

THE ECONOMIC IMPACTS OF CHILDCARE FOR MEN, WOMEN, AND CHILDREN[‡]

Family Structure and Childcare in Sub-Saharan Africa[†]

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Caregiving by extended family members—in which women's parents and other relatives assist with childcare—is common across cultures, including in sub-Saharan Africa (SSA) (Hrdy 2009; Kramer 2010; Emmott and Page 2021; Sear 2021; Page et al. 2021; Cassar et al. 2023). However, if nuclear households are becoming more prevalent, then women may be less able to get help with childcare from extended family. This could increase women's childcare responsibilities over time, with potential implications for their economic engagement as well as early childhood development.

In this paper, we first present evidence on how family arrangements have changed over time using data for SSA from the Demographic and Health Surveys (DHS). We examine the prevalence of nuclear family households relative to extended family households. We find evidence of an increase across years in the share of households with only nuclear family members. Additionally, across DHS survey waves and countries, nuclear families are more prevalent in rural areas than in urban areas. The high prevalence of nuclear families may mean that women are less able to access assistance with childcare from extended family.

Second, using original survey data from 110 villages in the Democratic Republic of the Congo

(DRC), we explore childcare arrangements in a rural SSA context. Using detailed time-use data, we find some evidence that extended family members—particularly grandmothers—assist with childcare. However, the vast majority of childcare hours (84 percent) are provided by mothers. Taken together, our results imply that mothers are almost exclusively responsible for the care of young children in some African contexts and that even the limited help they receive from their family may be declining as extended family households become less common.

I. Family Structure across SSA

Extended kin are assumed to assist with childcare in SSA (Serpell 2010). As family structures evolve and extended family households become less common, women may receive less childcare support from their family members.

We explore evidence from the DHS on how family structures have changed over time. We compile data from 32 countries in SSA, representing 126 survey waves between 1990 and 2019 and comprising 1,298,702 households (Boyle, King, and Sobek 2022). We classify household members as nuclear family members if they are the household head, the spouse of the household head, or children of the household head.¹ We identify nuclear households as those that only contain nuclear family members. For each survey wave in a country, we construct the share of households that include only nuclear family members. This is plotted in Figure 1. Countries are plotted in alternating colors, with the earliest survey wave for a country plotted

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¹Note that we do not distinguish between biological children of the household head and adopted or foster children. However, fostering is a common phenomenon, affecting up to 40 percent of all children (McGavock 2023).

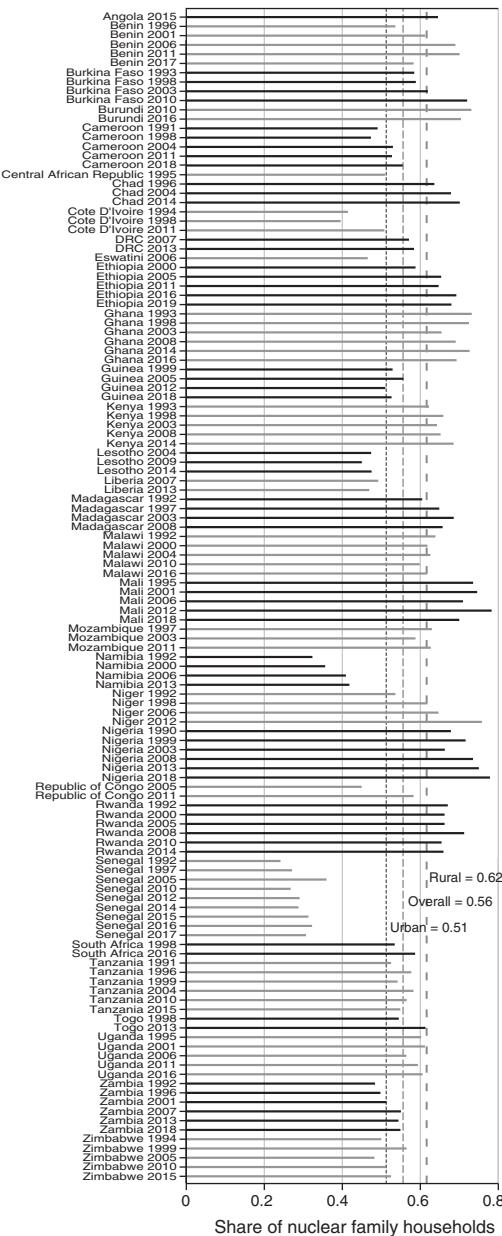


FIGURE 1. SHARE OF NUCLEAR FAMILY HOUSEHOLDS ACROSS SSA COUNTRIES

Notes: The data are from the DHS (Boyle, King, and Sobek 2022). The figure presents the share of households in a DHS survey wave that have only nuclear family members present in the household. An individual is defined as a nuclear family member if they are the household head, the spouse of the household head, or children of the household head. The dashed vertical lines represent the overall average share across all survey waves of nuclear family households as well as the average for the urban and rural samples.

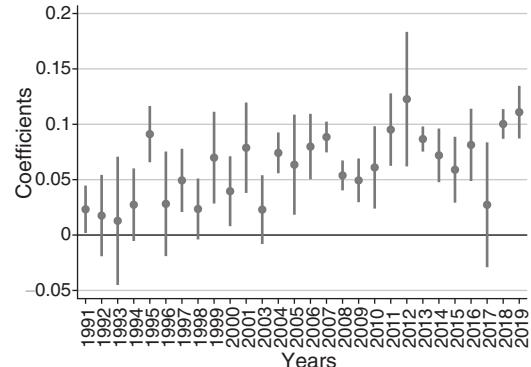


FIGURE 2. SHARE OF NUCLEAR HOUSEHOLDS OVER TIME

Notes: The data are from the DHS (Boyle, King, and Sobek 2022) and comprise 126 survey waves for 32 countries in SSA. The outcome variable is the share of households that have only nuclear family members. Household members are defined as nuclear household members if they are the household head, the spouse of the household head, or children of the household head. The figure plots coefficients for the year fixed effects δ_t estimated following equation (1), with 1990 as the omitted year.

first and the most recent survey wave plotted last.

Several interesting patterns emerge. First, across countries, the average share of households with only nuclear family members is relatively high, at 56 percent across all survey waves. The one exception is Senegal, where this share is 28 percent. Interestingly, this is not driven by rural DHS clusters. In fact, the average share of nuclear households is higher in rural areas (62 percent) than in urban areas (51 percent).

Second, the number of households with only nuclear family members is increasing over time. An upward trend is apparent for several countries upon visual inspection of Figure 1. To show this more formally, we estimate the following specification:

$$(1) \quad y_{itc} = \delta_t + \alpha_c + \gamma_r + \varepsilon_{itc},$$

where our outcome of interest, y_{itc} , is an indicator variable that equals 1 if household i at time t in country c is a nuclear family. δ_t denotes year fixed effects, α_c denotes country fixed effects, and γ_r denotes rural fixed effects. Figure 2 plots the year fixed effects δ_t . The omitted year is 1990, the earliest survey wave in the sample.

The coefficients tend to be positive and significant. Additionally, the positive time trend is statistically significant ($p = 0.000$). The increasing prevalence of nuclear family structures suggests that women may be less likely to receive support from extended family members for childcare.

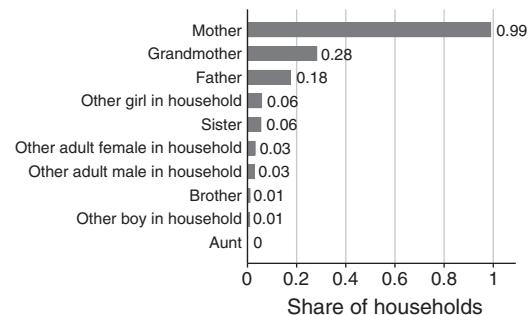
Our findings make two important contributions. First, they highlight that nuclear families are widespread across SSA. Additionally, our results challenge the narrative that the transition from extended to nuclear family structures is primarily an urban phenomenon and, hence, that the need for childcare is increasingly concentrated in urban areas (Goode 1963; Hughes et al. 2021).

II. Childcare Arrangements: Evidence from the DRC

We use original survey data from 2,022 women living in 110 rural villages in the Kongo Central province of the DRC. The survey was administered in 2019 to women with at least one child aged 1 to 5. We collected detailed data on their childcare arrangements, their time use, and their household structure. Specifically, we ask women who was responsible for looking after their children aged 1 to 5 between 5 AM and 10 PM—a 17-hour window—the previous day. Thus, for each household, we can identify who helped with childcare and for how many hours.

Panel A of Figure 3 presents the average share of households that report any time spent on childcare by different family members. Mothers provide childcare in virtually all households, and fathers assist with childcare in 18 percent of households. Extended family members are also involved in caregiving. For example, grandmothers cared for children in 28 percent of households. Girls in the household—not the children's siblings—spent time on childcare in 6 percent of households, and other adult women or men in the household spent time on childcare in 3 percent of households. Overall, households rely on an average of 1.64 individuals to look after their young children throughout the day. This echoes qualitative accounts of the prevalence of “alloparenting” (care provided by individuals other than parents) in SSA as well as some more recent research quantitatively showing that women can call on large extended family networks to tend to their children in various

Panel A. Extensive margin



Panel B. Intensive margin

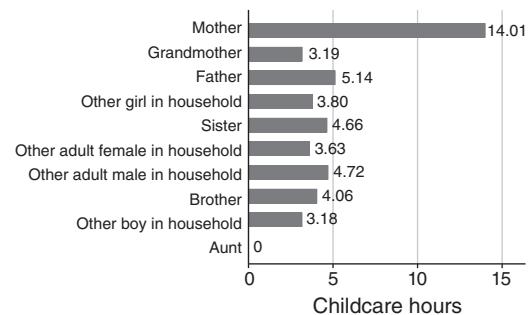


FIGURE 3. CHILDCARE ASSISTANCE FROM FAMILY MEMBERS (PAST DAY)

Notes: The data are from a survey administered by the authors in the DRC. One randomly selected mother in the household was asked who took care of each of their children aged 1 to 5 for each hour between 5 AM and 10 PM the previous day. In panel A, we plot the share of households that report different family members taking care of their children (i.e., the extensive margin). In panel B, we plot the number of childcare hours that each family member provided, conditional on providing any care (i.e., the intensive margin). The family member relationship is relative to the child.

African contexts (Clark, Madhavan, and Kabiru 2018; Madhavan and Gross 2013).

Panel B of Figure 3 displays the average number of hours per day spent on childcare by family members, conditional on them providing any childcare. Even with this data restriction, the mother provides around three times as much childcare time as any other extended family member—14 hours, on average, compared to 4.7 hours for other adult household men. Multiplying estimates from panel A and panel B together, women spend an average of 13.9 hours a day on childcare, while grandmothers

and fathers come in at second place with 0.9 hours each. These patterns remain the same when restricting to households with at least one extended family member.

The fact that mothers contribute the vast majority of childcare hours despite the involvement of extended family may initially be surprising. However, this can be explained by the fact that support from extended family to mothers often involves assistance outside of carework. Qualitative work we conducted in the same villages indicates that the most common form of support from extended family members consists of taking on cooking, cleaning, and farming around the time of a child's birth and immediately postpartum. One woman declared the following: "Sometimes you have family members who work the field for you. But from the age of four months, the mother takes back her responsibilities and goes with her child to the field until primary school age." This pattern also emerges quantitatively in our data (not shown here): having a higher number of female extended family members in the household significantly reduces the number of hours women spend on housework, but only in households with infants. These findings indicate that easy access to childcare from extended family is by no means a universal norm across SSA, even in rural contexts.

III. Discussion

Our results show that the prevalence of extended family households is decreasing across SSA and is lower in rural areas. Our findings also indicate that while extended family members play a role in childcare and can provide valuable support for mothers, they do not always meaningfully reduce women's time spent on childcare. Both of these findings point to a need for formal childcare services and indicate that this need may be high in rural areas as well as increasingly urgent. If unmet, this may have implications for economic development: research indicates that the substantial time mothers dedicate to childcare adversely affects their labor supply and income in both developed and developing countries (Heckman 1974; Del Boca 2015).

To date, there is limited evidence on effective and scalable policy options to alleviate women's childcare responsibilities in SSA, particularly in rural areas. Ongoing research is examining the extent to which providing community-based

childcare in rural DRC freed up women's work time and increased their productivity and well-being (Donald, Lowes, and Vaillant 2023). Future research should examine the effectiveness of such approaches in other SSA contexts. There is also a pressing need for more detailed data on time use and childcare arrangements beyond anecdotal evidence. Finally, future studies should examine how women can best mobilize support for childcare within the nuclear family and how norm change interventions can increase men's engagement in childcare in rural African households.

REFERENCES

- Boyle, Elizabeth Heger, Miriam King, and Matthew Sobek.** 2022. "IPUMS Demographic and Health Surveys: Version 9 [Dataset]." IPUMS and ICF. <https://doi.org/10.18128/D080.V9> (accessed December 12, 2023).
- Cassar, Alessandra, Alejandrina Cristia, Pauline Grosjean, and Sarah Walker.** 2023. "It Makes a Village: Child Care and Prosociality." Unpublished.
- Clark, Shelley, Sangeetha Madhavan, and Caroline Kabiru.** 2018. "Kin Support and Child Health: Investigating Two Approaches in an African Slum." *Social Science Research* 76: 105–19.
- Del Boca, Daniela.** 2015. "Child Care Arrangements and Labor Supply." Inter-American Development Bank Working Paper 569.
- Donald, Aletheia, Sara Lowes, and Julia Vaillant.** 2023. "Experimental Evidence on Rural Child-care Provision." Unpublished.
- Emmott, Emily H., and Abigail E. Page.** 2021. "Alloparenting." *Encyclopedia of Evolutionary Psychological Science*. https://doi.org/10.1007/978-3-319-16999-6_2253-1.
- Goode, William J.** 1963. *World Revolution and Family Patterns*. New York: Free Press of Glencoe.
- Heckman, James J.** 1974. "Effects of Child-Care Programs on Women's Work Effort." *Journal of Political Economy* 82 (2B): S136–63.
- Hrdy, Sarah Blaffer.** 2009. *Mothers and Others: The Evolutionary Origins of Mutual Understanding*. Cambridge, MA: Harvard University Press.
- Hughes, Robert C., Patricia Kitsao-Wekulo, Ruth Muendo, Sunil S. Bhopal, Elizabeth Kimani-Murage, Zelee Hill, and Betty R. Kirkwood.** 2021. "Who Actually Cares for Children

- in Slums? Why We Need to Think, and Do, More about Paid Childcare in Urbanizing Sub-Saharan Africa.” *Philosophical Transactions of the Royal Society Series B, Biological Sciences* 376 (1827): 20200430.
- Kramer, Karen L.** 2010. “Cooperative Breeding and Its Significance to the Demographic Success of Humans.” *Annual Review of Anthropology* 39: 417–36.
- Madhavan, Sangeetha, and Mark Gross.** 2013. “Kin in Daily Routines: Time Use and Childrearing in Rural South Africa.” *Journal of Comparative Family Studies* 44 (2): 175–91.
- McGavock, Tamara.** 2023. “More than a Village: Why Endogenous Living Arrangements Affect 40% of Non-orphaned Children in Sub-Saharan Africa.” Unpublished.
- Page, Abigail E., Emily H. Emmott, Mark Dyble, Dan Smith, Nikhil Chaudhary, Sylvain Viguier, and Andrea B. Migliano.** 2021. “Children Are Important Too: Juvenile Playgroups and Maternal Childcare in a Foraging Population, the Agta.” *Philosophical Transactions of the Royal Society Series B, Biological Sciences* 376 (1827): 20200026.
- Sear, Rebecca.** 2021. “The Male Breadwinner Nuclear Family Is Not the ‘Traditional’ Human Family, and Promotion of This Myth May Have Adverse Health Consequences.” *Philosophical Transactions of the Royal Society Series B, Biological Sciences* 376 (1827): 20200020.
- Serpell, Robert.** 2010. *The Significance of Schooling: Life-Journeys in an African Society*. Cambridge, UK: Cambridge University Press.