
Migration, Remittances and Children's Schooling in Haiti

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Motivation

1. Educational resources in Haiti are hardly “sufficient.”

- ❑ Public resources devoted to education are meager in Haiti.
- ❑ Private sector is the primary vehicle allowing for access to education:
 - 90 percent of schools are private or parochial (Salmi, 1998).
 - Despite a constitutional guarantee of free education, public schools are costly and of very low quality (Salmi, 1998).

Access to education is problematic for vulnerable groups, and it can be a heavy financial burden.

2. Remittances are substantial for Haiti, i.e. 22% of Haiti’s GDP in 2006.

Do these private inflows compensate for the lack of public support of education?

Objective

Are international remittances associated with investment in children's schooling by the household?

Why Should We Care About This?

- The importance of human capital investments for economic development is difficult to overstate.
- Increasing the educational attainment of children and young adults is generally viewed as a desirable policy goal. It is associated with:
 - Better community health,
 - Lower levels of crime, and
 - More effective democratic political systems.

Political Background During LAMP

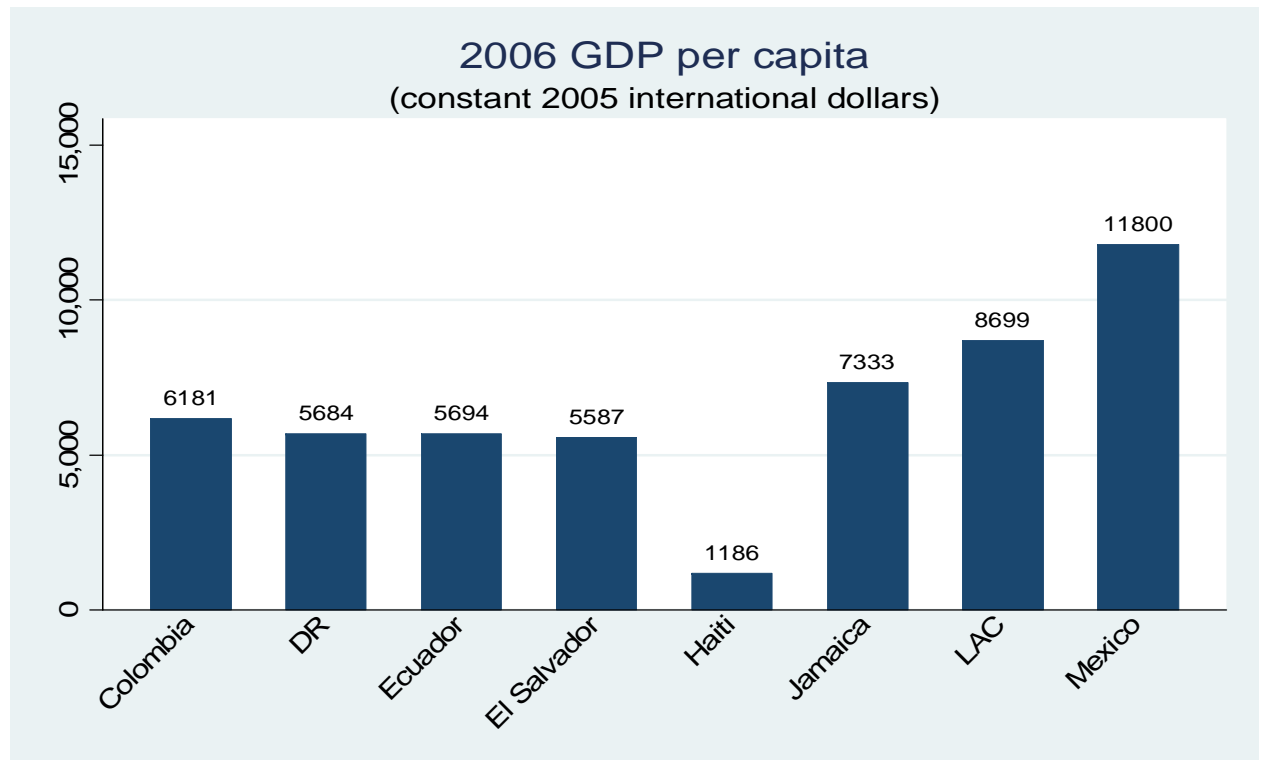
Haiti is a presidential republic often claimed to be authoritarian in practice.

- A long history of political repression (Duvalier regimes)
- Special circumstances surrounded the survey implementation:
 - There were elections in 2000 and the opposition to Aristide argued that they were being rigged. Political violence began. The U.S. withdrew aid and Europe and the IADB followed, causing a heightened economic squeeze.
 - The LAMP team, aware of the increase in violence when surveying community 1 (DEC 2000 and Jan 2001), stopped and continued surveying communities 2 and 3 two years later (Dec 2002 and January 2003).
 - The “Rule of Law” sub-index within the World Wide Governance index moved from 2.9 in 2000 to 0.5 in 2002. It moved to 3.8 in 2003.

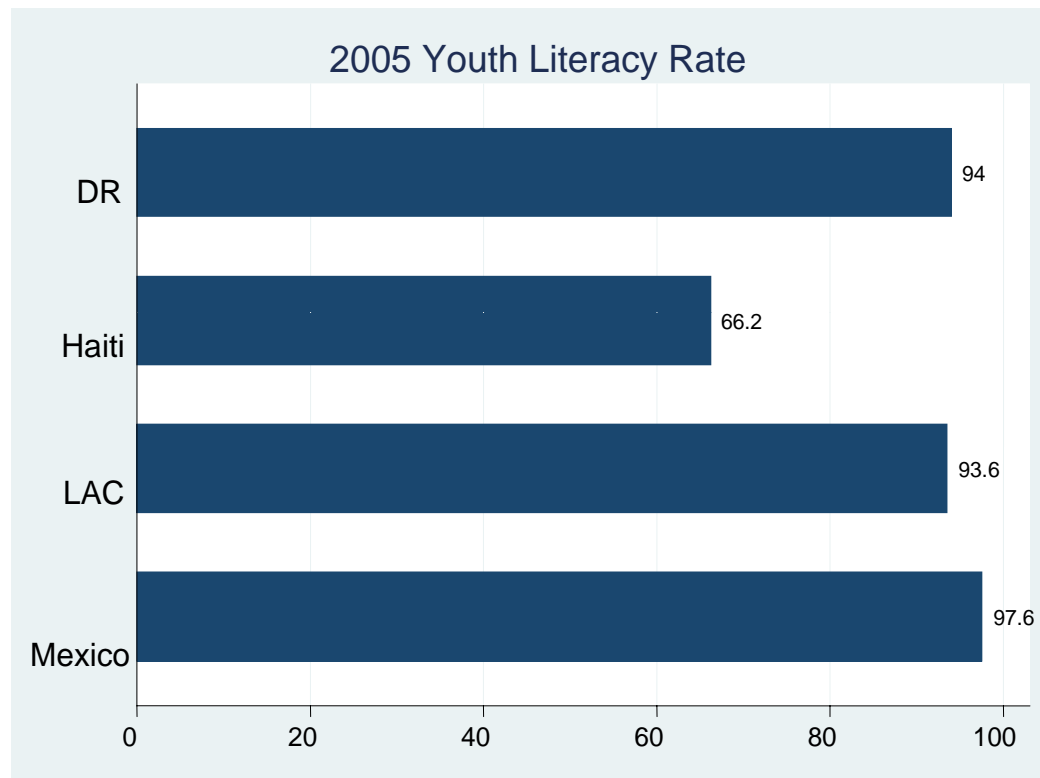
Economic Background on Haiti

- Haiti is among the most disadvantaged countries in the Western Hemisphere:

- Haiti's per capita income is about 14% of the average for the region.
- 56% of Haiti's population live in extreme poverty (less than \$1/day)
- 76% is poor (less than \$2/day)



The State of Education in Haiti



■ 33.8% of youth in Haiti are illiterate. This compares to:

■ 6% percent in the DR

■ 6.4% for the LAC region.

Remittances to Haiti

Table 1: Workers Remittances as a Percentage of GDP in 1996 and 2006

Country	Remittances/GDP in 1996	Remittances/GDP in 2006
Bolivia	0.2	5.5
Brazil	0.3	0.4
Colombia	0.7	2.6
Dominican Republic	6.8	9.6
El Salvador	10.5	17.8
Guatemala	2.4	10.2
Haiti	5.0	21.5
Honduras	3.9	25.6
Jamaica	10.9	19.4
Mexico	1.5	3.0
Nicaragua	2.9	12.4
Panama	0.9	0.9
Peru	1.1	2.0

Remittances to Haiti - Continued

Table 2: Workers Remittances as a Percentage of Exports in 2006

Country	Remittances/Exports	Remittances/(Exports of Goods and Services)
Bolivia	15.8	6.73
Brazil	3.1	3.37
Colombia	16.1	19.75
Dominican Republic	47.3	26.20
El Salvador	94.7	53.23
Guatemala	60.1	52.27
Haiti	211.1	172.85
Honduras	122.6	32.66
Jamaica	98.4	39.74
Mexico	10.0	8.22
Nicaragua	63.8	33.81
Panama	14.2	1.11
Peru	7.8	8.06

Also, Who Receives Remittances?

- The Haitian Living Conditions Survey shows:
 - 36% of the extremely poor receive remittances
 - 59% percent of poor receive external transfers

Although the most destitute are not appear the primary beneficiaries of transfers, the poor (in general) are.

Conceptual Framework

Remittances can have different impacts on children's schooling:

- 1. Income Effect:** Lifting up liquidity constraints and facilitating schooling
 - 2. Disruptive Effect:** The receipt of remittances can be associated with family migration, which can inhibit educational investments:
 - Example #1: Absence of a parent may require that children “pick up the slack” through paid work or household chores (Hanson and Woodruff 2003).
 - Example #2: Migration of a family member may also increase the likelihood of migrating and, thus, reduce the incentive to go to school at home if the expected return to that schooling is low in the host country (Kandel and Kao 2001)
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Our Empirical Strategy...

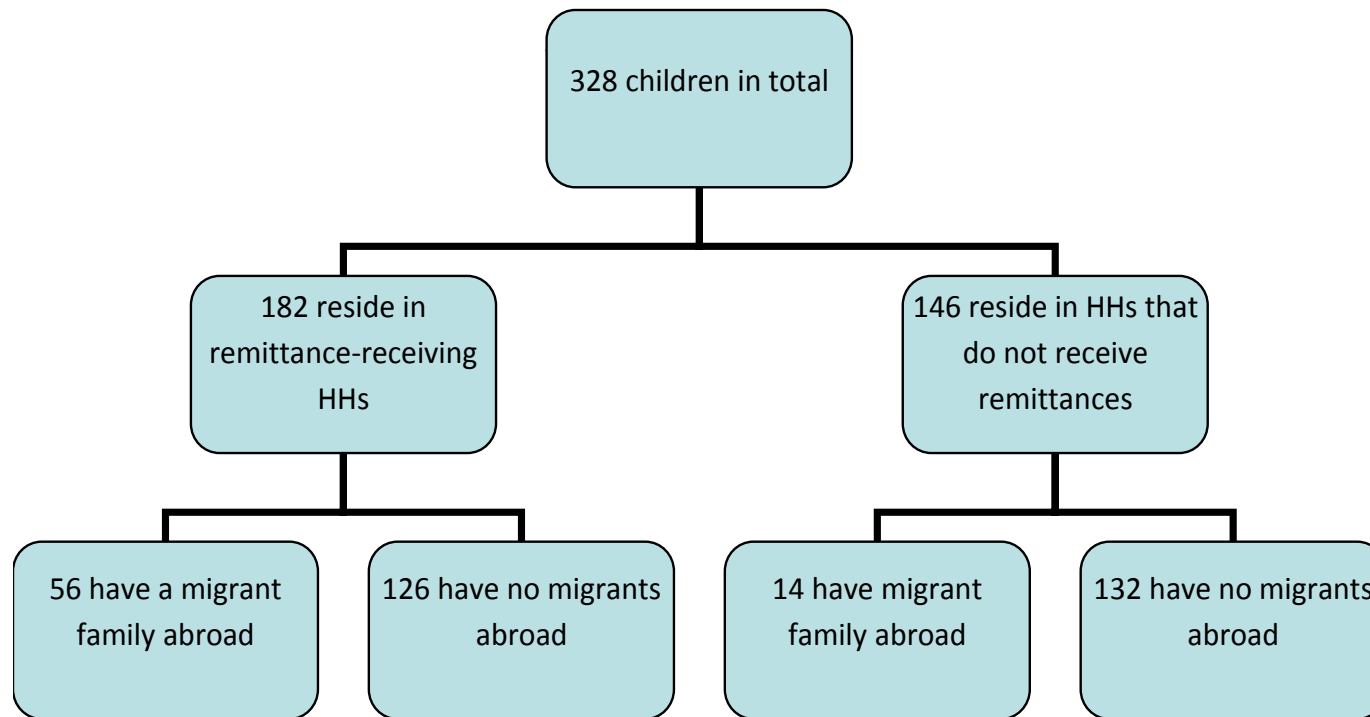
To account for the disruptive effect of migration when examining the impact of remittances on children's schooling to better understand the impacts of these funds.

Data

- Haitian files from the Latin American Migration Project (LAMP).
- The survey instrument was administered to 100 households in 2000-01 and to the remaining 200 households in 2002-03 (total: 1,575 individuals).
- Of special interest to us are data on:
 - Remittance receipt by the household
 - Emigration of family members
 - Schooling of children.
- Our sample: Children aged 6 to 17, i.e. a total of 328 children.

Remittance Receipt and Migration

- Over 1/2 of children reside in remittance-receiving HHs
- Only 30% of those HHs have migrants currently abroad
- 4% of children live in HHs with migrants but no remittances
- 40% of children live in HHs without migrants or remittances



Measure of Schooling

- Dummy indicative of whether the child currently attends school:
 - **Shortcoming:** Ignores school repetition –fairly common in Haiti, i.e. 13% of children in pre-primary through 4th grade in Haiti repeat grades compared to 5% in the DR.
 - **Advantages:** Assesses how current receipt of remittances by the household impacts current school attendance by children.

Schooling by HH Migration and Remittance Receipt

- 88% of children are schooled.
- Probability of being schooled is highest for:
 - Children in HHs with migrants and remittances (89%)
 - Children in HHs with no migrants and no remittances (89%)
- Least likely schooled in HHs with migrants and no remittances (79%)

Age	Lives in a Remittance-receiving & Migrant HH	Lives in a Remittance-receiving & Non-migrant HH	Lives in a Non-remittance Receiving & Migrant HH	Lives in a Non-remittance Receiving & Non-migrant HH
6-17	0.89	0.87	0.79	0.89
6-11	0.83	0.86	0.83	0.89
12-17	0.92	0.88	0.75	0.90

Schooling by Gender and Relationship to HH Head

- ❑ Girls are more likely to be schooled than boys.
 - ❑ 85% of boys are in school vs. 92% of girls. Difference greater for younger cohorts.
- ❑ Higher % of the HH head's own children are schooled

Age	Male	Female	t-stat	Own child	Other child	t-stat
6-17	84.6	91.6	1.96	90.5	82.5	1.84
6-11	81	91.5	1.71	88.6	82.9	0.83
12-17	86.5	91.6	1.14	91.6	82.1	1.67

Methods

- Purpose is to examine how remittances impact children's schooling:

$$Schooling_{if} = Remittance Receipt_{if} * \beta + \gamma * X_{if} + u_{if}$$

- Some econometric issues:
 - First, R may be correlated with the error term, i.e. they may be endogenous and its coefficient estimates biased.
 - Second, remittances are preceded by family migration for 1/3 of children in remittance-receiving HHs. Hence, R may be capturing a disruptive migration effect.
 - Third, community 1 was surveyed before the political unrest and communities 2 and 3 afterwards.

Methods – Continued

To address these three issues:

- We use IV methods: R are instrumented with
 - Average unemployment rates and
 - Average weekly earnings in the U.S. destination of household and/or family-related migrants.
- R and family out-migration are likely to have opposite effects on children's schooling. Yet:
 - We carry the analysis for all HHs and for HHs without migrants, where the R effect is net of disruptive impacts.
- We carry the analysis separately by time period, i.e. before and after the political unrest.

Results for Children Living in Community 1

IV Linear Probability Estimates for Community 1 (Pre political unrest)

Type of Household	School Aged Children from All Households		School Aged Children from Non-migrant Households	
Variables	Coeff	S.E.	Coeff	S.E.
Remittance Receipt	0.1987**	0.0854	0.2654**	0.1151
<i>Regression Fit Statistics</i>				
No. of Observations	140		105	
R-squared	0.1303		0.1232	
Joint significance of IVs in first stage regression	F(2, 60) = 26.32 Prob>Chi2 = 0.0000		Chi2(2)=20.26 Prob>Chi2=0.0000	
IV Exogeneity Test ^a	0.126 < Chi2(2)= 5.99		0.378 < Chi2(2)= 5.99	
Chow test of equality of the R coefficients	F(1, 116) = 0.33 with Prob>F = 0.5648			

Summary of Findings for Community 1 (Pre political unrest)

- School-aged children residing in remittance-receiving households have between a 0.2 and a 0.3 higher chance of attending school
- Why?
 - Community 1 has a large number of schools and is a magnet for students in nearby areas, minimizing any disruptive effects from household migration.
 - Migrants from community 1 tend to be of an earlier cohort. The migration effect may have weakened with time.

Results for Children Living in Communities 2 & 3

IV Probit Estimates for Communities 2 & 3 (Post political unrest)

Type of Household	School Aged Children from All Households		School Aged Children from Non-migrant Households	
Variables	Coeff.	M.E.	Coeff.	M.E.
Remittance Receipt	-1.0995	-0.2227	1.7010***	0.4664
<i>Regression Fit Statistics</i>				
No. of Observations	187		105	
Wald Chi2-test	33.33		47.67	
Prob>Chi2	0.0005		0.0000	
Joint significance of IVs in first stage regression	Chi2(2)=9.9 Prob>Chi2 = 0.0074		Chi2(2)=12.78 Prob>Chi2=0.0017	
IV Exogeneity Test ^a	1.3651< Chi2(2)= 5.99		1.3464< Chi2(2)= 5.99	
Chow test of equality of the R coefficients	Chi2(1) = 5.10 with Prob>Chi2 = 0.0240			

Summary of Findings for Communities 2 & 3 (Post political unrest)

- **All Households:** remittance receipt does not seem to raise the likelihood that children will be schooled.
- **Households without Migrants:** children are 47% points more likely to be schooled than children in non-remittance receiving households.
- **Why?**
 - Unlike community 1, school access in communities 2 & 3 is likely to be hindered by narrow roads and difficult access by car. Thus, the positive income effect of remittances on schooling is only visible in those HHs lacking the negative disruptive impact of out-migration.
 - Both are active ports with more recent migrants than community 1. The migration effect is likely to be most acute if the HH has not been able to make up for the lost contribution of a missing member.

Summary and Conclusions

- **Summary of Findings:**

- ❑ Remittances do not always raise school attendance among children from all households, some of which have migrants.
- ❑ Yet, remittances raise school attendance among children living in households that do not experience any family out-migration.

- **Conclusions:**

- ❑ The receipt of remittances lifts budget constraints and raises the children's likelihood of being schooled, whereas the migration of HH members reduces their likelihood of being schooled.
- ❑ As such, remittances ameliorate the negative disruptive effect of household out-migration on children's schooling.

Similar Results Using the Dominican LAMP...

Amuedo-Dorantes and Pozo (2007) ...

- ❑ **Examine the impact of remittance receipt on the schooling gaps** of children in households with heads claiming no close family members abroad (i.e. 88% of the DR children sample).
- ❑ **Main Finding: Children in remittance-receiving HHs attend school more consistently**
 - Relative to boys, girls are the main beneficiaries of remittance inflows:
 - Remittances lower their likelihood of lagging behind by 39% points and, among girls lagging behind in school, the schooling gap is reduced by nearly 2 years, i.e. from 3 years to 1 year.
 - Remittances exclusively favor the education of the HH head's own children.
- ❑ **In sum, these studies provide further evidence of the positive impact that remittance inflows on remittance-receiving countries.**

Comments welcome!
Thanks!
