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## Cash transfers and school enrolment

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**Cash transfers and school enrolment**

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## Abstract

Using a randomized experiment in Mali, this study investigates whether Unconditional Cash Transfer (UCT) targeted to men and intended to reduce poverty and food insecurity impact children's schooling. Although the school-aged children are not the primary target of the program, we look to see if the transfers have any impact on the children's school enrolment. Results indicate that the transfers have no significant effect on school enrolment for children age 7-16. However, disaggregating by gender and age, results show the program increases girl's school enrolment at primary school by 8 percentage points and by 6 percentage points for primary school and low secondary school. There is no significant effect on boys' school enrolment. We provide potential mechanisms through which the UCT impacts school enrolment.

*Keywords: Child Schooling, Social assistance, RCT, Mali*

# 1 Introduction

Social protection policies such as cash transfers, vouchers, general food distribution, and school feeding, have been considered as a safety net to protect and redistribute resources to the poor. They are increasingly seen as a sustainable tool to build human capital and reduce poverty. It has been estimated in 2014 that cash transfer programs reach 718 million people globally in over 130 countries around the world (WorldBank, 2015). Many evaluations from developing countries show a significant body of evidence supporting the success of cash transfers program on consumption, poverty (Haushofer and Shapiro, 2016) and food security (Bastagli et al., 2016).

Several studies have shown the link between education and poverty reduction (Vandenbussche et al., 2006); (Birdsall and Londono, 1997). Education promotes high private and social returns (Moretti, 2004) and is correlated with better individual incomes (Hall, 1975). These evidences have led African states to make efforts in education sectors. In some regions in Sub-Saharan Africa (SSA), gross primary school enrolment rates are now close to 80% or more. Although enrolment rates are high, many children are not yet enrolled and many of those enrolled still do not complete primary school (Chimombo, 2005). In addition, there is an endemic lack of equity in many education systems in Sub-Saharan African countries. Girls tend to learn less than boys in most countries (PASSEC, 2014).

Conditional Cash Transfers (CCTs) programs have shown their effects on children's education (Benedetti et al., 2016); (Ganimian and Murnane, 2016). A review by (Fiszbein, 2009) suggests that CCTs for enrolment are effective in increasing enrolment and attendance, and in middle-income countries where primary enrolment rates are already high, the impacts of CCTs were more significant at the secondary level. Indeed, there are many studies on the impact of CCTs on children's education but less on Unconditional Cash Transfers program (UCTs).

The fundamental difference of UCTs compare to CCTs is that for UCTs, the reception of the cash is not linked to a behavior, so the impacts can be found in any sphere of the household's life and this according to the difficulties of which the household is faced and how the household thinks money can best meet their needs. (Baird et al., 2011) compare CCTs to UCTs in Malawi and find that UCTs has a lower impact on schooling but a greater impact on unconditioned outcomes such as reduction in marriage and teenage pregnancy. (Akresh et al., 2013) find no significant difference between UCT and CCT on enrolment in Burkina Faso but larger impacts in the CCT on "marginal" children, those who were most at risk of not going to school.

In this paper, we take advantage of the unconditional nature of the Malian national cash transfer program, which targets poor households and whose objectives were focused on reducing poverty and improving human capital accumulation. The goal is to see if

the program has an impact on the children school enrolment especially in the context where school-age children are not the primary target population of the program. We use data from a large-scale social experiment involving households that were randomized to treatment and control group. This solid design allows us to examine the impact of the program on the school enrolment of children aged 7 to 16.

We find that the transfers have no impact on children age 7-16. When we break the sample by gender and age, results show the program increases girls enrolment to primary school and no impact on boys.

The remainder of the paper is organized as follows. We begin by describing the Malian national cash transfer program and the country education system. We explain the evaluation design, the data and sampling method. Then we show the estimation strategy, the results and discussion.

## **2 The Mali cash transfer program**

The Malian Government has initiated in 2014 the "Programme de Filets Sociaux" which is an UCT program with poverty reduction, food security and human capital development as main objective. The program targets extreme poor households in the village and is implemented in six regions (Sikasso, Koulikoro, Kayes, Segou, Mopti, Gao) and district of Bamako.

The program has 3 components which are Cash transfers (CT), Accompanying Measures (AM) and Preventive Nutrition Packages (PNP) targeted to children under 5 years and pregnant women. Recipient households receive 10,000 FCFA (equivalent to 20 dollar U.S) per month. Payments are made every quarter in the beneficiaries village or through a bank agent. There are no conditions to receive the money.

The cash is given to the household head that are men in the majority of households. The Accompanying Measures (AM) are training conducted by nongovernmental organizations (NGOs) in each intervention village. These trainings were not targeted only to the cash beneficiaries, but to any household in the selected communes. There are roughly 15 themes organized in 4 groups of themes. Each theme of the training covers a period of 6 months. The third component is the PNP that is not a focus of this study.

## **3 Education system in Mali**

The Malian education system is composed of basic education (grades 1-9) and technical/general education. The basic education is 9 years with 6 years at the primary school and 3 years at the junior secondary. Children are supposed to start the first year of

primary school at 6 years old and therefore complete the primary school at 12 and the junior secondary at 15.

Students at the end of the primary school have to pass a Certificate of Primary School exam. But this exam was canceled since 2006. Students at the end of the basic education are awarded a Diploma of Fundamental Studies (DEF).

After this diploma, they are allowed to continue either in technical or in general education. Access to pre-school education is very low in Mali (only 6.1% of children aged 3 to 5 in 2016 - 2017) despite the importance of this segment for the cognitive development of children. Enrolment in primary school is, after an improvement, constantly decreasing. It went from 81.5% in 2011 to 72.1% in 2017 (78.3% for boys compared to 66.0% for girls) (Credd, 2019). Girls are taken out of school to participate in housework, or if there are not performing well. Enrolment is higher in urban areas than in rural areas (81.1% versus 54.7% respectively).

In the junior secondary, enrolment was at 49.2% in 2016-2017, lower than the primary school. Girls are less likely to reach junior secondary school than boys (44.2% compared to 54.4%) (Credd, 2019). The significant drop-out of girls from the education system is due to child marriage, families' poverty or the distance travel to school and lack of sanitation in the school. Voluntary drop-out and failure at school are also other factors.

It is important to improve the school offer to the most vulnerable populations to make school more equitable and accessible to all.

## 4 Evaluation design

The Mali cash transfer program impact evaluation is a two-stage Randomized Control Trial (RCT). Within each of the five targeted regions for the evaluation (Sikasso, Koulikoro, Kayes, Segou, Mopti), the communes were randomly assigned to either the treatment or control. A total of 76 communes were randomly assigned to the treatment and to receive the cash right after the baseline in 2014, and 20 communes was assigned delayed-entry and entered the program in 2016. Among the 76 remaining communes, 19 communes will non-randomly be selected in collaboration with the national technical committee to receive the PNP. The randomization was stratified by region, and within each region approximately 20 percent of the eligible communes were randomly assigned to be in the control arm. The randomization process was conducted by the Government of Mali in collaboration with the International Food Policy Research Institute (IFPRI). This process has created transparency and understanding by communities about how the communes have been assigned to treatment and control. 76 communes were randomly assigned to treatment group and 20 to control group at the first stage. At the second stage, among the 19 treatment communes that were selected to be eligible for PNP, half

were randomly assigned to receive the PNP and the other half not. For this study, we only consider the first stage randomization.

## 5 Data, sample and variables

We use data collected from the Mali cash transfer program that include quantitative and qualitative components and was collected by the International Food Policy Research Institute (IFPRI) and Institute de Recherche pour le Development (IRD). The baseline survey was conducted from September 2014 to February 2015 and a midline survey from August to November 2016. The baseline data was collected before the beginning of the project intervention and the midline 2 years later and before the control group start receiving the intervention.

In total, 90 communes out of 96 were surveyed at baseline. Some communes were left out because of security reasons. The study selected households that are cash beneficiaries and had a child aged from 6 to 23 months at the baseline. At individual level, information was collected on children aged from 7 to 16 years old and their participations to schooling activities. A two-stage probability proportional to size sampling (PPS) method was used at the baseline. The principle with this method is that each eligible beneficiary household in the commune had the same probability of being sampled.

The midline sample is a panel of children surveyed at baseline. 3080 households were surveyed at baseline and 2560 at midline. From these households, we restrict our analysis to children 7-16 years old at baseline for a total of 3694 children.

Our main outcome of interest is the children school enrolment which was measured using the information from the household roster on whether children aged 7-16 have ever attend school; our variable uses the answer to the question: "have you ever attended school?". It is a dummy equal to 1 if the child ever attend school and 0 otherwise.

Information about children age enable us to estimate the impact on school enrolment for different age groups. Children aged 7-13 are likely to be in primary school, while children aged 14-16 could be either in primary school or lower secondary school. Similarly, information about child's gender, allow us to estimate the impact of the program for boys and girls.

At the household level, we have information on the education of the household head, whether or not he has attended school or he can read; whether the child belongs to a monogamous or polygamous household, the child household size as well as the value of the household's total per capita consumption.



## 6 Attrition and baseline balance

The main unit of analysis is the individual child. Our study population includes children aged (7-16) years old at baseline. To confirm that the randomization worked and creating balance between treatment arms, we test for statistical differences in mean between the two treatments using OLS regression with standard errors clustered at commune level. We find evidence for successful randomization, mean household characteristics measures are balanced between the treatment and control groups.

Table 1 shows the comparison of the baseline characteristics across treatment arms with controls for regions and standard errors clustered at the commune level. This helps to ensure that the randomization still work for the sample of 3286 children used in the analysis.

Table 1 results show that the randomization still hold and effective at balancing baseline characteristics. Out of 15 mean difference tests between treated and control children, only two are statistically different at the 10% level. In particular, children average age in the control group is significantly higher than in the treatment. Similarly, children age at primary school is significantly higher in control than treatment group. There are no significant differences at the 10% level for the study outcome.

Children in our sample are on average 10 years old, half are boys and very few of them can read. Household head are on average 55 years old and only 10% went to school. 45% of the household head are in monogamous marriage. At baseline level, 54% of children are enrolled in school for the school year 2014-2015. As shown in table 1, there is no significant difference of the attrition rate between treatment and control. Of the 3694 children 7 to 16 years-old at baseline, 3286 were surveyed at midline. An attrition rate of 11 % due to not finding the same child across the survey. If attrition is correlated with treatment assignment, then this could potentially bias the estimates of the impact of a transfer on outcomes. As table 1 shows, there is no significant differences in attrition between treatment and control arms and attrition rate is similar across treatment and control.

Table 1: Baseline characteristics of children (ages 7-16) by treatment status

	N	All	Control	Treated	P-value
Attrition rate	3694	0.11	0.123	0.106	0.406
<b>Children Characteristics</b>					
Age	3286	10.418	10.576	10.37	0.050*
Male	3286	0.558	0.562	0.557	0.327
Child can read	3286	0.039	0.03	0.042	0.204
Age Primary school (7-13)	2744	9.562	9.698	9.521	0.041*
<b>Household Characteristics</b>					
Head age	3286	55.208	55.128	55.232	0.748
Head is widow	3286	0.107	0.117	0.104	0.722
Head went to school	3286	0.101	0.113	0.097	0.530
Head can read	3286	0.005	0.003	0.006	0.788
Head is female	3286	0.103	0.113	0.099	0.533
Head monogamous	3286	0.429	0.442	0.426	0.816
Head polygamous	3286	0.458	0.433	0.466	0.604
Household size	3286	13.719	13.483	13.791	0.572
Log total per capita consumption	3286	7.958	7.944	7.962	0.306
<b>Outcomes</b>					
School enrolment	3286	0.546	0.579	0.536	0.358

Standard errors are clustered at the commune level

\* p 0.1 \*\* p 0.05 \*\*\*p 0.01

## 7 Estimation strategy

To estimate the impact of the cash on outcome, we take advantage of the randomized experimental design and conduct an intent-to-treat (ITT) analysis. This approach avoids bias that may occur due to selection into and out of the program. We estimate the treatment effect using Analysis of Covariance (ANCOVA). ANCOVA estimates are preferred to Difference-in-Difference when the autocorrelation of outcomes is low (McKenzie, 2012). We use the following model:

$$Y_{it} = \beta T_i + \lambda Y_{it-1} + \alpha X_{it-1} + \theta + \epsilon_i \quad (1)$$

$Y_{it}$  represents the main outcome of interest measured for each children  $i$  at time  $t$ .  $T$  is a dummy equal to 1 if the child belongs to a household who receive the cash, and 0 otherwise.  $X_{it}$  is a set of control variable measured at baseline,  $\theta$  denotes region fixed effects. The vector of control variables ( $X$ ) includes children age, children age squared, household size, marital status of the household head, if the household head went to school,

the gender of the children, if the children can read, gender of the household head, log household head age, log value of aggregate consumption, all as defined at baseline.

Standard errors are clustered at the commune level, which is the same level at which treatment was assigned.  $\beta$  capture the intent-to-treat (ITT) effect of being assigned to treatment arm, and to see if the effect of the cash varies by children gender at baseline, we estimate following equation:

$$Y_{it} = \beta_1 T_i + \beta_2 T_i * Gender_i + \lambda Y_{it-1} + \alpha X_{it-1} + \theta + \epsilon_i \quad (2)$$

## 8 Results

### 8.1 Impact of pooled Treatment

We use equation (1) to estimate the causal effect of being assigned to the cash receiver group on child schooling. The results are presented in Table 2. The coefficient of the Cash Treatment (T) represent the intent-to-treat (IIT) of the intervention on the school enrolment. For each category of age, the first and third columns represent the impact coefficients with controlling for individual and household characteristics while for the second and fourth column we remove control variables. As expected, given the successful randomisation, adding control variables does not change the coefficient of the treatment.

Table 2 reveals that there is no significant impact on school enrolment for children age 7-16 and 7-13 years. Even the inclusion of control variables has no impact on the significance of coefficients. This suggests that while considering the whole sample of children, the intervention has no effect on the school enrolment.

Table 2: Impact of Cash on school enrolment

	7-16 years		7-13 years	
Cash Treatment (T)	0.021	0.019	0.037	0.03
	(0.02)	(0.02)	(0.023)	(0.02)
Individual and Household Controls	Yes	No	Yes	No
Observations	3286		2744	

Standard errors in parenthesis, clustered at the commune level

\* p 0.1 \*\* p 0.05 \*\*\*p 0.01

We control for children age, children age squared, household size, marital status of the household head, Household head went to school, gender of the children, children can read, gender of the household head, household head age squared, log value of aggregate consumption.

## 8.2 Sub-group treatment effect

To investigate if the impact of the intervention vary by children gender, we estimate equation (1) separately for boys and girls. Table 3 shows the result of the analysis for children aged 7-16 and table 4 for the children aged 7-13. We present the treatment effect for boys and girls separately and for different category of age. From table 3, we note that the intervention leads to significant increase for girls by 6 percentage point. This is an increase in school enrolment for primary and junior secondary.

Table 3: Heterogeneous impact of Cash on School enrolment 7-16

	Boys	Girls
Cash Treatment (T)	-0.01	0.06**
	(0.02)	(0.03)
Observations	1834	1452

Standard errors in parenthesis, clustered at the commune level

\* p 0.1 \*\* p 0.05 \*\*\*p 0.01

We control for children age, children age squared, household size, marital status of the household head, Household head went to school, gender of the children, children can read, gender of the household head, household head age squared, log value of aggregate consumption.

Table 4 shows an increase in school enrolment for girls at 8 percentage point which correspond to an increase of school enrolment in primary school.

Table 4: Heterogeneous impact of Cash on School enrolment 7-13

	Boys	Girls
Cash Treatment (T)	-0.004	0.08***
	(0.02)	(0.03)
Observations	1498	1246

Standard errors in parenthesis, clustered at the commune level

\* p 0.1 \*\* p 0.05 \*\*\*p 0.01

We control for children age, children age squared, household size, marital status of the household head, Household head went to school, gender of the children, children can read, gender of the household head, household head age squared, log value of aggregate consumption.

## 9 Discussion and conclusion

This paper tries to investigate if the households who receive unconditional cash transfers spend the money to increase children's enrolment. This study was motivated by the need to generate rigorous evidence on the unexpected effect of the Mali national cash transfer program on children. We address this question by measuring the impact of the intervention on children's outcome 2 years after the transfers started. Although school-age children are not the primary focus of the program, we try to see if the program has an impact on them. Since this is a UCT program, the money can be used according to the household desire and then the impact can be seen in any sphere of household life.

We use data from a national cash transfer program and take advantage from a Randomized Control trial (RCT) design in which households were randomly assigned to the treatment and control group. The analysis incorporates individual and household characteristics and control for strata fixed effect. We found that the program has no significant effect on the school enrolment of children 7-16 age. However, when looking at the subgroup effect, based on children's age and gender, we found a significant effect on girls' enrolment at primary school and junior secondary.

The program removes some barriers to enroll children, especially girls to school. This means the program was enough to stimulate educational access for girls. These findings are aligned with those from many cash transfer evaluation programs in Africa and elsewhere. The *progesa* program increases by 7 points impact the school enrolment in Mexico (de Brauw and Hoddinott, 2011) and Zambia's Child Grant Program (CGP) increases by 7-8 percentage points the school enrolment (Handa et al., 2016) in Zambia. In addition, Malawi's Unconditional Cash Transfer Program (SCTP) improves school enrolment rates and decreases dropouts for children 6-17 age (Kilburn et al., 2017).

One reason that can explain these results is that the program generates incentives for beneficiaries to support education. Beneficiaries households in Mali invest the transfer in their children's education, even without a conditionality that requires them to do so. Cash helps poor children to attend school by alleviating the financial burden of schooling for the household. Education spending is the mechanism through which the cash may work to improve school enrolment. Households in Zambia's CGP program spend in particular on uniforms and shoes, two items cited as key barriers to school enrolment (Handa et al., 2016). For (Kilburn et al., 2017), the cost of schooling is the biggest factor for poor households in the decision to send their children to school and the cash helps to alleviate this constraint. They show that the cash is spent on notebooks and uniforms. Although primary education is free in Mali, notebooks and other school materials prevent children from attending school.

The households head that are men in most of the case are cash receivers for the Mali cash transfer program. But this seems not to affect the fact to invest in children's education.

As (Benhassine et al., 2015) found for Morocco's Tayssir program, transferring the money to women versus men as main recipients has no significant difference on children's school attendance or enrolment.

A process evaluation on the same program indicates that beneficiaries use the cash in consumption, health care and human capital (Zongrone et al., 2018). The results confirm this by showing that the cash is used for education beyond food and health purpose. One major information received during AM sessions is to spend the cash for the household basics needs which are food, health and education.

The study reports a statistically significant impact on girls' school enrolment. This means the program was able to remove the contextual factors or household members' belief that girls are needed for housework and should not go to school.

However, enrolment does not guarantee that a child will regularly attend school all the year, complete his grade and progresses to the next grade. So, attendance is required in addition to the enrolment. Learning, measured through tests is an important indicator to analyse the impact of a program on the human capital formation and empowerment. If the cash in addition to increase enrolment, increases attendance, the children may score higher in academic test scores. The transfers may also improve the household food security and the nutritional status of children and indirectly affect the child's cognitive ability and learning capacity in school.

## References

- Richard Akresh, Damien de Walque, and Harounan Kazianga. Cash transfers and child schooling: Evidence from a randomized evaluation of the role of conditionality. 01 2013.
- Sarah Baird, Craig McIntosh, and Berk Ázler. Cash or Condition? Evidence from a Cash Transfer Experiment \*. *The Quarterly Journal of Economics*, 126(4):1709–1753, 10 2011. ISSN 0033-5533. doi: 10.1093/qje/qjr032. URL <https://doi.org/10.1093/qje/qjr032>.
- Francesca Bastagli, Jessica Hagen-Zanker, Georgina Sturge, and Valentina Barca. Cash transfers: what does the evidence say? an annotated bibliography, 07 2016.
- Fiorella Benedetti, Pablo Ibarra, and Patrick J. McEwan. Do education and health conditions matter in a large cash transfer? evidence from a honduran experiment. *Economic Development and Cultural Change*, 64(4):759–793, 2016. doi: 10.1086/686583. URL <https://doi.org/10.1086/686583>.
- Najy Benhassine, Florencia Devoto, Esther Duflo, Pascaline Dupas, and Victor Pouliquen. Turning a shove into a nudge? a "labeled cash transfer" for education. *American*

- Economic Journal: Economic Policy*, 7(3):86–125, August 2015. doi: 10.1257/pol.20130225. URL <http://www.aeaweb.org/articles?id=10.1257/pol.20130225>.
- Nancy Birdsall and Juan Luis Londono. Asset Inequality Matters: An Assessment of the World Bank’s Approach to Poverty Reduction. *American Economic Review*, 87(2): 32–37, May 1997. URL <https://ideas.repec.org/a/aea/aecrev/v87y1997i2p32-37.html>.
- Joseph PG Chimombo. Issues in basic education in developing countries: An exploration of policy options for improved delivery. *Journal of international cooperation in education*, 8(1):129–152, 2005.
- Credd. Cadre stratégique pour la relance économique et le développement durable (credd 2019 à 2023). Technical report, Minister de l’économie et des Finances and PNUD, 2019.
- Alan de Brauw and John Hoddinott. Must conditional cash transfer programs be conditioned to be effective? The impact of conditioning transfers on school enrollment in Mexico. *Journal of Development Economics*, 96(2):359–370, November 2011. URL <https://ideas.repec.org/a/eee/deveco/v96y2011i2p359-370.html>.
- Norbert R. Fiszbein, Ariel Schady. *Conditional Cash Transfers*. The World Bank, 2009. doi: 10.1596/978-0-8213-7352-1. URL <https://elibrary.worldbank.org/doi/abs/10.1596/978-0-8213-7352-1>.
- Alejandro J. Ganimian and Richard J. Murnane. Improving education in developing countries: Lessons from rigorous impact evaluations. *Review of Educational Research*, 86(3):719–755, 2016. doi: 10.3102/0034654315627499. URL <https://doi.org/10.3102/0034654315627499>.
- Robert E. Hall. *Journal of Political Economy*, 83(2):444–446, 1975. ISSN 00223808, 1537534X. URL <http://www.jstor.org/stable/1830936>.
- Sudhanshu Handa, Luisa Natali, David Seidenfeld, and Gelson Tembo. The impact of zambia’s unconditional child grant on schooling and work: results from a large-scale social experiment. *Journal of Development Effectiveness*, 8(3):346–367, 2016. doi: 10.1080/19439342.2016.1206605. URL <https://doi.org/10.1080/19439342.2016.1206605>.
- Johannes Haushofer and Jeremy Shapiro. The short-term impact of unconditional cash transfers to the poor: Experimentalevidence from kenya. *The Quarterly Journal of Economics*, 131(4):1973–2042, 2016. URL <https://EconPapers.repec.org/RePEc:oup:qjecon:v:131:y:2016:i:4:p:1973-2042>.
- Kelly Kilburn, Sudhanshu Handa, Gustavo Angeles, Peter Mvula, and Maxton Tsoka. Short-term impacts of an unconditional cash transfer program on child schooling:

- Experimental evidence from malawi. *Economics of education review*, 59:63â80, August 2017. ISSN 0272-7757. doi: 10.1016/j.econedurev.2017.06.002. URL <http://europepmc.org/articles/PMC5844286>.
- David McKenzie. Beyond baseline and follow-up: The case for more t in experiments. *Journal of Development Economics*, 99(2):210–221, 2012. URL <https://EconPapers.repec.org/RePEc:eee:deveco:v:99:y:2012:i:2:p:210-221>.
- Enrico Moretti. Estimating the social return to higher education: evidence from longitudinal and repeated cross-sectional data. *Journal of Econometrics*, 121(1-2):175–212, 2004. URL <https://EconPapers.repec.org/RePEc:eee:econom:v:121:y:2004:i:1-2:p:175-212>.
- PASSEC. Qualit  de lâenseignement fondamental au mali : quels enseignements ? Technical report, Passec, CONFEMEN, 2014.
- J r me Vandebussche, Philippe Aghion, and Costas Meghir. Growth, distance to frontier and composition of human capital. *Journal of Economic Growth*, 11(2):97–127, Jun 2006. ISSN 1573-7020. doi: 10.1007/s10887-006-9002-y. URL <https://doi.org/10.1007/s10887-006-9002-y>.
- WorldBank. *The State of Social Safety Nets 2015*. The World Bank, 2015. URL <https://EconPapers.repec.org/RePEc:wbk:wbpubs:22101>.
- Amanda Zongrone, Hidrobo Melissa, Roy Shalini, Huyregts Lieven, Sessou Eric, Diatta Ampa, Njee-Bugha Leile, and Turowska Zuzana. Filets sociaux program :processe evaluation report. Technical report, International Food Policy Research Institute (IFPRI), 2018.