water but, for 53% of them, the tap is outside their dwelling.
- 96.9% get light from the electrical grid.
- 77% use propane as cooking fuel.
- 36% of listed individuals rely on public garbage collection; 33% dispose of it 'in nature'.
- Only 7% of listed individuals have access to a sewer system.
- Only a small minority have a bicycle or other vehicle.
- Most households have a cooking pot, a fan, a bed, a stool, a television, and a mobile phone. Fewer have a fridge or freezer, a propane stove, or a computer.
- 85% of individuals live in a household without medical insurance. Of those requiring health care in the last 12 months, 41% had to cut down health expenses for lack of funds.
- As of the summer of 2019, 55% of households had heard of the government's CMU plan.
- 49% of households report living in a location with at least one community leader; 40% are able to give the name of one of them.

Here are some of the main findings from the individual survey:

- Individuals surveyed were 50.5% female and aged 37 on average (median 35); 32% are below 30 , 15% are above 50, and the rest (53%) between 30 and 50.
- The languages most commonly spoken at home are French (30%), Dioula (16%), and Malinke (12%). In total 56 languages are given as primary language spoken at home.
- 63% of respondents are able to read and write in French.
- Of those who received formal schooling, 36% only went to primary school, 48% attended secondary school, and 16% went beyond secondary school. These proportions differ by gender and by age, and men and younger individuals receiving more education.
- 43% of respondents had a mother in business (primarily retail trade) or as a homemaker (30%). Most had a father working in the fields (39%) or in wage work (37%).
- Respondents have spent 19.7 years on average in their current sous-prefecture of residence and 11.9 years in their current residence. 24% of respondents were born in their sous-prefecture of residence.
- Of the respondents who lived elsewhere before moving to their current sous-prefecture, 47% come from the Greater Abidjan region, 8% from abroad, and the rest (45%) from a great variety of sous-prefectures across Cote d'Ivoire.
- The picture is similar for those who moved in the last 10 years: 7% come from abroad, 53% from the Greater Abidjan region, and 40% from elsewhere in Cote d'Ivoire .

- 48% of people move for family reasons, 9% to marry, 23% to find work and 10% to study.
- Most people move with someone else – typically a parent, child, or sibling – and 72% know someone in their new sous-prefecture of residence before they move. Half of those who move find work in one month or less, but the average is 2 years.
- Respondents report an average monthly income of $106 (women $56, men $158) with a median of $54 (women $36, men $107).
- 66% report an average monthly income below the minimum wage.
- 70% of respondents list employment earnings as main source of income – primarily from business (28%), wage employment (19%), or casual work (13%) – while 16% list transfers and 14% report no income. 80% have no secondary source of income.
- Women are much less likely to be wage earners and more likely to receive transfers.
- Among wage earners, 39% earn less than the minimum wage and 9% exactly the minimum wage. The average number of days worked per month is 22.6 (median 26) and the median number of worked hours per working day is 9.8 (median 9).

Background

AUDRI seeks to document and understand the process by which large African cities grow over time. To this effect, surveys have been conducted at the periphery of two large African cities: Addis Ababa in Ethiopia, and Abidjan in Cote d'Ivoire. Unlike other surveys that focus either on urban or rural areas, AUDRI focuses on the interface between both. The purpose of this design is to observe how African cities grow into the surrounding countryside and progressively absorb neighboring towns and villages into a large metropolitan area. To this effect, AUDRI sampling concentrates on urban areas at the periphery of the center, and on towns and rural areas outside the current boundaries of the city, but susceptible to fall within its basin of attraction at some time in the future.

In this report we focus on what we call Greater Abidjan which, for the purpose of this study, we define as a large area encompassing not only the Abidjan administrative region but also neighboring towns and villages. Table 1. provides a list of the relevant sous-prefectures (i.e., municipalities) included in our definition of Greater Abidjan for the purpose of this study. The biggest concentrations are in: Abobo and Anyama – North of Cocody; and Yopougon – a large urban neighborhood West of Platteaux, the epicenter of Abidjan.

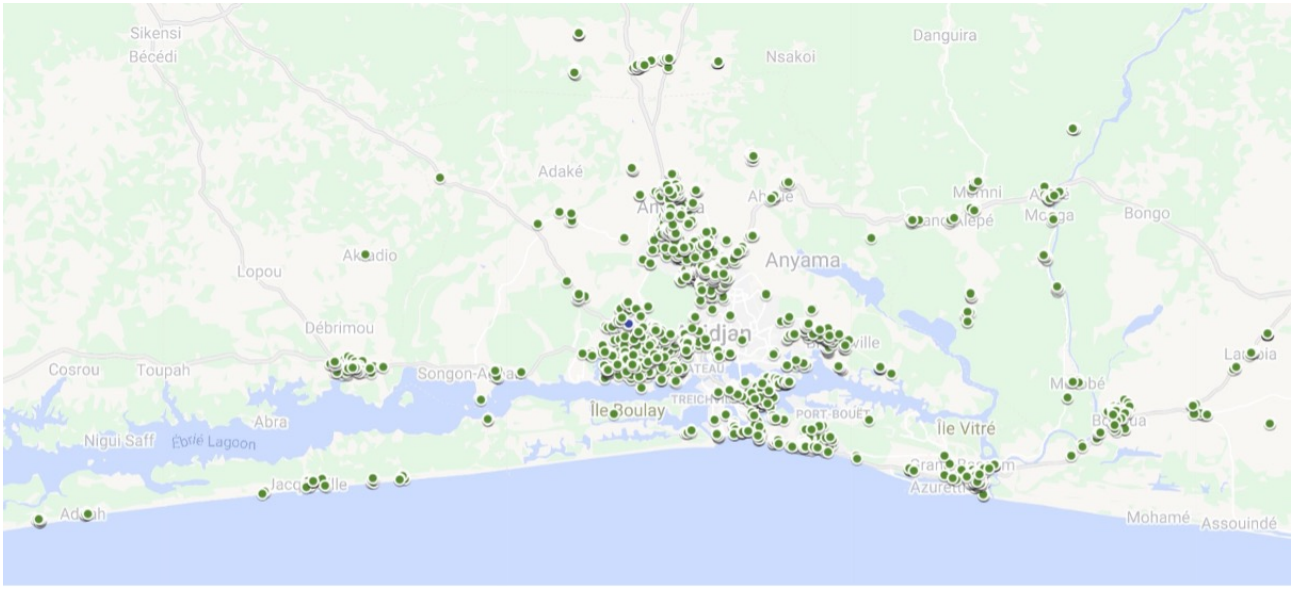
Table 1: Breakdown of listed households by sous-prefecture (municipality)

	freq	pct	cumpct
ABOBO	880	17.2	17.2
ALEPE	163	3.2	20.3
ANYAMA	692	13.5	33.8
ATTECOUBE	251	4.9	38.7
AZAGUIE	113	2.2	40.9
BINGERVILLE	347	6.8	47.7
BONOUA	262	5.1	52.8
BROFODOUME	73	1.4	54.2
DABOU	187	3.6	57.9
GRAND-BASSAM	291	5.7	63.6
JACQUEVILLE	144	2.8	66.4
KOUMASSI	419	8.2	74.5
OGHLWAPO	50	1.0	75.5
PORT-BOUET	372	7.3	82.8
SONGON	29	0.6	83.3
YOPOUGON	854	16.7	100.0
Total	5127	100.0	

The center of Abidjan proper is omitted from the analysis, since it is already fully urbanized. The sampling area is adapted to reflect the specific geography of the region surrounding Abidjan, which includes numerous obstacles such as the Atlantic Ocean, a very large lagoon with numerous ramifications, and a large 'green zone' close to the city center but devoid of

inhabitants. Map 1 shows all the 'zones de dénombrement' (enumeration areas) from which our sample was drawn. The maximum distance between areas covered by the study is 120 Km from East to West, and 50Km from South to North. Map 2 shows the precise location of the covered enumeration areas within the various sous-prefectures (municipalities) of Greater Abidjan – omitting the most outlying areas shown in **Map 1**.

Map 1: GPS location listed household



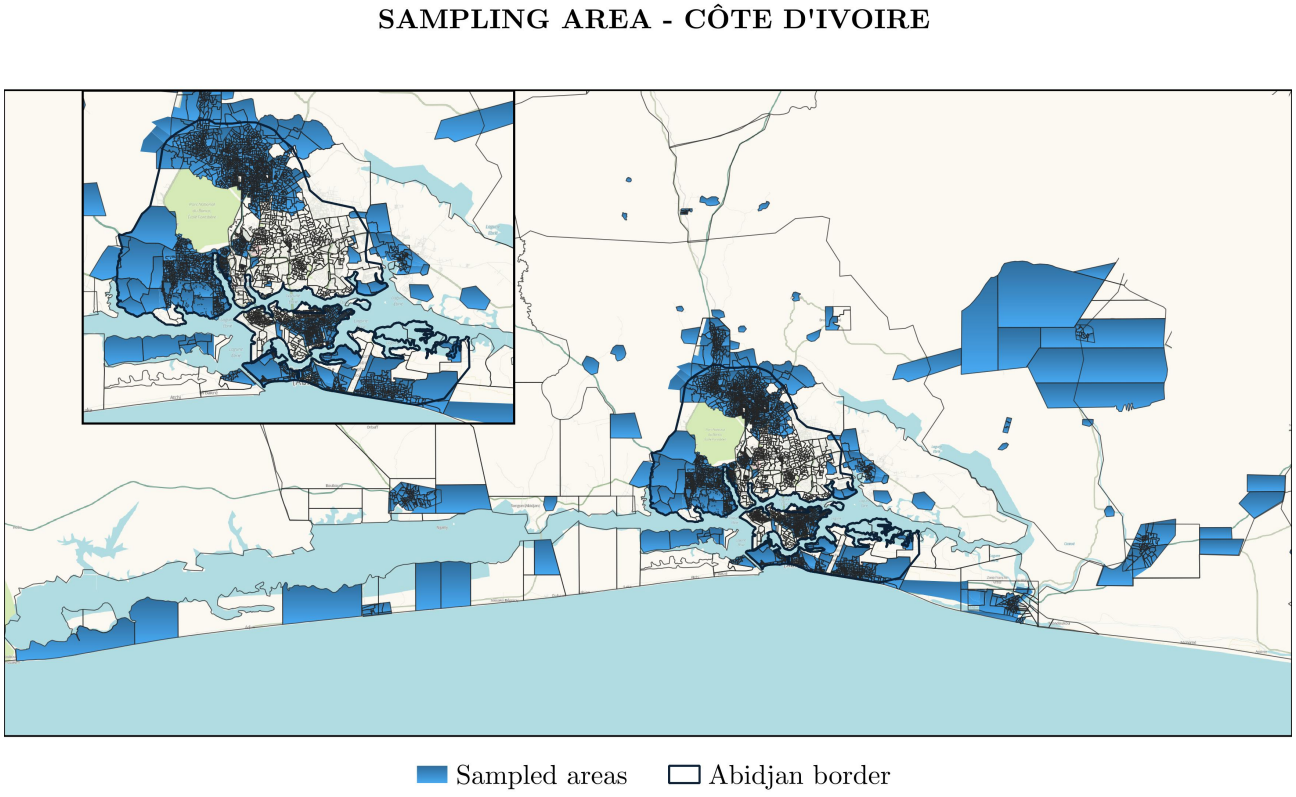
Data collection proceeded in two steps. We first constructed a sampling frame by undertaking a listing exercise of households in randomly selected zones dénombrement or ZD for short. The boundaries of these ZDs' correspond roughly to those of enumeration areas used by the Institut National de la Statistique (National Statistical Institute) in the last population census. In each ZD we collected information on a randomly selected subset of households belonging to our target group. The details of the sampling procedure are given in Appendix A. The listing exercise took place in July and August 2019. Each enumerated household completed a short questionnaire gathering information on the age, gender, and occupation of each member of the household.

In the second step, we conducted a detailed survey of adult individuals selected among the adult males and females identified in the listing exercise. This sample was constructed by first selecting a target number of households among those listed, and then selecting one adult among those listed in that household. Sampling was stratified by gender so as to have an equal number of men and women in the survey sample. The survey was initiated in December 2019 and completed in early March 2020, just before Covid-19 restrictions were put in place in Cote d'Ivoire. Appendix A provides detailed information on sampling and implementation.

As a sample frame, we use the enumerations areas (ZDs) provided by the Institut National de Statistique. In 2014, ZDs were defined as follows: (i) in urban area, a ZD includes exactly 200

households; (ii) in rural areas, a ZD includes all households living in a village, and thus can exceed or fall short of 200 households.

Map 2: Sous-préfectures (municipalities) covered in the study



For each zone, we use the ZD boundaries from the 2014 database to determine total population for sampling purposes. Based on this estimate, 85% of the population in Greater Abidjan lives in Abidjan City and 93% live in urban areas. Since AUDRI's focus is the city crown where urbanization is expected to increase in the coming years, we build our sample such that 50% of the listed households live in Abidjan City. In addition, we select 84 villages in 11 sous-prefectures, plus 622 urban ZDs located in these 11 sous-prefectures plus 5 fully urban sous-prefectures outside Abidjan proper. 78% of our listed households live in urban areas as defined by the Institut National de Statistique.

To construct the sample for the individual survey, we begin by randomly selecting 70% of the households listed in each of the rural and urban ZDs where a listing took place. We then randomly select one adult in each of the sampled households. The selected adult is male or female with equal probability. The individuals survey is organized around a 4-hours long questionnaire that include a wide range of topics about the respondent's work and income, transport habits, health condition, and access to public services.

The object of this report is to document the wealth of original information collected during the household listing and individual surveys. Throughout the report we use an exchange rate of $1.79 for 1000 FCFA. Most Tables use the original labels assigned to various questions during the survey. This is done for the purpose of clarity, so that researchers from Côte d'Ivoire and elsewhere can get a clear idea of what the data represents. The main features of each Table are summarized in the text.

Part I. Household listing

The questionnaire used for the household listing is presented in the Appendix. We summarize here all the variables collected during the listing. The total number of listed households is 5,127. These households include, in total, 26,101 individuals: 15,075 adults; and 11,026 children aged 0 to 17. The listed adults are more or less equally split between males (49.1%) and females (50.9%).

Enumerators were asked to classify the respondent's neighborhood based on observation. As shown in Table 1.2., 57.4% of listed individuals were classified as living in a ZD that is neither poor nor rich while 38% were in a ZD classified as poor. Only 4.6% were classified as living in a rich ZD. For those households located in urban areas, 31% live in a ZD classified as vulnerable by the government, a classification that includes slums. This verifies that our sampling strategy was generally successful at identifying poorer ZDs.

Table 1.2: ZD's wealth classification

	freq	pct	cumpct
1. Very wealthy	74	0.5	0.5
2. Somewhat wealthy	619	4.1	4.6
3. Neither poor nor wealthy	8645	57.4	62.0
4. Rather poor	4682	31.1	93.0
5. Very poor	1051	7.0	100.0
Total	15071	100.0	

We start by presenting the information we collected on all adults. Household size is, on average, relatively small: 52% of listed adults live in households with at most 3 adult members and 87.9% live in households with at most 6. Only 2.2% of listed adults live in households of ten adults or more, while 4.1% of adults live in a single adult household. Among the 77% of household members for whom an age was reported, the average age 35.1 with a median of 32. One third of respondents are aged 52 and above, one third are aged 29 or below.

Table 1.3. shows the relationship that listed adults have to the head of household. The household heads themselves account for a little over one third of listed adults. Spouses account for around 23% while sons and daughters account for 21%. This means that, together, nuclear household members account for 78% of all listed adults. Other relatives account for about 20% of the listed adults, and non-family members for less than 2%. The listing questionnaire was answered mostly by a member of the household nucleus: either the household head (46.4% of listed individuals), a spouse (29.7%), or an adult son or daughter (13.6%). Other household members account for 10.3% of the respondents – even though they account for 22.1% of listed individuals. 54.4% of listed individuals live in a household for which the respondent was a woman.

Table 1.3: Relation to the head of household

	freq	pct	cumpct
01. Household head (CM)	5127	34.0	34.0
02. Spouse of the CM	3418	22.7	56.7
03. Son / Daughter	3196	21.2	77.9
04. Father / Mother	212	1.4	79.3
05. Brother / Sister	1164	7.7	87.0
06. Nephew / Niece	576	3.8	90.9
07. Uncle / Aunt	88	0.6	91.4
08. Grandparents	24	0.2	91.6
09. Grandson / Grand daughter	220	1.5	93.1
10. Cousin	192	1.3	94.3
11. Step-brother / Step-sister	307	2.0	96.4
12.Step-father / Step-mother	40	0.3	96.6
13. Step-son / step-daughter	186	1.2	97.9
14. Servant	48	0.3	98.2
15. Tenant	11	0.1	98.3
16. Other family ties	55	0.4	98.6
17. Other non-family relationship	207	1.4	100.0
Total	15071	100.0	

The marital status of listed adults is presented in Table 1.4. We see that 41% are single. About 46% of these single are sons and daughters of the head; 15% are head of household; and the rest are relatives. In fact, the overwhelming majority of adult relatives who live in the household but are not part of the nuclear family of the head are either single or, in some cases, widowed.

Table 1.4: Marital status

	freq	pct	cumpct
01. Single	6221	41.3	41.3
02. Free Union / Cohabitation	2858	19.0	60.2
3. Married (monogamous)	4637	30.8	91.0
4. Married (polygamous - 2 spouses)	386	2.6	93.6
5. Married (polygamous - 3 spouses)	54	0.4	93.9
6. Married (polygamous - 3+ spouses)	5	0.0	94.0
7. Separated	57	0.4	94.3
8. Divorced	70	0.5	94.8
9. Widow	679	4.5	99.3
Don't know	104	0.7	100.0
Total	15071	100.0	

Unsurprisingly, most adults listed as spouse of the head are reported as married or cohabiting

with the head. A small number of heads have multiple wives. Taken together, the picture that emerges is one dominated by nuclear households formed by a couple living with their children, and hosting a variety of unmarried relatives, possibly until they form their own household by marrying someone else. Only a small number of listed adults live in households with multiple couples.

Listed adults come from an extremely wide range of sous-prefecture of birth, with 8.9% being born abroad. 97.9% of listed adults have a birth certificate (77.7% have an identity card). About 38% of listed adults were born in the large area we call Greater Abidjan for the purpose of this study. The ethnic composition of the listed adults is quite diverse, with 13.4% Malinke/Maninka, 10.7% Baoule, 8.8% Senoufo, and 52% from no less than 54 different reported ethnicities. In addition, 15% report a foreign ethnicity, half of them from Burkina Faso. From this information, we conclude that the adult population of Greater Abidjan is extremely varied in terms of ethnic origin. As shown in Table 1.5, variety extends to religion as well. 47.3% of listed adults are reported being Muslim, 48% belong to various Christian denominations, 4.1% non-religious, and a few members of local churches and belief systems.

Table 1.5: Religion

	freq	pct	cumpct
01. No religion	601	4.1	4.1
02. Catholic	3109	21.4	25.6
03. Methodist	552	3.8	29.4
04. Evangelist	2551	17.6	47.0
05. Heavenly	67	0.5	47.4
06. Harrist	268	1.8	49.3
07. Other Christian religion	422	2.9	52.2
08. Muslim	6852	47.2	99.4
09. Animist	88	0.6	100.0
Total	14510	100.0	

Two third of listed adults were already living in their 2019 residence in 2014 at the time of the last population census. The others predominantly moved to their current residence from somewhere else in Greater Abidjan since 2014. We also have information on the time spent in the current region for about two third of the listed adults. The average reported duration is 19 years. The average time spent in the sous-prefecture of current residence is 15 years, with a median of 11 years. We also find that only 5.3% of listed adults intend to leave the district in the next six months, of whom 7.1% plan to move abroad – primarily elsewhere in Africa. The rest of the prospective migrants principally plan to move to another district within Greater Abidjan. This suggests that most of the listed adults are well settled in the Greater Abidjan region, with little intention to leave.

We also note that, apart from parents of the head, all other adults have lived much less time

in the Abidjan region than the household head. For distant relatives, the difference on average exceeds 10 years. Co-resident relatives outside the nuclear family of the household head tend to be more recently arrived in the city than the head, a finding in line with the commonly reported practice of urban households hosting migrant (mostly unmarried) relatives.

In terms of education, 68.2% of listed adults are reported to be able to read and write. 32.6% are reported to be without formal schooling. 21.2% have completed primary school; 34.0% have completed some form of secondary education, either general or technical; and 12.1% have some form of post-secondary education, mostly in the form of a one- or two-year degree. Women are less educated on average: 41% of them have no education, compared to 23% of men; and 50.5% of them have at most secondary education, compared to 60.7% of men. 29.3% of listed adults are reported to have received vocational training. Recipients are found primarily among individuals with some education: only 16.8% of uneducated individuals have received vocational training, suggesting that it is not a substitute for formal education.

Table 1.6: Current occupation

	Men freq/colpct	Women freq/colpct	Total freq/colpct
1. Employed	4383	4510	8893
	60.3	58.3	59.3
2. Unemployed	340	323	663
	4.7	4.2	4.4
3. Looking for their first job	301	402	703
	4.1	5.2	4.7
4. Housewife	1027	1376	2403
	14.1	17.8	16.0
5. Student	912	903	1815
	12.6	11.7	12.1
6. Retired	265	184	449
	3.6	2.4	3.0
7. Annuitant	38	36	74
	0.5	0.5	0.5
Total	7266	7734	15000
	100.0	100.0	100.0

Table 1.6. breaks down the occupational status of listed adults by gender. We see that 60.3% of male adults are reported as working, compared to 58.3% of female adults, 17.8% of whom are reported to be housekeepers. Around 12% of adults are students (26.6% among adults who are not the head or spouse) and 3% are retired. Some 9% of adults are reported to be either unemployed or looking for their first job. If we divide the number of individuals looking for work by the sum of those who are employed and available for work, we obtain an unemployment rate of 12.8% for men and 13.9% for women. The proportion of unemployed is a much

higher 25% among household adults who are not head or spouse – and 20% for those outside the nuclear family of the head. This again confirms the role that households play in sheltering relatives who are either studying or looking for work. This being said, most relatives from outside the nuclear family of the head are either working (49.9%), studying (19.6%) or helping with household chores (15.2%).

Table 1.7. below breaks down the type of occupation by gender. We see that the largest category is self-employment, which accounts for 60.5% of employed adults – 62.7% among women and 58.2% among men. 24.6% of adults are in permanent wage employment and another 6.5% in casual employment. Both proportions are higher among men.

Table 1.7: Employment status if working

	Men freq/colpct	Women freq/colpct	Total freq/colpct
1. Employer	75	77	152
	1.7	1.7	1.7
2. Public employee	219	206	425
	5.0	4.6	4.8
3. Private employee	957	788	1745
	22.0	17.7	19.8
4. Casual Worker	289	284	573
	6.6	6.4	6.5
5. Cooperative	8	14	22
	0.2	0.3	0.2
6. Independent	2532	2799	5331
	58.2	62.8	60.5
7. Family Support	66	105	171
	1.5	2.4	1.9
8. Apprentice	204	186	390
	4.7	4.2	4.4
Total	4350	4459	8809
	100.0	100.0	100.0

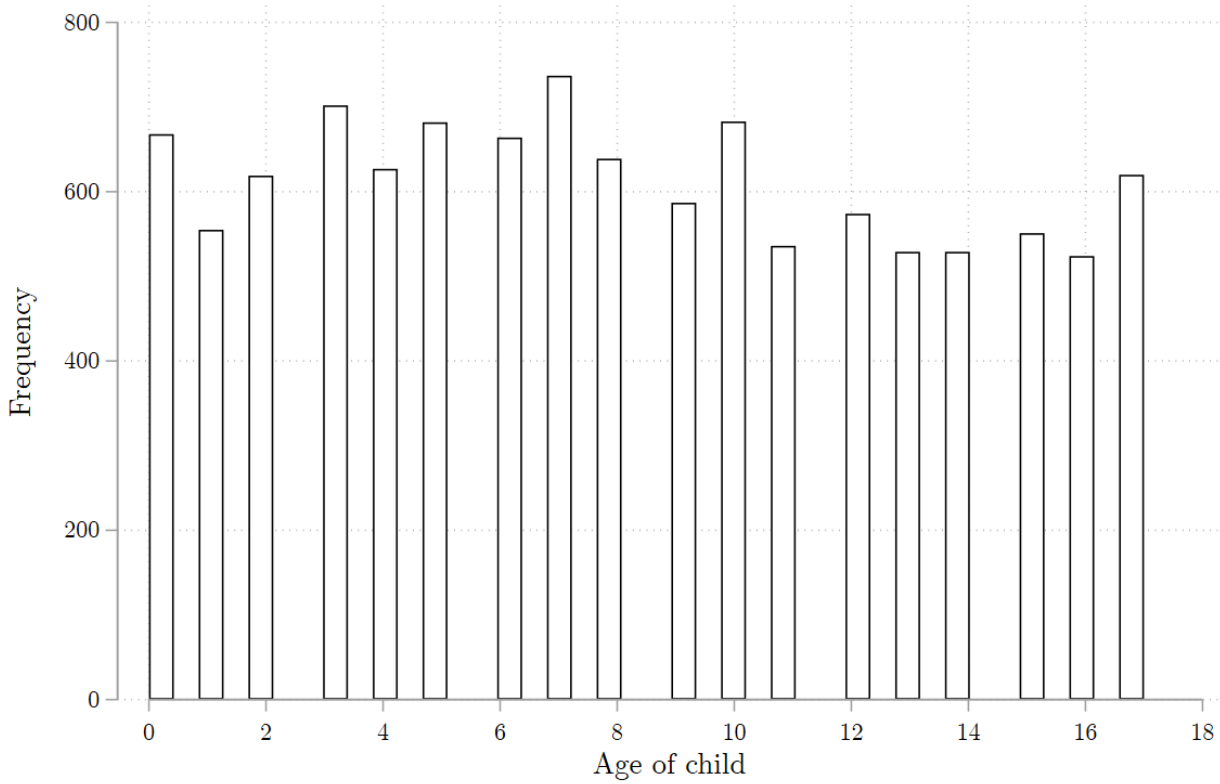
In terms of sector of occupation (Table 1.8.), we find that 31.6% of the employed are in retail trade and another 9.6% in transport and communications. 9.7% are employed in farming or forestry, reflecting the fact that a fraction of our sample lives in a rural or semi-rural setting. The rest are employed in a wide variety of manufacturing and service sectors, none of which accounts for more than 7% of the total – the largest being construction , with 6.5%, garment making, with 4.5%, and art and culture, with 4.5%.

Table 1.8: Sector of employment

	freq	pct	cumpct
Subsistence farming	353	4.0	4.0
Industrial agriculture and export	377	4.3	8.3
Breeding and Hunting	73	0.8	9.1
Forestry and Logging	52	0.6	9.7
Extractive industries	17	0.2	9.9
Production of meat and fish	90	1.0	10.9
Cocoa and coffee processing	14	0.2	11.0
Bakery, Confectionery and Pasta	67	0.8	11.8
Dairy, fruit and vegetable industries, manufacture of other food products	126	1.4	13.2
Beverage industry and water ice	31	0.4	13.6
Tobacco Industry	5	0.1	13.6
Manufacture of clothing and hosiery	398	4.5	18.1
Manufacture of leather and footwear	27	0.3	18.4
Woodworking and wood products manufacturing	156	1.8	20.2
Manufacture of paper and cardboard, printing, publishing	39	0.4	20.6
Manufacture of basic chemicals	21	0.2	20.9
Rubber and plastic	50	0.6	21.4
Ceramic industry, glass and building materials	35	0.4	21.8
Metallurgy and metal working	218	2.5	24.3
Manufacture of machinery, equipment and electrical appliances	34	0.4	24.7
Manufacture of audiovisual and communication equipment, manufacture of medical i	16	0.2	24.9
Manufacturing of Transportation Equipment	42	0.5	25.3
Furniture industry	27	0.3	25.6
Production and distribution of electricity, gas and water	40	0.5	26.1
Construction (building and public works)	572	6.5	32.5
Wholesale	204	2.3	34.9
Retail	2792	31.6	66.4
Repair	243	2.7	69.2
Hotels and restaurants	180	2.0	71.2
Transport and communications	847	9.6	80.8
Post and telecommunications	110	1.2	82.0
financial and real estate activities	104	1.2	83.2
Public Administration and Security	333	3.8	86.9
Education	263	3.0	89.9
Health and Social Action	223	2.5	92.4
Community activities	42	0.5	92.9
Arts and culture	400	4.5	97.4
Environment	36	0.4	97.8
Maintenance/Housekeeping	191	2.2	100.0
Total	8848	100.0	

We now turn to the children living in listed households. 50.2% of children are female. Figure 1 shows the histogram of the ages of the 11026 children living in the listed households. We see that it is relatively constant. 80.5% of listed children live in households where all school-age children (i.e, aged 6 to 16) attend school.

Figure 1: Histogram of Children Age



Source: AUDRI Listing Survey

We now turn to household characteristics. Instead of reporting averages across households of different size, we report averages across all individuals (adults and children) living in listed households. This means that the averages we present can be interpreted as the proportion of individuals living in households with the given characteristic. The advantage of this approach is to correct for possible correlation between household size and living standards.

We begin by looking at the characteristics of the dwelling in which individuals live. 37.3% of listed individuals own the dwelling in which they live; 54.4% rent; and 7% have complimentary usage of their dwelling. As shown in Table 1.9., the majority of listed individuals (55.6%) live in what is known regionally as a compound or concession, that is, a collection of dwellings organized around a shared open area. 24.2% live in a detached house and 12.5% in row houses. Only 3.6% live in an apartment. Only 3.3% live in low quality housing (i.e., 'slums') and 0.7% in a traditional dwelling. 90% of listed individuals live in a dwelling with at most 4 rooms –

but only 17.7% live in a dwelling with a single room. In terms of sleeping arrangements, most listed individuals live in dwellings with 1 (40.8%) or 2 bedrooms (34.1%). Only 3% of listed individuals live in a dwelling with 6 or more bedrooms. The average occupancy rate is 2.91 individuals per room and 3.91 individuals per bedroom – with slightly higher occupancy rates for females than for males across listed individuals.

Table 1.9: Type of construction

	freq	pct	cumpct
1. Villa / standalone house on plot	633	4.2	4.2
2. Single House	3024	20.1	24.3
3. Band Accommodation	1889	12.5	36.8
4. Apartment in a building	537	3.6	40.4
5. Common Court / Concession	8383	55.6	96.0
6. Traditional Case	108	0.7	96.7
7. Barracks	497	3.3	100.0
Total	15071	100.0	

Tables 1.10. to 1.14. document the amenities offered by the dwelling individuals live in. We see that the overwhelming majority of listed individuals live in dwellings with a corrugated iron roof, hard walls, a cement or tile floor, and a toilet inside or outside the building. Arguably the biggest difference is between those with a toilet inside the house (39.4%) and those outside (57.5%). Regarding personal hygiene, 41.8% of listed individuals have access to a proper shower or bathroom, 48.9% have access to a rudimentary shower, and 9.3% must wash in the open.

Table 1.10: Type of roof

	freq	pct	cumpct
1. Natural fibers	115	0.8	0.8
2. Sheet metal	13990	92.8	93.6
3. Concrete	773	5.1	98.7
4. Tile / Everite	123	0.8	99.5
5. Canvas plastic / Tarpaulin	70	0.5	100.0
Total	15071	100.0	

Table 1.11: Type of wall

	freq	pct	cumpct
1. Wood	666	4.4	4.4
2. Sheet metal	28	0.2	4.6
3. Banco or clay	406	2.7	7.3
4. Medium hard	486	3.2	10.5
5. Geoconcrete	61	0.4	10.9
6. Hard	13422	89.1	100.0
Total	15069	100.0	

Table 1.12: Type of floor

	freq	pct	cumpct
1. Earth or Sand	149	1.0	1.0
2. Cement	9994	66.3	67.3
3. Tiles / marble	4633	30.7	98.1
4. Carpet	287	1.9	100.0
5. Wood	6	0.0	100.0
Total	15069	100.0	

Table 1.13: Where is the household's principal toilet?

	freq	pct	cumpct
1. Toilet inside	5935	39.4	39.4
2. Toilet outside	3786	25.1	64.5
3. Latrine in the courtyard	4882	32.4	96.9
4. Latrine out of courtyard	276	1.8	98.7
5. In nature	189	1.3	100.0
Total	15068	100.0	

Table 1.14: Where do household members take the shower?

	freq	pct	cumpct
1. Outside	1400	9.3	9.3
2. Rudimentary shower	7368	48.9	58.2
3. Bathroom	6299	41.8	100.0
Total	15067	100.0	

There is more variation in access to water. In Table 1.15. we see that the overwhelming majority of households (92.1%) have access to tap water for their drinking water needs but, for 53.2% of them, the tap is located is outside the dwelling. A very similar situation is seen (Table 1.16.) for non-drinking water, except that a few individuals make use of wells for their non-drinking water needs.

Table 1.15: Main source of drinking water

	freq	pct	cumpct
01. Running water in housing	5862	38.9	38.9
02. Running water in the yard	6211	41.2	80.1
03. Running water on the outside	1803	12.0	92.1
04. Village Pump	417	2.8	94.9
05. Well in the courtyard	320	2.1	97.0
06. Public Well	356	2.4	99.3
07. Surface water (creek, river, etc.)	71	0.5	99.8
08. Rainwater	1	0.0	99.8
09. Mineral water bottle	10	0.1	99.9
10. Purchase of non-mineral water	18	0.1	100.0
Total	15069	100.0	

Table 1.16: Main source of water for toilet, dishes, and household washing

	freq	pct	cumpct
01. Running water in housing	5778	38.3	38.3
02. Running water in the yard	6011	39.9	78.2
03. Running water on the outside	1401	9.3	87.5
04. Village Pump	428	2.8	90.4
05. Well in the courtyard	871	5.8	96.2
06. Public Well	493	3.3	99.4
07. Surface water (creek, river, etc.)	68	0.5	99.9
08. Rainwater	6	0.0	99.9
10. Purchase of non-mineral water	13	0.1	100.0
Total	15069	100.0	

Table 1.17. further shows that most listed individuals (96.9%) get light from the electrical grid. Very few listed individuals rely on solar panels or a generator. Propane is the most common cooking fuel (77.2%). The rest of the listed individuals rely on firewood (13.9%) or charcoal (8.8%) for their cooking needs as shown in Table 1.18.

Table 1.17: Principal mode of lighting

	freq	pct	cumpct
1. Electricity (ICE)	14590	96.9	96.9
2. Generator	18	0.1	97.0
3. Solar Panel	84	0.6	97.5
4. Lamps (petroleum, gas, Oil)	99	0.7	98.2
6. Torch	273	1.8	100.0
Total	15064	100.0	

Table 1.18: Main method of cooking

	freq	pct	cumpct
01. Firewood	2069	13.9	13.9
02. Gas	11481	77.2	91.2
03. Coal	1308	8.8	100.0
04. Electricity	4	0.0	100.0
05. Agricultural products (stem, leaves, etc.)	1	0.0	100.0
Total	14863	100.0	

There is a lot more variation in garbage collection and sewerage. Table 1.19. shows that only 36.3% of listed individuals rely on public garbage collection. Another 17.1% rely on private garbage collectors. The rest dispose of their household refuse through ad hoc ways, mostly by disposing of it 'in nature' (33%), that is, in the open outside the house or compound. Sewerage is even more problematic (Table 1.20.). Only 6.9% have access to a sewer system. Another collect liquid waste in a 'sceptic' tank – which presumably needs to be emptied at regular intervals. The rest dispose of their waste either in the street (25.6%), in storm drains (14.7%), or 'in nature' (16.1%). Good access to waste disposal is not strongly correlated across modes. For instance, only 2% of listed individuals have both their solid waste picked up by the government and their liquid waste going to a proper sewer system, and 26% have their solid waste picked up either by the government or a private collector, and either a sewer or a sceptic tank.

Table 1.19: Main mode of disposing the garbage

	freq	pct	cumpct
2. Wagon	1169	7.8	7.8
4. In nature	4970	33.0	40.7
5. Burned garbage	258	1.7	42.5
6. Buried garbage	410	2.7	45.2
1_1. Collection by the State / City Council	5468	36.3	81.5
1_2. Collection by a private company	2583	17.1	98.6
1_3. Don't know who collects garbage	210	1.4	100.0
Total	15068	100.0	

Table 1.20: Main mode of disposing the household's used water

	freq	pct	cumpct
1. Septic	5597	37.2	37.2
2. Sewer system	1036	6.9	44.0
3. On the street	3854	25.6	69.6
4. In the gutter	2148	14.3	83.9
5. In nature	2430	16.1	100.0
Total	15065	100.0	

Table 1.21: Ownership of consumer durables

(a) Transport

	pct
Bike / Bicycle	7.7
Motorcycle	7.7
Vehicle (car / truck)	7.4
Canoe	0.7
Moto-boat	0.2
Cart	0.4
Fishing boat	0.2
Wheelbarrow	8.3

(b) Electrical appliances

	pct
Fridge	29.2
Freezer	19.0
Cooking pot	86.5
Gas cookers	19.7
Iron	12.6
Air-conditioner	4.6
Fan	85.5
Mortar pestle	84.2
Plastic bucket	98.8

(c) Household furniture and equipment

	pct
Bed	92.0
Mat	87.7
Carpet / rug	41.1
Sheets and blanket	98.4
Stool	95.3
Armchair	53.8
Chair	77.8
Table	81.1

(d) Audio-visual equipment

	pct
Radio	50.5
Television	85.2
Phone	1.4
Mobile phone	96.5
Computer	14.6
Internet connection	40.6
Stereo system	20.2
Parabolic antenna	37.9
Digital camera	2.1

Ownership of consumer durables is summarized in Table 2.82. We first note that only a minority of listed individuals have access to their own mode of transportation, with more of them having access to a wheelbarrow than a bicycle. Even though Greater Abidjan is traversed by various branches of the lagoon, hardly any of the listed individuals has access to their own boat. In terms of household appliances, most listed individuals live in a household with a cooking pot, a fan or a pestle mortar, much fewer have a fridge or freezer, or a propane stove. Few have an electric iron and even fewer have air conditioning unit. Nearly all have a plastic bucket. In terms of furniture, most listed individuals live in a household with at least one bed with bedsheets and a blanket, and at least one stool and a matt. Many also have a table and chairs, some have an armchair or a carpet. We have noted that most households have access to the electrical grid. It is therefore little surprising that many have a television, some with a satellite dish. The majority of listed individuals live in a household with at least one mobile phone, often with an internet connection. About have live in a household with a radio. Some have a stereo and a few a computer. Hardly anyone has a landline or a digital camera.

Next, we present the data collected in the listing on access to health care. 89.5% of listed individuals live in a household that has required medical care in the preceding 12 months. Of those, 40.7% had to give up on some aspect of medical care for lack of funds. 25.6% had to borrow or sell some of their property to cover medical costs. These answers are less surprising when we learn that 85.1% of listed individuals live in households without medical insurance.

At the time of the listing survey, the Cote d'Ivoire government was considering the introduction of the CMU, a government program offering a universal medical cover similar to that offered to civil servants. We asked respondents whether they had heard of this program. 54.6% of listed individuals lived in a household that had. Of those, 24% (12.6% of all listed individuals) were in households in which at least one member was enrolled in the program, although only half had already received the electronic card required to access the service in health centers. 61.5% of listed individuals lived in households with a positive opinion of the project, 15.7% were neutral, 17.1% without opinion, and only 5.6% with a negative opinion. 62.3% had confidence in the government's ability to put the system in place, with the rest were more skeptical.

Respondents were also asked a few questions regarding local governance. 48.7% of listed individuals belong to households that report living in a village or neighborhood with a community leader. 22.2% do not know whether there is a community leader and 29.1% say there isn't. Of those listed individuals who report living in an area with a community chief, 44.7% state knowing the name of the village chief, 15.4% know the president of a woman's association, 28.7% the president of a youth association, and 6.7% another local leader. In most cases, the respondent is also able to volunteer the ethnicity of that person, with a lot of variation regarding this ethnicity across areas. Combining all this information, we find that 40.2% of listed individuals live in a household that is able to give the name of at least one community leader. The others either don't think there is a community leader, don't know if there is one, or think there is at least one but are unable to name any of them.

Part II. Individual Survey

The questionnaire used for the individual survey is presented in the Appendix. We summarize here all the variables collected during the survey. The total number of surveyed individuals is 2940. By design, these individuals live in 2940 separate households since we only selected one individual per listed household. As a result of stratification, surveyed individuals are equally split between males (49.5%) and females (50.5%).

Personal background and characteristics

47.5% of respondents describe themselves as head of household. This proportion is higher among male (73.7%) than female respondents (21.9%). The adequacy between that self-description and the characterization given by the listing respondent is not perfect, as shown in Table 2.1. But based on that characterization, 45.2% of respondents are head of household, 26% are spouse of the head, 14.3% are a son or daughter of the head, and 13.3% are another male or female relative of the head. Only 1.2% of respondents are unrelated to the head.

Table 2.1: Relation to the head of household in the listing

	Is not the Head freq	Is the Head freq	Total freq
01. Household head (CM)	81	1248	1329
02. Spouse of the CM	721	43	764
03. Son / Daughter	394	27	421
04. Father / Mother	21	10	31
05. Brother / Sister	122	38	160
06. Nephew / Niece	63	6	69
07. Uncle / Aunt	9	0	9
08. Grandparents	3	1	4
09. Grandson / Grand daughter	18	1	19
10. Cousin	20	7	27
11. Step-brother / Step-sister	34	4	38
12.Step-father / Step-mother	5	1	6
13. Step-son / step-daughter	20	1	21
14. Servant	8	0	8
15. Tenant	2	0	2
16. Other family ties	3	2	5
17. Other non-family relationship	19	7	26
Total	1543	1396	2939

The average age of the respondent is 37.2, with a median age of 35. This is slightly higher than the average and median age of listed adults, probably capturing the fact that large households contain more young adults, and that we only sample one adult per household. The average number of household members reported by respondents is 5.63, with 3.19 adults and 2.44 children. The individual survey thus tends to under-represent adults living in large households: 68.5% of respondents live in households with at most 3 adult members – compared to 52% of adults counted in the listing exercise. 93.5% live in households with at most 6. Only 1.4% of respondents live in households of ten adults or more, while 8.8% live in a single adult household.

The matrimonial status of survey respondents is shown in Table 2.2. Unmarried adults account for 29.4% of respondents – compared to 41.3% of listed adults. The rest of the distribution is similar to that of listed adults.

The overwhelming majority of respondents (91.9%) report being born in Cote d'Ivoire, with about 39% coming from the area we call Greater Abidjan, while the rest come from all regions of the country. 8.1% were born abroad – primarily in Burkina Faso, Mali and Togo. Only 85.3% of respondents have the Ivorian nationality, however. This is because some 7.6% of respondents born in the country do not hold its nationality. Only 13 of the 239 respondents born outside Cote d'Ivoire hold an Ivorian nationality.

Table 2.2: Marital status

	freq	pct	cumpct
1. Single / never married (e)	864	29.4	29.4
2. Free Union / Cohabitation	578	19.7	49.0
3. Married (monogamous)	1173	39.9	88.9
4. Married (polygamous - 2 spouses)	71	2.4	91.4
5. Married (polygamous - 3 spouses)	14	0.5	91.8
6. Married (polygamous - 3+ spouses)	3	0.1	91.9
7. Separated	59	2.0	93.9
8. Divorced	27	0.9	94.9
9. Widow	150	5.1	100.0
Other (specify)	1	0.0	100.0
Total	2940	100.0	

The most commonly spoken language spoken at home is French, which account for 30.4% of respondents. Other languages spoken at home include Dioula (15.6%) and Malinke (12.1%). No less than 56 languages in total are given as the primary language spoken at home, again confirming the diverse multi-ethnic make-up of the population of Greater Abidjan. As shown in Table 2.3., most respondents speak more than one language. 63.2% of respondents report being able to read and write in French, with another 4.2% being able to read it.

Table 2.3: Number of spoken languages

	freq	pct	cumpct
1	344	11.7	11.7
2	1981	67.4	79.1
3	544	18.5	97.6
4	63	2.1	99.7
5	6	0.2	99.9
6	2	0.1	100.0
Total	2940	100.0	

28.9% of respondents report receiving no schooling – 19.2% among men, 38.4% among women. Unsurprisingly, this proportion is higher among older respondents. Individuals born outside Cote d'Ivoire are 30% less likely to have gone to school. 11.3% of respondents report still being in school. The age at which respondents started school varies considerably, with 48.3% starting after the age of 6 and 5% starting above the age of 9. Of those who started schooling, 50.1% finished at or before the age 16 while 25.6% continued beyond the age of 20. The data shows considerable variation in the age of which respondents stopped their schooling, possibly

capturing situations in which individuals dropped in and out of school over time. 4.8% of individuals reporting some schooling only attended Koranic school. Of those who received formal schooling, 36.2% only went to primary school and 15.6% went beyond secondary school, with the rest (48.2%) attending at least some secondary school. These proportions differ by gender, with 46.3% of female respondents only reporting attending primary school compared to 28.2% of men. 19.6% of men and 11.7% of women report some tertiary schooling. These proportions vary somewhat by age, with 21.3% of men below 40 reporting some tertiary education compared to 13.3% among men 40 and above. 8.3% of respondents report attending night school, mostly at the primary (54.9%) or secondary level (36.5%). 32.2% of respondents received vocational or professional training after leaving school – 69% of them in their enterprise. The rest received it in a training center – private in 83.1% of the reported cases. Only 10.4% of respondents believe they are well informed about vocational training opportunities. 70.3% answer they would like to receive more information.

Respondents were asked the main occupation of their mother and father while they were growing up. Responses are presented in Tables 2.4. and 2.5. Many respondents say that their mother had her own business (32.7%) or ran the family business (10.8%), 22.8% that she worked in the fields, and 29.9% that she was a homemaker. Very few mothers (3.8%) worked for wage. In terms of sector of activity, most mothers in the private sector worked in retail trade (67.9%), with another 7.5% of them in hotels and restaurants and 5.1% in wholesale trade. The rest are distributed among a large number of sectors.

Table 2.4: Occupation of Respondent's mother

	freq	pct	cumpct
1. Remained at home, housework	843	29.9	29.9
2. Run your own business (entrepreneur)	923	32.7	62.6
3. Managed the family business (non-agricultural)	303	10.7	73.4
4. worked without pay for a family business	2	0.1	73.5
5. Worked in farm work	642	22.8	96.2
6. Worked in private / employment sector	58	2.1	98.3
7. Had one or casual jobs	10	0.4	98.7
8. Worked in the public sector	38	1.3	100.0
Total	2819	100.0	

Fathers worked mostly in the fields (38.5%) or in wage work (37.3%) in the private or public sector. Another 18.4% had their own business and 4.5% ran a family business. Unlike mothers, fathers working in the private employment were not concentrated in a small number of sectors. The two largest sectors were transport and communication, accounting for 19.3% of working fathers, and retail trade (15.1%). The rest of fathers are distributed across all the other sectors of the economy.

Table 2.5: Occupation of Respondent's father

	freq	pct	cumpct
1. Remained at home, housework	30	1.1	1.1
2. Run your own business (entrepreneur)	500	18.4	19.5
3. Managed the family business (non-agricultural)	123	4.5	24.0
4. worked without pay for a family business	5	0.2	24.2
5. Worked in farm work	1048	38.5	62.7
6. Worked in private / employment sector	566	20.8	83.5
7. Had one or casual jobs	58	2.1	85.6
8. Worked in the public sector	391	14.4	100.0
Total	2721	100.0	

Spatial mobility

Table 2.6. summarizes the information we have on respondents' place of birth, which is known for 87.8% of the sample. 10.4% of respondents were born in their current place of residence, and another 13.9% in their current sous-prefecture – together accounting for 24.3% of the sample. The rest moved across sous-prefectures a number of times between their birth and the time of the survey: 25.8% moved once across sous-prefectures of residence; 21.8% twice; 11.1% thrice; and 4.7% four times. Among those whose birth sous-prefecture is unknown, we suspect that some moved more than 4 four times. It is worth noting that conditional probabilities of having moved from a previous sous-prefecture of residence are relatively stable: of those who were not born in their sous-prefecture of current residence, 35.1% were born in their previous sous-prefecture of residence; among those who lived in a previous sous-prefecture, 46.5% were born there; among those who lived in two previous sous-prefectures, 45.2% were born there; and among those who lived in three previous sous-prefectures, 35.5% were born there. The number of previous sous-prefectures of residence increases with age, but the correlation is not strong – indicating that some individuals move more across sous-prefectures than others.

Table 2.6: Place of birth

	freq	pct	cumpct
Current Residence	306	10.4	10.4
Current Municipality	409	13.9	24.3
Previous municipality	758	25.8	50.1
Municipality -2	641	21.8	71.9
Municipality -3	327	11.1	83.0
Municipality -4	139	4.7	87.8
Unknown	360	12.2	100.0
Total	2940	100.0	

This is confirmed when we look at the time individuals spend in each of their sous-prefecture of residence. On average, respondents have spent 19.7 years (median 18 years) in their current sous-prefecture of residence and 11.9 years (median 7) in their current residence. Those who lived in a previous sous-prefecture spent 11.8 years there on average (median 9). Those who lived in another sous-prefecture before that one spent 9.5 years there (median 6). For those who lived in other sous-prefectures before that, the averages are 8 and 6.3 years respectively. This indicates that our study population demonstrates a fair degree of mobility across time.

Of the respondents who lived elsewhere before moving into their current sous-prefecture, most (47.4%) came from another sous-prefecture in what we have called the Greater Abidjan region. Another 8% come from abroad, principally Burkina Faso and Mali. The rest come from a great variety of sous-prefectures scattered across Cote d'Ivoire.

Table 2.7. shows the main reason respondents report for moving into their current sous- prefecture of residence. These reasons are quite varied, but a few dominate. Family reasons come first: 48.3% move to join or accompany their family and another 9.1% to marry. Finding work comes next, and is mentioned by 23.2% of respondents. Studying is the third most important category, accounting for 10.8% of responses. Similar motivations are given for moving across sous-prefectures before that: about 60% move to follow or be with their family or spouse, around 20% to find work, and around 12% to study. These motivations remain fairly stable across moves.

Most respondents (53.9%) move with someone else. Of those, 42.3% are accompanied by their spouse, 27.1% are accompanied by their children, 27.4% move with their parents, and 21% move with their siblings. Moving across sous-prefectures thus often involves families. It remains, however, that 44.1% move alone and that 67.7% move without a spouse.

Among respondents who moved into their current sous-prefecture of residence, 71.6% already knew someone there and 15.5% has sought information about job opportunities, nearly exclusively from friends and relative. Among those who did not know someone there, 92.7% had not secured information about job opportunities from friends or relatives. For those who worked at some point in their current sous-prefecture of residence, it took them on average 1.9 years to start earning income, with no difference by gender. The median, however, is much shorter: one month or less, and it is shorter for men and women. Among those who did not start earning income right away, 72.7% blame a lack of opportunities for the delay, 17.4% were looking after a family member, and the rest were incapacitated by illness or pregnancy.

The decision to move need not be planned ahead. When asked for how they expect to stay in the same district, 58.3% answer they do not know while 28.7% answer they stay there forever. The rest (13%) answer they will move at some point in the future. Of those who do not plan to live in their current district forever, only 12.2% have some concrete plan to move elsewhere in Cote d'Ivoire and 8.1% to move abroad, with some overlap between the two. Of those 169 respondents who consider moving abroad, 46.2% plan to move to Europe and 34.9% to the

Table 2.7: Main reason for moving into their current sous-prefecture

	freq	pct	cumpct
1. Find / start a new occupation	288	13.0	13.0
2. Search of work	227	10.2	23.2
3. Continue studies	240	10.8	34.0
4. Provide better education opportunities for children	9	0.4	34.4
5. Fleeing famine / drought in its region of origin	12	0.5	35.0
6. Getting married	201	9.1	44.0
7. Follow family / join his family	1072	48.3	92.3
8. Settling following a voluntary deportation deported from abroad	4	0.2	92.5
9. To be a demobilized soldier	1	0.0	92.5
11. Retirement Benefit	2	0.1	92.6
12. Follow her parents after a separation / divorce	8	0.4	93.0
13. Reduce the cost of living or land	42	1.9	94.9
14. Receive health care	9	0.4	95.3
15. Back voluntarily after the 2010-2011 Ivorian crisis	6	0.3	95.5
16. To be send by the employer	16	0.7	96.3
17. Settling following a government expropriation	10	0.5	96.7
18. Giving birth	3	0.1	96.8
19. Settling following a seizure of land (illegally)	2	0.1	96.9
20. Fleeing insecurity / Search better security	34	1.5	98.5
21. To assist financially my family	1	0.0	98.5
22. Homemaker / Caring for a close	22	1.0	99.5
23. Fleeing the palaver neighborhood	4	0.2	99.7
24. Fleeing marital problems	7	0.3	100.0
Total	2220	100.0	

United States, 17.8% to Africa and 2 individuals to Asia or the Middle-East. Among the 236 respondents planning to move domestically, the majority (56%) mention looking for work as their primary motivation. The second most cited reasons (22.5%) are to accompany their family or to get married. 14.8% mention education, either for themselves or their children. Among the 169 respondents considering an international relocation, looking for work features even more prominently, being cited by 78% of respondents. Education is next, mentioned by 16.7% of respondents (nearly always for self), while family reasons are only mentioned by 9.6%.

Employment and income

Respondents were asked to estimate their average monthly income. 9.1% refused or did not know. The average income reported by the others is $106 with a median of $54. Some 23.8% report a zero income; 66% report an average monthly income below the minimum wage. Men report an average income of $158 per month (median 107.4) vs $56 for women (median 35.8). 15.4% of men report zero income compared to 31.9% among women.

Table 2.8. details the primary income source of all respondents. 69.5% of respondents list earnings from employment as their primary source of income. 18.6% of respondents have a permanent wage job while 12.8% are casual workers. Other income earners are primarily small entrepreneurs (27.9%) or sell goods produced at home or on the farm (7.9%). 30.5% of respondents do not have an earned income: 15.7% list transfers (mostly from friends and relatives or, in some cases, from retirement) and 0.5% the location of real estate. 14.3% of respondents report no income source.

Table 2.8: Main source of revenue

	freq	pct	cumpct
1. Paid employment	546	18.6	18.6
2. Apprentice	69	2.3	20.9
3. Casual Daily work	376	12.8	33.7
4. My own company (non-agricultural activities)	819	27.9	61.6
5. Sale of goods produced at home	127	4.3	65.9
6. Farm	106	3.6	69.5
7. Remittances / Individual transfers	421	14.3	83.8
8. Government transfers	1	0.0	83.8
9. NGOs Transfers	1	0.0	83.9
10. Rent land or leased property	15	0.5	84.4
11. Pension / Retirement	39	1.3	85.7
Not applicable	419	14.3	100.0
Refuse to answer	1	0.0	100.0
Total	2940	100.0	

There are very stark differences in primary income sources by gender, shown in Table 2.9. We see that women are much less likely to be wage employed and more likely to have a small business or to sell home-produced goods. They are also more likely to receive transfers from friends and family and to have no income source at all (19.2% vs 9.2% for men). For women, there is variation by marital status, but nothing to suggest that married women are systematically less likely to work. We do, however, observe that women who are single, cohabiting, divorced, or widowed are somewhat more likely to have a permanent wage job – possibly suggesting more economic independence. Women with a permanent wage job do, however, only constitute a small minority (10%) of all female respondents compare to male respondents (27.4%).

Table 2.9: Main source of revenue by gender

	Man freq/colpct	Woman freq/colpct	Total freq/colpct
1. Paid employment	398	148	546
	27.4	10.0	18.6
2. Apprentice	47	22	69
	3.2	1.5	2.3
3. Casual Daily work	308	68	376
	21.2	4.6	12.8
4. My own company (non-agricultural activities)	314	505	819
	21.6	34.0	27.9
5. Sale of goods produced at home	10	117	127
	0.7	7.9	4.3
6. Farm	73	33	106
	5.0	2.2	3.6
7. Remittances / Individual transfers	130	291	421
	8.9	19.6	14.3
8. Government transfers	1	0	1
	0.1	0.0	0.0
9. NGOs Transfers	1	0	1
	0.1	0.0	0.0
10. Rent land or leased property	9	6	15
	0.6	0.4	0.5
11. Pension / Retirement	28	11	39
	1.9	0.7	1.3
Not applicable	134	285	419
	9.2	19.2	14.3
Refuse to answer	1	0	1
	0.1	0.0	0.0
Total	1454	1486	2940
	100.0	100.0	100.0

80.2% of respondents have no secondary source of income and 91.9% have no tertiary source of income. Otherwise, the composition of secondary and tertiary sources of income is not noticeably different from the primary source: about a third from wage employment, 35-40% from self-employment, and the rest from transfers. Among those with some form of wage employment, only 3.1% have more than one job.

Wage employment

We now discuss wage earners in more detail (633 respondents). Table 2.10. show that they work in wide variety of sectors. The largest sectors in terms of employment are Transport and communications (14.7%), Education (10.8%), and Cleaning and domestic services (7.1%).

About 9.5% are employed in the Primary sector, broadly defined; 24.2% are in Manufacturing (including construction); and 66.3% work in the Service sector. Job titles are extremely varied, with 8.2% of respondents describing themselves as driver. Most are employed in the Greater Abidjan region, with 17.9% reporting employment in Yopougon, 10.6% in Abobo and 10.9% in Cocody.

Table 2.10: Sector

	freq	pct	cumpct
1. Food crops	1	0.2	0.2
2. Agriculture Industrial and export	24	3.8	4.0
3. Breeding and Hunting	9	1.4	5.4
4. Forestry and Logging	1	0.2	5.5
5. Mining	5	0.8	6.3
6. Production of meat and fish	17	2.7	9.0
7. Cocoa and coffee processing	3	0.5	9.5
1. Bakery, Pastry and Pasta	10	1.6	11.1
2. Dairy Products, Fruit and vegetables industries, manufacture of other food pr	12	1.9	13.0
3. Beverage industry and water ice	4	0.6	13.6
5. Manufacture of wearing apparel and hosiery	24	3.8	17.4
6. Manufacture of leather and footwear	2	0.3	17.7
7. Wood and wood products manufacturing	10	1.6	19.3
8. Manufacture of paper and cardboard, printing, publishing	2	0.3	19.6
9. Manufacture of basic chemicals	6	0.9	20.6
10. Manufacture of rubber and plastic	10	1.6	22.2
11. Industry ceramics, glass and building materials	12	1.9	24.1
12. Metallurgy and metalworking	19	3.0	27.1
13. Manufacture of machinery, equipment and electrical appliances	8	1.3	28.3
14. Manufacture of equipment and audiovisual equipment and communication, manufa	2	0.3	28.6
15. Transportation Equipment Manufacturing	5	0.8	29.4
16. Furniture industry	5	0.8	30.2
17. Electricity, gas and water	7	1.1	31.3
4. Construction (building and construction)	15	2.4	33.7
5. Wholesale Trade	14	2.2	35.9
6. Retail	42	6.6	42.6
7. Repair	11	1.7	44.3
8. Hotels and restaurants	22	3.5	47.8
9. Transport and communications	93	14.7	62.5
10. Posts and Telecommunications	19	3.0	65.5
11. Financial and real estate	10	1.6	67.1
12. Public administration and security - Army - Defense	47	7.4	74.5
13. Education	68	10.8	85.3
14. Health and Social Action	23	3.6	88.9
15. Associative activities	4	0.6	89.6
1. Arts and Culture	18	2.8	92.4
2. Environment	3	0.5	92.9
3. Maintenance / Housekeeper	45	7.1	100.0
Total	632	100.0	

Wage workers have on average 7.7 years of experience (median 5 years) in their sector of employment and 6.4 years of experience in their current job title (median 4 years) as well as with their current employer. This suggests relatively little promotion either within jobs or across jobs. 36.8% of wage workers say they have a written contract with their employer, 28.4% that they have a verbal contract. 34.8% report having no contract. Of those 233 respondents with a written contract, 70.1% have 'an employment contract without a set end-date', which is the French name for permanent employment. For those having a written employment contract with a set end- date, the average contract duration is 14 months (median 11). For 73.8% of those with a written contract, this is their first such contract. The rest have had an average of 1.9 employment contracts before.

Among respondents in wage employment at the time of the survey, 66.2% had collected an income from their current job in all 12 preceding months. The rest reported a uniformly distributed number of months between 1 and 11. 64.1% only had one wage job in the past 12 months; 32.9% had two; and the rest (3%) had three or more.

Respondents were asked their monthly salary at their current job, which we present here in US$. At the time of the survey, the minimum wage in Cote d'Ivoire was 60,000 FCFA, equivalent to $107.4. The average monthly wage reported by respondents is $162 and the median $124. About 39.2% earn less than the minimum wage and another 9.3% earn exactly the minimum wage. Only 23% earn more than $200. The highest reported monthly wage is $1450.

30.2% of wage earners receive benefits, the average value of which is $19 across all wage earners. 20.4% of wage earners receive bonuses, the average value of which is $2 per month across all wage earners. When we combine salaries, benefits, and bonuses, the average monthly earnings are $181 with a median of $134. When we include bonuses, 36.5% of wage employees in our sample still earn less than the minimum wage, but the proportion earning more than $200 is now 28%.

Respondents were asked whether they know the legal minimum wage amount. 45.6% did. Respondents earning less than the minimum wage were asked why. 15% provided a legal explanation, namely, that they do not work full-time. They others either state that they did not know of the minimum wage (45%), or they volunteer explanations that blame the employer (e.g. no contract, employer refuses) or themselves (e.g., lack of qualifications).

Respondents were also asked how many days per month they work and how many hours per day. From these data we calculate the average hours per month and the average hourly earnings. The average number of days worked per month is 22.6 (median 26) and the median number of worked hours per working day is 9.8 (median 9). Combining the two, the average number of hours of wage work per month is 222, which translates into an average of 7.4 hours a day over the entire month including weekends. Mean earnings per hour are $1.16 but the median is a much lower $0.65. For wages alone, the mean is $1.05 and the median $0.60. Some 39.1% of wage workers in our survey earn less than the minimum hourly wage of $0.458

(calculated using the median number of days worked per month and the median number of working hours per day). Including benefits and bonuses brings back the proportion to 36.3%. This demonstrates that the large proportion of workers earning less than minimum wage is not due to short hours. 67.8% of wage-earning respondents do not work nights, but 15.3% do so occasionally and 16.9% all the time. We find no evidence that people working nights earn more.

Regarding the minimum education level required for the job they occupy, 50.4% of respondents list no education is required; 13.6% of respondents list some primary education is expected, 25.4% list some secondary education; and 10.2% some form of tertiary education. By comparison, 20.2% of wage workers in our sample have no instruction; 19.4% have some primary education; 37.6% have some secondary education; and 20.7% have tertiary education. Based on this, we find that 8% of respondents have less education than what is deemed required for the wage job they occupy, 30.8% have exactly the required education level, and 61.3% are overeducated, often by a lot.

Turning to job search, Table 2.11. shows that most wage workers (73.9%) found their current job through friends and family. The rest (24.1%) found it via a wide range of more formal methods, the most common of which is to visit or contact the employer directly. Respondents were also asked whether they have work colleagues or work in a team. 76.9% do. Among those, 52.6% of respondents knew some or all of their colleagues before starting the job. They are also more likely to have reported friends and family as the source of their job (82% vs 61%) – and even more (93%) if some of their colleagues are relatives.

Table 2.11: How did you find the job?

	freq	pct	cumpct
1. Placards / Signs	5	0.8	0.8
2. Newspapers, radio, television	3	0.5	1.3
3. Internet	12	1.9	3.2
4. Friends / relatives	468	73.9	77.1
5. Colleagues / professional network	13	2.1	79.1
6. Visits to workplaces	32	5.1	84.2
7. Job agencies / temporary box	15	2.4	86.6
9. Contest	40	6.3	92.9
10. Direct contact of the employer	45	7.1	100.0
Total	633	100.0	

Respondents were asked how long they plan to continue working in the same job. Most do not know. The modal and median answer is 1 year; the average is 2.6 years. Asked to speculate on why they may leave their current job in the future, 71.8% mention finding a better job, 6.9% that their contract would have reached its end and 6.2% that they would retire. Only 3 respondents list being laid off as a possible reason for leaving their current employer.

Table 2.12: Why would you leave your job?

	freq	pct	cumpct
1. End of contract / termination of the labor contract	41	6.9	6.9
2. Find a new job / better jobs	426	71.8	78.8
3. Retirement	37	6.2	85.0
4. Fired / Sick	3	0.5	85.5
5. Deterioration working conditions	27	4.6	90.1
6. Distance from my place of residence	7	1.2	91.2
7. Back home / join the family	14	2.4	93.6
8. Having children / Marriage	2	0.3	93.9
9. Do will never leave this job	36	6.1	100.0
Total	593	100.0	

Respondents were asked what they like most and least about their current job. The most cited positives are that the work is stimulating (32%) or not stressful (30%), they serve or help others (29%), and they are given freedom to use their initiative (21%). These are all non-material conditions of the job and suggest that many are intrinsic motivated. Fewer respondents mention material conditions such as proximity to residence (18%), working conditions (16%), wages (15%), working hours or promotion opportunities (7% each). On the negatives, the most often cited are the low wage (53%) and the hard or tiring work (26%). Bad behavior by management is also cited by 15% of respondents and long hours by 16%.

Asked if they would work more hours if possible, 72.7% say yes – either by taking another job (59%) or by working more hours in their existing job or jobs (41%). Respondents would be willing to add 14 hours to their work week on average (median 8). Respondents were asked what hourly wage offer would make them take this extra work. Their answers are extremely variable, with a high median of $6.25, which is much too high to be realistic. Table 2.13. shows what type of job respondents would most like to have 12 months after the survey. A third would like another (presumably better) wage job and a little less than a third would prefer being self-employed. The last third is either indifferent or happy to keep the same job.

Table 2.13: In a year, you wish to...

	freq	pct	cumpct
1. Have the same job	140	22.1	22.1
2. Have another employment	219	34.6	56.7
3. Have another self-employment	188	29.7	86.4
4. Indifferent	86	13.6	100.0
Total	633	100.0	

To capture unemployment, wage workers were asked whether, after leaving school, they ever

were without wage employment for an extended time. 35.5% responded yes to this question. Among these respondents, the average number of years since the last reported unemployment period is 14 years (median 12) and the average duration of the unemployment spell is 4.4 years (median 2). Asked how they supported themselves during this long period of unemployment, 57% listed transfers from others, 31% casual wage work, 13% some form of self-employment (own business, sale from home, or a farm), and 9% living off their accumulated savings. None mentioned borrowing from banks or MFIs and only 0.4% mentioned governmental transfers.

Casual wage employment

Next we turn to casual wage work, a form of wage employment that is contracted for a short duration and, typically, for a specific task. While there is some overlap with wage employment discussed in the previous section (28 individuals), casual workers are, in the main, a different set of 431 respondents. Of those who remember, most casual workers (55.9%) report working for a single employer in the 12 months preceding the survey. 15% worked for 2, 12% for 3, and 17% for 4 or more. They 100.00 were better able to recall how many employers they worked for in the preceding two months – with an average of 1.9 and a median of 1.

Casual workers reported earning on average $79 per month over the last 12 months (median 45), an amount that is well below the minimum monthly wage. According to the answers given, 74.5% of casual workers earned an average monthly income inferior to the minimum wage in the year preceding the survey. Respondents reported higher earnings for the previous two months – possibly because of better recall, possibly because for most respondents the previous two months included the Christmas period which is a busy shopping time. During that period, casual workers earned an average income of $118 (median 72) and 62.1% had an income below minimum wage. The question was repeated again for the last 30 days, with 79% of respondents recalling working for a single employer. The average reported income is $114 (median 64).

Table 2.14: How is your salary specified?

	freq	pct	cumpct
1. Per hour	18	4.2	4.2
2. Per day	149	34.6	38.7
3. Per week	31	7.2	45.9
4. Every two weeks	17	3.9	49.9
5. Per month	48	11.1	61.0
6. Per task	168	39.0	100.0
Total	431	100.0	

The average number of days worked in a typical casual work contract is 18 days, with a much lower median of 1.7 days: 53% of gigs last 2 days or less. Table 2.14. shows that most casual work (39%) is paid on a piece rate while 35% is paid by the day. Over the last 30 days, casual workers worked on average 15.7 days (median 15) and were unable to find work on average 8.7

days (median 5 days).

Asked how they support themselves during these short unemployment spells, 50% list past savings, 43% list other wage work, 13.3% mention transfers from others, and 6.8% mention income from a business.

As demonstrated by Table 2.15., casual work is found in many sectors of the economy, with however some concentration in the construction sector (20.9% of respondents) and transports and communications (16.3% of respondents). 10.7% are in the primary sector, 19.7% in manufacturing (other than construction), and the rest in services.

Table 2.15: Main sector in which casual work is found

	freq	pct	cumpct
1. Food crops	9	2.1	2.1
2. Agriculture Industrial and export	16	3.7	5.8
3. Breeding and Hunting	3	0.7	6.5
4. Forestry and Logging	2	0.5	7.0
5. Mining	2	0.5	7.5
6. Production of meat and fish	10	2.3	9.8
7. Cocoa and coffee processing	3	0.7	10.5
1. Bakery, Pastry and Pasta	5	1.2	11.7
2. Dairy Products, Fruit and vegetables industries, manufacture of other food pr	2	0.5	12.1
3. Beverage industry and water ice	2	0.5	12.6
5. Manufacture of wearing apparel and hosiery	11	2.6	15.2
6. Manufacture of leather and footwear	1	0.2	15.4
7. Wood and wood products manufacturing	13	3.0	18.4
8. Manufacture of paper and cardboard, printing, publishing	2	0.5	18.9
9. Manufacture of basic chemicals	1	0.2	19.1
10. Manufacture of rubber and plastic	5	1.2	20.3
11. Industry ceramics, glass and building materials	11	2.6	22.8
12. Metallurgy and metalworking	13	3.0	25.9
13. Manufacture of machinery, equipment and electrical appliances	5	1.2	27.0
14. Manufacture of equipment and audiovisual equipment and communication, manufa	3	0.7	27.7
15. Transportation Equipment Manufacturing	2	0.5	28.2
16. Furniture industry	1	0.2	28.4
17. Electricity, gas and water	5	1.2	29.6
4. Construction (building and construction)	90	21.0	50.6
5. Wholesale Trade	2	0.5	51.0
6. Retail	41	9.6	60.6
7. Repair	10	2.3	62.9
8. Hotels and restaurants	14	3.3	66.2
9. Transport and communications	70	16.3	82.5
10. Posts and Telecommunications	7	1.6	84.1
11. Financial and real estate	6	1.4	85.5
12. Public administration and security - Army - Defense	1	0.2	85.8
13. Education	17	4.0	89.7
14. Health and Social Action	4	0.9	90.7
15. Associative activities	1	0.2	90.9
1. Arts and Culture	20	4.7	95.6
2. Environment	1	0.2	95.8
3. Maintenance / Housekeeper	18	4.2	100.0
Total	429	100.0	

Casual work is not a temporary occupation: the average number of years of experience as casual worker in the current sector of employment is 9 years (median 5). Most casual workers (92.3%) specialize in a single sector, but a minority has worked in multiple sectors, often involving construction or transport and communications. 30.2% of respondents declare having stopped working in another sector, with no particular pattern suggesting that some sectors would be particular undesirable – construction is mentioned more often, but it is also a common sector of casual employment. The 30.2% of respondents who have worked in another sector state having an average of 4.9 years of experience in that sector (median 3). Asked why they switched sector, these respondents list a series of reasons listed in Table 2.16.: lack of work is mentioned by 29% of respondents, difficult working conditions by 29%, and low wages by 25%.

Table 2.16: Why did you change from sector?

	freq	pct	cumpct
1. Better earnings in the current sector	33	25.4	25.4
2. Number of insufficient jobs in the old sector	18	13.8	39.2
3. Old sector too tiring / difficult	36	27.7	66.9
4. Inconvenient hours in the old sector (eg night shift, 24 hour shift)	2	1.5	68.5
5. New contract offer in the new sector	19	14.6	83.1
6. The former sector is no longer available in my locality	19	14.6	97.7
7. New personal engagments	3	2.3	100.0
Total	130	100.0	

As for wage employees, casual workers are ready to work more: 75% are willing to take more work, typically in a new job (49% of respondents) or working more hours in their current job or jobs (51% of respondents). Casual workers would be willing to work 15.3 more hours per week (median 10). Respondents were asked what hourly wage offer would make them take this extra work. Their answers are extremely variable, with a high median of $4.5, which is much too high to be realistic.

Sales of goods produced at home

We now turn to different forms of self-employment. We start with the same of goods produced at home, which concerns 149 respondents. On average, these respondents have been selling home-produced goods for 6.2 years (median 3). The average number of days worked per month is 21.4. 55% of the respondents devote more than 6 days a week to this activity. The rest are involved on part-time basis. The average number of worked hours per day is 9.3 with a median of 10.

23.5% of these respondents sell in Yopougon, 10.7% in Port-Bouet, and the rest in various sous-prefectures of the Greater Abidjan region as defined by this study. 16 respondents declare to be subject to a municipal tax for their activity, with no obvious geographical pattern. Most

respondents (61.1%) work or sell directly from their home; 22.1% have a fixed place work; the rest (16.7%) are mobile (Table 2.17.).

Table 2.17: Where do you usually work?

	freq	pct	cumpct
1.Ambulant	11	7.4	7.4
2. In the street (no fixed location)	10	6.7	14.1
3. In the street (fixed location)	30	20.1	34.2
4. Clients' house	4	2.7	36.9
5. At home	91	61.1	98.0
6. In a concrete store	3	2.0	100.0
Total	149	100.0	

Asked whether they are available to work more, 53.7% respond yes, but primarily (86%) in another job that would replace or complement selling goods produced from home. These individuals would be willing to work for a minimum income of $79 per month on average (median $45). 73% of respondents would be willing to pay for less than the minimum wage. Asked what job they aspire to in a year, only 20.8% wish to have the same job while another 16.8% are indifferent. The majority (62.4%) would prefer a wage job or running a business.

Running a business

835 respondents (28.4% of the sample) own a business, either on their own (93.3%) or with someone else (6.7%). For those who own a business with others, 78.6% have a single partner and 12.5% have two partners; and 5 respondents have 3 or more partners. For those with partners, their share of the business is mostly 50% (67% of respondents); the others are minority partners.

The average age of the business is 8.3 years (median 5). 37.4% of respondents have a business that is at most 3 years old. There is a significant gender difference, with female businesses being younger on average (7.5 years vs 9.7 years for men). 84.4% of business operators created the business themselves; 8.4% inherited it from a parent or relative; and 5.9% joined as partner. Only 11 respondents (1.3%) purchased an existing business from someone else.

Table 2.18. shows the main reason reported by the respondent for creating or acquiring a business. The main reason is financial (40.4%): to earn money for self or family or to make up for lost job. The second most commonly given reason (29.5%) is non-material – 'I wanted to be my own boss'. Others give a variety of family-related reasons (10%). None of these suggests a particular talent for business. Only 20.2% of entrepreneurs give a reason that can, in one way or another, be interpreted as indicating a business skill or acumen. Financial reasons seem more salient for female entrepreneurs (49.8% for women vs 26.1% for men); being a boss is less salient (22.8% among women vs 39.7% among men). Family reasons are also slightly more salient for female entrepreneurs (11.3% vs 7.9% among men).

Table 2.18: Main reason for creating a business

	freq	pct	cumpct
1. Limited opportunities in the formal sector	48	5.8	5.8
2. I wanted to be my own boss / have my own business	246	29.5	35.3
3. A parent told me to do it	23	2.8	38.0
4. My household needed extra money	107	12.8	50.8
5. Loss of my previous job	10	1.2	52.0
6. I saw a market opportunity	53	6.4	58.4
7. I received a training	21	2.5	60.9
8. I received a grant to start a business	1	0.1	61.0
9. I wanted to keep the family business	18	2.2	63.2
10. The company required little capital to start	10	1.2	64.4
11. I have previous experience as an employee in the sector	9	1.1	65.5
12. I have previous experience as an apprentice in this sector	26	3.1	68.6
13. This allows me to reconcile family and professional life	9	1.1	69.7
14. This is a family tradition	33	4.0	73.6
15. I wanted to make money	220	26.4	100.0
Total	834	100.0	

The sector of activity is shown in Table 2.19. Trade accounts for 50.2% of all reported businesses, and is much more prevalent among female-run businesses (65.1% vs 27.5% among men). We also observe that female entrepreneurs are more concentrated on a smaller number of sectors, with many sectors counting few or no female entrepreneurs. Male entrepreneurs are more like to be found in manufacturing other than food and garment making, and in services other than bars/hotels/restaurants and hair salons. These patterns are not particular to Abidjan: similar patterns of sector choice by gender have been observed elsewhere in West Africa.

Table 2.19: Sector of activity by gender

	Man freq	Woman freq	Total freq
1. Milling of cereals, seeds	1	2	3
2. Preparation / Food Manufacturing	7	50	57
3. Preparation / beverage industry	3	10	13
4. Textile / Clothing	27	39	66
5. Leather and Shoes	4	0	4
6. Manufacture of furniture	14	0	14
7. Crafts	14	7	21
8. Metalworking	16	0	16
9. Manufacturing of paper products / cardboard	4	2	6
10. Brick Making	1	0	1
11. Construction	18	0	18
12. Repairs electrical appliances / air conditioning	13	0	13
13. Trade	91	328	419
14. Butcher	4	3	7
15. Sale of newspapers / kiosk	1	0	1
16. Other stores	4	1	5
17. Bar / Hotel / Restaurant	8	35	43
18. Kiosk Mobile Money	8	3	11
19. Transportation / Taxi	17	0	17
20. Urban Agriculture	9	3	12
21. Service person	12	1	13
22. Macon / carpenter / Construction	17	0	17
25. Internet / Video	8	2	10
27. Coiffure	3	17	20
26. Mechanic / Mechanic	18	0	18
28. Education / Repeater	3	0	3
30	2	0	2
31	1	1	2
32	3	0	3
Total	331	504	835

The average age of the business is 22.5 years (median 26). For 28 respondents, the business was not in operation at the time of the survey and had been inactive for 3.2 years on average (median half a year).

In terms of employment, 65.9% of businesses have neither paid nor unpaid employees. 73.9% have no paid employee and 88.9% have no unpaid employee. For those with paid employees, the average number is 2.7 (median 2). For those with unpaid employees, the average number is 2 (median 1). For paid and unpaid employees, the average number of worked hours is 9.2 and 8.5, respectively (median 9 in both cases). 27% of paid workers and 23% of paid and unpaid work-

ers, respectively, work 10 or more hours per day. The average number of worked days is 5.6 for paid and 5.4 for unpaid employees. Most paid and unpaid employees work 6 days a week (50% and 40%, respectively), but 25% of paid workers and 28% of unpaid workers work 7 days a week.

These patterns by and large mirror the entrepreneur's own presence in the business, with 41.9% of owners present 6 days a week and 34.5% 7 days a week. In 76.6% of businesses with paid employees, entrepreneurs and workers work the same number of days per week. But there isn't necessarily equivalence within firms: 10.5% entrepreneurs work more days than their employees, and 12.8% fewer days. Similarly, 71.6% of entrepreneurs work the same number of hours as their paid employees. But 20.2% work fewer hours on average and 8.3% more hours.

The average start-up capital reported by business respondents is $427 but the standard deviation is large ($1362) and the median a much lower $72. 41% of respondents start a business with less than $50, while only 7.5% start with more than $1000. There is a large difference between genders: men on average start a business with $886 (median $242) and women with $130 (median $36). These gender differences mirror those documented in earlier studies.

On average, 68% of start-up capital comes from personal savings and 22% from donations by family and friends or (1.8%) from inheritance. The rest come from financial sources, mostly loans from family and friends (8.7%) or from suppliers (2%). Hardly anything comes from banks, MFIs, SLs or ROSCAs. These patterns conform with what we generally know about the sources of start- up funding in small businesses. 66.3% of respondents estimate that it would take more start-up capital than what they used; only 3% say it would take less. The median ratio between the two is twice. This ratio increases more or less exponentially with the age of the firm, as one would expect.

In terms of location, 52.6% of businesses are located outside of the residence. Among those, 84.3% are located near the respondent's residence and another 8.9% in the same sous- prefecture. From this evidence, we see that most entrepreneurs work in or close to their home, which is not too surprising given that they on average work very long hours. Respondents were asked to list the main reasons for choosing a particular location for their business. The most commonly cited consideration is proximity to suppliers and clients, which is cited by 66.7% of respondents. The second most cited consideration is affordability, cited by 44.6%. Good infrastructures are cited by 8.2%. Security is listed by 4.3% if respondents, with no sizeable difference between men and women (if anything, women mention it less often as a deciding factor). Government services or fiscal incentives are only listed by 0.1% and 0.2% of respondents respectively. But 5.5% state that their location was decided by authorities, not themselves. Overall, responses are similar irrespective of gender. Most respondents (72.6%) do not know in which fiscal zone they are or state it is not applicable to them. 25.4% state being in Zone A, with 2 in Zone B and 15 in Zone C.

In terms of accounting, 87.1% of respondent hold sales registry. Of those who keep track of their sales, 58% do so every day, 19% every week, and 16% irregularly. Similarly, 87.5% keep track

of their purchases, with near complete overlap with those who track their sales – 48.1% daily and 24% weekly. Table 2.20. shows how respondent follow their sales and purchases. Of the 82.9% who do not keep accounts, a large fraction state they memorize without writing things down. How successful this strategy is remains unclear. Of those who keep written accounts, most use paper but some using a telephone or computer and a few keeping accounts on a wall or piece of furniture.

Table 2.20: Accounting method

	freq	pct	cumpct
1. No accounting	214	25.6	25.6
2. Memorizing without taking notes	478	57.2	82.9
4. Note on wall / table / door	8	1.0	83.8
5. Note in a notebook / paper	124	14.9	98.7
6. Note on the phone / computer	11	1.3	100.0
Total	835	100.0	

On average over the last month, business owners in our sample spend $311 in business costs – with a large difference between male ($542) and female ($159) respondents. We also note much variation in total costs across businesses, with a standard deviation of $885. 10.7% respondents report no costs – but there is no evidence that these entrepreneurs operate in different sectors or are less likely to hold accounts. These are probably individuals reluctant to divulge their business accounts with the enumerators. With this caveat in mind, 58.6% of average costs come from the purchase of inputs and raw materials, 10.4% from transport, and 10.2% from payments to labor. Other costs include telephones (7%), rent (6.2%), utilities (5.9%), maintenance (1.5%), and interest on loans (0.7%). Taxes account for 2.4% of reported costs and bribes for 0.2%.

Turning to revenues and profits, we find that business respondents make on average $602 (median $134) in sales per month for an average monthly profit of $196 (median 54). There are large differences between male-owned businesses (average revenue of $1173 and average profit of $354) and female-owned businesses (average revenue of $238 and average profit of $90). Medians are much lower but show similar gender differences. If we calculate profits as revenues minus all reported costs, we obtain a higher average of $278. The difference across male and female respondents increases to $597 for men and $75 for women, suggesting that male respondents under-report their profits more than females.

We suspect that some respondents erroneously report no revenues: the proportion of 0's is 3.2% among respondents who report costs, but 44.1% among those who report zero costs. There is also a large proportion of business owners who report not knowing their total revenue in the preceding month, on top of the 5.5% who report 0 revenues. These proportions are, overall, similar irrespective of whether or not the respondent reports holding accounts – therefore suggesting that at least 37 respondents have the necessary information but refuse to share it with

enumerators. Omitting these individuals from the above-reported averages does not change much, however.

Reported profits vary considerably across respondents: 5.4% report negative profits, 8.2% zero profits and, overall, 68.1% report a monthly profit below the minimum wage (52.5% among male respondents and 78.5% among females). If we use our own profit calculation, the proportion with negative profits rises to 21.2% (19.6% if we omit all respondents reporting 0 sales) and 69.8% earning below the minimum wage (67.6% if we omit all 0 sales). Compared with the results we reported for wage earners, these figures show that the proportion of below-minimum-wage earners is larger among business owners, especially women. We also note that the coefficient of variation of profits among male respondents is much larger (6.2) than among female business owners (2). A similarly large difference is found if we use our own profit calculations: CV of 7.1 for men vs 3.5 for women. This suggests that male entrepreneurs run much riskier businesses: they have equally variable costs (CV of 2.4-2.5 for both) but much more variable revenues (CV of 3.8 vs 1.9) than female entrepreneurs.

We also asked respondents to estimate their total business income over the last 2 months and the last 12 months. Negative incomes are not recorded. While the reported figures continue to show the same large difference between male and female businesses, they also indicate considerable under-reporting: average profits over the last 2 months are only 1.3 the reported average profits over the last month, and average reported profits over the last 12 months are only 6.3 times the average reported profits in the previous month. This is partly due to refusals to answer by high profit earners: if we limit the comparison to those who report profits for both the last month and the last 12 months, the ratio rises to 8.8 times. This shows that, if anything, reported profits depend on the recall period.

Respondents reporting a positive profit in the last 30 days were asked how they spent it. There is considerable under-reporting on average, with total reported spending totaling $133 compared to $243 average reported profits for the sub-sample with positive profits. 39.2% of reported spending goes to food expenditures for the household, 11.2% is spent on the education and health of the children, and 5.5% on other household durables and non-durables. Part is spent, wholly or in part, on the business itself: 18.2% is set aside (possibly for future business expenditures), 14.1% is invested in the business, and 1.3% for debt payments. Personal purchases account for 8.7% of reported spending and entertainment and alcohol account for 0.8% of reported spending. There are some differences between spending patterns reported by male and female respondents: men report spending 45% of the profits on household food expenditures, 11.5% on children education and health, and 8.5% on themselves. The equivalent proportions for women are 36%, 11.1%, and 10.1%. Women also report investing more back in to the business than men: 15.7% vs 11.4%. All these numbers are to be taken with a grain of salt, given the extent of underreporting that is suggested by the data.

Next we turn to the market conditions of the business. 24.3% of respondents report receiving supplier credit from some of their suppliers (68% on average). 34% of trade credit recipients report purchasing less than 50% of their inputs on credit; 27% report receiving credit on 50%

of their purchases, 10% between 50 and 100%, and 27% on all their purchases.

When asked to estimate the number of similar enterprises operating with 15 minutes walking distance from their business, 14% are unable to provide a response, 16% respond none, 49% respond between 1 and 5, and 20% report a number above 5, with most answers concentrating on 6, 10, 15 and 20. Table 2.21. reports where the main competitor is located relative to the respondent. Most answers focus on a distance of less than 1 Km, but a large fraction of respondents either don't know or see the question as non-applicable, i.e., they have no main competitor.

Table 2.21: Location of the main competitor

	freq	pct	cumpct
1. Within 1 km	611	73.2	73.2
2. More than 1 km, but in the same neighborhood	73	8.7	81.9
3. More than 1 km, in a district different	16	1.9	83.8
4. More than 1 km away in another town / sub-prefecture	3	0.4	84.2
Don't know	65	7.8	92.0
No Competitor	67	8.0	100.0
Total	835	100.0	

Table 2.22. presents the answers respondents give when asked what is the main constraint to the expansion of their business. As in most other surveys asking this question to small business owners, the most common answer is lack of access to external financing (52.4%). Other commonly given answers include the lack of customers (16.4%), competition (12.4%), access to land or inputs (9.1%), and lack of market access (3.9%). Regulation, taxation, security, utilities, transport, and labor costs are hardly mentioned. Only 17 respondents estimate they lack technical or managerial skills – which is contradicted the fact that only 17% keep accounts of their sales and purchases.

Table 2.22: Main constraint to expansion

	freq	pct	cumpct
1.Access to finance	392	52.4	52.4
2. Access to land / location	38	5.1	57.5
3.Access to inputs	30	4.0	61.5
4. Lack of managements skills	10	1.3	62.8
5. Lack of technical / skilled labor	7	0.9	63.8
6. Cost of labor	5	0.7	64.4
7. Labor Regulations	3	0.4	64.8
8. Market access	29	3.9	68.7
9. Electricity	5	0.7	69.4
10. Water	1	0.1	69.5
11. Transport infrastructure	5	0.7	70.2
13. Lack of clients / customers	123	16.4	86.6
16. Tax Administration	1	0.1	86.8
19. Political instability	2	0.3	87.0
21. Crime, theft, security	4	0.5	87.6
22. Competition - formal sector	30	4.0	91.6
23. Competition - informal sector	59	7.9	99.5
24. Foreign Competition	4	0.5	100.0
Total	748	100.0	

Respondents were asked whether they registered their business in the business registry and made fiscal declaration in order to run their business. 23 said they did, by applying to a variety of government agencies listed in Table 2.23. Of those, 21 respondents managed to register their business, 2 were still waiting for a conclusion. 57% of applications were completed in 7 days or less, with 3 applications taking more than a month. 55% of the business registrations uncovered by the survey are at most 4 years old. Three of the 21 registered respondents answered they had to pay a bribe. Registered respondents were asked whether they had registered with the Department of Commerce. 17 had, using the same range of government agencies as those mentioned in Table 2.23. 53% of these registrations were at most 4 years old.

Table 2.23: Place of registration

	freq	pct	cumpct
1. Single Window CEPICI	4	18.2	18.2
3. Ministry of Construction	1	4.5	22.7
4. Ministry of Trade	4	18.2	40.9
6. Commercial Court	3	13.6	54.5
7. taxes Branch	10	45.5	100.0
Total	22	100.0	

Of all the respondents who own a main business, 24 also own a second business and 2 own three businesses in total – with no noticeable difference by gender. In 69% of cases, the other businesses are in a sector different from the main business. These other businesses tend to be small: in 17 cases, they do not employ anyone, 5 have one employee, and the other 4 together employ 22 workers. Not surprisingly, respondents report smaller annual income from these other businesses than what they report for their main business. But in general respondents with multiple businesses come from those with above average profits in their main business, suggested stronger business acumen.

Searching for employment

Across all respondents, 651 individuals (22.1% of the sample) report looking for a new job or for additional work in the last 12 months (27.2% among men and 17.3% among women). Asked why they did not search of employment, the other respondents provided the range of answers displayed in Table 2.24. 54.4% reply that they are already employed – even if they do not necessarily like they job they have (23.7%). 4.9% are planning to open their own business or waiting to hear from a potential employer, 7.8% are in school, 5.2% are retired, and 5.1% were pregnant pregnancy, ill or too young. The rest of the responses fit into two main categories: those who are discouraged by the cost and difficulty of looking for work or their lack of skill (11.9%); and those who prioritize their household (10.7%). Not surprisingly, more women mention the latter reason for not looking for work (19.7% vs 0.3% among men). They are also more likely to be discouraged (13.8% vs 8.9% among men) and, as we have already noted, less likely to work (42.4% vs 68.4% for men).

Table 2.24: Reason for not looking for a job

	freq	pct	cumpct
1. I have a job / company and I do not want to find another	703	30.8	30.8
2. I have a job / business and I'm too busy to seek	541	23.7	54.4
3. There is no work / I am discouraged / I quit	150	6.6	61.0
4. The cost of research is too high	24	1.1	62.1
5. Job Search is too painful	27	1.2	63.2
6. Salaries offered are too low	8	0.4	63.6
7. My family / my spouse keeps me searching	24	1.1	64.6
8. I create a business account	62	2.7	67.4
9. I was sick / injured / speaker	93	4.1	71.4
10. I am waiting to hear about another potential job	50	2.2	73.6
11. I'm too young	23	1.0	74.6
12. No job that I'm capable of doing	62	2.7	77.3
13. I was in school / training	179	7.8	85.2
14. I can not work because of children	112	4.9	90.1
15. I was / I am a housewife	109	4.8	94.8
16. I was / I am retired / pensioner	118	5.2	100.0
Total	2285	100.0	

Among the 651 respondents looking for work, most are looking for permanent employment (59.8%) while another 20.1% would take any job. The rest have more specific aspirations in terms of employment (see Table 2.25).

Table 2.25: Type of searched job

	freq	pct	cumpct
1. Salaried Jobs	389	59.8	59.8
2. Temporary job / seasonal contract	61	9.4	69.1
3. Casual job / work day	65	10.0	79.1
4. Learning	5	0.8	79.9
5. Ready to work for any type of job	131	20.1	100.0
Total	651	100.0	

The main search strategy used by respondents is relying on friends and relatives (79.1%). This confirms the evidence already reported on how currently employed people obtained their job. 32.8% respondents visit potential employers directly, and 18.4% report searching on the internet, which is probably a relatively recent development. 11.5% check with the labor office or private job brokers, and 5 to 7% of the respondents also list: visiting job boards; checking newspapers and other media; checking job ads; and participating to a 'concours' (job competition).

Respondents who visit places of employment directly search widely, covering not only their own locality or sous-prefecture, but also Abidjan itself. Table 2.26. documents which part of Abidjan is the most attractive in terms of employment. Yopougon is preferred by 40.2% of respondents. 16% of job seekers report also visiting employers in neighboring sous-prefectures other than Abidjan and 5-10% even report visiting other parts of the country. In total, 22% of respondents live in the sous-prefecture they find the most attractive area in terms of job opportunities.

Table 2.26: Most attractive area in terms of job opportunities

	freq	pct	cumpct
ABOBO	271	9.5	9.5
ADJAME	236	8.2	17.7
ATTECOUBE	14	0.5	18.2
COCODY	276	9.6	27.8
KOUMASSI	220	7.7	35.5
MARCORY	88	3.1	38.6
TRAY	219	7.7	46.3
PORT-BOUET	205	7.2	53.4
Treichville	182	6.4	59.8
YOPOUGON	1151	40.2	100.0
Total	2862	100.0	

81.1% of respondents make use of personal contacts to look for work. Of those, 79.8% rely on close friends, 69.1% on relatives, 34.4% on neighbors, 21.5% on acquaintances and colleagues, 15.6% on people from the locality, 9.2% on people from their church or mosque, and 2.8% on their manager.

Among the 651 respondents reporting looking for work in the past 12 months, 52.1% report looking for work in the past 30 days. Those who did not were asked why. Their responses, summarized in Table 2.27., are somewhat similar to those in Table 2.24. but with some important differences. Some people have found a job they like (6.4%); other a job they do not like but keeps them too busy to look for another (33.7%); and 12.5% are either waiting to hear on a job or planning to start their own enterprise instead. A large fraction (26.9%) are discouraged.

Table 2.27: Reason for not looking for a job

	freq	pct	cumpct
1. I have a job / business and I do not want to find another	20	6.4	6.4
2. I have a job / business and I'm too busy to seek	105	33.7	40.1
3. There is no work / I am discouraged	61	19.6	59.6
4. The cost of research is too high	6	1.9	61.5
5. Search for the job is too painful	13	4.2	65.7
6. Salaries offered are too low	2	0.6	66.3
7. My family / my spouse prevent me to search	3	1.0	67.3
8. I create a business account	7	2.2	69.6
9. I was sick / injured / speaker	24	7.7	77.2
10. I am waiting to hear about another potential work	32	10.3	87.5
11. I'm too young my youth	2	0.6	88.1
12. No work I can do	2	0.6	88.8
13. I was in school / training	18	5.8	94.6
14. I can not work because of children	12	3.8	98.4
15. Housewife	5	1.6	100.0
Total	312	100.0	

Respondents were asked whether they ever benefited from an 'employment program' (a government initiative to assist the unemployed). Only 27 answered positively. The others were asked why they did not. The most common response is that they did not know such a program existed (46.4%) while 13.3% do not know what an 'employment program' is. 12.1% of respondents say they never needed one because they already had a job. 7.1% think they do not have the required qualifications and 4.9% that they are either too old or too young.

Work in large enterprises

All respondents were asked about job opportunities in large enterprises in their sous-prefecture. Nearly half of the respondents (46%) do not know. Among those who provide a response, 41.3%

respond there are none and another 39.1% that there are 1, 2 or 3. Only 19.6% of respondents list more than 3 large employers in their sous-prefecture. The average number is 6.7 with a median of 1, indicating that the distribution of answers is extremely skewed. All respondents were then asked in which sectors of activity these firms are found. 68.2% of respondents did not provide an answer. Among the 931 respondents who do, 29% mention commercial agriculture. 27% cocoa and coffee, 24% the rubber and plastics industry, 16% the dairy industry, and 15% the chemical industry. The rest of the sectors are mentioned by less than 15% of respondents. As seen in Table 2.10., none of these sectors is a particularly large employer of wage workers in our sample.

Asked how much large employers pay per month at start-up, 84.7% say they do not know. The others report an average wage of $128 with a standard deviation of $130 and a median of $107.4, which happens to be the minimum wage. This compares to an average of $162 and a median of $124 among wage employees in our sample, most of whom have some years of work experience.

64 respondents are currently employed in a large enterprise and 457 have postulated for a job in one in the past. The rest were asked why they did not postulate for a job in a large enterprise. Multiple reasons were allowed. Responses are summarized in Table 2.28. Some of these responses are similar to those discussed in Tables 2.24. and 2.27. – e.g., already employed (27.7%) and not looking for work for various reasons (37.2%). Some, however, are specific to this question: 27.5% of respondents believe they are unqualified for work in a large enterprise, 9.5% believe they would not get a job there, and 8.7% do not know now to apply. These all refer to weaknesses the respondents perceive they have. A small proportion of responses focus on weaknesses of the jobs themselves (e.g., hard work, low wage, employment guarantee, and long hours), but these are cited much less often.

Table 2.28: Reason for not applying to a job in a large enterprise

	pct
I have a job/work and don't need to	27.7
I am not/have not been looking for work	23.7
Can't work because of small children	3.8
Pay is too small/low	4.5
Hours are too many	2.2
Unhealthy work/bad workplace safety	1.7
Poor facilities/buildings	0.2
Work is too difficult/physically demanding	5.5
Work is boring/routine	0.6
Distant workplace	1.4
No guarantee of work	2.5
Bad supervisors/managers	1.1
I don't know how	8.7
I don't think I can get a job	9.5
I have been in school/training	9.7
Do not have enough qualifications/education	27.5

Of the 457 respondents who ever postulated to work in a large enterprise, half did work there in the past, and another 61 also worked in a large enterprise without reporting applying. Adding the 64 respondents currently employed in a large enterprise, this makes 353 respondents exposed to work in a factor or large firm. 72.5% of them worked in a single factory, 18.1% worked in 2, and the other 33 worked in 3 to 7 large firms. Among those who worked in a factory, 58.1% worked for a year or less – and 24.4% for three months or less. 20.4% worked for 3 years or more, with a handful respondents spending their whole career in a single factory.

These respondents were asked what they like and dislike about this kind of work. Their responses are presented in Tables 2.29. and 2.30. What workers enjoy about factory work is the high wage (31.6%), the stimulating work (28.2%), and the lack of stress (22.5%). What workers most dislike about factory work is the low wage (41%), the hard work (39.5%), the long hours (19.1%), and the unpleasant supervisors and colleagues (20.3% and 11.3%). The contradictions in the answers – e.g., about wages and work conditions – suggest that there is considerable variety in worker experiences.

Table 2.29: Characteristics the respondent like about the job

	pct
The wage/salary	31.6
The employees	16.7
The employer/supervisors	10.5
Challenging work	28.2
Opportunities for promotion	5.3
Work is not stressful	22.5
Service/helping others	13.4
Physical working conditions/facilities	18.2
Short hours of work	7.2
Proximity to house	9.6
Freedom to use my own judgement	6.2

Table 2.30: Characteristics the respondent doesn't like about the job

	pct
Nothing, i like all parts of my job	5.9
Mismatch with profession	5.5
Low pay/low income	41.0
Hard work/too tiresome	39.5
Routine/boring work	7.4
Unhealthy work/workplace safety	12.9
Poor facilities/buildings	4.7
Government regulation	0.8
Bad character of employees	11.3
Client behavior	0.8
Bad/difficult supervisor	20.3
Not paid on time	12.9
Long working hours	19.1
Job	1.2
Distant workplace	7.0

Table 2.31. shows the reason behind termination for the 284 who worked in a factory in the past but no longer do. It appears that in the majority of the cases, termination was by the employer: 39.1% of workers saw their contract expire (and it was not renewed), and 12% were laid off. The rest left of their own volition, primarily because of poor working conditions (35.2%). Some left for family reasons or to take a more desirable job. Two retired. There is no strong relationship between the reason for termination and the length of time spent in the firm. In particular, it is not the case that workers who left due to bad working conditions stayed in the firm less long than those whose contract ran out.

Table 2.31: Reason to stop working in the enterprise

	freq	pct	cumpct
1. Contract is over	111	39.1	39.1
2. Found new/better job	9	3.2	42.3
3. Retired	2	0.7	43.0
4. Fired	34	12.0	54.9
5. Poor working conditions	100	35.2	90.1
6. Too far from my residence	6	2.1	92.3
7. Returned home/joined family	13	4.6	96.8
8. Had to stop due to children	9	3.2	100.0
Total	284	100.0	

Agriculture

A small proportion of surveyed respondents (8.8%) work in agriculture. Of these 258 respondents, 184 farmed in the after-season that preceded the survey. Farm size varies dramatically across them: 45.6% report farming 1 hectare or less (and some farm really tiny plots) while 13.7% report farming 5 hectares or more which, by Cote d'Ivoire standards, is an above- average farm size. Crops vary a lot across farmers, with Cassava (44%), rubber (16%) and cocoa (15%) being the most commonly cited main crops. Rubber and cocoa are commercial crops grown for income; cassava is a food crop that can be consumed by the farmer.

74.5% of farming respondents derived a monetary income from their main crops, including 71% of the cassava growers. The average revenue from crop sales for the after-season is $480, with a much lower median of $107. 28.2% report zero monetary income from farming, but perhaps consume some of their output. Farmers report spending on average $51 in inputs (median ¡$2) and $70 on hired labor (median 0). The average net income from farming in the after-season is $359 (median $72). 18.8% of farmers report a negative monetary outlay and 11.6% zero income. 11 farmers made more than $1000 in the after-season.

Similar questions were asked regarding the main agricultural harvest that occurs at the end of the rainy season. 172 farmers grew crops during the last rainy season, 112 of whom also grew crops during the after-season we just discussed. 51% of farmers cultivated 1 hectare or less (including some with very tiny plots) while 17.5% cultivated 5 hectares or more. The main crops during the rainy season are very similar to those in the after season, which is not surprising given that both rubber and cocoa are tree crops, and cassava takes 18 months or so to reach maturity.

48.3% of farmers report a monetary income from their main rainy season crop. The average revenue from crop sales after the rainy season is $268, with a much lower median of $2. 47.6% of farmers report zero revenue from the sale of rainy season crops – suggesting that they possibly consume a larger fraction of the output. Rainy season farmers report spending $22 in inputs and $11 in hired labor. Most farmers, however, spend nothing on inputs (86.9%) and hired

labor (91.7%). The average net monetary income from rainy season crops is $235 (median 0), with 7.7% of farmers reporting a negative monetary outflow and 44.1% reporting a zero net income.

Summing over both seasons yields an average net monetary income of $429 for 243 farmers, with a much lower median of $49. Some 13.6% farmers report a negative net financial outflow from farming over the last 12 months while 23.5% report a zero monetary income – but all may have consumed some of their own output. 63% report some monetary income, with 10% of farmers reporting a monetary income in excess of $1000. To sum up, for most 'farmers' in our survey, crop production only makes a negligible contribution to annual monetary income, but we suspect that, for these farmers, much of the crop output is consumed directly by the household.

Rental income

Some respondents derived additional income from renting assets. 11 respondents rent land, from which they derive an average income of $624 per year. 41 rented buildings, with an average income of $1252 – a rather large amount. No respondent rents livestock, and 7 respondents rent other items such as machinery or vehicles, earning an average annual income of $582. Rental income is large for these individuals when compared with the average income per respondent of $158 per month that was previously reported. But very few respondents (58 in total) derive any income from rentals.

Living conditions

Durables and livestock

In terms of consumer durables, most households own a mattress (97.3%), a bed (86.8%), a television (81.6%) and a fan (85.7%). Few have large domestic appliances such as a fridge (32.6%) or a computer (11.5%). Very few respondents have a vehicle, such as a bicycle (7.9%), moped (7.5%) or a car/truck (5.5%). All these numbers are similar to those collected during the listing exercise and presented in Table 2.82.

8.8% of respondents own livestock or farm animals – mostly chicken or other fowl (83%) with a median of 8. Among livestock owners, a few own small animals: sheep (16.7%), goats (10.8%), or pigs (4.3%). Very few own large livestock: oxen (5.8%) and cattle (2.3%). None owns horses, donkeys or mules.

Connectivity

In terms of connectivity, 91.6% of respondents have a mobile phone which, in 70.6% of cases, is at most one year old and in 92.3% of cases 3 years old at most. 54.5% are a smartphone. Service is not perfect, though. Table 2.32. shows the number of days they have encountered connectivity problems over the last 7 days: about a third of the respondents report having connection problems at least in one of the last 7 days; 4.9% report having problems every day.

Table 2.32: Number of days with connectivity problems

	freq	pct	cumpct
0	1787	66.3	66.3
1	210	7.8	74.1
2	282	10.5	84.6
3	169	6.3	90.9
4	56	2.1	92.9
5	55	2.0	95.0
6	3	0.1	95.1
7	131	4.9	100.0
Don't know	1	0.0	100.0
Total	2694	100.0	

Respondents were asked to estimate the value of their phone. A quarter report a value of at most $10, a quarter report a value between $10 and $25, and a quarter report a value in excess of $70. The mean reported value is $50 and the median $27. Two third of phone owners report using it to send or receive money, and 22.6% to pay bills. In addition, 42.8% of respondent have a WhatsApp identifier, 41.9% have a Facebook account, and 16.2% an email address. These proportions are much smaller among women and they also fall with the age of the respondent. Average usage of WhatsApp, for instance, is close to 80% among 20-year-old males and 50% among 20-year-old females, but falls to less than 50% among 40-year-old males and less than 25% for 40-year-old females.

Among those with a computer, 71.2% have internet. The proportion of internet uses among respondents is much higher (47.1%) than those with a computer (11.5%). Among internet users, the most common access mode is a mobile phone (93.6%). 8.7% access it through their computer, 5.8% through a cyber-café, and 1.4% through family and friends. Asked how far is the closest wi- fi connection, 36% of respondents do not know. Of those who know, 48.2% respond 0 meters, typically because wi-fi access is from their phone. Among the others, the median response is 100 meters.

Internet users make frequent use of it, with a mean usage of 18.4 days per month (median 20); 41.6% of them use it daily. Social networking is the most commonly cited first (59.7%) and second (32.0%) reason for using the internet. Other common uses are to obtain information (14.8% and 21.9%, respectively) and entertainment (5.1% and 28.6%). Job search is mentioned by 5 to 7% of respondents and purchases by less than 1%. Searches related to school or work are mentioned by 5 to 8% of respondents.

Housing

Table 2.33. shows that most respondents (58.6%) rent the place they live in, 29.7% own it, and 9.4% have complimentary use of it. Of those who own the place they live in, only 31.7%

remember in which year their family purchased or built it: on average in 1997 (median 2000).

Those who rent pay on average $49 per month (median $36), an amount that seems high relative to the average individual income of $106 (median $54) reported earlier. Most household probably need several income earners in order to afford the rent on top of other living expenses. Among the respondents who rent, 11.3% mention having seen their rent change in the last year, at a time fairly evenly distributed over the last 12 months. Of those who report a change in rent, two report a fall, two no change, and the rest report an increase. The median increase rate is 30%, but 9.4% of respondents faced a rent increase in excess of 100%. 63.9% of renters who experience a change in their rent state the change was decided by the landlord, and another 19.6% do not know why the rent was changed. 18 respondents note that the neighborhood grew or that the building was improved, 14 that the landlord faced an increase in the cost of real estate.

Table 2.33: Occupancy status

	freq	pct	cumpct
1. Owner	873	29.7	29.7
2. Leasing	30	1.0	30.8
3. Rent	1690	57.6	88.3
4. Accommodation provided by the employer	33	1.1	89.4
5. Free accommodation	276	9.4	98.8
6. Term Owner	34	1.2	100.0
Total	2936	100.0	

Utilities

Water

In terms of utilities, 34.6% of respondents have running water in their lodging, 42.7% have running water in their courtyard/compound, and 17.6% have running water outside the property. In addition, 7.8% have a well in their compound, 6.2% have access to a public well and 3.6% to a village pump. 1.2% rely on surface water. 6.8% of respondents treat their water to make it drinkable – typically by adding chlorine (73.6%) or by letting it rest (13.7%), but 5.5% boil it, 5% use a water filter, and 3% filter the water through a cloth. 11.9% of respondents state that they are currently preoccupied by water quality. Respondents who treat their water (e.g., boiling, chlorine, and filtering through a cloth or water filter) are much more likely to report being concerned about water quality, suggesting that it this concern that pushes them to take action to improve water quality. We also find that respondents using a well are more concerned with water quality – but also those who have running water in their lodging.

Table 2.34. shows that the majority of respondents (69.1%) are satisfied about water supply, with 26.2% dissatisfied. The most satisfied respondents are those with running water in their lodging or compound; the most dissatisfied are those getting water from a tap outside their compound, or from a public well. This may be because of having to wait in line for water.

Table 2.34: Satisfaction with public drinkable water supply

	freq	pct	cumpct
1. Very satisfied	248	8.5	8.5
2. Satisfied	1772	60.6	69.1
3. Neutral	138	4.7	73.9
4. Dissatisfied	590	20.2	94.0
5. Very dissatisfied	174	6.0	100.0
Total	2922	100.0	

6.3% of respondents expressed concerns about water supply to local authorities, with a higher propensity to complain among those getting water from a tap outside their compound. Among the 184 subjects who complained, 6.8% were told nothing could be done, 38.6% are still awaiting a response, 29% were told the source of the problem was still being investigated, and 25.6% either had a satisfactory resolution or an improvement in service. Those who did not complain were asked why. Most (73%) provide no answer and another 11.7% say they never thought about it or have no time; 6.3% do not know how; 5.6% believe it would not change anything; 1.8% find it too bureaucratic; and 1.2% worry about repercussions.

Asked about how the respondent would go about complaining about water supply, 69.1% say they would go to the water distribution agency; 9.4% to local authorities; 2.4% to a community organization or NGO, and 17.5% do not know. Of those who provided a response, the majority (66.5%) estimate it would take two trips to complain, 15.5% that it would take one trip, and 13.1% no trip at all. 4.9% respond 3 trips or more. For each of these trips, 45% of respondents on average expect to spend 30 minutes or less, and 85.1% one hour or less. 4.3% expect to spend more than two hours.

Respondents were asked whether, over the last 12 months, they had to store water. 89.3% said they did, primarily among those collecting water from a tap located outside the compound. Those getting water from a private or public well are less likely to store water. The main reasons (75.6%) why respondents store water is as protection against interruptions in the water supply. 45.2% also say it serves to smooth or regulate their water consumption. 14.7% store to have drinking water, and 15.2% to have a water source outside the house. Among those who store, the average water reserve is 632 liters (median 200 liters). 4.2% store at most 20 liters (i.e., a large bucket of water); 4.7% store 1000 liters or more (i.e., a cube of 1x1x1 meter).

Respondents were asked how many days a month they have an interruption of service. 25.3% say never; 35.5% report having interruptions on 1 to 5 days per month; 7.3% have interruptions every day; and 14.7% do not know. The mean number of days with interruptions is 6.3 (median 3). Among those experiencing interruptions, 3.5% say they last less than an hour; 30.3% between 1 and 5 hours; 34% between 6 and 20 hours; and 31.4% say the interruptions last all day. The mean duration is 9 hours (median 10).

Respondents were asked how much per month they pay for water. 17% could not answer. Among those who provided a response, the average cost is 7.5$ per month (median 4.8). Those who get water from wells (or surface water) pay much less. Those who get water in their lodging pay more, and so do those who get water from a tap located outside their compound.

Table 2.35. shows how respondents pay for water. Around 11.5% provide no answer – possibly because they do not pay for water. 35.1% of respondents pay their water bill in cash or with mobile money; 30.6% pay a private provider; and 7.5% pay someone from the community. Respondents who report getting water from a tap outside their compound are by far more likely to report purchasing water in jerrycans, while those who get running water in their lodging pay their water bill in cash or with mobile money. This indicates that there is an active private water market downstream of the public water distribution system.

Table 2.35: How do you pay for water?

	freq	pct	cumpct
1. Payment of the invoice in cash	684	26.1	26.1
3. Telephone / Mobile Money	347	13.3	39.4
4. Purchase of water containers	493	18.8	58.3
5. Payment to the neighbors	407	15.6	73.8
6. Payment to a community leader	220	8.4	82.2
8	4	0.2	82.4
.d	461	17.6	100.0
Total	2616	100.0	

Respondents who receive running water in their lodging or compound were asked whether they have a water meter. 55.8% say yes. Among individuals with running water inside their lodging, 72.8% have a meter. This proportion falls to 44% among those with running water located outside in their compound. Among respondents with running water inside their lodging, 24.2% share it with neighbors. For respondents with running water outdoors in the compound, 40.4% share with neighbors. The number of neighbors varies a lot: 17.5% share with one neighbor; 49.8% with 2 to 5 neighbors; and the rest with more. The mean number of sharing neighbors is 33 (median 4). Among those who share water with neighbors, 62.8% share the cost proportionally by household, 9.6% proportionally per person, and 14.4% as a function of usage. 9% do not known.

Among the respondents with running water inside their lodging or compound, 28.2% were ever controlled by the water authority. 97.8% reported no problem, 9 were fined, and 4 complained of police violence. Asked whether controls have increased recently, most do not know (44.7%), 36.3% that they are the same, 6.2% that they have increased and 12.8% that they have fallen.

Regarding personal hygiene, Table 2.36. reports the type of toilet people use. 60.3% of respondents have a water-based toilet either in their lodging or outside in their compound. The

rest have access to simple latrines, typically in their compound. 3% do not have any toilet facility. Households typically share their toilet facility with other households, except for those with a toilet inside their lodging. For those who share toilets, the average number of sharing households is 6 (median 5).

Table 2.36: Type of toilet

	0 freq	1 freq	Total freq
1. WC inside	1051	51	1102
2. WC outside	242	429	671
3. Latrine in the yard	208	769	977
4. Latrines out of the court	21	79	100
5. In nature (no toilet)	58	32	90
Total	1580	1360	2940

A similar situation is observed for showering facilities (Table 2.37). 41.4% have a proper bathroom in their lodging, 46.4% a make-shift shower, and 12.2% bathe outdoors. Most households share their facilities with other households, except when it is inside their own lodging. The number of sharing households is the same as for toilets: 6 on average, with a median of 5.

Table 2.37: Where do you take your shower?

	0 freq	1 freq	Total freq
1. Outside	120	239	359
2. Rudimentary shower	402	962	1364
3. Bathroom	1098	119	1217
Total	1620	1320	2940

Garbage disposal and liquid waste

Turning to garbage disposal, the average travel time to the nearest garbage collection point is 14.8 minute walk, but this is driven by a few very large answers. For 90.9% of respondents, the travel time to the garbage collection point is 15 minutes or less. The median is 5. 63.5% of respondents have regular garbage collection in their locality. For those with regular garbage collection, Table **??**. shows the frequency of garbage collection: 51.9% have daily collection, 33.6% weekly collection. 10.7% report irregular collection of garbage from the collection point.

Table 2.38: Frequency of the garbage collection service

	freq	pct	cumpct
1. Daily	969	51.9	51.9
2. Weekly	626	33.5	85.5
3. Every two weeks	56	3.0	88.5
4. Monthly	15	0.8	89.3
6. Irregularly	200	10.7	100.0
Total	1866	100.0	

Among those with regular garbage collection, 9.1% report having to pay expenses, totaling on average $2.5 per month. Respondents without regular garbage collection were asked how much they would be willing to pay for having it collected. The average answer is $1.5 per months (median $0.18). 48.5% are not willing to pay anything. As shown in Table 2.39., respondents with regular garbage collection as, in general, satisfied (82.9%).

Table 2.39: Satisfaction the garbage collection service

	freq	pct	cumpct
1. Very satisfied	254	13.6	13.6
2. Satisfied	1289	69.2	82.9
3. Neutral	82	4.4	87.3
4. Dissatisfied	194	10.4	97.7
5. Very dissatisfied	43	2.3	100.0
Total	1862	100.0	

Table 2.40 shows how respondents dispose of liquid waste.

Table 2.40: Disposal of liquid waste

	freq	pct	cumpct
Discard in a particular place ('hole') outside	103	3.5	3.5
Throw in sewers	120	4.1	7.6
Throw in open storm drains	322	11.0	18.5
Throw in nature	1609	54.7	73.3
Throw in a hole in the yard	360	12.2	85.5
Septic tank	426	14.5	100.0
Total	2940	100.0	

The most common answer is 'in nature' (54.7%), in a hole (15.7%), or in a sceptic tank (14.5%). Only 4.1% of respondents dispose of it in a sewer, and another 11% in open storm drains. Note

that these answers are quite different from those provided in the listing exercise – where only 17% admitted disposing of liquid waste 'in nature'. This suggests that respondents to the listing tended to bias their answers in a more socially acceptable direction.

20.4% of respondents report the presence of an open-air storm drain outside their house, and another 21.6% report storm drains elsewhere in their locality. Of those with a storm drain in their locality or nearby, most estimate that the mayoral office is responsible for their maintenance (Table 2.41.); 16.5% ascribe that responsibility to the community; and 10% do not know. Only 8.4% ascribe that responsibility to themselves.

Table 2.41: Responsible for the maintenance of the drain structure

	freq	pct	cumpct
1. Mayor	756	61.2	61.2
2. Ministry of Water and Sanitation	29	2.3	63.5
3. NADO: National Sanitation and Drainage Board	10	0.8	64.3
4. ¡yself / my household	104	8.4	72.7
5. Local Community	204	16.5	89.2
Don't know	125	10.1	99.4
Nobody	8	0.6	100.0
Total	1236	100.0	

While 47.5% of respondents in a locality with storm drains are satisfied with their maintenance (Table 2.42.), but 38% are not. 29% of these respondents also state being concerned about this maintenance. Only 4.5% have expressed these concerns to local authorities. Of those, 54.6% were still waiting to hear and another 29.1% were told the issue was still being investigated; 16.4% experienced an improvement or resolution of the problem.

Table 2.42: Satisfaction with the maintenance of the drain structure

	freq	pct	cumpct
1. Very satisfied	36	3.0	3.0
2. Satisfied	538	44.5	47.5
3. Neutral	130	10.8	58.3
4. Dissatisfied	407	33.7	92.0
5. Very dissatisfied	97	8.0	100.0
Total	1208	100.0	

Those who had concerns about the drain maintenance and were unsatisfied were asked why they did not express concerns. in Table 2.43., 30% never thought about it. Most (96.8%) estimate that this would take at most two trips of an average duration of 50 minutes each (median 34 minutes).

Table 2.43: Reason for not expressing concerns

	freq	pct	cumpct
1. I do not know how / who to talk to	144	24.5	24.5
2. I do not have time / it is too long	96	16.4	40.9
3. Never thoughtabout it	177	30.2	71.0
4. Fear of repercussions	19	3.2	74.3
5. It's too bureaucratic	38	6.5	80.7
6. It will not be set	105	17.9	98.6
Nobody	7	1.2	99.8
Other	1	0.2	100.0
Total	587	100.0	

Electrical power

The majority of respondents (96%) have electrical power at home. Respondents without electrical power were asked why they don't. Answers are summarized in Table 2.44. 26.5% note that there is no power line nearby; the rest mention various cost issues to connect and use electricity in their home.

Table 2.44: Reason for not having electricity

	freq	pct	cumpct
Can not pay connection fees	38	32.2	32.2
The household has no internal wiring	28	23.7	55.9
There is no electricity network nearby	32	27.1	83.1
The monthly electricity charges are too expensive	20	16.9	100.0
Total	118	100.0	

Of those with power at home, nearly all get it from the grid. 15 get it from solar panels and 5 from generators. 74.2% of users state they have their own electricity meter or sub-meter. Of those without a meter, 80.7% share access to power with an average of 39 neighbors (median 3). 87.7% share access to at most 20 neighbors. As in the case of water, this indicates that access to utilities via neighbors is a common occurrence in our study area. Among those who share power costs, 88.7% share on the basis of the number of electrical appliances while 11.2% divide on a per person basis.

Respondents with electrical power were asked how much they spend on average per month. 21.1% either fail to report an amount or report 0. The average amount spent on electricity is $13 per months (median $9). Most paying users either pay in cash (32.9%), mobile money (21.5%), by recharging the meter (23.6%). 15.5% pay neighbors and 3.2% pay someone from the community.

Among those with electrical power, 95.4% have had it since they moved in their current lodgings. The rest remember a time when they did not have power, the median time since they got connected being November 2017.

Asked about power cuts, 28.7% state not experiencing any while 2.1% state experiencing them every day of the month. The average number of days with power cuts per months is 3.5 (median 2). For 17.4% of respondents the average duration of a power cut is less than one hour, and for 50.8% it at most 2 hours. In spite of this, respondents with electrical power are in general satisfied (Table 2.45.) but 20.2% are dissatisfied.

Table 2.45: Satisfaction with electric power supply

	freq	pct	cumpct
1. Very satisfied	210	7.5	7.5
2. Satisfied	1884	66.9	74.3
3. Neutral	154	5.5	79.8
4. Dissatisfied	433	15.4	95.1
5. Very dissatisfied	137	4.9	100.0
Total	2818	100.0	

Of those with power, 35.4% have received a control visit from the utility provider. 98.6% of these controls went well. 9 respondents received a fine, 4 complain of police violence, 1 faced imprisonment. Most respondents feel that the frequency of controls has remained the same, 14.1% that it has increased and 22.8% that it has fallen.

5.6% of respondents (all, except 14 of them, with power in their home) did raise a concern regarding electrical supplies with authorities. Table 2.46. summarizes their experience with the process. 34.4% of claimants experienced a resolution of their problem.

Table 2.46: Reply to the complaint

	freq	pct	cumpct
1. They said there was nothing to do about it.	28	17.2	17.2
2. I am still waiting for an answer.	40	24.5	41.7
3. They always seek what can be done.	27	16.6	58.3
4. There improved the situation	12	7.4	65.6
5. The problem was solved	56	34.4	100.0
Total	163	100.0	

Asked why they did not raise a concern, most of the other respondents (79.6%) either did not reply or said it did not apply to them, 9.4% that they never thought about it or don't have the time, and the rest (10.6% in total) that they either don't know how, that it would be

pointless, or that it is too bureaucratic. Asked where they would go to complain, 90.9% list the power supply agency, the rest list a local authority such as their neighborhood representative. 96.4% respondents state complaining would take at most two trips, each of which would take on average 55 minutes (median 45 minutes).

Bribes when seeking assistance with utilities and waste disposal

Respondents were asked how many times in the past 12 months they approached the government to solve issues relating to water, electricity, or waste disposal. 92.8% state they did not make such approaches; 4.9% made one, 1.1% made two, and 35 individuals made between 3 and 12 such approaches. Of the 211 individuals who sought to approach the government to resolve issues with utilities or disposal, the majority (78.2%) found it either difficult or very difficult to obtain the assistance they were seeking. While 89.9% of them did not pay a bribe, 15 said that did pay a bribe once or twice, while 6 of them said they paid bribes sometimes or often. Individuals who reported paying bribes are overwhelmingly those who also reported difficulties in getting satisfaction with their request for assistance. For these few individuals, the average reported bribe was $35 (median $13).

The average monthly expenditure in cooking fuel is $2.9 (median $2).

Real estate

16.1% of respondents report owning land. In 67.2% of these cases, the land was inherited; in 4.9% it was given by a relative; and in 27.9% is was bought of rented. Asked about the value of the land, 61.7% state it has no value, 15.9% cannot give it a value, and the rest (98 individuals) report a mean value of $5576 (median $1432).

6.6% of respondents (193 individuals) report that, over the last 5 years, they have been forced out of a piece of land or a building they were occupying. 60.6% of reported expulsions involve the place of residence. 79.7% of all expulsions were done by the government, the rest by the owners of the land or building. Respondents were asked to estimate the square meters of space they were forced to leave. 36.8% were unable to give an estimate. The others reported an average of 918 square meters, but a much smaller median of 12 square meters (approximately 130 square feet).

13 individuals who lost 97 square meters on average reported receiving an average compensation of $250. Nearly all the cases of compensation involve infrastructure projects. Others reported receiving no financial compensation. In general, only owners are entitled to a compensation after expropriation. From the housing section, we know that, on average across the sample 27.9% of respondents own their house. But we do not know what proportion of people subjected to an expulsion owned their residence at the time. Of the 193 respondents reporting an expulsion in the last 5 years, 21.8% report owning their current lodging, so house ownership is a little lower among evicted respondents. But there is no discernible variation in the likelihood of compensation as a function of current house ownership status.

Only 6 individuals were offered an alternative location in replacement. No compensation was

offered for standing crops (but we do not know whether standing crops were present at the time of expulsion). Only one respondent received help from an association providing assistance to victims of expulsion.

Of the 193 respondents experiencing an expulsion, 36 were able to talk with representatives of local government at the time. 58% of those experiencing an expulsion were given advance notice. Table 2.47. shows how long in advance the respondent was informed. A few (8%) were given a few hours at most, 33% were given a few days or weeks, and the majority (58.9%) were given several months or over a year.

Table 2.47: Notice

	freq	pct	cumpct
1. On the spot	5	4.5	4.5
2. Some hours before	4	3.6	8.0
3. Some days before	17	15.2	23.2
4. Some weeks before	20	17.9	41.1
5. Some months before	51	45.5	86.6
6. A year or more before	15	13.4	100.0
Total	112	100.0	

The majority (72%) of respondents experiencing an expulsion know why they were asked to vacate the premises. The reasons given are summarized in Table 2.48. Most expulsions (48.9%) are for 'clean up' operations, that is, the removal of slums. The rest are for infrastructure projects or the construction of a new building.

Table 2.48: Reason for the eviction

	freq	pct	cumpct
1. For a new infrastructure project	49	35.8	35.8
2. For the construction of a building	18	13.1	48.9
3. To clean the area	67	48.9	97.8
4. Issues with rent/mortages	3	2.2	100.0
Total	137	100.0	

Expulsions are fairly common: 26.3% of respondents report knowing a friend or relative who has been subjected to government expulsion; 54.6% have heard of expulsions in their sous-prefecture of residence; and 36.1% expect the government to conduct further expulsions in their sous-prefecture in the future. Table 2.49. shows the source of information regarding expulsions. Most respondents (74.7%) heard about it from friends and relative; others from meetings organized by the mayoral office (13.3%) or the media (9%).

Table 2.49: Source of information

	freq	pct	cumpct
1. Meetings organized by the town hall	110	13.3	13.3
2. Meetings organized by the notables	19	2.3	15.6
3. Parents / friends / neighbors	616	74.7	90.3
4. Bailiff	6	0.7	91.0
5. Media (newspapers, radio, television)	74	9.0	100.0
Total	825	100.0	

Tables 2.50. and 2.51. show responses to a question on the expected likelihood of not suffering an expulsion in the next 6 months and in the next 2 years. 55 to 57% of respondents are confident they will not be evicted while around 18% are concerned they could be evicted. Compared with the actual experiences of eviction observed in the data over 5 years, these reported beliefs massively overstate the actual risk of eviction, which is 6.6% over five years, or 1.3% per year. Furthermore, since the reported frequencies are nearly identical for 6 months or two years, respondents seem to believe that, if they will be evicted, this will happen in the next 6 months or never.[1] Based on this, we suspect that Tables 2.50. and 2.51. capture more feelings of anguish at the prospect of being evicted than actual beliefs about the probability of eviction.

Table 2.50: Confidence in not being evicted in the following 6 months

	freq	pct	cumpct
1. Completely certain	844	28.7	28.7
2. Rather certain	832	28.3	57.0
3. Neither certain or uncertain	730	24.8	81.8
4. Rather uncertain	217	7.4	89.2
5. Completely uncertain	317	10.8	100.0
Total	2940	100.0	

[1]We show this by contradiction. Suppose that respondents are rational and that they believe the probability of eviction is more or less constant over time. It follows that if they believe the probability of being evicted over a 6 months interval is A, then they should also believe that the probability of being evicted over four times that interval is 4A. If they are rational, the fact that their beliefs are the same over the two time intervals implies our conclusion.

Table 2.51: Confidence in not being evicted in the following 2 years

	freq	pct	cumpct
1. Completely certain	851	28.9	28.9
2. Rather certain	779	26.5	55.4
3. Neither certain or uncertain	769	26.2	81.6
4. Rather uncertain	227	7.7	89.3
5. Completely uncertain	314	10.7	100.0
Total	2940	100.0	

Table 2.52: Confidence in receiving a compensation

	freq	pct	cumpct
1. Very confident	511	17.5	17.5
2. Some confidence	791	27.2	44.7
3. Not sure	725	24.9	69.6
4. Not very confident	337	11.6	81.2
5. Not at all confident	549	18.8	100.0
Total	2913	100.0	

Asked whether they will receive compensation if evicted, 44.7% of respondents are more or less confident they would, while 30.4% are more or less confident that they would not. These proportions are different for owners and renters: among owners, 58.9% are confident they would be compensated compared to 36% of renters. Again, based on the evidence presented above, these beliefs massively overstate the probability of being compensated, especially among renters. Perhaps this is just as well: if people have an irrational fear of being evicted, it is best for them to believe they will be compensated so that the prospect of eviction is less daunting.

Transfers given and received

Gifts and loans given

We now turn to transfers. 36.1% of respondents state that they gave or lent money to other households. Among those reporting giving or lending money to others, 7.8% are unable or unwilling to report the amount and 7.2% report 0. The reported average monthly income of those reporting transfers is $148 compared to $81 for those who do not. The average value of the transfers over the last 12 months is $170 (median $54), which is considerable relative to the reported average income of the givers.

Most of those who give or lend money to others do so with a single person (46.1%) or with 2 or 3 (37.5%). 3.3% of respondents give to 10 or more other people. Averaging over all the transfers recorded in the survey, we find that the majority of gift recipients are friends and work colleagues (56%), followed by siblings (8%) and parents (8%). 41.6% are women and the average

size of the recipient's household 4.4. About 63% of recipients live in the same sous-prefecture, between 1 and 2% outside Cote d'Ivoire, and the rest (35%) elsewhere in the country. The average number of gifts or loans to this person over the last 12 months is 2.4 and the average amount sent to a recipient over the course of a year is $82.

In 57% of the recorded transfers, the money is given as a gift; the rest are loans. About half of the loans are repaid in a single installment; about 30% is paid in irregular installments; and the rest in regular installments. In 91.8% of the loans, the lender expects to be repaid. In practice, 58.6% of the loans are still outstanding at the time of the survey, and the average amount due is $95. Of those loans that are still outstanding, 87.8% are in arrears – implying a total proportion of loans in arrears of 51.4%. This may not be too surprising given that 69.2% of all transfers are given to finance non-durable consumption such as food and 12.7% for medical expenses. Other often listed motives include investing in a business (6.8%) and paying for wedding costs (6.3%), school fees (2.9%), or rent (2.7%).

Gifts received

We repeat the analysis with the gifts received by the respondent. 30% of respondent state having received a transfer from another household. 15.5% of these respondents received money from abroad. The total amount received over a year is $207 per recipient (median $58). 60% of recipients receive transfers only from one person; another 29.2% receive money from 2 or 3 individuals. One respondent gives a very large number of benefactors, which, given her profile as an elderly woman with no education, makes us suspect that she is a beggar.

Approximately 33% of transfers come from friends and work colleagues, 20 to 25% from siblings, and 10% from children. The rest comes from various relatives and 1-2% from members from the community. 28.8% of the transfers received come from a woman; the rest from a man. In 41.4% of the cases, the benefactor lives in the same sous-prefecture. On average the respondent received money 3 times from this benefactor over the last 12 months. The average total amount received per benefactor over a year is $133. Between 45 and 50% of transfers received were given hand to hand in cash. Around 40% was received via mobile money and another 4-5% via bank transfer or Western Union. The rest was transferred in cash through an intermediary – typically a common relative or friend. The main intended use of the money received is the consumption of non-durables (70%), followed by paying back debts (13.9%). Other stated purposes include investment in a business (5.6%), investment in crop production (5.5%), safekeeping for the sender (3.2%), paying for the lodging or the rent (4.4%), financing someone's migration (1.1%).

We also recorded transfers from other sources. 11 respondents received money from a charitable institution or rich benefactor, for an average amount of $209 over the last 12 months. 7 receive a government pension of an average amount of $410 per year. 29 receive a worker pension, for an average amount of $221 per year. 3 respondents received transfers from other government programs, for an average of $258 per year, and 11 received transfers from a religious organization, for an average of $319 per year. While the amounts involved are sizeable, the number of respondents who benefit from such transfers is quite small.

Borrowing

274 respondents (9.3%) took at least one loan in the 12 months preceding the survey. Of these, 78.1% took a single loan, with an average number of loans of 1.3. Averaging over all loans received by respondents, we see that 86.8% of all loans come from a person – typically a friend or work colleague (70%), a sibling (10-12%), or another relative. This person nearly never works in a financial institution. For 47.5% of the loans, the lender is a woman. In 73.3% of the loans, the individual lender lives in the same sous-prefecture.

13.2% of the loans received come from a formal institution – typically an MFI (32.6%) or bank (28.9%). 9 respondents took a loan from their employer, 6 from a ROSCA, and 3 from a religious institution. In 69.4% of the cases, the institutional lender operates in the sous-prefecture of residence of the recipient.

The average amount borrowed per loan is $190 and the average duration of a loan is 298 days (median 90 days). 94.4% of loans are for at most a year. Only 9.2% of the loans include an interest charge. Nearly all the interest-charging loans come from bank or MFI – interest was charged in only 4 of the 322 individual loans, and in none of the loans from employers and religious institutions. For interest-charging loans, the average rate is 95% a year (median 20%).

Collateral was offered in 5.1% of the loans – primarily when borrowing from a bank or MFI. Of the 16 loans for which collateral was provided, 9 cases involve a personal guarantor, 6 the pawning of goods or jewelry, and 1 a mortgage on real estate. The average value of the collateral was $1770.

Most borrowers (45-50%) pay off their loan in a single installment; about a quarter pay in regular installments and the rest in irregular installments. 59.7% of the loans are still outstanding, with an average payable amount of $96. We find no relationship between whether a loan is still outstanding and (1) the duration of the loan (e.g., 53% of loans for a year or less are outstanding, 55% of loans for 90 days or less are still outstanding); (2) the interest rate; and (3) whether the lender is an individual or an institution.

In terms of reported use: 40.9% of loans are taken for the consumption of non-durables; 22.2% for a business investment; 11.8% for medical expenses; and 9.9% for school costs. In addition, 3.2% of respondents take a loan to pay off a debt, and 4% to invest in agriculture or real estate.

Of the respondents who did not report receiving a loan in the past 12 months, 7.7% tried getting one. Of those who tried to borrow, 35.4% (73 respondents) report being successful. These respondents come in addition to the 274 respondents listed earlier as borrowers. 37% of them borrowed from a financial institution, the rest from friends or family, suggesting that these 73 respondents may not be too different from the 274 who did answer our detailed questions on borrowing. Of the 133 respondents who did try to obtain a loan but were unsuccessful, 36.1% mention the lack of collateral, 7.5% the lack of documents, and 40.6% do not report a reason.

Table 2.53. gives the reasons provided by respondents for not trying to get a loan. 30,4% state they did not need one, 37.7% that they do not want falling into debt, and 21.5% that they do not have collateral. The first group can be regarded as not credit constrained. The third group of 524 respondents can be considered as credit constrained and should be added to the 48 respondents who did try getting a loan but failed for lack of collateral – totaling 19.5% of our sample. Table 2.53. nonetheless shows that the largest group of those who do not seek to borrow chooses not to incur debt. This behavior is not consistent with the idea that their lack of borrowing is due to an external constraint. But it does not imply that these respondents have no unmet financial needs – only that they are fearful of the form under which finance is available to them.

Table 2.53: Reason for not trying to get a loan

	freq	pct	cumpct
1. No need from a loan	748	30.4	30.4
2. I have no guarantee	530	21.5	52.0
3. Interest rate too high	55	2.2	54.2
4. I do not trust the IMF / credit provider / monetary savings	13	0.5	54.7
5. Fear of debt / borrowing	928	37.7	92.4
6. I do not have time	11	0.4	92.9
7. I plan to make the request	36	1.5	94.3
8. I do not know the application process / operation	129	5.2	99.6
9. religious reasons	10	0.4	100.0
Total	2460	100.0	

We asked respondents whether they are pre-approved for borrowing by a financial institution – e.g., through a credit card or an overdraft facility. 12.8% of respondents say they are. There is very little overlap (12.8%) between these respondents and those who reported borrowing in the last 12 months.

In terms of availability, 38.8% of respondents state that there are no MFI or formal financial institution in their neighborhood and another 24.6% that they do not know. The average reported number is 1.1. 29% of respondents nonetheless state that sources of borrowing other than banks are available to them. Among those, 45% mention religious institutions, 41.6% mention relatives, 27.8% list MFIs, and 18% mention friends or neighbors.

All respondents were asked what is the maximum amount they could borrow from a bank or any of the alternative sources listed above. 18.9% answer 0 and 14% do not know. The maximum borrowable amount that is reported by respondents is $4252 on average (median $537), which is much larger than what respondents report borrowing. 46.3% of respondents estimate they would have to pay interest on such a sum; 33.5% state they would not; 20.2% do not know.

Savings

17.9% of respondent have a checking account in a bank. Of those who do not, 62.2% say they do not have enough funds to satisfy the minimum initial deposit requirement, 22.7% state they wish to save in some other way, and 21.5% that they do not know how to do or that it is too complicated. 6.3% say they do not have the necessary identification documents and 7.5% that they do not trust bank. Only 20 respondents (0.8%) mention the absence of bank in their neighborhood.

Among those with a bank account, 72.8% made no deposit in the 30 days preceding the survey. The average number of deposits is 0.6 per month. Similarly, 51.8% of those with a bank account report making no withdrawal in the last 30 days, while 28.6% made a single one. He average number of withdrawals is 0.8 per month.

73% of respondents have a mobile money account (91.6% among bank account holders). Among those without a mobile money account, 41.6% say they are not interested, 21.8% that they do not have a phone or that their phone is not compatible with mobile money, and 21.6% that they are not sufficiently literate to use it. 17.6% state not having enough funds to make use of the service, and 5.7% that they do not trust the system.

Respondents were asked whether they were able to save some money during the last 12 months. 43.2% of respondents stated they could. Those who answered yes were asked how much they saved over the preceding three months. 16.4% answer 0 and 18% do not know. The average reported saving is $1924, with a much smaller median of $90. Asked why they save, 53.7% of respondents list precautionary saving as a motive and 13.6% to be able to cover medical expenditures. 19.4% mention saving to create or expand an enterprise, 6.5% to pay school costs, 3.3% to cover funeral or wedding costs, and 2.5% to buy or build a house.

Those who save were asked how they save. 50.3% of them answer on their mobile money account; 48% in a secret place in their home; 16.5% in a bank or on a savings account; and 5.8% keep the money with a friend or relative. 5.5% save through a tontine (ROSCA).

16% of respondents belong to a tontine (ROSCA), 97.7% by themselves. In 76.8% of cases, this tontine is located in the sous-prefecture of the respondent, in 19.8% near his/her work place, and in 2.8% in another sous-prefecture. Of those who report belonging to a tontine, 46.9% fail to report the amount of the periodic deposit. The average reported periodic deposit is $16.7 (median $6).

Insurance

51.2% of respondents state having faced unforeseen circumstances in the past 12 months. Among those, 61% list an illness or accident of a household member and 23.6% the death of a working member of their household – the latter figure seeming too large to be true. Other commonly mentioned shocks include the loss of assets (5.3%), the loss of a job (2.6%), a busi-

ness failure (2%), an unexpected wedding (1.9%), a theft (1.4%), or some other cause (19.2%).

11.3% of respondents have some form of formal insurance policy. Of those with an insurance policy, 14.1% (47 individuals) have insured an asset – e.g., house, car, machine. Of these 47 individuals, 41 pay themselves and 6 get a full or partial contribution from their employer.

Commuting and transportation

Respondents were asked how long it takes to get to their work place. 32.7% replied the question does not apply to them. The mean reported commute time is 26 minutes (median 15). 12.4% report a zero commute time, meaning they work from home. The average commute cost is $0.7 but 61.2% of respondents report a zero commute cost, meaning they either work from home or they walk or cycle to work. 48.7% of commuters report using no mode of transportation, meaning they only walk to work. 32.4% report using one mode of transport apart from walking, and another 15.4% report using two. The average is 0.76.

Respondents are also asked about all their movements on their last Monday, Wednesday, and Saturday. These questions are asked to all respondents, whether they work or not. A majority of respondents report no trip on either of these three days: 61.8% for Mondays, 66.4% for Wednesdays, and 69.3% for Saturdays. A large share of respondents reports two trips per day, consistent with commuting to and from work once a day: 24.7% on Mondays, 23% on Wednesdays, and 20.5% on Saturdays. The average number of trips per day is 0.91 on Mondays, 0.78 on Wednesdays, and 0.72 on Saturdays.

Respondents were then asked how many minutes they walk per day. About 6% do not know and 15-17% report not walking at all. The average reported walking time is 51 minutes on Mondays, 48 minutes on Wednesdays, and 159 minutes on Saturdays. The high Saturday average is driven by 6.5% of respondents reporting more than two hours of walking – possibly to visit relatives, work on a farm, etc. The median, however, is the same for all days: 30 minutes.

Finally, respondents were asked how much they spent on transport on each of these three days. About 2.6% of them provide no answer. The majority spent nothing: 63.3% on Mondays, 68.1% on Wednesdays, and 70% on Saturdays. The average amount spent on these trips is $0.57 on Mondays, $0.49 on Wednesdays, and $0.52 on Saturdays. A small fraction of respondents spent much more – possibly for a long-distance trip.

Next respondents were asked to reminisce about up to 10 recent trips involving a vehicle of some kind. Most trips rely on private share rides: 42.6% of the reported trips were made using private mini-buses locally known as gbaka and another 36.1% in collective taxis. 6.2% took place on public buses, 6.2% in a privately-owned car (as driver or passenger), 4.3% in a moped or motorcycle, and 2.9% in a private taxi. A public ferry was mentioned in 1% of the rides and a bicycle in 0.7%. The average waiting time for transport is 10 minutes (median 5) and the average travel time is 41 minutes (median 22) – for an average combined time of 50 minutes

(median 32).

Regarding what are likely to be outbound morning trips, 22.1% of these trips are made between 5 and 7am, 21.8% between 7 and 9am, and another 10% between 9am and 12pm. In the afternoon 8.8% of trips are made between 3 and 5pm and 18.8% between 5 and 8pm. There are a few trips reported between noon and 3pm (6.9%) and before 5am (8.2%), but few reported trips after 8pm (3.4%). Most of the reported trips (87.4%) are taken alone, 7.7% with a friend, and 4.8% with a relative. Women are less likely to travel with a friend (5.3% vs 8.6% for men) and more likely to travel with a relative (9.6% vs 2.7% for men). Only 27.3% of respondents state they never fear for their safety during these trips; 35.8% state they fear for their safety sometimes, 28.2% often, and 9.3% all the time. There is a significant difference between men and women, with women feeling slightly less safe. The most often cited purpose of these trips is going to work (37.9%) and returning home (35%). Other cited purposes include shopping (14.2%), visiting relatives (5.4%), going to school (4.9%), and visiting a health center (1.1%). Leisure trips account for only 0.4% of reported trips, and looking for work or accessing public services account for 0.8% and 0.1%, respectively. Unsurprisingly since they are less likely to work for pay, women are more likely to travel to shop or visit relatives.

Respondents were quizzed on their expectations regarding future transportation opportunities. 66.8% of respondents have heard rumors of light rail or metro construction in Abidjan. Among those 19.8% know where the closest station will be and 15.2% where the final station will be. 88.4% do not know how long it will take to reach the closest station. The others estimate 35 minutes on average (median 30), with a standard deviation of 32 minutes. Similarly, 90.7% do not know how long it will take between their place of work and the nearest station. The average guess for those who offer one is 33 minutes (median 20). 93.6% of respondents expecting light rail or metro construction in Abidjan are unable to provide an estimate as to when the line will be in service. Of those few who volunteer a date, 51% list 2020 or before, 24% answer 2021, and the others later. There is, however, considerable interest in the new lines, which 79% of respondent plan to use, primarily to go shopping (84%), visit relatives (59%), or go to work (30%). In addition, 16% plan to use the new line for leisure activities and 12% to look for work. Other activities (going to school, visiting a health center, and access public services) are cited by about 5% of respondents each.

Next, respondents were asked about the construction of a special bus line between Yopougon and Bingerville – a line that would link the Eastern and Western sections of Abidjan to the central Cocody. Only 7.1% (208 individuals) heard of it. Among them, 29% stated they knew where the starting station would be and 27% where the final station would be. They estimate the travel time to the nearest station to be 33 minutes, and 23 minutes between their work place and the nearest station. 48.1% of respondent could not guess the starting date for this service, while most of the others suggested 2019 (36.1%) or 2020 (11.5%). Of those aware of the new bus line, 62% plan to use it, with the same uses in mind a for the light rail/metro discussed in the previous paragraph.

Respondents were asked about other transport infrastructure projects in and around Abid-

jan. 30% were able to mention at least one other project – mostly the fourth bridge between Yopougon and Attecoube (85%), the fifth bridge between Platteau and Cocody (26%), the VGE boulevard (20%), the express road in Yopougon, and the boulevard du port (each 10%).

22% of respondents state that they are users of SOTRA, the public transit system – on average for 10 years (median 5). 78% of users report that the service has improved, 18.4% that it is unchanged, and 3.6% that it has deteriorated. The main points of improvement are punctuality, mentioned by 59% of respondents, higher frequency of stops (50%), fewer accidents (24%), and more courteous staff (7%). Respondents were asked about the switch from a paper ticket to an electronic pass. Most users report being satisfied with the change. 61.4% credit the new system with faster check-in, 24.5% say that it reduces the need for having change, and 14.1% that it reduces fraud.

Access to transport services varies across respondents. The average walking time to the nearest gbaka station is 13 minutes (median 10)The average time to reach the main Adjame station in Abidjan is 52 minutes (median 45), with as standard deviation of 44 minutes. 22% of respondent are at most 20 minutes from it, while 19% are more than an hour away. Similar figures are given for the Treichville station in Abidjan: average time is 64 minutes (median 60). The average number of days since a respondent visited the center of Abidjan is 100 days (median 17). 35.4% of respondents visited it at most a week ago, 68% at most a month ago, and 7.4% one year ago or more. Table 2.54. shows that most respondents (65.5%) are either satisfied or very satisfied about the transport services where they live. This nonetheless leaves 24.2% of respondents who are not. Dissatisfaction is correlated with the length of travel time to the respondent's job and the number of different means of transport needed to get there.

Table 2.54: Satisfaction regarding public transport services

	freq	pct	cumpct
1. Very satisfied	110	3.9	3.9
2. Satisfied	1754	61.7	65.5
3. Neutral	292	10.3	75.8
4. Dissatisfied	586	20.6	96.4
5. Very dissatisfied	102	3.6	100.0
Total	2844	100.0	

Consumption

Our survey did not attempt to measure all aspects of household consumption. Rather we focused on a small number of consumption items that capture key predictors of the standard of living of the household – such as food consumption and its breakdown across various food types; personal expenses; and infrequent expenditures in clothing, furniture, and school fees. We also measure the contribution that the respondent makes to these various expenditure categories.

Table 2.55. presents the average food expenditures of the respondent's household over the week preceding the survey. We see that proteins (meat) and cereals (including bread) are the largest expenditure accounts on average. The largest median is also for meat ($6.3 per week). We calculate average total food consumption by summing reported expenditures, to which we add imputed values for missing information. This yields an average of $25.9 per week. This figure is a bit higher than the sum of the individual averages presented in Table 2.55., which is $22.6, but it provides what we believe is a more accurate mean for the entire sample as it corrects for missing information when respondents are unable to answer a specific household expenditure question.

Table 2.55: Weekly food expenditures of the household in US$

	count	mean	sd	min	max
Grains/bread	2377	5.196347	5.88235	0	89.50179
Pulses	2497	1.046754	3.153742	0	134.25
Oil/spices	2266	1.450417	1.493196	0	22.554
Dairy	2627	.9858955	1.842344	0	44.75
Proteins	2280	7.649225	6.34423	0	62.65
Tubers	2456	1.790476	2.259918	0	37.59
Vegetables	2361	1.285964	1.802016	0	35.8
Fruits	2740	.7334185	1.117911	0	17.9
Drinks	2729	.7001504	1.448923	0	26.85
Alcohol	2903	.3961166	2.113354	0	58.4435
Other food	2489	1.364307	2.004979	0	35.084

Table 2.56. presents the average contribution of the respondent to the household food expenditures, in percentage. We see that the respondent covers a little under half of the main household expenditures in grains and proteins, and a little over a third of most other expenditures, except for drinks and especially alcohol expenditures, for which respondents seem reluctant to admit responsible.

Table 2.56: Percentage share of respondent in household food expenditure

	count	mean	sd	min	max
Grains/bread	2921	47.20781	45.6648	0	100
Pulses	2923	29.77284	43.17174	0	100
Oil/spices	2907	44.06708	46.27718	0	100
Dairy	2931	31.33367	44.46991	0	100
Proteins	2912	47.07315	45.44776	0	100
Tubers	2928	37.31523	45.36366	0	100
Vegetables	2920	37.41336	45.56235	0	100
Fruits	2932	37.853	46.66978	0	100
Drinks	2934	27.8623	43.51122	0	100
Alcohol	2936	7.294278	25.6357	0	100
Other food	2926	36.55707	45.14798	0	100

In addition, 48.9% of respondents report eating an average of 4.9 meals per week (median 6) outside of their home, totaling an average weekly expenditure of $6.8 per respondent (median $5.4). Some households (9.4%) report receiving free food from other households or organizations, for an average value of $4.5. A large fraction of households (39.7%) also report consuming food produced by the household.

Table 2.57. shows the average month expenses of the respondent on various personal expenses. Communication (i.e., mobile phones) is the biggest account here, with a mean of nearly $10 per month (median 5.4) – a large amount relative to the average monthly income of $106 discussed earlier. Respondents on average spend more on charitable and philanthropic donations than on entertainment, although there is considerable variation across individuals – 65.8% of respondents report donating nothing.

Table 2.57: Monthly expenditures of the respondent, in US$

	count	mean	sd	min	max
Communication	2786	9.951482	13.10697	0	286.4
Entertainment	2905	2.576323	16.54998	0	358
Personal care	2893	4.936128	11.9462	0	259.55
Charity	2847	4.051062	23.74046	0	1074

Less frequent expenditure items are collected at the annual level: clothing and shoes; furniture; and school expenditures. Table 2.58. reports annual averages. School fees loom large in household expenditures, although the median ($28.6) is much smaller than the average. This is unsurprising since schooling expenditures only apply to families with school-age children. For clothing and shoes, the median is higher ($62.7), indicating that these expenditures are more evenly distributed across households. Respondents do not spend much on furniture, which is an infrequent expense.

Table 2.58: Annual expenditures, in US$

	count	mean	sd	min	max
Clothing and shoes	2141	103.0465	133.2872	0	1790
Furniture	2794	41.33298	153.4814	0	2362.8
School expenditures	2463	123.2282	303.2225	0	8950.002

To compare the magnitude of these different categories of expenditures to each other, we report in Table 2.59. the monthly equivalent amount for our three expenditure categories. These figures are purely indicative since we did not attempt to measure all the consumption categories. These figures also do not include expenditures on rent or utilities, which are covered elsewhere in this report. These calculations yield a sum of $112 per month on food (median $102), $21.5 on what we have called personal expenses (median $13), and a monthly equivalent of $22 (median $13) on infrequent expenditures. Summing across all three, we obtain an average total of $156 per month (median $137) which, again, is large relative to the average income level reported by the respondents.

Table 2.59: Monthly equivalents by expenditure categories

	count	mean	sd	min	max
Food expenses	2940	112.3	68.7	0	743.1
Personal expenses	2940	21.5	36.2	0	1111.6
Annual expenses	2940	22.3	31.7	0	749.6
Sum	2940	156.0	96.2	0	1315.1

We also measure the extent to which households are subject to food distress. 25.2% of surveyed individuals report worrying about being able to put enough food on the table during the preceding 12 months. Over the last 12 months, 20% of respondents report suffering from insufficient food in at least part of the year – on average for 3 months out of 12. 12.8% of respondents report having insufficient food all year. 16.1% of respondents report having to skip meals in the three months preceding the survey – on average for 17.6 days (median 7).

Table 2.60. documents respondents' perceived fluctuation in their living standard over time. A little over half the study population (53.1%) report having the same standard of living as they had a year before. 22.5% report their situation as having worsened while 24.4% report an improvement. This suggests a sizeable amount of consumption churning in our study population, and no strong upward trend.

Table 2.60: Living standard with respect to food compared to last year

	freq	pct	cumpct
1. Much worse now	110	3.7	3.7
2. Worse Now	551	18.7	22.5
3. Same / no change	1560	53.1	75.5
4. Better Now	691	23.5	99.0
5. Much better now	28	1.0	100.0
Total	2940	100.0	

Health

Seeking care

Respondents were asked whether they fell ill or suffered a wound in the 12 months preceding the survey. We used a broad definition of illness that encompasses fever, fatigue, headache, constipation, and bouts of malaria. 72.3% of respondents answer yes. Table 2.61. presents the various symptoms reported by respondents for their last illness. The most common reported symptom is 'malaria' (54.9%). This self-diagnostic, however, should be taken with a grain of salt: it is well known that malaria is massively over-diagnosed by individuals and even pharmacists in West Africa. This is largely due to its historical prevalence and its association with very general symptoms such as fever, fatigue, headache, and various aches and pains. Indeed fever, severe headache, and joint pains are among the most commonly cited symptoms in the Table. Stomach pain is listed by 11.3% of respondents, back pain by 7%, and burns/wounds/broken bones by 6.5%. Other fairly common symptoms are mentioned as well, such as coughing or fainting. More severe conditions such as asthma, anemia, or pregnancy and childbirth issues are cited in a few cases. Mental illness, on the other hand, is only mentioned by two respondents – a frequency well below the natural occurrence of depression and other mental issues in a general population, and probably higher among the more vulnerable households in our sample. This figure, however, accords well with the attitude towards mental illness prevailing in much of Africa, which leads people to underreport it.

Of the 2126 respondents who report having been ill in the past year, 93.3% report seeking care. Table 2.62. shows that the majority of respondents (85.1%) seek care from health care professionals – mostly from a health care center (30.5%), a private clinic (20.5%), a hospital (12.1%) or a pharmacist (11.2%). A small proportion of respondents resort to unlicensed medicine, either in the form of plants (7.8%) or traditional healer (1.3%). In addition, 5.4% seek care 'from the market', which suggests reliance on self-medication and the possible use of poor quality drugs (expired or counterfeit) or unproven treatment.

Table 2.61: Reported symptoms for last illness

	pct
Diarrhea	2.4
Fever	29.7
Weakness/fainting	6.1
Severe headache	19.8
Vomiting	2.1
Cough	6.0
Coughing blood	0.4
Mental disorder	0.1
Abdominal pain/stomach	11.4
Burn/fracture/ wound	6.5
Back pains	7.0
Joint pains	16.4
Childbirth complications	0.6
Difficulty breathing	3.2
Skin infection	1.8
Pregnancy related issues	1.6
Typhoid fever	3.8
Illness related to blood (anemia...)	2.9
Dental problem	2.0
Eye problem	2.4
Malaria	54.9

Table 2.62: Place to seek primary care

	freq	pct	cumpct
1. A traditional healer	25	1.3	1.3
3. Government Hospital Type Hospital	240	12.1	13.4
4. Health Center government-like CSU / CSR	605	30.5	43.9
5. Public Clinic Type CS Community	114	5.8	49.6
6. Private Hospital	45	2.3	51.9
7. Clinic	406	20.5	72.4
8. Health Center NGO	23	1.2	73.6
9. Health Professional (Individual)	33	1.7	75.2
10. Pharmacy	221	11.2	86.4
11. Market	106	5.3	91.7
12. In nature / Plants	155	7.8	99.5
13. In close friends or neighbors	9	0.5	100.0
Total	1982	100.0	

Of those seeking care, 84.8% report being prescribed a specific treatment or medication. This

proportion, however, is much lower for those relying on plants, friends, or the market (around 30%). The prescription of a specific treatment is also lower for those to approach an individual health practitioner (81.8%), a traditional healer (76%), or a pharmacist (67.4%). For those approaching a clinic, hospital or health center, a specific treatment is prescribed in 95 to 100% of cases. The most commonly prescribed treatments are an anti-malaria medication (58.4% of cases), a pain killer (42.5%), or an antibiotic (36.6%). Other commonly mentioned treatments are typhoid fever medication (5.1%), glasses (1.3%) or dental treatment (1.3%). 96.2% of those prescribed a specific treatment did purchase it; the others found it too expensive.

In terms of morbidity, respondents report having suffered from their illness for 20 days on average. 66.4% of respondents report being ill for 7 days or less; 7.7% were ill for more than 30 days; and 1.4% were ill all year. Among those reporting being ill over the last 12 months, 38.5% were too ill to work at some point and they spent on average 29 days away from work (median 7 days). 6% of those missing work lost their job, but this probability varies a lot with the duration of the absence – from less than 5% for absences lasting a week or less to over 40% for absences lasting 300 days or more.

All respondents were asked where they normally go in case of illness. Their responses are tabulated in Table 2.63. below. The responses are very similar to those presented in Table 2.62.

Table 2.63: Usual place for medical consultation

	freq	pct	cumpct
1. A traditional healer	37	1.3	1.3
3. Government Hospital Type Hospital	369	12.6	13.9
4. Health Center government-like CSU / CSR	1033	35.3	49.2
5. Public Clinic Type CS Community	183	6.3	55.5
6. Private Hospital	58	2.0	57.5
7. Clinic	581	19.9	77.3
8. Health Center NGO	39	1.3	78.7
9. Health Professional (Individual)	45	1.5	80.2
10. Pharmacy	198	6.8	87.0
11. Market	136	4.7	91.6
12. In nature / Plants	229	7.8	99.5
13. In close friends or neighbors	16	0.5	100.0
Total	2924	100.0	

Respondents were asked the main reason for choosing this particular provider. Responses are summarized in Table 2.64. The most commonly cited reason is the low price or free service (27.2%), followed by trust (21%), proximity (20.1%), a good experience (13.5%), and service quality (11.9%). Only 6.3% answer that their options are limited. The reasons provided vary by provider. Low prices are mentioned most by those using the market (60.2%), a traditional

healer (43.2%), or a governmental health center (33.1%). Free service is mentioned mostly by those relying on plants (14%) or friends (13%). Trust is mentioned more for pharmacists (39.7%), hospitals (30.6%), and private practitioners (25.6%). A good experience in the past is mentioned primarily among those seeking care from plants (48%), a traditional healer (40.5%), friends (26.7%), a pharmacist (23.7%) or the open market (22.6%). In other words, the less qualified the source of care is in offering a reliable diagnostic, the bigger the role played by trust based on (possibly misguided) experience.

Table 2.64: Reason for going to this health institution

	freq	pct	cumpct
1. I trust the people who work there	619	21.2	21.2
2. They provide a high quality service	344	11.8	32.9
3. It's close to home	585	20.0	52.9
4. The prices are good / it's affordable	697	23.8	76.7
5. The service is free / I do not have to pay	97	3.3	80.0
6. They have already helped me heal	392	13.4	93.4
7. This is the only option that I know	185	6.3	99.8
8. They offer adequate level of specialization/care I wanted	7	0.2	100.0
Total	2926	100.0	

Respondents were then asked about their last visit to a health care provider. The breakdown by type of provider is similar to those reported in Table 2.62. and 2.63. and is omitted to save space. The main reason for visiting a provider was illness (82.3% – see Table 2.65). Other reasons given include general fatigue (4%), wound or broken bone (3.3%), delivery (2.7%) or post-natal care (1.7%) and routine check-up (2.5%). The average time since the last medical visit is 283 days (median 120). The average travel time to the provider is 21 minutes (median 15), but significantly shorter when buying from a market. The average travel cost to the provider is $0.4 but 52% report paying nothing (probably because they walked there). 2.3% pay $2 or more for transport.

Table 2.65: Reason for the most recent visit to a health institution

	freq	pct	cumpct
1. Sickness	2346	82.1	82.1
2. Injury / Fracture	94	3.3	85.4
3. Medical Monitoring	70	2.4	87.8
4. General Audit	50	1.7	89.6
5. Surgery	26	0.9	90.5
6. General fatigue	114	4.0	94.5
7. Childbirth	76	2.7	97.1
8. postnatal care	48	1.7	98.8
10. Vaccination	27	0.9	99.8
11. Dental issue	7	0.2	100.0
Total	2858	100.0	

The average waiting time is 18 minutes (median 5), but with a lot of variation across providers: waiting times are longest at hospitals and health centers, a bit shorter at clinics, and shortest at a pharmacy or at the market. Private clinics and hospitals also have somewhat shorter waiting times. Across all respondents, only 3.6% (105 respondents) report ever facing problems when visiting their provider. The main complaint (75%) was a long waiting time or uncooperative staff (32%). 12.4% complained about the price of the service and 8% of over-medication. Unavailability of personnel, drugs, or laboratory services is only mentioned by a handful of respondents.

78.3% of respondents report not being charged for the services of the health provider. The average cost of the consultation itself is $3.5 (median $1.8) but 38.9% of respondents report zero consultation cost. The likelihood of reporting such a cost is much lower for those who procure health services from plants, a pharmacist, the market, friends and, to some extent, traditional healers. The average consultation cost is also lower for community-based health centers. Consultation costs, however, are not the main component of health care costs. The reported cost of tests, medication, and treatment is on average $24 (median $9). 36.8% of respondents did not incur such costs at their last visit to a health provider. Unsurprisingly, these health costs are highest in government hospitals (which typically see the most problematic patients) and in private clinics. They are lowest for those who use the local market, traditional healers, or friends.

Most respondents (82.4%) state using their own funds to cover these health costs. 15.3% rely on a transfer from a friend or relative, 1.7% rely on a transfer or loan from another source, and 0.7% (15) did not pay their health care invoice in full. 1.2% of respondents (35 individuals) report making an informal payment to a health care provider, for an average of $12.8 (median $4.3). These rare informal payments are distributed across all provider types, whether private or public, and are not correlated with not having paid a health care invoice in full.

Health status and history

Respondents were asked whether they experience acute pain in the preceding 7 days. 38.1% report zero occurrence and 21.3% very rarely experiencing acute pain. But 14.7% claim to experience acute pain all the time.

Table 2.66: Frequency of pain in the last 7 days

	freq	pct	cumpct
1. Very rarely	627	21.3	21.3
2. Once	302	10.3	31.6
3. Twice	246	8.4	40.0
4. Three to four times	211	7.2	47.1
5. Most of the time	433	14.7	61.9
6. Nothing at all	1121	38.1	100.0
Total	2940	100.0	

In terms of mobility (Table 2.67.), 82% of respondents have not difficulty getting out for their house. 10.6% report experiencing some difficulties while 3.4% experience a lot of difficulties and 1.1% cannot travel outside their house without help. Lack of mobility is of course strongly correlated with age and increases rapidly above the age of 60. A similar breakdown is observed for the respondent's ability to undertake household chores, and it is similarly correlated with age.

Table 2.67: Easiness to get around

	freq	pct	cumpct
1. I have no problem leaving my	2412	82.0	82.0
2. With some difficulty	312	10.6	92.7
3. With moderate difficulty	82	2.8	95.4
4. With great difficulty	101	3.4	98.9
5. I can not move around unless someone is there to help me	33	1.1	100.0
Total	2940	100.0	

Table 2.68: Easiness to do household chores

	freq	pct	cumpct
1. I have no trouble doing things around the house.	2453	83.4	83.4
2. With some difficulty	291	9.9	93.3
3. With moderate difficulty	57	1.9	95.3
4. With great difficulty	89	3.0	98.3
5. I can not do things at home unless someone is there to help me	50	1.7	100.0
Total	2940	100.0	

The vast majority of respondents (96.6%) report having had malaria in their life. Among them, 66% did not have a recurrent episode in the three months preceding the survey, 28.5% had one, and 5.5% had two or more. For 26.5% of those who experienced a recurrent episode, an official malaria diagnostic from a doctor or pharmacist was not sought or obtained; the rest (73.5%) state they were officially diagnosed at least once – and some multiple times. Most respondents (72.4%) treat malaria with pharmaceutical products, 5.4% with the Artemisia plant itself, and 22.2% with other traditional medicine products.

Table 2.69: Usual treatment for malaria

	freq	pct	cumpct
1. Pharmaceuticals and antimalarials (ACT, etc.)	2034	72.3	72.3
2. Artemisia (plant)	151	5.4	77.6
3. Any other traditional medicine	628	22.3	100.0
4. Does not use medicine	1	0.0	100.0
Total	2814	100.0	

87.7% of respondents state that no member of their household has ever been involved in a road accident. Of the 335 cases reported in the survey, 28 involve the death of a household member. Among the 12.4% of households involved in a road accident, the respondent was involved in 41.9% of the cases, and 42.8% of these 152 cases occurred in the two years preceding the survey. Of those respondents ever involved in a road accident, 31% did know whether or how much their household had to pay in related health costs. Of those who provided an answer, 27% reported a zero cost. The average household-wide health cost was $255, with a much lower median of $13.

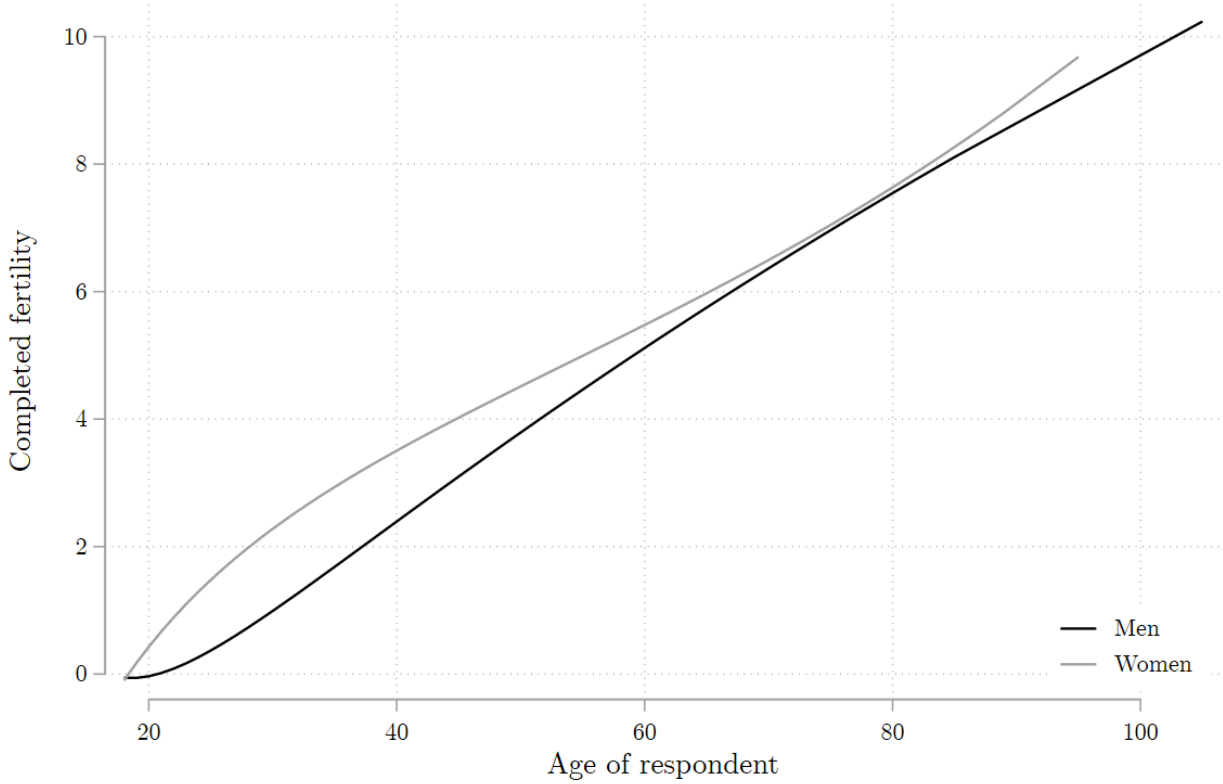
Fertility and peri-natal care

Most respondents (71%) have at least one child (i.e., someone less than 18 years of age) living in their household. On average, respondents report spending $140 (median $18) over the last six months on health care for children living with them. The difference between the average and the median is primarily driven by a single outlier who reported spending $179,000 in child health care. 23.5% state spending nothing while 6.3% spent more than $100.

Interviewed about their fertility history, respondents were asked how many children they or their spouse(s) ever delivered – including stillborn children. The average is 2.1 children per male respondent and 2.9 per female respondent. 36% of male respondents declare having no child of their own, compared with 17.6% of women. As shown in Figure 2, this large difference in reported fertility between men and women remains if we control separately for age, but it is largest around the age of 30. Why we observe this large discrepancy is unclear. One possible contributing factor is a large age difference at marriage between men and women, which would imply that the completed fertility of women is higher since, for a given age, they have been married longer than men. Another likely contributor is the way our question is asked: to men, the survey asks how many children they have 'birthed' with their current spouse or partner; to women, it asks how many children they have birthed – without specifying with their current

spouse. Consequently male respondents may not include children they have had with other women while female respondents include all their biological children, whether conceived with their current spouse, or with another father.

Figure 2: Completed fertility per age



Source: AUDRI Individual Survey

Across all respondents with children, the average date of birth is 2004, the proportion of reported girls is 48.7% and the proportion of children that have since died is 8.2%. Of the reported children, 63.9% still live in the household of the respondent. Approximately 45% of the recorded children are currently not in school, 28% are in primary school, and 20% in secondary school. In addition, 5% are in tertiary education and 2% in daycare. Approximately 60% of reported children were born in a government health center, 22% in a government hospital, 10% in a private or community-based clinic, and 5% at home.

93.5% of respondents state that they or their spouse received pre-natal care for their last pregnancy. This care was offered in 77.2% of the cases by a midwife and 16.5% by an adjunct midwife. 5.4% were seen directly by a doctor. Respondents were asked how many times they visited a pre-natal clinic during their last pregnancy. 21.1% did not remember. Of those who offered a response, only 4% report never going. The average number of reported visits is 5.7 (median 6).

Table 2.70: Provider of antenatal care

	freq	pct	cumpct
2. Community health worker	13	0.6	0.6
3. Health Agent	2	0.1	0.7
4. Traditional birth attendant	5	0.2	1.0
5. Auxiliary Midwife	331	16.5	17.5
6. Nurse / midwife	1552	77.2	94.6
7. Doctor	108	5.4	100.0
Total	2011	100.0	

Table 2.71. summarizes who assisted the delivery of the respondent's last child. The overwhelming majority of children were delivered with the help of a medically trained midwife or adjunct midwife. 4.6% were delivered by a doctor. 1.4% of children were delivered by a traditional midwife and 0.9% had an unassisted delivery. 8.6% of respondents traveled to another part of the country in preparation for the delivery – typically to Abidjan or one of the urban sous- prefectures nearby.

Table 2.71: Person assisting the delivery of last child

	freq	pct	cumpct
1. Nobody	19	0.9	0.9
2. Community health worker	4	0.2	1.1
3. Health Agent	1	0.0	1.1
4. Traditional birth attendant	31	1.4	2.6
5. Auxiliary Midwife	363	16.9	19.5
6. Nurse / midwife	1629	75.9	95.4
7. Doctor	99	4.6	100.0
Total	2146	100.0	

Table 2.72. provides information about the primary carer of the last-born child. The mother is the primary carer in 88.9% of cases – mostly at home, but in 17.6% by carrying the child on their back. The father is the primary carer in 7.1% of cases, and another family member in 3.3% of cases.

Table 2.72: Person taking care of the last child between the ages of 1 and 5

	freq	pct	cumpct
1. Mother at home	1529	71.3	71.3
2. Father at home	153	7.1	78.4
3. Other family member at home	70	3.3	81.7
4. Provider of informal care	5	0.2	81.9
5. Provider of formal care	11	0.5	82.4
6. Supported by the mother on her back	377	17.6	100.0
Total	2145	100.0	

Respondents were asked what education level they ambition for their son or daughter. Responses are virtually identical: 75-77% of parents ambition a Masters level or higher for their son or daughter, with another 19-21% ambitioning some tertiary education. Only 4-5% of respondents plan at most full secondary education for their son or daughter. The employment aspirations they have for their children are equally unrealistic: most respondents aspire to a government job for their son (75.3%) or their daughter (78.6%) and the rest aspire for their son (15.5%) or their daughter (12%) to be an entrepreneur. The rest (8.6%) are destined for a qualified job in the formal private sector. Less than 1% of respondents expect their son or daughter to end up in the informal sector.

20.3% of respondents state being currently trying to conceive a child (21.3% among male respondents and 19.3% among females). The average number of months they have been trying is 15 (median 5). Those who said they are not trying to conceive were asked what method they use to avoid a pregnancy. Responses are summarized in Table 2.73. 42.8% of respondents state that they do not use any contraception. 20.3% say they rely on the (notoriously imprecise) monthly cycle method and 2% on coitus interruptus. A variety of modern contraceptive methods are used by respondents: 9.3% rely on male condoms, 7% on contraceptive pills, 7% on injections, and 3.6% on implants, and a few on less common methods. 5.3% of respondents state relying on 'other methods' without providing more details.

Table 2.73: Contraceptive method

	freq	pct	cumpct
1. Injections	108	7.0	7.0
2. Male Condom	143	9.3	16.3
3. Female condom	2	0.1	16.5
4. pill long term	107	7.0	23.4
5. Morning after pill	26	1.7	25.1
6. Implants	56	3.6	28.8
7. Female Sterilization	7	0.5	29.2
8. IUD - intrauterine device female	5	0.3	29.6
9. Withdrawal	31	2.0	31.6
10. Menstrual Cycle	312	20.3	51.9
11. Abstinence	32	2.1	54.0
12. Traditional medicines	3	0.2	54.2
13. Coca-Cola	1	0.1	54.2
Don't know	1	0.1	54.3
Not using any method	697	45.4	99.7
Other	3	0.2	99.9
Refuse to answer	2	0.1	100.0
Total	1536	100.0	

The 659 respondents who stated that the question does not apply to them were asked why do not use contraception. Responses are summarized in Table 2.74. The most common response (51.7%) is not wanting to use contraception. 25% respond that they are breast-feeding or nursing – which is well known to naturally reduce the likelihood of conception. 4.5% say it is against their religion, and 2.4% that it is against the will of their spouse or family. Responses are very similar irrespective of the gender of the respondent.

Table 2.74: Reason for not using contraceptive methods

	freq	pct	cumpct
1. My partner is against contraception	14	2.0	2.0
2. My family is against contraception	3	0.4	2.4
3. My religion is against contraception	30	4.3	6.7
4. I don't want to use contraceptive methods	345	49.5	56.2
5. The contraceptives are too expensive	5	0.7	57.0
6. Breastfeeding	51	7.3	64.3
7. Nurse	116	16.6	80.9
8. Menopause	84	12.1	93.0
9. Currently pregnant	20	2.9	95.8
Don't know	1	0.1	96.0
Other	28	4.0	100.0
Total	697	100.0	

Asked whether the use of contraception was discussed with their spouse, 87% of male respondents state that it was. The proportion among female respondents is a lower 74%. Those who did not discuss contraception with their spouse were asked whether the spouse is aware of their contraceptive use. Responses are summarized in Table 2.75. by gender. 99% of male respondents state that their spouse is aware of their use of contraception, compared to 78.6% of females, who are also more likely to admit that their spouse is not informed (8.6%).

Table 2.75: Partner aware of the use of contraception

	Man freq/colpct	Woman freq/colpct	Total freq/colpct
0. No	4	37	41
	1.1	9.9	5.5
1. Yes	363	338	701
	98.9	90.1	94.5
Total	367	375	742
	100.0	100.0	100.0

Among all respondents, 17.5% of women report having had at least one miscarriage (Table 2.76.). 10% of male respondent are aware that their spouse has had one. The average number of miscarriages in the couple that is reported by female respondents is 1.6, and 1.4 among men.

Subjective Well-being and Mental Health

Respondents answered a short survey module intended to measure their level of subjective well- being and mental health. Table 2.77. shows their response to a question about their

Table 2.76: The respondent or the partner had a miscarriage

	Man freq/colpct	Woman freq/colpct	Total freq/colpct
No	842	957	1799
	57.9	64.4	61.2
Yes	145	260	405
	10.0	17.5	13.8
Don't know	26	3	29
	1.8	0.2	1.0
No partner / Died	386	221	607
	26.5	14.9	20.6
Refuse to answer	55	45	100
	3.8	3.0	3.4
Total	1454	1486	2940
	100.0	100.0	100.0

energy level. Most respondents feel energetic most of the time (38.4%) or all the time (26.7%). But 18.6% report being often or always tired (22.4% among women and 14.8% among men). Asked whether their low energy level impedes their participation to family gatherings such as weddings, birthdays and funerals, most respondents say it does not (89.2%). But close to 6% of respondents state that they cannot attend most or all festivities for lack of energy – with little difference between genders.

Table 2.77: Energy level

	freq	pct	cumpct
1. Always tired and lacking energy	153	5.2	5.2
2. Usually tired and lacking energy	394	13.4	18.6
3. Occasionally energetic	480	16.3	34.9
4. Usually full of energy	1128	38.4	73.3
5. Always full of energy	785	26.7	100.0
Total	2940	100.0	

Asked whether they ever feel sad (Table 2.78.), 25.6% respond that they often, very often, or always do. This proportion is higher among women (28.6%) than among men (22.6%). Table 2.79. shows how often respondents feel socially excluded or abandoned. Most respondent feels fairly integrated, except for a significant minority. We find little or no difference between genders for this question.

Table 2.78: Sadness

	freq	pct	cumpct
1. Never	868	29.5	29.5
2. Almost never	497	16.9	46.5
3. Sometimes	820	27.9	74.4
4. Often	491	16.7	91.1
5. Very often	175	6.0	97.0
6. All the time	87	3.0	100.0
Total	2938	100.0	

Table 2.79: Feeling of exclusion

	freq	pct	cumpct
1. Never	1505	51.3	51.3
2. Almost never	650	22.1	73.4
3. Sometimes	388	13.2	86.6
4. Often	279	9.5	96.1
5. Very often	82	2.8	98.9
6. All the time	31	1.1	100.0
Total	2935	100.0	

Respondents were asked whether they have problems sleeping. Table 2.80. shows their answers. Women tend to report more difficulties sleeping than men – but this could be partly due to their mothering duties.

Table 2.80: Difficulty to sleep

	freq	pct	cumpct
1. Never	1197	40.7	40.7
2. Almost never	549	18.7	59.4
3. Sometimes	627	21.3	80.7
4. Often	371	12.6	93.3
5. Very often	131	4.5	97.8
6. All the time	65	2.2	100.0
Total	2940	100.0	

The next ten tables present summary statistics for the rest of the subjective well-being indicators collected in the survey.

Table 2.81: Self-reported well-being (1)

(a) Anger

	freq	pct	cumpct
1. Never	772	26.3	26.3
2. Almost never	661	22.5	48.8
3. Sometimes	832	28.3	77.1
4. Often	503	17.1	94.2
5. Very often	139	4.7	99.0
6. All the time	30	1.0	100.0
Total	2937	100.0	

(b) Self-Harm

	freq	pct	cumpct
1. Never	2578	87.7	87.7
2. Almost never	284	9.7	97.3
3. Sometimes	32	1.1	98.4
4. Often	41	1.4	99.8
5. Very often	5	0.2	100.0
Total	2940	100.0	

(c) Anxiety

	freq	pct	cumpct
1. Never	576	19.6	19.6
2. Almost never	472	16.1	35.6
3. Sometimes	1042	35.4	71.1
4. Often	545	18.5	89.6
5. Very often	207	7.0	96.7
6. All the time	98	3.3	100.0
Total	2940	100.0	

(d) General satisfaction with life

	freq	pct	cumpct
1. Extremely happy	128	4.4	4.4
2. Very Happy	955	32.5	36.8
3. Moderately satisfied	1111	37.8	74.6
4. Slightly happy	500	17.0	91.6
5. Not at all	246	8.4	100.0
Total	2940	100.0	

(e) Feeling Happy

	freq	pct	cumpct
1. Never	43	1.5	1.5
2. Almost never	142	4.8	6.3
3. Sometimes	386	13.1	19.4
4. Often	962	32.7	52.2
5. Very often	794	27.0	79.2
6. All the time	612	20.8	100.0
Total	2939	100.0	

(f) Depressed

	freq	pct	cumpct
1. Never	1300	44.3	44.3
2. Almost never	636	21.7	66.0
3. Sometimes	633	21.6	87.6
4. Often	277	9.4	97.0
5. Very often	63	2.1	99.2
6. All the time	24	0.8	100.0
Total	2933	100.0	

(g) Locus of control

	freq	pct	cumpct
1. Never	211	7.3	7.3
2. Almost never	234	8.1	15.4
3. Sometimes	567	19.7	35.1
4. Often	847	29.4	64.5
5. Very often	533	18.5	83.0
6. All the time	489	17.0	100.0
Total	2881	100.0	

(h) Having nightmares

	freq	pct	cumpct
1. Never	1711	58.3	58.3
2. Almost never	659	22.5	80.7
3. Sometimes	343	11.7	92.4
4. Often	166	5.7	98.1
5. Very often	43	1.5	99.6
6. All the time	13	0.4	100.0
Total	2935	100.0	

Table 2.82: Self-reported well-being (2)

(a) Lack of empathy

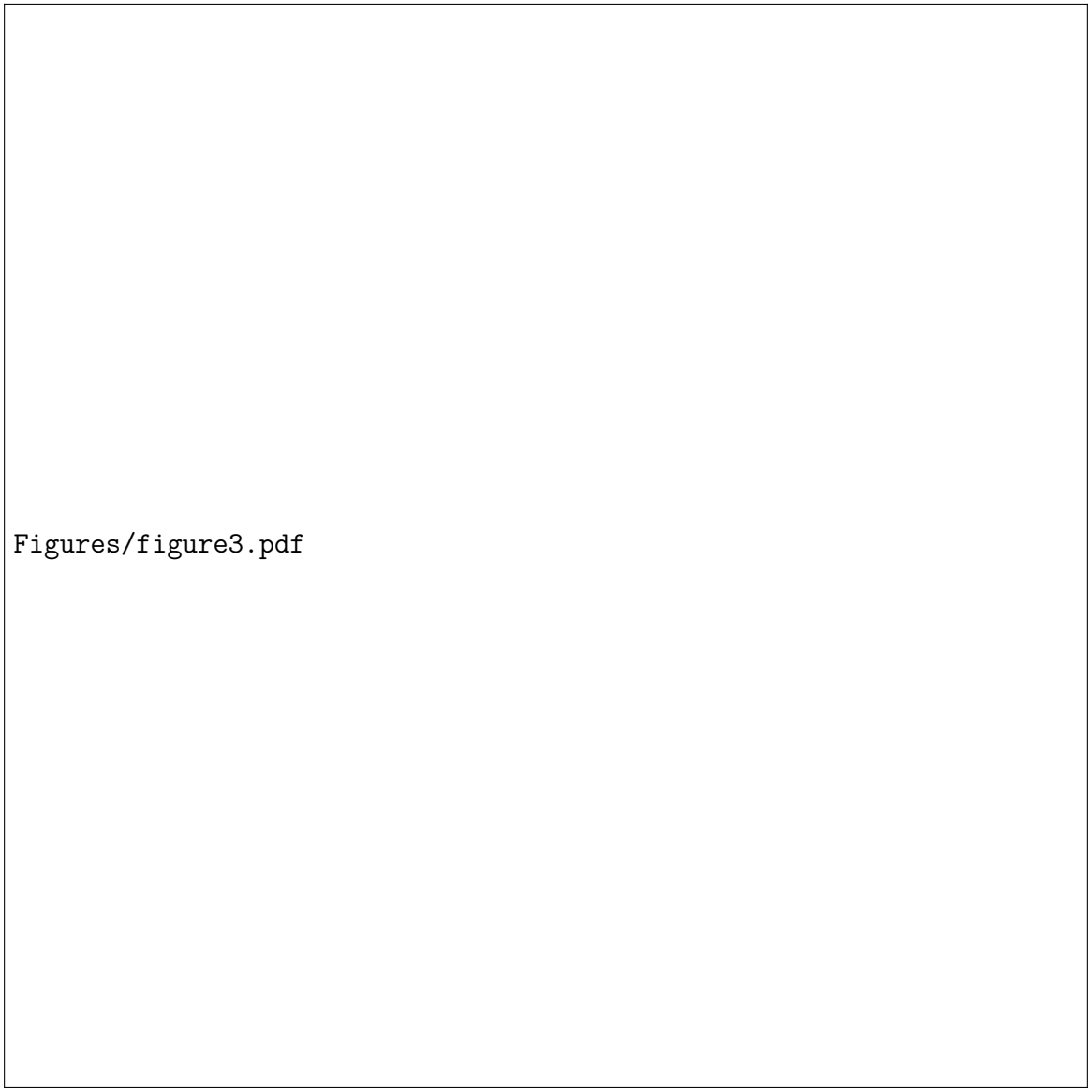
	freq	pct	cumpct
1. Never	2262	77.0	77.0
2. Almost never	405	13.8	90.8
3. Sometimes	114	3.9	94.7
4. Often	132	4.5	99.2
5. Very often	17	0.6	99.8
6. All the time	6	0.2	100.0
Total	2936	100.0	

(b) Feeling on guard

	freq	pct	cumpct
1. Never	992	33.8	33.8
2. Almost never	682	23.3	57.1
3. Sometimes	812	27.7	84.8
4. Often	326	11.1	95.9
5. Very often	86	2.9	98.8
6. All the time	34	1.2	100.0
Total	2932	100.0	

We construct a simple unhappiness index by combining the responses to the questions summarized in Table 2.77. to 2.82b. Most answers enter negatively (more means less well being), except for Tables 2.77., 2.81d., 2.81e., and 2.81g. which enter positively, since more means more well being for these three variables. We plot in Figure 3 the kernel densities of our happiness index separately for men and women. This shows that women are generally less happy/more depressed. The difference is large and statistically very significant. One should be careful not to over interpret these findings, however: men may be facing more self-image and social image pressure to appear energetic and upbeat, thereby inducing response bias. More research is needed to ascertain the true meaning of Figure 3. What remains, however, is that a sizeable fraction of our sample, both male and female, display symptoms of depression (the lower tails of Figure 3). Put in relation to our earlier finding that mental illness is only reported by 0.1% of our respondents, it suggests that mental illness is seriously underestimated by our sample population and, as such, likely to go untreated.

Figure 3: Kernel Density of Happiness index



Source: AUDRI Individual Survey

Health insurance

Only 11.2% of respondents state having a health insurance. Reasons for not having one are reported in Table 2.83. The main listed reasons are: lack of knowledge (40.1%); too expensive (24%); lack of interest/time (17.8%); and belonging to an excluded category (13.6%).

Table 2.83: Reason for not having health insurance

	freq	pct	cumpct
1. Too expensive	621	24.0	24.0
2. I do not know how it works	1038	40.1	64.1
3. I am not interested	271	10.5	74.6
4. I do not have time	190	7.3	81.9
5. Illiteracy Problem	110	4.3	86.2
6. No insurance available to people like me	353	13.6	99.8
Don't know	1	0.0	99.9
Other	3	0.1	100.0
Total	2587	100.0	

Table 2.84. shows that most of those with health insurance pay for it themselves (41.6%) or the insurance is paid by another household member (31.3%). 21.1% of respondents have a health insurance paid in full or in part by their employer. 18 respondents receive it through an unspecified government program. Among those who are insured, many do not know the cost of the insurance. Of those who provide a number, the average monthly premium is $11.8 (median $4.3). Half of those insured have been insured for two years or more; a third got insured in the year preceding the survey.

Table 2.84: Person paying for the health insurance

	freq	pct	cumpct
1. Pay for myself	137	41.9	41.9
2. Paid by the spouse / family member	103	31.5	73.4
3. Government subsidy	18	5.5	78.9
4. Paid by the employer / company	49	15.0	93.9
5. Paid by myself and by my employer	20	6.1	100.0
Total	327	100.0	

As evidenced in Table 2.85., there is a wide variety health insurance providers. But CMU is the main one, providing coverage to a third of the insured in our sample. CMU means 'universal medical coverage'. It is a government health insurance which became compulsory in 2019 for all Ivorian resident. For civil servant, it comes as a complement to their initial government-paid health insurance MUGEFCI. Of the 107 individuals mentioning CMU as their current insurance, 22.4% did not have the new electronic CMU card that facilitates insured access to the government health centers. Of the 78 individuals with this card, only 5 had used at the time of the survey.

Table 2.85: Name of the health insurance

	freq	pct	cumpct
1. ASCOMA	21	6.3	6.3
2. CMU	108	32.3	38.6
3. CNPS	3	0.9	39.5
4. Gras Savoye	10	3.0	42.5
5. MCI	26	7.8	50.3
6. MUGEFCI	44	13.2	63.5
7. HEALTH IVOIRE	13	3.9	67.4
8. SOGEMAD	7	2.1	69.5
9. SUNU	3	0.9	70.4
AZIMUT	3	0.9	71.3
NSIA	12	3.6	74.9
Don't know	36	10.8	85.6
Other	47	14.1	99.7
Refuse to answer	1	0.3	100.0
Total	334	100.0	

Around the time of our survey, the government announced it would expand CMU coverage to the entire population. All residents in the country were encouraged to register for the program and to obtain the newly created electronic CMU card. Those who took the trouble of getting the CMU card thus did so in the anticipation of future benefits. By the end of the survey, however, the program was not fully operational yet and having the card did not guarantee benefiting from the coverage when visiting a health center: many health centers had not yet received the equipment needed to read the cards; some health staff were opposed to the increase workload. Given this reality, respondents could correctly respond they had a CMU card but were not insured.

Among those without health insurance in our survey, 54.6% had heard of the newly introduced CMU card and of the promise of health insurance coverage that would follow. Respondents were asked whether they had a CMU card. 410 people answered 'yes' to this question – 102 who were already insured (e.g., as civil servants), and 308 who got the card but were not yet getting its full benefits. Those with a CMU insurance card were asked whether all members of their household were covered by the card. About 40% of them answered yes. This reflects the fact that, at the time of the survey, one CMU card covered only up to four individuals. What Table 2.86. implies therefore is that most of those with a card do not insure their entire household.

Table 2.86: Are all household members enrolled in the CMU?

	Not insured by CMU freq/colpct	Insured by CMU freq/colpct	Total freq/colpct
0. No	180	55	235
	58.6	53.4	57.3
1. Yes	124	47	171
	40.4	45.6	41.7
Don't know'	3	1	4
	1.0	1.0	1.0
Total	307	103	410
	100.0	100.0	100.0

We already know that around 77% of CMU insured already have the electronic card. Among those not yet considering themselves as insured but have registered with CMU, only 45.5% had received their electronic card. Respondents aware of CMU – but not yet insured – were asked whether they know how to enroll other members of their household. Responses, shown in Table 2.87., indicate that most did not – including 27.3% of people who had registered for the new universal CMU card. Among those who know how to enroll in CMU, most (80%) know that a national identity card is necessary. 53% also know that a birth certificate is required and 60% know where to go to register. Most (97%) of the informed respondents know that the monthly contribution for CMU is 1000 FCFA ($1.79). All except four respondents think the amount to be paid is the same for all, i.e., they ignore that some individuals are eligible to receive the CMU coverage for free. Among those with some knowledge of CMU, the majority do not know what the benefits are. In particular only 20.7% are aware that CMU covers 70% of health care costs; 72.7% respond they do not know, and the rest have inaccurate beliefs. The proportion of those capable of giving the correct 70% coverage response is higher (41%) among those who state they are already insured by CMU but even among those respondents 53% are unable to provide an answer.

Table 2.87: Know how to enroll a new hh member to the CMU

	No hh member enrolled freq/colpct	More than 1 hh member enrolled freq/colpct	Total freq/colpct
Respondent doesn't know	978	84	1062
	74.9	27.3	65.8
Respondent knows	328	224	552
	25.1	72.7	34.2
Total	1306	308	1614
	100.0	100.0	100.0

Table 2.88: Opinion on the CMU system by treatment status

	Not insured by CMU freq/colpct	Insured by CMU freq/colpct	Total freq/colpct
1. Very positive opinion	194	18	212
	12.0	16.7	12.3
2. Positive opinion	809	69	878
	50.1	63.9	51.0
3. Neutral - mixed	231	8	239
	14.3	7.4	13.9
4. Negative opinion	58	4	62
	3.6	3.7	3.6
5. Very negative opinion	51	2	53
	3.2	1.9	3.1
6. No opinion - do not know	272	7	279
	16.8	6.5	16.2
Total	1615	108	1723
	100.0	100.0	100.0

Even though CMU was still being rolled out at the time of the survey, many respondents have a positive view of it (2.88). This is particularly true among those who are already insured, with 80.4% positive attitudes. The others are slightly more guarded, with 62.1% positive attitudes and 31.1% of respondent adopting either a neutral or 'wait-and-see' attitude. Very few respondents had a negative view of the program at the time of the survey. A similar pattern is observed when asking respondents whether or not they trust the government to finalize the introduction of CMU and facilitate access to health care: the general sentiment is hopeful, but many respondents (understandably) remain somewhat skeptical about the success of the program.

Table 2.89: Trust in the authorities in charge of CMU

	No freq/colpct	Yes freq/colpct	Total freq/colpct
1. Trust a lot	151	12	163
	9.3	11.1	9.5
2. Tend to trust	650	57	707
	40.2	52.8	41.0
3. Trust a little bit	297	23	320
	18.4	21.3	18.6
4. Don't trust	217	6	223
	13.4	5.6	12.9
Don't know	297	10	307
	18.4	9.3	17.8
Refuse to answer	3	0	3
	0.2	0.0	0.2
Total	1615	108	1723
	100.0	100.0	100.0

Medical drugs

Respondents were asked for what main purpose they purchased medical drugs in the last six months. The most often cited symptoms are general fatigue (56%), fever (51%), headache (44%), joint pain (24%), and stomach pain (17%). As shown in Table 2.90., most respondents (71.3%) use industrially produced drugs on a regular basis. There is a non-negligible minority (13.1%) who rarely or never use them. This proportion is naturally higher among those who report not using medical drugs at all. A majority of respondents also make use of traditional medicine, with 55.4% using them always or often. The overwhelming majority of respondents use both, even if the correlation between the two is negative.

Table 2.90: Frequency of industrial medication intake

	freq	pct	cumpct
1. Always	747	25.4	25.4
2. Often	1348	45.9	71.3
3. Sometimes	459	15.6	86.9
4. Rarely	358	12.2	99.0
5. Never	28	1.0	100.0
Total	2940	100.0	

Table 2.91: Frequency of traditional medication intake

	freq	pct	cumpct
1. Always	407	13.8	13.8
2. Often	1223	41.6	55.4
3. Sometimes	694	23.6	79.0
4. Rarely	542	18.4	97.5
5. Never	74	2.5	100.0
Total	2940	100.0	

The majority of respondents (83.4%) purchase industrially manufactured drugs from private pharmacies or hospital pharmacies (21.2%). Some respondents (21.4%) nonetheless report buying industrial medical drugs from unlicensed sellers on the open market. A similar picture emerges if we ask respondents from which source they bought their last 10 purchases of medical drugs: on average, 6.2 come from private pharmacies, 2.1 from the open market, 1.4 from hospital pharmacies, and 0.3 from other sources (mostly plants).

70.4% of respondents report buying (some of) their medical drugs with a prescription. Among these, 15% nonetheless also report buying from the open market – vs 36% among those who report buying without prescription. Respondents buying without a prescription were asked why (Table 2.92). Most do not provide an answer. The others mention trust in the drug retailer (21.6%), self-medication (19.5%) or lack of time (3.3%). Only 8% mention cost considerations.

Table 2.92: Reason for not having a prescription

	freq	pct	cumpct
1. I trust the person selling me the medication	188	21.6	21.6
2. I used to look after me all alone	170	19.5	41.1
3. The visit to the doctor is too expensive	70	8.0	49.2
4. I have no time to go to the doctor	29	3.3	52.5
.	412	47.4	99.9
Don't know	1	0.1	100.0
Total	870	100.0	

Table 2.93. shows that many respondents (66%) often or always purchase pills individually – instead buying the whole box. Since this further increases the risk of buying expired or counterfeit drugs, respondents were asked whether they have heard of counterfeit problems in the medical drug market. 81.2% of respondents say that they have.

Table 2.93: Purchase pills individually

	freq	pct	cumpct
1. Yes, always	384	13.1	13.1
2. Yes, often	1555	52.9	66.0
3. Yes, rarely	644	21.9	87.9
4.No never	357	12.1	100.0
Total	2940	100.0	

During the survey, 1089 respondents were randomly selected to hear a short vignette on CMU and the danger of buying medicines from unlicensed sources. After this treatment, subjects were again asked whether they had heard of counterfeit drugs and their answer was recorded a second time. Table 2.94. shows how their responses changed after the vignette. We note a large change among those who initially did not know of counterfeit drugs: their proportion falls by 25%. However, we also observe a small proportion of respondents changing their opinion in the other direction. Given the presence of these contrarians, the effect of the treatment on the probability of reporting the existence of counterfeit drugs is not as large as it could have been. But it is nonetheless positive (from 80.5% to 82.3%) and the difference is statistically significant at the 5% level. To make sure the weakness of the treatment was not due to language issues, we test whether the effect of the treatment varies with the language in which the vignette was given, i.e., either French (93.4%), Dioula (6.5%), or Baoulé (0.1%). We find no significant difference.

Table 2.94: Hearing about counterfeit medication before and after treatment

	After the script		
	No freq/colpct	Yes freq/colpct	Total freq/colpct
Before the script			
2. No	159	53	212
	82.4	5.9	19.5
1. Yes	34	842	876
	17.6	94.1	80.5
Total	193	895	1088
	100.0	100.0	100.0

We also find that 29.3% of the treated respondents ask questions, and that respondents show much interest in the vignette (Table 2.95).

Table 2.95: Attitude after hearing the script about CMU enrollment

	freq	pct	cumpct
Very interested	133	12.2	12.2
Interested	611	56.1	68.3
Indifferent	298	27.4	95.7
Suspicious	33	3.0	98.7
Annoyed	5	0.5	99.2
Iritated	9	0.8	100.0
Total	1089	100.0	

Service delivery and political governance

The respondents were asked what improved the most in their sous-prefecture in the last two years. Their responses are summarized in the first column of Table 2.96. The most cited and highest ranked realized improvement is the quality of local roads. The second is the improvement of garbage collection, followed by water quality and distribution, public lighting, security, and so on. Many aspects of government action are mentioned by respondents, with a few getting hardly any citation at all, such as corruption.

Respondents were also asked what improvements they would most like to see in the future. There answers are summarized in the second column ('Desired') of Table 2.96. We see that the improvement of local roads is a high priority of respondents as well, and so are water quality and distribution, garbage collection, and street lighting. A few issues nonetheless receive a lot more attention as aspirations for the future than they did as past realizations: drainage; crime; health care; affordable accommodation; and above all employment creation. Others receive very little attention. Evictions, for instance, are only mentioned by 3 respondents as desirable.

The last column of Table 2.96. is a measure of respondents' confidence regarding the likelihood of improvement in the next five years. The measure varies between -1 and +1, with 0 meaning Information about confidence is only collected for respondents who desire that particular intervention. Because of motivated reasoning, it is perhaps not surprising that most improvements are viewed with optimism by those respondents who mention them. The improvement seen with the most confidence by respondents have to do with bus services. An improvement in corruption is seen with the least confidence. There is also comparatively less hope for improvements in big socio-economic issues such as employment opportunities and affordable housing.

Table 2.96: Improvements in the last two years

	Realized pct	Desired pct	Confidence pct	N obs
Improving the quality of the road in the vicinity	46.7	36.8	47.4	1233
More practical bus routes	5.0	2.0	74.7	87
Bus more frequent	5.9	3.7	62.5	156
More public street lighting	9.7	11.4	49.8	488
Provide a reliable power supply	5.4	7.1	40.7	307
Improving water and sanitation services	12.5	20.5	38.3	815
To improve or provide refuse collection services	18.9	12.8	50.1	580
Increase the number of public latrines	0.3	0.4	40.5	21
Install / maintain the sewage system	1.4	3.9	31.1	198
Enhance or improve systems of gutters / sewer	5.7	12.2	41.3	556
Improving basic health services	4.7	12.7	41.1	562
Meeting the educational needs	1.8	5.6	35.6	267
Increase the availability of childcare services	0.1	0.4	52.3	22
Reduce Crime	5.1	10.8	39.1	473
Improve safety / Install cameras	7.1	8.2	44.7	348
Increasing employment opportunities	2.7	28.7	21.6	1052
Improve housing / affordable housing	4.5	10.4	24.4	453
Adding bike paths / pedestrian roads	0.4	0.7	46.0	50
Improvement / reduction of prices of goods	0.3	0.9	36.7	45
Political stability	1.4	3.9	27.3	185
Good management of public finances / good governance	0.4	2.1	27.2	103
Improving the taxation	0.1	1.0	7.8	45
Decrease of traffic jam	0.9	2.5	27.9	131
Reduction of corruption	0.1	2.1	-43.9	107
Improving road safety	3.2	3.4	45.5	166
Reduction of eviction	0.4	0.0	-16.7	3
Building of new infrastructure (walking, stage, town halls	1.5	1.7	44.9	68

Respondents were quizzed on their familiarity with their political system. Most respondents (75%) know the name of their mayor. But only 8.6% know the name of someone on the municipal council and 17.4% know when its current mandate ends. Asked whether they voted at the last municipal election, only 29.8% of respondents state that they did (Table 2.97).

Table 2.97: Voted in the last municipal elections

	freq	pct	cumpct
0. No	1807	61.5	61.5
1. Yes	876	29.8	91.3
3. Not applicable: does not live in the territory of the commune	49	1.7	92.9
4. Not applicable: does not have the right to vote ¿¿ sd9	176	6.0	98.9
Don't know	6	0.2	99.1
Refuse to answer	26	0.9	100.0
Total	2940	100.0	

Among those who voted, the main consideration for doing so is intrinsic motivation: 72% of voters said they did so to perform their citizen's duty; 10% voted so that the voice of the people gets heard; and 6% to defend democracy. Instrumental motivations affected some voters: promoting the program of their favorite candidate was mentioned by 23% of them; and defending their party by 8%. Conformism is mentioned by 7% of voters and 3% mentioned following their family's lead. Identity politics seems not to have played a role, according to respondents' responses: very few voters say they voted to defend their ethnic group (2%) or religion (¡1%). Whether this can be believed in the context of Cote d'Ivoire remains to be seen. But the economic and social destruction wreaked by the civil war may have dampened respondents' willingness to associate themselves with identity-based politics.

Non-voters were similarly asked why they did not vote. Incapacitation is the most common explanation given: 33% said they lacked lack of proper documentation to be allowed to vote; 17% that they were traveling; 11% that they are not citizens; 4% that they do not have the required age; 3% that they were ill. Lack of interest comes next: 18% say they are not interested in politics; 12% that voting will change nothing; 5% that all politicians are the same; 3% that no candidate suited them; and 2% that they did not know who to vote for. 21 respondents stated they did not know where to go to vote, and 10 that they were boycotting the election.

In terms of closeness to politicians, 6.8% of respondents said they were personally visited by a candidate in the municipal election. 4.9% state knowing at least one candidate and another 3.1% having an indirect link to a candidate. 37.1% claim having received gifts from politicians, such as money, t-shirt, food, or posters and flyers. Table 2.98. summarizes respondents' turnout intentions for the next elections. A short majority of respondents state they intend to vote, which is nearly double the number of those who voted at the last municipal election. Whether this is response bias or true intent is unclear.

Table 2.98: Want to vote in the next municipal elections

	freq	pct	cumpct
1. Yes	1584	53.9	53.9
2. No	806	27.4	81.3
Don't know	529	18.0	99.3
Refuse to answer	21	0.7	100.0
Total	2940	100.0	

Respondents were also asked a few questions about citizen activism over the 12 months preceding the survey. The first question is whether the respondent joined other people from the community to request the mayor's intervention. Only 8.8% respondents were involved in an action of that nature. 47.1% of respondents claim that they would join if solicited while 36.7% would refuse. 7.4% of respondents evade the question.

Table 2.99: Get together with other people to ask for mayor's intervention

	freq	pct	cumpct
1. Yes, often	52	1.8	1.8
2. Yes, sometimes	65	2.2	4.0
3. Yes, once or twice	141	4.8	8.8
4. No, but I would if I had the opportunity	1384	47.1	55.9
5. No, I would never do it	1079	36.7	92.6
Don't know	128	4.4	96.9
Do not wish to influence the shot work by the city	45	1.5	98.4
Refuse to answer	46	1.6	100.0
Total	2940	100.0	

A similar question was asked about the respondents' willingness to contact the media by calling a radio program or writing to a newspaper. A similar pattern emerges, only stronger (Table 2.100.): 49.4% would never take such an action and only 5.5% claim to have done it.

Table 2.100: Call the media

	freq	pct	cumpct
1. Yes, often	37	1.3	1.3
2. Yes, sometimes	35	1.2	2.4
3. Yes, once or twice	90	3.1	5.5
4. No, but I would if I had the opportunity	1093	37.2	42.7
5. No, I would never do it	1452	49.4	92.1
Don't know	133	4.5	96.6
Do not wish to influence the shot work by the city	54	1.8	98.4
Refuse to answer	46	1.6	100.0
Total	2940	100.0	

The next question is about contacting an official from the mayor's office to request assistance or to complain. As shown in Table 2.101., it produces a similar pattern of responses.

Table 2.101: Contact an official

	freq	pct	cumpct
1. Yes, often	48	1.6	1.6
2. Yes, sometimes	44	1.5	3.1
3. Yes, once or twice	105	3.6	6.7
4. No, but I would if I had the opportunity	1234	42.0	48.7
5. No, I would never do it	1270	43.2	91.9
Don't know	137	4.7	96.5
Do not wish to influence the shot work by the city	56	1.9	98.4
Refuse to answer	46	1.6	100.0
Total	2940	100.0	

The next question is about tax boycott, i.e., the refusal to pay taxes. As evident from Table 2.102., very few respondents are willing to engage in such type of action – perhaps wisely so.

The final question is about participating to a street protest. Surprisingly, even fewer respondents are willing to join a street march than to refuse paying their taxes (Table 2.103).

Table 2.102: Refuse to pay taxes

	freq	pct	cumpct
1. Yes, often	63	2.1	2.1
2. Yes, sometimes	29	1.0	3.1
3. Yes, once or twice	30	1.0	4.1
4. No, but I would if I had the opportunity	489	16.6	20.8
5. No, I would never do it	2025	68.9	89.7
Don't know	172	5.9	95.5
Do not wish to influence the shot work by the city	77	2.6	98.1
Refuse to answer	55	1.9	100.0
Total	2940	100.0	

Table 2.103: Take part in a strike

	freq	pct	cumpct
1. Yes, often	36	1.2	1.2
2. Yes, sometimes	22	0.7	2.0
3. Yes, once or twice	43	1.5	3.4
4. No, but I would if I had the opportunity	677	23.0	26.5
5. No, I would never do it	1878	63.9	90.3
Don't know	170	5.8	96.1
Do not wish to influence the shot work by the city	56	1.9	98.0
Refuse to answer	58	2.0	100.0
Total	2940	100.0	

By combining the answers to the five questions, we can get a sense of how widespread in the population is citizen activism. 87.1% of respondents have not engaged in any of the five forms of action listed above; 5.4% engage in one of them; 2.8% in two; 2.5% in three; and 2.2% in four or five. Given that the shape of the distribution is fatter than what would happen at random (e.g., if answers were uncorrelated), there must exist in the population a small number of individuals more willing to engage in multiple forms of citizen activism while the majority remains passive.

Road quality and safety

Respondents were asked the type of road in front of their residence. Most (86.3%) are mud roads without any surfacing. 13.6% are tarred road, mostly of good quality. Other types of road surfaces are virtually nonexistent.

Table 2.104: Type of road in front of the respondents' residences

	freq	pct	cumpct
1. Asphalt - good quality	309	10.5	10.5
2. Asphalt - poor quality	90	3.1	13.6
3. Pad	14	0.5	14.1
4. Floor / ground	2505	85.3	99.3
5. Gravel	20	0.7	100.0
Total	2938	100.0	

In contrast, the security situation varies a lot, as evidenced in Table 2.105. 56.8% report that the road is relatively safe for children to go to school. About a third that the road is dangerous. This is not surprising given the amount of traffic on my roads in and around Abidjan. Asked how the authorities could make roads safer, 59% advocate an improvement of the roads themselves while 32.3% call for speed bumps. 31.8% call for more traffic police, 13.1% suggest targeting DUI, 11.6% say obtaining a driving license should require training, 8.4% suggest adding surveillance cameras, and 7.7% call for banning gbakas. The last suggestion, if followed, would undoubtedly have repercussions on the population given that, as we have seen, gbakas are the most commonly used method of transportation in Abidjan.

Table 2.105: Are roads safe for children?

	freq	pct	cumpct
1. Yes, very safe	398	13.5	13.5
2. Yes, kind of safe	1273	43.3	56.8
3. Neutral - neither safe nor insecure	286	9.7	66.6
4. No, rather dangerous	725	24.7	91.2
5. No, very dangerous	258	8.8	100.0
Total	2940	100.0	

In terms of usability during the rainy season, 58.5% state that the road in front of their residence is usable always or most the time. For 22.7% of respondents, the road is impassable then.

Table 2.106: Roads can be used in the rainy season

	freq	pct	cumpct
1. Yes, always	784	26.7	26.7
2. Yes, most of the time	935	31.8	58.5
3. Rarely	554	18.8	77.3
4. No, not at all	667	22.7	100.0
Total	2940	100.0	

In terms of street lighting, 80.7% of respondents state having street lights on their street, 86.1% of which are in running order. Street lights that are out of order often remain so for an extended period of time (Table 2.107). Only 10.9% of broken light bulbs are changed within a month.

Table 2.107: For how long do street lights stop sorking

	freq	pct	cumpct
1. Less than one week	6	2.0	2.0
2. Within a month	26	8.8	10.8
3. Less than 6 months	65	22.0	32.9
4. Less than a year	68	23.1	55.9
5. Less than 2 years	37	12.5	68.5
6. More than 2 years	89	30.2	98.6
7. Never worked	4	1.4	100.0
Total	295	100.0	

Globally, 68.7% respondents are in general satisfied of street lighting. A strong minority (31.5%), however, is not happy – overwhelmingly people without lights in their street or with non- functioning lights. 4.7% of respondents claim to have expressed their concerns to local authorities – primarily individuals unsatisfied by their street lighting situation.

Table 2.108: Satisfaction with the street lighting

	freq	pct	cumpct
1. Very satisfied	271	9.2	9.2
2. Satisfied	1567	53.5	62.7
3. Neutral	171	5.8	68.5
4. Dissatisfied	659	22.5	91.0
5. Very dissatisfied	263	9.0	100.0
Total	2931	100.0	

Respondents were asked whether they ever complained to authorities regarding public transports. Only 2.8% of respondents report doing so. When asked why they did not complain, Table 2.109. shows that respondents give the same kind of answers already discussed earlier (e.g., in Table 2.43.).

Pushed on where they would go to complain about public transports, respondents mostly do not know (Table 2.110). The others mention either the sous-prefecture (26.5%) or the ministry of transports (14%). 3.6% of respondents mention the SOTRA, the public agency in charge of public transports, and 4.6% the trade union or the workers of SOTRA.

Table 2.109: Reason for not complaining

	freq	pct	cumpct
1. I do not know how / who to talk to	538	18.8	18.8
2. I do not have time / it is too long	372	13.0	31.9
3. Never thoughtabout it	931	32.6	64.4
4. Fear of repercussions	55	1.9	66.4
5. It's too bureaucratic	124	4.3	70.7
6. It will not be set	303	10.6	81.3
Think the service works perfectly	531	18.6	99.9
Other	3	0.1	100.0
Total	2857	100.0	

Table 2.110: Where to complain about public transport

	freq	pct	cumpct
1. Office of district / Chiefdom	232	7.9	7.9
2. Municipality / City Hall	778	26.5	34.4
3. Office area / district	9	0.3	34.7
4. Ministry of Transport	410	13.9	48.6
5. Sotra	105	3.6	52.2
6. Community Organization	30	1.0	53.2
7. Union	135	4.6	57.8
Don't know	1241	42.2	100.0
Total	2940	100.0	

Respondents were asked how often they had dealings with the police in the preceding 12 months. 95.5% reported having no contact with the police. Of those who had contacts with the police, the average number of interactions is 3.3 (median 1). Asked whether getting help from the police is easy, a large proportion of respondents (46.1%) either do not know or say it does not apply to them. Among the rest, most find contacting the police difficult (21.9%) or very difficult (16%). Asked whether they ever had to pay a bribe or provide a service in secure assistance from the police at a checkpoint or to avoid a fine, 95.7% answer they did not. A handful of respondents (25) report paying bribes on a regular basis. Of the 125 individuals who report ever having paid a bribe to the police, the average bribe is $22 but this high average is driven by a few high cases. The median bribe is $3.6 and 85% of bribes are less than $10.

Table 2.111: Frequency of bribes, gifts or favors to an officer/police to get assistance

	freq	pct	cumpct
1. Never	2812	95.6	95.6
2. Almost never	24	0.8	96.5
3. Sometimes	53	1.8	98.3
4. Often	21	0.7	99.0
5. Very often	13	0.4	99.4
6. All the time	12	0.4	99.8
Do not know	5	0.2	100.0
Total	2940	100.0	

Satisfaction with public and private health facilities

Returning to health care, 71.1% of respondents report having used the public health care system in the preceding 12 months. Non-users were asked why they have not used public health care. The most common answer (36.6%) is that the respondent has not needed health care in the previous 12 months. Cost is mentioned by 15.3% of respondents. Some answers focus on convenience – waiting time too long (17.3%) or too far (3.5%) – and 11.7% of answers report that the facility is located in an unsafe area. Other respondents question the quality of the service: poor service (11.7%); unreliable supplies (1.7%); lack of trust in staff (1.2%) – or they simply report that they prefer private providers (2.4%).

Table 2.112. shows that the frequency of utilization among users of public health care facilities is high, as 73.8% use them at least twice a year.

Table 2.112: Frequency of use of public health centers

	freq	pct	cumpct
1. Multiple times a month	85	4.1	4.1
2. Once a month	284	13.6	17.6
3. Every 2 months	432	20.7	38.3
4. At least every 6 months	742	35.5	73.8
5. Every 6 months	198	9.5	83.3
6. Annually	248	11.9	95.1
7. Less than once a year	102	4.9	100.0
Total	2091	100.0	

Users were asked how far the nearest public health facility is from their home. 12% were unable to answer. Among those who provided a response, the average reported distance is 1.9 Km (median 400 meters). This figure should be taken with a grain of salt: we suspect that many respondents are unfamiliar with reporting distances in meters or Km. Most users (74.9%) are satisfied with the quality of care while 17.8% are dissatisfied. Respondents were asked whether

they pay a bribe or provide favors in order to secure care from public health facilities. Most do not (98%). A handful of respondents (25) report paying bribes, for an average amount of $12 (median $9). It is unclear whether this bribe was paid on top of the normal price of service, or was used to avoid paying the normal price.

Table 2.113: Frequency of paying bribes

	freq	pct	cumpct
1. Never	2050	98.0	98.0
2. Almost never	8	0.4	98.4
3. Sometimes	10	0.5	98.9
4. Often	6	0.3	99.2
6. All the time	1	0.0	99.2
Do not know	16	0.8	100.0
Total	2091	100.0	

Respondents were similarly asked whether they used private health facilities in the 12 months preceding the survey. 40.2% report that they did. Those who did not were asked why. By far the most common answer (59.6%) is the high cost of service. 21.1% of respondent state they did not need to use the services in the past year. The absence of private health facilities in the locality is given as reason by 5.7% of respondents, and long waiting times by 5.1%. Poor quality of service is hardly mentioned at all by respondents. From this we conclude that private health care is overwhelmingly seen as more expensive but of (slightly) higher quality.

Apart from 12.7% of users of private health facilities who are unable to estimate the distance from their home, the average reported distance is 1.3Km (median 100 meters). Again, this figure should be considered as purely indicative, given that many respondents are unfamiliar with reporting distances in meters or Km. Satisfaction with the quality of private health care service is very high: 95.9% of users are satisfied or very satisfied; only 1.9% of respondents are dissatisfied. Regarding the cost of care, responses are only slightly less positive: 71% of respondents are satisfied while 18% are not. But the general perception of private health care is very positive among users: 89.7% are satisfied in general, vs 2.6% dissatisfied. Respondents were asked whether they pay bribes or favors to obtain service. Three respondents report they did pay a bribe of $24 on average. We do not know whether this bribe is on top of the normal cost of service or a way of avoiding it.

Education

Half of the respondents report using public education services in the 12 months preceding the survey. Non-users were asked why. The overwhelming reason for not using the services is not having a school-age child in the household. Some respondents mention quality issues: low quality of service (8%); lack of trust in staff (0.1%). Convenience is also mentioned: distance from home (3.4%); lack of time (6.6%). Cost is only mentioned by 2.2% of non-users. 5% of

non-users simply state that they prefer private education.

Respondents were asked how far is their home from the nearest school. 13.9% do not provide an answer. The others report an average distance of 375 meters (median 200), but many respondents report difficulties with measuring distance in meters or Km The overwhelming majority of pupils (97.9%) walk to their public schools; a few take a collective taxi (1.2%) or a gbaka (0.6%).

Respondents were asked how satisfied they are of various aspects of public schooling. Responses are broadly similar but some variation. Regarding the number of classes, 71.1% of respondents are satisfied or very satisfied, while 15% are dissatisfied or very dissatisfied. The rest are neutral or do not provide an answer. Regarding the distance to the nearest public school, the proportions of satisfied and dissatisfied are 79.9% and 13.4%, respectively. For the availability of school manuals, the satisfied and dissatisfied are 69.7% and 14.2%, respectively. With respect to the cost of schooling, 60.5% are satisfied and 23.6% dissatisfied. Overall, the proportion of satisfied respondents is 65.1% and the proportion of dissatisfied 23.2%.

Respondents were asked whether corporal punishments are acceptable in school. Table 2.114. summarizes the responses. 49% of respondents find them acceptable, compared to 42% who find them unacceptable.

Table 2.114: Physical violence is acceptable/unacceptable in schools

	freq	pct	cumpct
1. Totally acceptable	140	9.6	9.6
2. Rather acceptable	575	39.4	49.0
3. Neutral	131	9.0	57.9
4. Rather unacceptable	438	30.0	87.9
5. Completely unacceptable	176	12.1	100.0
Total	1460	100.0	

Respondents were asked whether they ever have raised public education issues with local authorities. 9.5% report they have. Those who did not were asked why. Table 2.115. summarizes their answers. Most respondents either state that they never thought about it (36.3%) or that it does not apply to them (28.5%). Others say they are too busy (14.1%), do not know who to speak to (10.7%), or that it will change nothing (6.3%). Actual costs are only mentioned by a few parents, such as the bureaucratic cost (3.2%) or fear of repercussions (0.8%). We also note that the probability of raising issues with local authorities is uncorrelated with parents' opposition or not to corporal punishment, suggesting that the issue is not one that mobilizes parents. Asked where they would go if they had a grievance about the school, 93.7% state they would go to the school head and 5.9% to local authorities.

Table 2.115: Reason for not raising any concerns related education

	freq	pct	cumpct
1. Do not know how / who to talk to	141	10.7	10.7
2. Do not have time	186	14.1	24.8
3. Never thought about it	480	36.3	61.1
4. Fear the repercussions	11	0.8	61.9
5. It's too bureaucratic	42	3.2	65.1
6. It will not be set	83	6.3	71.4
Think the service works perfectly	376	28.5	99.8
Other (specify)	2	0.2	100.0
Total	1321	100.0	

Respondents were asked whether they were ever asked to pay a bribe or favor in exchange for services in public schools, 98.6% respond negatively. 21 respondents report having given bribes of an average value of $22 (median $17).

29.7% of respondents report having used private education services in the 12 months preceding the survey. This considerable overlap between public and private education: among respondents who have children in school, 55.7% only use public education, 26% only use private education, and 18.3% use both.

Asked why they do not use private education, 55.4% of respondents reply that they do not have school-age children. Among the others, the main response is cost (31.5%). 3.1% mention the absence of private school in their locality, 2.4% that they do not have the time. Asked how far the school, 9.8% of respondents do not know. The average response among the others is 300 meters (median 100 meters). This figure is purely suggestive: many respondents report being unfamiliar with reporting distances in meters or Km. 93.5% of respondents report that their children go to school by foot; 3.2% use collective taxi and 1% a gbaka.

In terms of satisfaction level, respondents with a child in a private school are mostly satisfied: 83.1% are satisfied or very satisfied with the distance to the school (10.4% dissatisfied); 85.4% are satisfied about the number of classes (3.2% dissatisfied); 76.4% are satisfied about the availability of school manuals (7.6% dissatisfied); and 59.3% are satisfied about the cost (21.5% dissatisfied). Overall, 85.2% of respondents are satisfied about private schools, against 3.7% dissatisfied.

Five respondents mention paying a bribe to a private school, for an average amount of $24 (median $9).

Official documents and local authorities

Respondents were asked which official document they have in their possession. 89.3% report having a birth certificate, 65% a national identity card, 37.3% a certificate of citizenship, 15.3% a driving license, 9.8% an ID card issued by their consulate, and 5.1% a passport. Respondents were asked the same questions about their mother or father. 96.5% report their mother or father to have a birth certificate, 89.8% to have a national identity card, 37.7% to have a certificate of citizenship, 15.1% to have a consular ID card, and 5.6% a passport.

Respondents were asked whether they tried to obtain an identity document (including a birth certificate, passport, electoral card, or official authorization) from the government over the last 12 months. 85.7% did not; 11.9% did once; and 2.4% more than once. Among the 413 respondents who did try, 52.4% got full satisfaction and 2.9% experienced an improvement, but 36.3% were still waiting for a response or were given the runaround. 50% of these date from before August 1 2019, several months before the survey started. There is hardly any difference in the median application date between successful and unsuccessful applications, indicating that the problem is limited to recent applications. Asked whether obtained the document was easy, 42.62% reply that it was easy, 28.3% that it was difficult and 24% that it was very difficult; 5.1% say they don't know (yet).

Among those who applied for an official document, 14.8% (61 individuals) report that they had to pay a bribe or favor to obtain the document they needed. The average amount of the bribe is $15 (median $5).

Respondents were asked whether members of the municipality or village council listen to people's grievances. Most respondents argue that members of the council never or nearly never listen (63.9%). A handful are more positive – see Table 2.116.

Table 2.116: Opinion on council members listening to people

	freq	pct	cumpct
1. Never	973	46.4	46.4
2. Almost never	368	17.5	63.9
3. Sometimes	345	16.4	80.3
4. Often	257	12.2	92.6
5. Very often	100	4.8	97.3
6. All the time	56	2.7	100.0
Total	2099	100.0	

Respondents were then asked the frequency with which they had contacted various local authorities over the last 12 months. 95.4% did not contact a member of the municipal council; 95.33 never contacted a municipal employee; and 97.4% did not contact a member of parliament. Traditional chiefs and religious leaders were approached slightly more often: 15.9% of respon-

dents state they contacted a religious leader at some point, and 10.1% that they contacted a traditional chief. Even for these local leaders, however, the frequency of contact is low.

Respondents were invited to indicate which services the sous-prefecture provides to the community. 42.8% mention garbage collection and 42.1% public sanitation. Other listed responsibilities include: other infrastructures (11.7%); health infrastructures (9.9%); assistance to young people (7.9%); taxes (7.7%); market safety (7.7%); and education infrastructure (7.4%). 30.9% of respondents state that 'nothing is provided [by the sous-prefecture], all is wasted'.

We then asked respondents to imagine themselves are the main decision maker in the sous-prefecture, and to list up to three programs on which they would spend municipal funds. The most often cited programs are: assistance to young people (40.7%); public sanitation (39.7%); assistance to the poor (31.9%); entrepreneurial projects (28.3%); other municipal infrastructure (26.5%); and assistance to female traders (23.5%).

Community and civic participation

The last part of the survey talks about community participation and local governance. We first ask whether there is a village or neighborhood chief. 70.7% of residents say there is one. A large proportion of respondents (44.9%) do not know how this chief was appointed. Others report the chief to be elected by all (22.4%) or some (7.8%) inhabitants or nominated without vote (15.6$). 7.5% report the chief to be hereditary.

70.2% of respondents report knowing most of their neighbors. Respondents were asked how many people in their locality come from their birth village or commune. The mean is 600, but this driven by a small number of outliers: 37.7% say zero; 76.2% say 10 or less; and the 90th percentile is 50 people. Asked how local conflicts are resolved (Table 2.117.), most (50.1%) reply 'among ourselves', with no outside involvement; 27% mention the intervention of the village or neighborhood chief; and 5.4% mention the police. 16.2% do not know.

Table 2.117: Average expenses

	count	mean	sd	min	max
Food expenses	2940	112.3	68.7	0	743.1
Personal expenses	2940	21.5	36.2	0	1111.6
Annual expenses	2940	22.3	31.7	0	749.6
Sum	2940	156.0	96.2	0	1315.1

Respondents were asked whether there are community reunions in their locality. 46% state there are. Asked how they know of these reunions, 70.6% report hearing about them from friends and family, 17.1% from a local representative, and 9.4% from neighbors. A handful of respondents mention posters (27) or news media (12). Asked how many of such meetings they are attended in the last 12 months, 46.4% respondents say none and 11% one. The average

number of attended meetings is 3.8. Regarding the topic of these community meetings, 9.6% of respondents attended at least one meeting on local urban development. Over the 12 months preceding the survey, 33 respondents (1.2% of all respondents) served as representative of their community at a municipal, departmental, or regional meeting.

Over the last 12 months, 35 respondents (1.2% of sample) provided manpower or inputs for a local infrastructure project – most of them once. A third of these individuals were also asked to donate funds for collectivity projects.

Asked what projects were conducted in the locality in the past 12 months, 78.2% could not mention one. Of those who could, 66.3% mention surfacing roads, 26.6% street lighting, and 22.6% a drainage system. In addition, 8.2% mention the installation of sewers and 7.5% street paving. Respondents were asked whether they contributed financially to these projects. 97.1% of respondents did not contribute. Among the 84 individuals who contributed, the average contribution is $24 (median $11). 71 of these individuals report that contributed to all the local projects.

Respondents were asked whether they could provide local contacts to help us keep in touch with them. 47.1% agreed, most of whom (87.9%) provide one name (average 1.16). Most of them (42.4%) list their spouse; 16.3% list a sibling; and 14.1% their father or mother.

Respondents were asked whether they consider themselves rich or poor. Their answers are summarized in Table 2.118.: 69.9% consider themselves as average, 28.4% as poor, and 1.7% as rich. The 835 individuals considering themselves as poor were asked to indicate up to three probable causes of their poverty. Most respondents (60.6%) mention the lack of job opportunities; 39.5% mention their lack of business success; 34.5% a bad economy; 17.2% low wages; 16.3% their lack of education; 15.1% high prices; 13.8% illness; 9.1% a death in the household; 8.9% lack of capital to start a business; and 4.9% the loss of assets. All respondents were asked how they (would) bounce back from a difficult financial situation. 66.5% list the help of friends and relatives; 52.4% mention casual work; 46.5% micro-retail; and 21.6% borrowing from friends and neighbors. Other methods also listed include: cutting down on food (9.8%); and borrowing from a financial institution (8.4%).

Table 2.118: Self-perception on wealth level

	freq	pct	cumpct
1. Very poor	109	3.7	3.7
2. Poor	726	24.7	28.4
3. Neither poor nor rich	2054	69.9	98.3
4. Rich	51	1.7	100.0
Total	2940	100.0	

Respondents were asked whether they belong to a religious congregation. Table 2.119. shows that most (66.9%) do not belong to a religious group that meets outside service and that 23.2% are simple members of a congregation. Asked how many religious groups they belong to, most respondents (66.7%) respond none and 32.7% one. Only 15 individuals mention more than one.

Table 2.119: Member of a religious group

	freq	pct	cumpct
1. Leader	46	1.6	1.6
2. Active	243	8.3	9.8
3. Single member	683	23.2	33.1
4. No member	1968	66.9	100.0
Total	2940	100.0	

The same question was asked about voluntary associations and community groups. Answers are summarized in Table 2.120. Most respondents do not and, if they do belong to such a group, they do not regard themselves as an active member. In terms of group membership, 15.6% of respondents belong to community ethnic group; 4.6% to a women's association; 4.4% to a youth association; 1.7% to a neighborhood association; and 1% to a workshare group.

Table 2.120: Member of an association or community group

	freq	pct	cumpct
1. Leader	55	1.9	1.9
2. Active	172	5.9	7.7
3. Single member	533	18.1	25.9
4. No member	2180	74.1	100.0
Total	2940	100.0	

In terms of attitudes towards other people (Tables 2.121. - 2.125.), most respondents proclaim themselves as tolerant towards people of a different religion (76%) or a different ethnic group (76.1%), migrant workers (70.4%), and members of a different party (67.4%). On the other hand, most respondents (70.9%) report hating homosexuals.

Table 2.121: People of a different religions

	freq	pct	cumpct
1. Strongly dislike	16	0.5	0.5
2. Dislike somewhat	12	0.4	1.0
3. Would not care	524	17.8	18.8
4. Like somewhat	154	5.2	24.0
5. Strongly like	2234	76.0	100.0
Total	2940	100.0	

Table 2.122: People of different ethnicity

	freq	pct	cumpct
1. Strongly dislike	11	0.4	0.4
2. Dislike somewhat	11	0.4	0.7
3. Would not care	525	17.9	18.6
4. Like somewhat	157	5.3	23.9
5. Strongly like	2236	76.1	100.0
Total	2940	100.0	

Table 2.123: Homosexuals

	freq	pct	cumpct
1. Strongly dislike	2085	70.9	70.9
2. Dislike somewhat	209	7.1	78.0
3. Would not care	340	11.6	89.6
4. Like somewhat	54	1.8	91.4
5. Strongly like	252	8.6	100.0
Total	2940	100.0	

Table 2.124: Immigrants or foreign workers

	freq	pct	cumpct
1. Strongly dislike	35	1.2	1.2
2. Dislike somewhat	33	1.1	2.3
3. Would not care	576	19.6	21.9
4. Like somewhat	227	7.7	29.6
5. Strongly like	2069	70.4	100.0
Total	2940	100.0	

Table 2.125: People of different political parties

	freq	pct	cumpct
1. Strongly dislike	84	2.9	2.9
2. Dislike somewhat	35	1.2	4.0
3. Would not care	647	22.0	26.1
4. Like somewhat	193	6.6	32.6
5. Strongly like	1981	67.4	100.0
Total	2940	100.0	

In terms of gender attitudes (Table 2.126.), most respondents agree with the statement that girls and boys have the same schooling opportunities (95.1%) and that men and women the same opportunities to have income earning job (91.6%). On the other hand, only 39.4% agree to the elimination of an age limit on presidential candidates and dropping the need for releasing health bulletin; the rest (60.4%) disagree.

Table 2.126: Girls and boys have the same chances to go to school

	freq	pct	cumpct
1. Completely agree	1738	60.7	60.7
2. Agree	984	34.4	95.1
3. Disagree	121	4.2	99.3
4. Completely disagree	19	0.7	100.0
Total	2862	100.0	

Table 2.127: Women and men have the same chance to have a decent job that earn them money

	freq	pct	cumpct
1. Completely agree	1592	56.1	56.1
2. Agree	1006	35.5	91.6
3. Disagree	203	7.2	98.8
4. Completely disagree	35	1.2	100.0
Total	2836	100.0	

Table 2.128: The suppression of age limit and health certificate from the eligibility criteria of presidential election

	freq	pct	cumpct
1. Completely agree	276	15.7	15.7
2. Agree	416	23.7	39.4
3. Disagree	456	26.0	65.4
4. Completely disagree	608	34.6	100.0
Total	1756	100.0	

Respondents were asked whether they feel close to a political party. 25.4% respond that they do, 66% that they do not, and the rest do not know or refuse to say. Table 2.129. presents a breakdown of those who identify with a political party.

Table 2.129: Political party the respondent is close to

	freq	pct	cumpct
Not interested in politics	3	0.4	0.4
Liberte Democratie pour la republique (LIDER)	1	0.1	0.5
Republican Rally (RDR)	119	15.9	16.4
Democratic Party of Ivory Coast (PDCI)	110	14.7	31.1
Ivorian Popular Front (FPI)	225	30.1	61.2
Union for Democracy and Peace in Cote d'Ivoire (UNDPCI)	4	0.5	61.8
Union of Social Democrats (USD)	1	0.1	61.9
Rally of Houphouëtists for Democracy and Peace (RHDP)	226	30.2	92.1
Don't know	11	1.5	93.6
Refuse to answer	48	6.4	100.0
Total	748	100.0	

Respondents were asked whether they agree with the performance of various politicians. Table 2.130. gives the satisfaction level with the president at the time of the survey. Most respondents approve of the president's performance (58.5%) while 17.6% disapprove of him.

Similar questions were asked about the municipal counsellors and the traditional chief. Responses are summarized in Table 2.131. and 2.132. Many respondents do not have an opinion but among those with an opinion, the balance is in favor of them.

Table 2.130: Satisfaction with President Ouattara

	freq	pct	cumpct
1. Completely agree	610	20.7	20.7
2. Agree	1111	37.8	58.5
3. Disagree	354	12.0	70.6
4. Completely disagree	163	5.5	76.1
Do not know, haven't heard enough	437	14.9	91.0
Refuse to answer	265	9.0	100.0
Total	2940	100.0	

Table 2.131: Satisfaction with municipal counsellors

	freq	pct	cumpct
1. Completely agree	180	6.1	6.1
2. Agree	666	22.7	28.8
3. Disagree	513	17.4	46.2
4. Completely disagree	158	5.4	51.6
Do not know, haven't heard enough	1227	41.7	93.3
Refuse to answer	196	6.7	100.0
Total	2940	100.0	

Table 2.132: Satisfaction with traditional chiefs

	freq	pct	cumpct
1. Completely agree	216	7.3	7.3
2. Agree	771	26.2	33.6
3. Disagree	260	8.8	42.4
4. Completely disagree	112	3.8	46.2
Do not know, haven't heard enough	1378	46.9	93.1
Refuse to answer	203	6.9	100.0
Total	2940	100.0	

Regarding people are free to express their opinions in Cote d'Ivoire, the balance of opinion is mildly towards yes (51.2%) with a strong minority (39.6%) who think it is not free or not very free. Asked whether they have feared political intimidation during electoral campaigns, 49.3% respond that they have not but 46.6% report that they have – which is not too surprising that the events surrounding the end of President Gbagbo's tenure.

Table 2.133: People are free to express their opinion

	freq	pct	cumpct
1. Not free at all	476	16.2	16.2
2. Not very free	689	23.4	39.6
3. Free enough	1014	34.5	74.1
4. Completely free	501	17.0	91.2
Do not know	260	8.8	100.0
Total	2940	100.0	

Turning to crime, respondents were asked whether any member of their household had suffered physical violence. 2.1% responded yes (61 individuals) equally distributed between men and women. For 37 of these 61 individuals, the violence took place in the streets of the local neighborhood; 10 listed Abidjan at large; 7 in the house; 3 on the workplace. Table 2.134. summarizes responses to a question about fear of crime. Most people do not think about crime too often (64.3%). But a sizeable minority (17.8%) report being afraid of crime on a very regular basis.

Table 2.134: Frequency fear of crime

	freq	pct	cumpct
1. Never	1461	49.7	49.7
2. Almost never	428	14.6	64.3
3. Sometimes	493	16.8	81.0
4. Often	276	9.4	90.4
5. Very often	175	6.0	96.4
6. All the time	72	2.4	98.8
Do not know	35	1.2	100.0
Total	2940	100.0	

Finally, respondents were asked about their sources of information about government activities in their community. 72% of respondents mention television, 50.1% relatives and friends; 28.8% radio, 21.2% social media; 17% the internet; and 12.7% national newspapers. Asked which source of information they regard as most reliable, 68.4% mention television; 27.1% relatives and friends; 23.1% radio; 12.9% the internet; 11.7% social media; and 5.6% the newspapers.

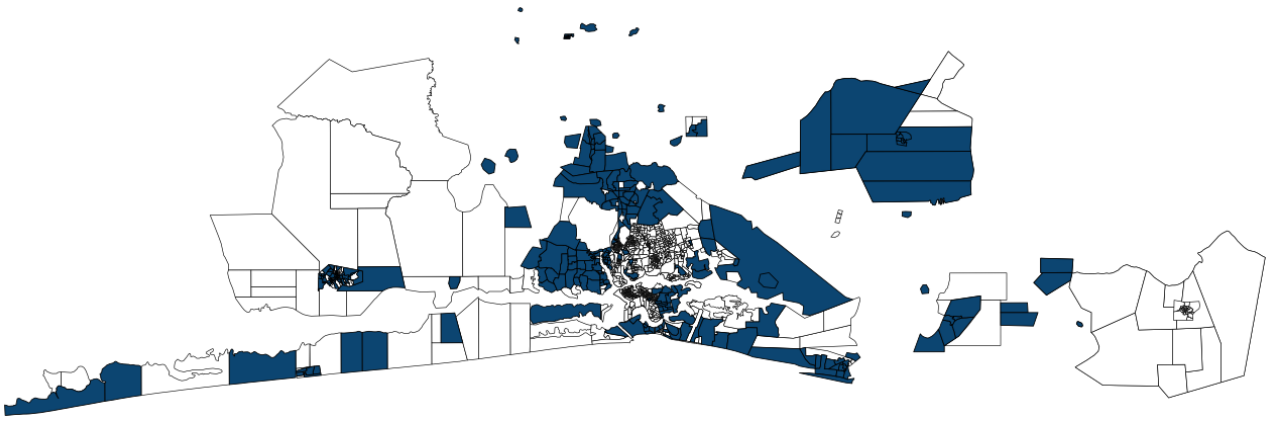
Appendix A

Sampling Frame

The main objective of the AUDRI project is to create a representative sample of urban and peri-urban population in the Greater Abidjan. To help at targeting those zones, the 2015 Japan International Cooperation Agency (JICA) map was used. As a sample frame, we use the Institut National de Statistique (INS)'s enumerations areas (EAs). In 2014, these zones were defined as follows: (i) in urban area, a EA includes exactly 200 households, (ii) in rural areas, an EA includes all households living in a village.

For each zone, we used the definition of EAs as described in the 2014 database to determine the total population. Based on this estimate, 85% of the population is living in Abidjan City[2] and 93% is living in urban areas. As the AUDRI's focus was the potential areas where urbanisation would increase n the coming years, we decide to built our AUDRI sample such that 50% of the listed households were living in Abidjan City which resulted in 78% of the listed households living in urban areas. This methodology resulted in 84 selected villages allocated in 11 sous-prefecture and 622 urban EAs in the same 11 sous-prefecture and in the 5 additional sous-prefecture that were only urban.

Figure A1: Sampling area



Note: sampled areas are in blue

Listing

The listing exercise was launched in mid-July 2019 and lasted almost 2 months. During the listing, we collected information about each member of the household, assets ownership, health and CMU enrollment. Whoever was above 18 years old and gave their consent was surveyed. To collect these information enumerators started from the centroid[3] and knock on every 20

[2]Abidjan City refers to municipality that are exclusively urban, namely Abobo, Attecoube, Koumassi, Pourt-Bouet and Yopougon

[3]The centroid was computed using GIS and the shapefiles provided by INS.

doors counting from the closest door to the centroid in urban areas and from a random number of door in rural areas.

The initial objective was to list 8000 households in and around Abidjan within 84 villages and 622 enumeration areas (EA). In this initial size, 954 households had been excluded because they were part of 39 villages and 9 EAs which were "too rural" and/or were undergoing an "administrative constraint". Moreover, the respondent's quota did not fill within numerous EAs and villages because their number of inhabitants was smaller than planned. This field reality, unexpected in the initial prevision, created a reduction of 752 households in the final sample size of the listing. To sum up, the listing's theoretical sample size was reduced by 21% (or by 1706 households) because of the above explanations. Overall, 6294 households have been listed. The refusal rate was 7% and the "absence" rate was 11% (1 over 10 absent households is theoretical, as it was registered by the "cours fermé protocol"). The listing's response rate was 82%.

Individual survey

Our sampling frame includes 634 enumeration areas (EAs), with an average of 13.5 households "listed" during the listing exercise performed in August 2019. From this, we selected 70% of households in EA, then selected one adult per sampled household.[4] The survey was a 4-hour, face-to-face questionnaire which included a wide range of topics about the individuals labor activities, commuting patterns, health condition and public service access. Data collection took place between early December 2019 and early March 2020.

A total of 2,939 individuals were successfully interviewed during wave 0 (83% of the hoped-for sample). The main reason we could not complete the full sample was higher than expected field costs which forced us to reduce the target sample from 3,500 to 3,000.

[4]To avoid oversampling individuals from singleton households, we pooled all singleton households (N=X) together and sampled 70% of that new group.