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CHAPTER 6

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Despite long working hours, for many household members, and especially women, underemployment is nevertheless affecting a large share of the population in many developing countries. Using data on time use, wages, and consumption levels from a recent household survey for Guinea, this paper provides a simple framework for assessing the potential impact on poverty and inequality of an increase in the working hours of the population up to what is referred to as a full employment workload. The framework provides for a decomposition of the contribution to higher household consumption of an increase in working hours for both men and women. The key message is that job creation and full employment would lead to a significant reduction in poverty, even at the relatively low current levels of wages and earnings enjoyed by the population. However, even at full employment levels, poverty would remain massive, and the higher workload that the full employment scenario would entail would be significant.

According to economic theory, individuals spend more time in work to achieve a higher level of utility, based on the budget constraint they face and their preferences for work and leisure. By extension, they allocate time between labor market and household production based on the returns they can obtain in the two domains. However, because markets are far from perfect, and because various individuals and households

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have different endowments, reality is different. Although we may expect more time in work (especially more time spent in the labor market) to be associated with higher consumption, empirical evidence indicates that "vulnerable" categories, such as women and low educated people, often work very long hours for very little output and that for these groups a lack of time to perform any additional work and poverty itself may go together. This occurs when the available technology is so poor that very labor-intensive activities are required to reach a minimum subsistence level. The consequence is that not only are long hours spent to achieve little output (as measured through production, income, or consumption)—in effect, the productivity of one working hour is low—but, because of the long hours already worked, few additional time resources are available to increase consumption (or income) further.

The difficult situation of labor markets for the poor in Sub-Saharan Africa and many other developing areas in terms of both low productivity (low earnings per hour of work) and limited time available for productive work are due to a complex range of factors. On the time constraint side, the lack of access to basic infrastructure services means that households spend a lot of time in domestic chores and for fetching wood and water (see Chapter 3 for a review of the empirical evidence on time use in Africa). On the productivity or earnings potential side, there has been a process of in formalization in many countries, with in some cases a gap arising between the education received by young adults and the requirements of the job opportunities available to them (see for example Calves and Schoumaker 2004 on urban Burkina Faso). Furthermore, given that many African countries have suffered from low rates of economic growth, the economic opportunities for emerging from poverty through hard work have been limited.

If many among the poor already work long hours and if their productivity is limited, is it correct to state that the main asset of the poor to fight poverty is their labor? Not necessarily, or at least not in a necessarily straightforward way. It is clear that the poor in Africa derive their livelihood from their labor, and in that sense, it is indeed correct to state that their main asset to emerge from poverty is their labor. However, it is not as clear that labor is abundant and systematically underused (Blackden and Bhanu 1999), and it is also not fully clear whether an increase in the supply of labor by the poor would actually help in a significant way to reduce poverty since the productivity of the poor is constrained in many ways, especially among female headed households (Buvinic and Rao Gupta 1997), but also more generally.[19] The answer to these two questions must essentially be settled empirically as conditions may differ between countries.

In practice, in order to analyze the potential for poverty reduction from full employment, it is useful to rely on a time use approach in order to estimate for the individual what would be the level of a reasonable increase in labor supply that could be provided by household members without reaching such high levels of work as to become time poor (this idea follows Bardasi and Wodon 2005). The objective of this paper is thus to provide a simple framework for analyzing these questions, and apply the framework to recent household survey data from Guinea. Although we do recognize that substantial long-term increases

19. Buvinic and Rao Gupta (1997) argue that poverty is often higher among female-headed households not only because of higher dependency ratios, but also because of lack of economic opportunities and low wages for women.

in standards of living in countries such as Guinea will probably need to come first from higher productivity that would lead to higher wages and earnings per hour of work, we focus in this paper solely on the potential for poverty reduction from full employment at current wages and productivity levels. That is, we answer the question: by what magnitude would poverty be reduced under full employment, assuming that higher working hours would be remunerated at their current level?

The basic idea of the paper is to measure how much additional income or consumption could be obtained by households if all their members who are currently working fewer hours than a certain threshold were working a number of hours corresponding to that threshold. Although we are aware of the issue of seasonality in time use and work patterns, we do not discuss here the question of the impact of seasonality on labor demand and supply.[20] We also do not consider the issue of what exactly individuals would do if they worked more—although it is clear that households tend to adopt multiple livelihood strategies with diversified rural livelihoods leading to a reduction in vulnerability (Ellis 2000), we simply assume here that additional hours of work are paid at the same wage or productivity rate as the hours currently worked by individual household members. Finally, we do not look at whether there is in fact a labor demand out there that could absorb the additional working hours that individuals would be willing to work (in India, Kanwar [2004] analyzes how labor supply and demand respond to wages in the agricultural market for daily-rated labor, suggesting excess supply in the post-rainy season.)

The very simple framework provided in this paper is limited, but it does enable the analysis of the potential impact of full employment at current wages and productivity on poverty to be conducted for the population as a whole as well as by gender, with a number of tests for the robustness of the results to the assumptions made. The next section presents the data we use. The two sections after that present the framework and the empirical results. The final section draws conclusions.

Data

The data we use come from the *Enquête Intégrée de base pour l'évaluation de la pauvreté* (EIBEP) of Guinea, year 2002–2003. Section 4 of the questionnaire includes a section where each individual aged 6 and over is requested to report the time spent in the week before the interview for a set of domestic tasks (cooking, cleaning, laundry, ironing, going to the market), fetching water, fetching wood, helping other households and being involved in community activities. In the same section other questions aim to record the amount of time the individual spent working in the labor market, for a wage (as an employee) or in a farm or family business (as a self-employed or contributing family member). We used these data to compute the total time spent by individuals in work of any type (domestic work and work in the labor market, whether paid or unpaid).

Three caveats are in order regarding the data used. The data were collected retrospectively for the week before the interview. Such data are, according to many researchers, not

20. On seasonality, see for example Skoufias (1993); Dercon and Krishnan (2000); and Wodon and Beegle (2005).

the best quality data to study time use—diaries generate more accurate data. Moreover (and related to this), simultaneous activities are not counted; however this is perhaps not a major problem when the interest is—as in our case—in the total time spent in work. Finally, there is no information in the questionnaire about caring activities (time spent caring for children, old, sick, and disabled people); however, we can probably assume that these activities are in large part usually performed as a "secondary activity" in combination with one of the other activities recorded in the questionnaire.

As discussed in the companion paper in this volume by Bardasi and Wodon (2005), we have created two definitions of the total time spent in work. The first definition includes the total amount of time spent by the individual in the labor market, in domestic chores and in collecting water and wood. The second definition adds to the first the amount of time spent helping other households and in community activities. One may argue that spending time helping other households and in community activities has more of a "choice" than of a "duty" connotation—it could be seen as a use of leisure rather than "work." For this reason, we excluded this use of time helping other households and in community activities from the total time spent "in work" here.

Table 6.1 shows the average amount of time spent by adult individuals (15 years of age and above) in various activities, by quintile of consumption per person and in rural and urban areas. First, individuals in the top quintiles spend slightly *more* time in all type of work than poorer individuals. This is true in both urban and rural areas. The only exception is represented by work in a farm or family business, in which poor people spend longer hours than rich people. However, this trend is more than compensated by the pattern of hours spent working for a wage —in this case hours are much longer in the top than in the bottom of the consumption distribution, so that the overall time spent in the labor market tends to be higher in the top quintiles (with the exception of the rural areas, where it is almost the same in every quintile). Second, the differences between urban and rural areas tend to be larger than across consumption quintiles; in particular, the time spent in the labor market and the time spent fetching water and wood is higher in rural than in urban areas. Third, the differences across quintiles are more pronounced in urban than in rural areas. Looking at the differences in total time (according to our first definition), the average adult individual in the top quintile spent about 39 hours in employment in urban area and 49 in rural area, while in the bottom of the distribution the average time in employment was 31 and 48 hours respectively (these figures include the zeros).

Analytical Framework

Table 6.1 above hides a lot of heterogeneity. While many individuals work very long hours, others are clearly underemployed and could potentially increase the amount of time they work to increase the well-being of their household. In what follows, we conduct simulations to try to measure the loss in consumption or income associated with underemployment for the individuals in our sample. We assume that each adult individual who is working less than a certain number of hours per week could increase his or her working time up to that level in order to increase the level of consumption of the household members, while all the other members who are at or above the time poverty line continue working the

Table 6.1. Working Time per Week, Adult Population by Consumption Quintile and Location

	1	2	3	4	5
			Urban		
1 Cooking	2.6	3.0	3.0	3.5	3.8
2 Cleaning	1.2	1.3	1.2	1.3	1.5
3 Washing	1.2	1.5	1.5	1.6	1.7
4 Ironing	0.6	0.6	0.8	0.9	1.0
5 Market	1.3	1.7	1.4	1.6	1.7
6 All domestic chores (1–5)	**6.8**	**8.1**	**8.0**	**8.9**	**9.8**
7 Collection of wood	0.4	0.2	0.2	0.2	0.1
8 Collection of water	0.8	0.9	0.9	0.7	0.8
9 Aid to other households	0.2	0.3	0.3	0.2	0.4
10 Community activities	0.2	0.3	0.3	0.2	0.4
11 Work for a wage	17.2	19.1	20.3	21.5	25.5
12 Work in a farm or family business	6.2	5.6	4.7	4.2	2.8
13 Work in labor market (11 + 12)	**23.4**	**24.7**	**25.1**	**25.7**	**28.3**
14 Total working time (definition 1)	**31.4**	**33.9**	**34.1**	**35.4**	**39.0**
15 Total working time (definition 2)	**31.9**	**34.4**	**34.7**	**35.9**	**39.7**
			Rural		
1 Cooking	5.2	5.2	5.7	5.5	5.7
2 Cleaning	1.5	1.8	1.9	1.8	1.8
3 Washing	2.0	2.0	2.2	2.2	2.1
4 Ironing	0.3	0.3	0.4	0.5	0.6
5 Market	1.9	1.9	2.2	1.9	2.2
6 All domestic chores (1–5)	**10.9**	**11.3**	12.4	11.9	12.4
7 Collection of wood	2.0	2.1	2.2	2.1	2.1
8 Collection of water	1.9	2.3	2.2	2.2	2.3
9 Aid to other households	1.0	1.0	1.1	1.1	1.1
10 Community activities	0.8	0.7	0.8	0.9	1.2
11 Work for a wage	7.2	9.3	10.6	11.7	15.9
12 Work in a farm of family business	25.9	23.8	22.1	20.5	16.4
13 Work in labor market (11 + 12)	**33.1**	**33.1**	**32.7**	**32.2**	**32.3**
14 Total time (definition 1)	**47.9**	**48.7**	**49.4**	**48.3**	**49.2**
15 Total time (definition 2)	**49.7**	**50.5**	**51.3**	**50.3**	**51.5**

Note: Zeros are included. Total time (definition 1) is the sum of 6 (all domestic chores), 7 (collection of wood), 8 (collection of water), and 13 (work in labor market). Total time (definition 2) is the sum of total time (definition 1), 9 (aid to other households), and 10 (community activities).

Source: Authors' estimates using EIBEP 2002–03.

same amount of time. The increase in the total consumption of household *j* that would follow is therefore:

$$\Delta C_j = \sum_{i=1}^{M} [[(T_{\max} - T_i) \cdot m_i] \cdot \omega_i] \tag{1}$$

where $T_{\max}$ is the time poverty line or, in this context, a threshold of full employment in terms of the total number of hours worked (whether paid or unpaid), T_i is the time currently worked by individual *i*, m_i is an indicator equal to 1 if the individual is working a number of hours below the time poverty line, ω_i is the value of the time of individual *i*, and *M* is the total number of individuals in household *j* that can increase the total time worked. In order to run the simulations, we need to define $T_{\max}$. Two standards were used for this purpose. The first one is a full employment work level defined arbitrarily at 50 hours a week; and the second one is a relative workload threshold set at 1.5 times the median of the total individual hour distribution, which turns out to be 70.5 hours.

The increase in per capita consumption of each member of household *j* can be re-written:

$$\frac{\Delta C_j}{N} = \frac{M}{N} \cdot \frac{\sum_{i=1}^{M} [(T_{\max} - T_i) \cdot m_i]}{M} \cdot \frac{\sum_{i=1}^{M} [[(T_{\max} - T_i) \cdot m_i] \cdot \omega_i]}{\sum_{i=1}^{M} [(T_{\max} - T_i) \cdot m_i]} = \frac{M}{N} \cdot \overline{H}_M \cdot \overline{\omega}_M \tag{2}$$

where *N* is the household size ($N \geq M$). The above formulation is helpful because it highlights three possible sources of increase in per capita consumption: the ratio of non-time poor individuals with respect to the total (first term on the righthand side), the average number of extra-hours that each of the non-time poor individuals can work (second term) and the average value that each of these extra-hours can obtain (third term). When the calculation is made at the quintile level (the subscript *j* indicates the quintile rather than the household), the above decomposition gives us the average of each term for each quintile and their product gives the exact average of the increase in per capita consumption for all households in that quintile.

An empirical question is what value to assign to ω_i, the value of time of individual *i*. Here we have adopted three measures. A first candidate is the "potential wage" that each individual could earn in the labor market based on their personal and household characteristics. After estimating wage regressions separately for men and women (including the usual explanatory variables) we have predicted a wage for everybody in the sample. The estimates for the wage regressions are presented in Appendix Table 6.A1.[21] However, because the size of the formal labor market is small in Guinea, one can argue that few are the individuals who can increase their employment and be paid a wage for those extra hours. For this reason, we have created two additional measures of the value of one hour of work. First, we have divided

21. At this stage, the wage regressions have been estimated using the sample of individuals working for a wage, without correcting for selection for being in or out of the labor market. While other studies indicate that not correcting for selection is not likely to bias the coefficient in any substantial way, we face the problem of predicting the wage for individuals who are not working because many regressors are missing for them (for example, industry, type of employer, type of contract, and so forth). We have assigned to these individuals the median predicted wage of the groups defined by age, sex, maximum education level and urban and rural area.

the total household consumption by the total working time of all its members. This ratio can be considered a sort of "household consumption productivity" because it represents the efficiency of the household in translating each hour of work by any of its member into consumption. While this measure considers all household activities as "productive" and therefore able to generate consumption, it is true that extra employment aimed at increasing consumption would be mostly directed at the labor market and/or in farm or family business. Therefore we have also computed an alternative measure of "household consumption productivity" by dividing the total household consumption by the total number of hours spent by household members in the labor market (for a wage, in the informal labor market, or as contributing family members). In any case, it is clear from equation (2) that the choice of the threshold T_{max} and of the estimation of ω_i are crucial for the results we obtain.

Results

Impact on Consumption

We first calculated the impact on consumption, based on (1). The results are presented in Table 6.2, using both the predicted wage rate and the household productivity (definitions A and B) as the value of one hour of extra time in employment, and a full employment work threshold of 50 hours/week. When the predicted wage rate is used for ω_i (columns (3) and (4) in Table 6.2) the increase in consumption would be higher in the top than in the bottom of the distribution in absolute level, but larger in the bottom (and in the middle) of the distribution in relative terms. In this case the increase in employment would be essentially pro-poor.[22]

However, when each hour of extra-employment is evaluated using the household productivity (columns (5)–(6) and (7)–(8)), the increase in consumption is substantially higher in the top than in the bottom of the distribution and the increase in employment would result in a strong increase in inequality. In fact when the household productivity is used as a measure of the value of time, the increase in consumption is large at the upper tail of the distribution, especially when in the calculation of the household productivity only the time spent in the labor market is taken into account (definition B). Notice that when this latter measure is adopted, the increase in consumption in absolute terms in the bottom of the distribution is the largest (and therefore so is the reduction in poverty).

The fact that for the upper quintiles, we have a substantial divergence in the estimated values for ω_i implies that the impact on inequality of full employment will differ depending on the method used to evaluate the value of time. On the other hand, for the poverty simulations, what matters is the range of estimates in the bottom quintiles. Then, the magnitudes of the estimates from the two methods of estimation are fairly similar (when using the definition A of household productivity), so that the results are likely to be robust.

Table 6.3 gives us some clues about the main sources of the increase in consumption and the differences across quintiles. The bottom quintiles have the lowest amount

22. The increase in average consumption would be larger in the third than in the second quintile, though. As it will be shown later the interpretation of the impact on inequality differs somewhat depending on whether one looks at changes in the Gini coefficient or the Theil index, given that the two measures are more sensitive to changes in different parts of the distribution.

Table 6.2. Average Increase in per Capita Consumption Following an Increase in Individual Working Time, by Quintiles of per Capita Consumption (Full employment = 50 hours/week)

		Increase in per capita consumption					
		Evaluated at the wage rate		Evaluated at the household cons. productivity (A)		Evaluated at the household cons. productivity (B)	
Quintile of Cons. (1)	Weekly Average per Capita Cons. (2)	Average (3)	% (4)	Average (5)	% (6)	Average (7)	% (8)
1	3355	1010	30.1	959	28.6	1767	52.7
2	5465	1532	28.0	1931	35.3	3489	63.8
3	7642	2617	34.3	3310	43.3	5611	73.4
4	10801	3111	28.8	5823	53.9	9482	87.8
5	23288	3995	17.2	17045	73.2	22113	95.0

Note: See text in the "Analytical Framework" section for the definition of household consumption productivity (A) and (B).
Source: Authors' estimates using EIBEP 2002–03.

of resources. The proportion of people that can increase their working time within a household as a proportion of household size is lower in the bottom than in the top of the distribution (26 percent in the bottom quintile versus 35 percent in the top quintile). Also, the average number of extra-hours that each individual below the full employment working hour threshold can work is lower in the bottom than in the top of the distribution (23 hours versus 30 hours). Finally, the value of one hour of time is higher for richer as compared to poorer individuals—twice as much for the top quintile with respect to the bottom in the case of the wage rate and as much as ten times in the case of the household productivity.

Table 6.3. Results of Decomposition for Full Sample (Full employment = 50 hours/week)

Quintile of Consumption	M/N	$\bar{H}_M$	$\bar{\omega}_M$ (Wage)	$\bar{\omega}_M$ (Household Consumption Productivity A)	$\bar{\omega}_M$ (Household Consumption Productivity B)
1	0.258	22.8	172	163	300
2	0.276	25.5	217	274	494
3	0.297	27.9	316	399	677
4	0.331	28.7	328	614	999
5	0.353	29.6	383	1634	2120

Note: See text in the "Analytical Framework" section for the Definition of household consumption productivity (A) and (B).
Source: Authors' estimates using EIBEP 2002–03.

Table 6.4. Contribution of Men and Women to Average Increase in per Capita Consumption, by Quintiles of per Capita Consumption (At wage rate; full employment = 50 hours/week)

Quintile of Consumption	Weekly Average per Capita Consumption	Increase in per capita consumption			
		Men		Women	
		Average	%	Average	%
1	3355	631	18.8	380	11.3
2	5465	949	17.4	584	10.7
3	7642	1654	21.6	963	12.6
4	10801	1863	17.2	1248	11.6
5	23288	2403	10.3	1592	6.8

Source: Authors' estimates using EIBEP 2002–03.

All these factors contribute to the lowest increase in consumption (in absolute terms) in the bottom of the distribution. Note again that the average value of one hour calculated using the predicted wage and the household productivity (definition A) is very similar in the three bottom quintiles, even if the two values have been derived in two different and unrelated ways. The average value of one hour calculated as the household productivity definition B is higher than definition A, given that in the former case only the hours spent in the labor market are included in the denominator.

Tables 6.4 and 6.5 present the same exercise separately for men and women (using their respective wage rates).[23] As we could expect, the increase in consumption due to an increase in working hours by women would be substantially lower (30 to 40 per cent lower) than what an increase in employment by men could produce. What is surprising, though, is the sources of this difference as revealed by Table 6.4. Contrary to our expectations, the average number of individuals who can increase their hours of employment is almost the same for men and women in all quintiles. This result may seem in contrast with the "time poverty" estimates presented in Bardasi and Wodon (2005) in this volume. However, in part because there are more women than men in the total population of Guinea, the percentage of women who are not time poor over the whole population is almost the same as men's. Also, the average number of extra-hours that non-time poor individuals can add to what they work already does not differ much between men and women (we may overestimate however the ability of women to increase their working hours due to the fact that time spent for providing care is not recorder in the survey). Therefore, the differences between the sexes in the impact of higher working hours is driven almost entirely by the difference in their average wages, ranging from 20 to 44 percent less for women depending on the quintile (and much larger in the bottom than in the top of the distribution).[24]

23. The evaluation of the increase in consumption at the household productivity is less interesting in this case because this would be the same for both sexes.

24. Notice that this differential is not adjusted for characteristics, i.e. the average wage reflects both gender "adjusted" differentials and compositional effects.

Table 6.5. Results of Decomposition for Men and Women (Full employment = 50 hours/week)

Quintile of Consumption	Men			Women		
	M/N	$\bar{H}_M$	$\bar{\omega}_M$	*M/N*	$\bar{H}_M$	$\bar{\omega}_M$
1	0.129	22.1	222	0.129	23.6	125
2	0.140	25.2	270	0.137	25.9	165
3	0.156	28.3	374	0.141	27.5	249
4	0.173	29.7	362	0.158	27.5	288
5	0.182	30.9	427	0.171	28.1	331

Source: Authors' estimates using EIBEP 2002–03.

As a robustness test, we report below (Tables 6.6 to 6.9) the same tables calculated using a much higher full employment workload threshold of 70.5 hours/week or 1.5 times the median of the individual total time distribution. Although the magnitude of the results changes (larger gains in consumption due to higher level of working hours), the conclusions are qualitatively very similar when comparing quintiles or sexes. For example, the difference in the contribution of men and women to the increase in consumption remains substantial, and also in this case it is mostly driven by differences in average wages.

Impact on Poverty and Inequality

Finally, we have computed the impact of the increase in consumption on poverty and inequality. The results are presented in Table 6.10. In the columns, the average total annual

Table 6.6 Average Increase in per Capita Consumption Following an Increase in Individual Working Time, by Quintiles of Current per Capita Consumption (Full employment = 70.5 hours/week)

Quintile of Cons. (1)	Weekly Average Per Capita Cons. (2)	Increase in per capita consumption: Evaluated at the wage rate		Evaluated at the household cons. productivity (A)		Evaluated at the household cons. productivity (B)	
		Average (3)	% (4)	Average (5)	% (6)	Average (7)	% (8)
1	3355	2546	75.9	2197	65.5	3835	114.3
2	5465	3542	64.8	4102	75.1	7197	131.7
3	7642	5566	72.8	6565	85.9	11085	145.1
4	10801	6741	62.4	11059	102.4	18132	167.9
5	23288	8938	38.4	30593	131.4	41731	179.2

Note: See text in the "Analytical Framework" section for the Definition of household consumption productivity (A) and (B).

Source: Authors' estimates using EIBEP 2002–03.

Table 6.7. Results of the Decomposition for Full Sample (Full employment = 70.5 hours/week)

Quintile of Consumption	M/N	$\bar{H}_M$	$\bar{\omega}_M$ (Wage)	$\bar{\omega}_M$ (Household consumption productivity A)	$\bar{\omega}_M$ (Household consumption productivity B)
1	0.409	31.5	198	171	298
2	0.429	33.6	246	284	499
3	0.450	35.7	347	409	691
4	0.485	37.1	374	614	1007
5	0.509	38.0	463	1583	2159

Note: See text in the "Analytical Framework" section for the Definition of household consumption productivity (A) and (B).
Source: Authors' estimates using EIBEP 2002–03.

consumption has been computed for each quintile after the simulated increase, under the different assumptions about time poverty lines and values of ω_i. In the bottom of the Table, the "new" consumption poverty rate (headcount), Gini coefficient and Theil index are shown.

Clearly, the largest increase in consumption and decrease in poverty would be obtained when using a higher threshold for the level of working hours. However, even with the lower workload for full employment at 50 hours a week, the increase in consumption and reduction in poverty would be substantial (reduction in the share of the population in poverty by 10 to 15 percentage points). This shows that, even in the bottom of the distribution there are "unused" time resources that can be used to increase employment and the well-being of the household. At the same time, it is clear that poverty would remain massive in Guinea even if all individuals were working at the full employment level of 50 hours,

Table 6.8. Contribution of Men and Women to the Average Increase in per Capita Consumption, by Quintiles of Current per Capita Consumption (At wage rate; full employment = 70.5 hours/week)

Quintile of Consumption	Weekly Average per Capita Consumption	Increase in per capita consumption			
		Men		Women	
		Average	%	Average	%
1	3355	1517	45.2	1029	30.7
2	5465	2108	38.6	1434	26.2
3	7642	3410	44.6	2156	28.2
4	10801	4083	37.8	2658	24.6
5	23288	5497	23.6	3442	14.8

Source: Authors' estimates using EIBEP 2002–03.

Table 6.9. Results of Decomposition for Men and Women (Full employment = 75.0 hours/week)

Quintile of Consumption	Men			Women		
	M/N	$\bar{H}_M$	$\bar{\omega}_M$	*M/N*	$\bar{H}_M$	$\bar{\omega}_M$
1	0.189	32.8	245	0.220	30.4	154
2	0.201	35.5	296	0.228	32.0	197
3	0.225	37.4	407	0.225	34.0	282
4	0.248	38.4	428	0.237	35.7	314
5	0.262	38.9	538	0.247	36.9	378

Source: Authors' estimates using EIBEP 2002–03.

or even 70.5 hours, so that an increase in labor at current wages and productivity level does not represent a magic bullet for the fight against poverty.

Note also that the monetary value of the extra hours is typically lower in the bottom than in the top of the consumption distribution, so that inequality tends to increase when approaching full employment. The exception is represented by the simulation that uses the predicted wage to evaluate one extra hour of employment (but even in this case, the Gini coefficient and the Theil index give opposite conclusions because consumption is increasing more in the third than in the second quintile in relative terms). When using the "household productivity" measure to value the additional hours of work assumed in the simulations, inequality is increasing substantially.

Table 6.10. Increase in Average Consumption and Changes in Poverty Rate and Inequality Following an Increase in Individual Working Time Under Various Hypotheses

Consumption Quintiles	Average per Capita Current Consumption	Full employment at 50 hrs/week			Full employment at 70.5 hrs/week		
		(At wage rate)	(At HH prod. A)	(At HH prod. B)	(At wage rate)	(At HH prod. A)	(At HH prod. B)
1	171316	223858	221181	262218	303695	285543	370737
2	284150	363839	384581	465580	468332	497455	658378
3	394745	530851	566864	686537	684162	736114	971154
4	559642	721402	862438	1052722	910172	1134718	1502527
5	1272735	1480456	2159070	2422609	1737529	2863585	3442761
Poverty rate	48.9	39.4	37.1	34.1	29.2	26.4	21.5
Gini coefficient	0.405	0.418	0.510	0.536	0.412	0.527	0.552
Theil index	0.331	0.321	0.612	0.592	0.299	0.657	0.631

Source: Authors' estimates using EIBEP 2002–03.

Conclusions

Conceptually, there could be two ways to rely on the labor of the poor to reduce poverty. One possibility would be to increase the productivity of that labor, so that the poor obtain higher wages or earnings from the effort they already put in. The second possibility is to increase the working hours of the poor, taking note of the fact that underemployment is pervasive in many countries. While it is true that many men and especially women already work long hours in Sub-Saharan Africa, in large part due to domestic chores and other household tasks, underemployment is nevertheless affecting a large share of the population. In addition, in most countries, because standards of living are so low and a large share of the population is poor, many individuals would like to work more in order to be able to improve their condition, even at low wage levels.

In this paper, we have not discussed what could actually be done in Guinea to improve employment prospects, both in terms of the availability of jobs and work, and in terms of the quality of those jobs. We have also not simulated how poverty could be reduced thanks to an increase in productivity that would lead to higher earnings or wages per hour of work for the population. Our aim has been rather modest, namely to estimate the reduction in consumption poverty that could be achieved if the adult population were working full time. Different thresholds were considered for what a full employment workload would be, and the magnitude of the reduction in poverty clearly depends on such thresholds. One key message is that job creation and full employment would lead to a significant reduction in poverty, even at the relatively low current levels of wages and earnings enjoyed by the population. Yet at the same time, poverty would remain massive even if all working age individuals would work full time.

In future work, the results obtained here could be compared to other results, such as the impact of an increase in productivity that would lead to higher hourly wages and earnings, or a shift in working hours within households to relieve the high burden placed on some members. What we hope to have demonstrated is that a time use approach to the analysis of employment is an attractive way to make the link between time use and consumption poverty, and that this type of simulation and results can be useful in thinking about the employment aspects of the poverty reduction strategies that many countries are now preparing, implementing, or revising.

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Appendix Table 6.A1. Wage Regressions, by Gender (Individuals aged 10+, not in school, who earn a wage or profit)

	Men	Women
Age	0.039***	0.037***
	(3.976)	(4.297)
Age squared	–0.000***	–0.000***
	(3.650)	(4.147)
Disabled (Base not disabled)	0.045	–0.180
	(0.334)	(0.994)
Marital Status (Base single)		
Monogamous	0.157**	0.183**
	(2.205)	(2.256)
Poligamous	0.373***	0.135
	(4.379)	(1.597)
Divorced	–0.111	0.216*
	(0.616)	(1.878)
Widow/widower	0.252	0.057
	(0.903)	(0.514)
Education Completed (Base none)		
Primary	0.211***	0.189**
	(3.131)	(2.232)
Secondary 1st	0.333***	0.288**
	(3.967)	(2.351)
Secondary 2nd	0.354**	0.268
	(2.016)	(0.666)
Technical	0.615***	0.656***
	(5.998)	(4.275)
University	0.742***	0.994***
	(7.759)	(4.432)
Industrial Sector (Base manufacturing)		
Agriculture	–0.801***	–1.112***
	(9.116)	(10.617)
Mines	0.727***	–0.039
	(5.299)	(0.185)
Energy	0.266	–1.742
	(0.838)	(1.326)
Construction	0.174	–0.415
	(1.624)	(0.703)
Trade	0.301***	–0.014
	(4.082)	(0.167)
Transport	0.266***	–0.011
	(2.746)	(0.032)
Finance, IT	–0.089	–0.286
	(0.544)	(0.929)

(*continued*)

Appendix Table 6.A1. Wage Regressions, By Gender (Individuals aged 10+, not in school, who earn a wage or profit) (*Continued*)

	Men	Women
Public admin, educ., health	–0.067	–0.399***
	(0.745)	(3.106)
Status in Employment (Base employee priv. sect., formal)		
Public employee	0.338***	0.219
	(3.395)	(1.172)
Employee priv. sect., inform.	–0.361***	–0.423**
	(3.212)	(2.127)
Self-employed	0.218**	–0.082
	(2.259)	(0.441)
Type of Contract (Base permanent)		
Seasonal	–0.309***	–0.165***
	(4.435)	(2.646)
Daily and piece work	–0.048	–0.066
	(0.722)	(1.035)
Rural (*base urban*)	–0.344***	–0.198***
	(5.326)	(3.032)
Geographical Area (Base Conakry)		
Boke	–0.005	–0.025
	(0.071)	(0.340)
Faranah	0.124	0.139*
	(1.575)	(1.832)
Kankan	0.015	0.068
	(0.174)	(0.799)
Kindia	0.041	–0.282***
	(0.503)	(3.513)
Labe	0.153*	0.105
	(1.704)	(1.088)
Mamou	0.376***	0.311***
	(3.835)	(3.303)
Nzerekore	–0.010	0.012
	(0.137)	(0.162)
Constant	5.210***	5.541***
	(23.790)	(22.038)
Observations	4350	4356
R-squared	0.276	0.239

Note: The dependent variable is the logarithm of the hourly wage, spatially adjusted (using poverty lines) for differences in purchasing power across regions; * significant at the 10% level, ** significant at the 5% level, ***significant at the 1% level.

Source: Authors' estimates using EIBEP 2002–03.