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## **Should Parents Work Away from or Close to Home? The Effect of Temporary Parental Absence on Child Poverty and Children's Time Use in Vietnam**

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# **Should Parents Work Away from or Close to Home? The Effect of Temporary Parental Absence on Child Poverty and Children's Time Use in Vietnam**

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## **Abstract**

Working away from home might bring higher earnings than working near home. However, the absence of parents due to work can have unexpected effects on children. This paper examines the effects of the temporary absence of parents on the well-being of children aged 5–8 years old in Vietnam, using indicators of household poverty, per capita consumption expenditure, and child time allocation. The paper relies on OLS and fixed-effects regression and panel data from the Young Lives surveys in 2007 and 2009. It finds a positive correlation between parental absence and per capita expenditure. Parental absence tends to increase per capita food expenditure instead of per capita non-food expenditure. Regarding the way children spend their time, there are no statistically significant effects of parental absence.

JEL Classification: O15, R23, I32

Key words: parental migration, child poverty, remittances, impact evaluation, Vietnam.

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## 1. Introduction

In developing countries, migration could be considered a potentially important strategy for poverty reduction. The main benefits of migration are that it increases income and reduces the risks of an uncertain income stream (Stark and Taylor 1991; Stark 1991). Increases in income come mainly through remittances (McKenzie and Sasin 2007), which can have a short-term effect on poverty by increasing consumption. They can also be invested in physical and social assets to have a long-term effect on poverty reduction. Using data from 71 developing countries, Adams and Page (2005) found a strongly positive correlation between international remittances and poverty reduction. Their results suggest that, on average, a 10 per cent increase in the share of international migrants in a country's population will lead to a 2.1 per cent decline in the share of people living on less than US\$1.00 per person per day. At the country level, positive impacts of remittances, especially international remittances, on household welfare and child education are found in some studies, such as Adams (2004, 2006), Taylor et al. (2005) and Acosta et al. (2007).

However, migration does not necessarily lead to higher income or reduced poverty. Taylor and López-Feldman (2007) show that migration can also prevent households from undertaking high-return but labour-intensive activities, because of a shortage of labour. Moreover, remittances might lead to disincentives to work, and as a result their total income might not increase (Farrington and Slater 2006; Sahn and Alderman 1996).

There are different types of migration, including permanent and temporary migration. Migration can occur at the household level (i.e., if the whole family moves to a new area), or at the individual level (i.e., if one household member moves to a new place). In developing countries, it is common for parents to temporarily migrate and work away from home, while children are left behind. Parental absence, although temporary, can have different effects on children's well-being. If working away from home leads to an increase in income, it can have positive effects on consumption and on the nutrition of children. Increased income can also result in an increase in household spending on the health and education of children, as well as reducing child work, since higher income can release children from the need to work. However, parental absence can have negative effects on children. With less care from parents, children might have

poorer educational attainment and health, and might have to take on more housework and care of other household members. In addition, as mentioned, if remittances and migration do not lead to an increase in income, their positive effect on children through the income channel will be negligible. Thus, the effect of temporary parental absence on children's well-being is a priori unknown.

There are a large number of studies, both empirical and theoretical, on the effect of the permanent absence of parents, caused, for example, by divorce or death, on children. Numerous studies show that parental divorces can have negative effects on the education, and physical and mental health of children (e.g., Amato and Keith 1991; Haveman and Wolfe 1995; Garasky 1995; Amato 2000; Gruber 2004; Kim 2011). However, there is less empirical evidence on the effect of temporary parental absence due to work on children's well-being. Thus, this study aims to measure the effect of the temporary absence of parents, either mothers or fathers, on certain factors affecting children's well-being, namely per capita consumption, household poverty, and time allocation. We focus the study on children aged 8 years, using panel data from Young Lives datasets, which were collected in 2007 and 2009.

Vietnam provides an interesting setting for the study for several reasons. Firstly, Vietnam has dynamic population movement with increasing internal and international migration. According to the 2009 Population and Housing Census of Vietnam, around 6.6 million people migrated within the country between 2004 and 2009. Currently, 3.2 million Vietnamese live permanently in other countries. The number of annual exported labourers increased by 136 per cent from 36 to 85 thousand between 2001 and 2007 (Nguyen and Mont 2010). The mass media report that there are more parents who have to leave children at home in order to work in cities than in rural areas (*Lao dong thu do* 27 August 2011; Thuy 3 April 2012).

Secondly, there has been no study specifically on the link between temporary parental absence and child poverty in Vietnam. However, one study, by Booth and Tamura (2009), looked at the link between paternal absence and children's well-being in terms of education and work. They found that paternal absence caused sons (but not of daughters) to do more paid work outside the household. The effect of paternal absence on children's school attendance and on household education expenditure was found to be negligible and not statistically significant.

Compared with Booth and Tamura (2009), our study has two differences. Firstly, we focus on young children, aged from 5 to 8, (because of the coverage of the dataset) using Young Lives surveys in 2007 and 2009, while Booth and Tamura (2009) focused on children aged from 7 to 18 using Vietnam Living Standard Surveys 1993 and 1998. Secondly, Booth and Tamura (2009) examined the effect of fathers' absence on children's education and work. In this study, we investigate the effect of parents' absence on poverty, consumption and children's time allocation. We do not focus on education and child work, since 98.5 per cent of the children in our sample were enrolled in school and less than 0.1 per cent of children worked outside their households for income.

The paper is structured in six five sections. The second section briefly reviews the empirical studies on the effect of migration and the absence of parents on children. The third section introduces the dataset used in this study. The fourth section presents descriptive statistics regarding parental migration and children's welfare in Vietnam. The fifth section presents the methodology and empirical findings on the link between parental migration on the one hand and household poverty/welfare and children's time allocation on the other. Finally, the sixth section concludes.

## **2. Literature review**

As mentioned in the previous section, there are numerous empirical studies on the effect of migration on the income levels of households. Empirical evidence on the effect of the permanent absence of parents on children, caused for example by divorce, is also vast. However, there have been few empirical studies on the effect of parental migration on children's well-being. Among the few studies available, Hildebrandt and McKenzie (2005) investigated the impact of international migration on child health outcomes in Mexico. They found that children in migrant households had lower rates of infant mortality and higher birth weights. Frank and Hummer (2002) studied Mexican migrant and non-migrant households and found that membership of a migrant household reduced the risk of low birth weight, largely through the receipt of remittances. Oropesa and Landale (2000) showed that migration to the United States reduced the risk of child poverty among Puerto Ricans. Antman (2010) found that the international migration to

the USA of Mexican fathers had a positive effect on the educational attainment of their children.

The migration of parents is not always found to lead to improvements in the health and education of children. For example, McKenzie and Rapoport (2006) found that migration had a negative impact on the school attendance and educational attainment of children in Mexico. Antman (2010) found that the internal migration of Mexican fathers did not have a significant effect on children's educational attainment. In Kiros and White (2004), children in Ethiopia with migrant mothers were found to have less immunisation coverage than children whose mothers had not migrated.

Giannelli and Mangiavacchi (2010) investigated the long-term effects of parental migration abroad on the schooling of children left behind in Albania, where migration has represented the only viable way for households to cope with increasing poverty and sustain their incomes. They found that although parents' migration usually benefited children economically, the lack of parental care might affect children's well-being in the long term. Using the Living Standard Measurement Survey for 2005, the authors showed past parental migration had had a negative effect on school attendance in the long term, with children left behind having a higher likelihood of dropping out of school. These results are robust to the use of different econometric techniques and model specifications.

Wang (2011) investigated the effect of parents' migration on the educational attainment of their left-behind children in rural China, using a probit model with educational enrolment as the dependent variable, run separately for boys and girls. The author found that parental migration had a negative effect on children's school enrolment, with boys being more adversely affected than girls.

Several previous studies have examined explicitly the impact of parental absence on children's well-being. Notably, studying its effect on children's academic achievement, Lyle (2006) found that both parental absence and household relocation affected children's test scores adversely. The effect was more severe among the children with single parents, mothers in the army, and lower ability parents,<sup>2</sup> and among younger children.

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<sup>2</sup> As measured by the Armed Forces Qualification Test (AFQT) score.

In Vietnam, around 9 per cent of households have at least one household member migrating to other geographical areas. Most studies argue that the main reason for economic migration in Vietnam is to find better employment and higher wages (e.g., Dang et al. 2003; De Brauw and Harigaya 2007). While most studies in Vietnam focus on the pattern and determinants of migration (e.g., Dang et al. 1997; Dang 2001; Dang and Nguyen 2006), there are several studies investigating the impact of migration on household welfare. De Brauw and Harigaya (2007) found that seasonal migration increased household expenditure. Recently, Nguyen et al. (2011) found that internal migration helped households reduce poverty.

Several studies have examined the effect of remittances on poverty and household welfare, with differing results. Using Vietnam Household Living Standard Surveys (VHLSSs) from 2002 and 2004, Nguyen (2008) and Pfau and Giang (2009) found that international remittances had a positive impact on household expenditure and helped reduce poverty. However, using different datasets – VHLSSs from 2004 and 2006 – Nguyen et al. (2012) did not find that international remittances had a positive effect of on household consumption and economic status.

With regard to children's well-being in other domains, findings from empirical studies are also mixed. Using data from the 1992/3 and 1997/8 VHLSSs, Binci and Giannelli (2012) focused on the impact of migration on the well-being of children aged 6 to 15 years in Vietnam. They found that internal remittances increased school attendance and reduced child work. However, they did not find that international remittances had a significant effect on children. Similarly, Nguyen (2009) found that internal remittances had a positive effect on households' expenditure on children's education but that international remittances did not.

As discussed in the introduction, the study by Booth and Tamura (2009) is one of the few that examines the effects of migration on children's well-being in terms of education and time use. The current paper aims to contribute to the literature by further examining the link between parental migration and aspects of child poverty and well-being, in particular, children's time use.

### **3. Dataset**

In this study, we will use data collected from the Young Lives study of international child poverty. This study is being conducted in four developing countries – Ethiopia, Peru, India (in the state of Andhra Pradesh) and Vietnam – over 15 years to understand different aspects of children’s lives over time. Young Lives is conducting a survey in each country to track two groups of children: (i) the Younger Cohort, consisting of 2,000 children who were born in 2001 and 2002, and (ii) the Older Cohort, consisting of 1,000 children who were born in 1994 and 1995. Up to now, three rounds of the surveys have been completed: in 2002, 2006/7 and 2009. Round 2 was conducted in December 2006 and early 2007. In this study, we refer to the Round 2 survey as the 2007 survey. The surveys contain detailed information on all aspects of children’s lives including health, education, their households’ food and non-food consumption, cognitive development, and other social and sociological variables.

To measure the effect of parental migration on child poverty and well-being, we need indicators of these variables. There are a wide range of data on the health of children in Young Lives datasets (see questionnaires on education and child health sections).<sup>3</sup> Although there are no sections on migration in the Young Lives surveys in Vietnam, the parental background sections contain some information on migration. In this study, we define the migration of parents based on the frequency that parents see their children. There is a question, ‘How often do you see the child?’ If parents live at home with the children, the answer must be ‘daily’ or ‘weekly’. Parents who work away from home would see their children less often, for example, monthly, annually or less often than that. We also use information on work and divorce. A child has migrant parents if his/her parents do not see her/him daily or weekly (i.e. if they see him/her monthly or less frequently) and if they have to work and are not divorced.

It should be noted that parents can be absent because of separation, divorce or death. However, in this study the treatment group is defined as children whose parents are absent due to work, not because of divorces/separation or death. There is information on the divorce and death of parents, and we should control for this difference between the treatment and control groups. The treatment group includes children whose parents are not divorced but who have at least one parent working away from home. The control group includes children who have both mothers and fathers working near home. Thus, this study focuses on the effect of having parents working

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<sup>3</sup> Young Lives data and questionnaires can be accessed at <http://www.younglives.org.uk/what-we-do/access-our-data>.



away from home on children's outcomes. The effect of divorce and death of parents is not considered. We limit our sample to children who have both living and married biological mothers and fathers.

Data used for this study are from the Younger Cohort in Round 2 (when they were 5) and Round 3 (when they were 8) of the Young Lives survey in Vietnam. We do not use data from the Older Cohort, since there are no data on how often parents see children in this sample. The number of children who are living with both parents is 1,833, and the number of observations in the panel data is 3,666.

#### **4. Parental absence and children's welfare in Vietnam**

Migration and population movement have increased in recent years in Vietnam. According to the 2009 Population and Housing Census of Vietnam, around 6.6 million people migrated within the country between 2004 and 2009. This is a remarkable increase compared with the ten years ago. In the 1999 Census Population and Housing Census of Vietnam, there were 4.5 million people moving internally in Vietnam. People often move from rural to urban areas, especially to Hanoi and Ho Chi Minh City. International migration is also increasing. There are around 3.2 million Vietnamese living permanently in other countries. The number of workers in other countries increased from 36,000 to 85,000 between 2001 and 2007 (Nguyen Huyen Le and Mont 2010).

Table 1 presents the proportions of children seeing their parents at particular intervals. Children were more likely to see mothers than fathers. In 2009, around 89.8 per cent and 95.3 per cent of children (at 8 years old) saw fathers and mothers daily, respectively. The proportion of children seeing their father weekly and monthly was 3 per cent and 4.3 per cent, respectively. Around 2.2 per cent and 0.8 per cent of children saw their father annually or less frequently than that, respectively.

The estimates are quite similar to estimates of migration incidence in the 2010 VHLSS. Although the 2010 VHLSS does not contain information on the frequency with which children saw their parents, it contains information on migrants sent by households. According to the 2010 VHLSS, around 9 per cent of households sent at

least one household member to other places. Approximately 3 per cent of families had one or two of parents living away from home.<sup>4</sup>

Table 1. Percentages of children seeing their parents at different intervals in 2007 and 2009

	Fathers		Mothers	
	2007	2009	2007	2009
Daily	88.59 (0.74)	89.76 (0.71)	96.07 (0.45)	95.29 (0.50)
Weekly	2.84 (0.39)	3.01 (0.40)	0.93 (0.22)	0.77 (0.20)
Monthly	4.91 (0.51)	4.27 (0.47)	0.71 (0.20)	1.59 (0.29)
Annually	2.84 (0.39)	2.19 (0.34)	2.02 (0.33)	1.70 (0.30)
Less than once a year	0.82 (0.21)	0.77 (0.20)	0.27 (0.12)	0.66 (0.19)
Total	100.00 (0.16)	100.00 (0.16)	100.00 (0.14)	100.00 (0.14)

Standard errors are in parentheses.

Source: Authors' estimation from Young Lives surveys 2007 and 2009.

In this study, we define children as experiencing temporary parental absence if these children saw either their father or their mother monthly, annually or less often than once a year. In other words, parental migration happened if either the father or the mother or both did not see their children either daily or weekly. In the regression analysis in Section 5, we tried other definitions of parental absence: (i) separate variables of mothers and fathers who saw children monthly, annually or less than once a year, (ii) parents saw children weekly, monthly, annually or less than once a year, (iii) a discrete variable of frequency of meeting which is equal 1, 2, 3, 4 and 5 for daily meeting, weekly, monthly, annually and less than one year, respectively. The results are similar, thus we use the definition of 'meeting monthly, annually or less than once a year'.

Table 2 shows that 9.5 and 9.0 per cent of children experienced temporary parental absence in 2007 and 2009, respectively. The regions of Red River Delta and Mekong River Delta had a higher proportion of migration than the Northern Uplands and Central Coast. In 2009, around 14 per cent of the children in Red River Delta had parents working away from home. People in delta areas were more likely to move than people in mountains and highlands.

<sup>44</sup> In the 2010 VHLSS, migrants are defined as those who did not live with the households for more than five months during the previous 12 months.

Table 2. Proportion of children experiencing temporary parental absence, by region

Region	2007	2009
Northern Uplands	7.92 (1.41)	7.10 (1.34)
Red River Delta	17.98 (2.01)	13.90 (1.81)
Central Coast	5.99 (0.88)	5.18 (0.82)
Mekong River Delta	9.52 (1.55)	13.17 (1.79)
Total	9.49 (0.68)	8.95 (0.67)

Standard errors are in parentheses.

Source: Authors' estimation from Young Lives surveys 2007 and 2009.

The proportion of parents working away from home is substantially higher among those without post-secondary education (Table 3). Probably, people with lower levels of education are less likely to have waged jobs in their local areas. They tend to work in the agricultural sector with seasonal employment. During seasons without agricultural work, they can move to urban areas or big cities for employment and other income opportunities. Table 3 shows that the rate of absence among parents with lower levels of education decreased during 2007–9.

Table 3. Children experiencing temporary parental absence by education of parents (%)

Education of father	2007	2009	Education of mother	2007	2009
No education	29.78 (3.43)	15.72 (2.11)	No education	17.67 (2.50)	11.39 (1.79)
Grade 1–5	7.04 (1.26)	8.74 (1.48)	Grade 1–5	7.25 (1.22)	8.77 (1.42)
Grade 6–9	7.67 (0.94)	7.50 (0.96)	Grade 6–9	9.65 (1.03)	8.55 (0.97)
Grade 10–12	6.97 (1.50)	8.36 (1.63)	Grade 10–12	6.01 (1.76)	9.42 (2.11)
Post-secondary	6.83 (1.99)	3.31 (1.63)	Post-secondary	6.72 (2.16)	4.12 (2.02)
Total	9.49 (0.68)	8.95 (0.67)	Total	9.49 (0.68)	8.95 (0.67)

Standard errors are in parentheses.

Source: Authors' estimation from Young Lives surveys 2007 and 2009.

Table 4 shows that working away from home is more common among younger people. Temporary migration depends on the cost and benefit from migration. One possible reason is that the expected benefit from migration is lower for older workers, since they have a shorter period to collect the migration investment returns (Borjas 2005). Thus, older workers are less likely to move.

Table 4. Children experiencing temporary parental absence, by age of father and mother (%)

<b>Age of father</b>	<b>2007</b>	<b>2009</b>	<b>Age of mother</b>	<b>2007</b>	<b>2009</b>
Below 30	11.46 (1.51)	13.85 (3.03)	Below 30	11.42 (1.11)	13.16 (1.63)
30–35	10.00 (1.12)	9.69 (1.13)	30–35	9.09 (1.17)	9.46 (1.08)
36–45	7.99 (1.12)	7.79 (0.91)	36–45	6.37 (1.26)	5.88 (0.96)
46 +	5.00 (2.44)	8.02 (2.13)	46 +	3.57 (3.51)	3.08 (2.14)
Total	9.49 (0.68)	8.95 (0.67)	Total	9.49 (0.68)	8.95 (0.67)

Standard errors are in parentheses.

Source: Authors' estimation from Young Lives Surveys 2007 and 2009.

Tables from 5 and 6 present household welfare and children's time use measured by different indicators, for children experiencing temporary parental absence and those with both parents at home. A child is defined as poor if he/she lives in a household whose per capita expenditure is below the poverty line. We use the expenditure poverty line in 2006, as defined by the World Bank and General Statistics Office of Vietnam (GSO). This expenditure poverty line is equal to 2,560,000 Vietnamese dong (VND) per person per year. It is at the January 2006 price, so we adjusted it to December 2006 price using monthly consumer price index in 2006, and it is equal to 2,713,600 VND per person per year. According to this poverty line, the proportion of poor children with both parents at home and children with one or more migrant parents in 2007 was 3.7 per cent and 4.6 per cent, respectively. These figures in 2009 were only 1.0 and 3.1 per cent.<sup>5</sup>

<sup>5</sup> The poverty rates calculated by Young Lives surveys are substantially lower than the expenditure poverty rate of the country based on the VHLSS. According to VHLSSs from 2006 and 2008, the poverty rate of Vietnam was 16 per cent and 14 per cent in 2006 and 2008, respectively. There are several reasons why the poverty rates are different between the Young Lives surveys and VHLSSs. Firstly, they have different samples. For example, the Young Lives surveys sampled 1,000 children in older cohort and 2,000 children in younger cohort, while each VHLSS covered around 9,200 households. Secondly, the VHLSSs ask questions about the food expenditure of households for the whole year, while the Young Lives surveys ask about the expenditure during the past two weeks. We have to annualise these two-week food expenditure data to get annual food expenditure of Young Lives households.

To examine the sensitivity of the effect of temporary parental absence on poverty to different poverty lines, we use relative poverty lines. We use the poverty lines that are equal to the bottom decile the bottom 15 percent and the bottom quintile of per capita expenditure in 2007. Table 5 shows that children with one or both parents working away from home are less likely to be poor than whose parents are not absent, especially in the year 2007.

It should be noted that the poverty rate of children using the bottom decile and quintile in 2007 which is the weighted poverty rates of children with and without migrant parents is not equal to 10% and 20%, respectively. This is because the thresholds of the bottom decile and quintile are applied for the whole population, while the poverty rate computed in Table for children.

Table 5. Expenditure per capita (VND, 000s) and poverty rate (%) of children with migrant parent(s) and those without

Per capita expenditure and poverty rate	2007		2009	
	Without migrant parent(s)	With migrant parent(s)	Without migrant parent(s)	With migrant parent(s)
Per capita expenditure (VND, 000s)	9,729.5 (267.9)	11,448.6 (650.3)	11,968.4 (291.5)	14,587.1 (805.8)
Per capita food expenditure (VND, 000s)	6,033.2 (95.2)	7,796.2 (399.1)	7,017.5 (107.9)	9,704.1 (480.4)
Per capita non-food expenditure (VND, 000s)	3,696.3 (215.8)	3,652.4 (392.3)	4,950.9 (238.2)	4,883.0 (569.2)
Poverty rate (WB-GSO poverty line)	3.74 (0.47)	0.57 (0.57)	1.02 (0.25)	1.83 (1.05)
Poverty rate (relative poverty line of the bottom decile)	8.38 (0.68)	2.87 (1.27)	3.12 (0.43)	3.05 (1.34)
Poverty rate (relative poverty line of the bottom quintile)	16.64 (0.91)	9.20 (2.19)	7.25 (0.63)	3.66 (1.47)

All the expenditure variables are adjusted to the price of December 2006.

Standard errors are in parentheses.

Source: Authors' estimation from Young Lives surveys 2007 and 2009.

Table 6 compares the time spent on different activities on a typical day by children, one or both of whose parents are working away from home and those whose parents are not absent. It shows that there is no difference in the time spent on different activities by the two groups of children.

Table 6. Children's time spent on different activities during a typical day (hours)

Children's activities	2007		2009	
	Without migrant parent(s)	With migrant parent(s)	Without migrant parent(s)	With migrant parent(s)
Sleeping	10.02 (0.03)	9.83 (0.08)	9.69 (0.02)	9.78 (0.09)
Caring for others	0.09 (0.01)	0.02 (0.01)	0.26 (0.02)	0.17 (0.05)
Domestic tasks	0.03 (0.00)	0.03 (0.02)	0.54 (0.02)	0.59 (0.05)
Paid work outside the household	0.01 (0.01)	0.01 (0.01)	0.12 (0.02)	0.07 (0.04)
School	5.54 (0.07)	5.52 (0.20)	5.00 (0.04)	4.86 (0.08)
Studying outside of school time	0.60 (0.02)	0.74 (0.07)	2.78 (0.04)	2.91 (0.12)
Play time/general leisure	7.67 (0.07)	7.79 (0.20)	5.60 (0.04)	5.55 (0.12)

Standard errors are in parentheses.

Source: Authors' estimation from Young Lives surveys 2007 and 2009.

## 5. The impact of parental migration on children's welfare

### 5.1. Econometric method

Measuring the impact of a socio-economic factor is always challenging because the targets of any policy or the programme are not random. The decision to work near home or away from it is a complicated process. It depends not only on the migrants themselves but also their households and other factors. A large number of factors affecting parental absence are unobserved and can be correlated with circumstances likely to affect children's well-being. For example, some parents who pay more attention to children might be less likely to work away from home and more likely to invest in the human capital of their children at the same time. Some parents might be more motivated to leave for higher earnings because these could help their children have a higher standard of living.

In this study, we use OLS and fixed-effects regressions to measure the effect of parental migration on household expenditure and poverty levels and children's time use.

We assume an indicator of children's welfare is a function of household and child characteristics as follows:

$$\ln(Y_{it}) = \beta_0 + T_t\beta_1 + X_{it}\beta_2 + A_{it}\beta_3 + u_i + \varepsilon_{it}, \quad (1)$$

where,  $Y_{it}$  is an indicator of children's welfare such as per capita expenditure, household poverty and children's time spent on different activities during a typical day of child  $i$  at the time  $t$ .  $T_t$  is the dummy variable of year  $t$ .  $X_{it}$  is a vector of characteristics of children and their parents.  $A_{it}$  is the variable indicating absence of children's parents.  $u_i$  and  $\varepsilon_{it}$  are unobserved variables that are time-invariant and time-variant, respectively.<sup>6</sup>

We use similar specifications as Equation (1) to measure the effect of parental absence on a set of different outcomes of children. The explanatory variables  $X$  include household size (including migrating parents), proportion of children and elderly people, children's age in months, per capita land of households, completed education grade of parents, age of parents and regional dummy variables. It should be that the control variables should include exogenous variables that should not be affected by migration (Heckman et al. 1999).

We will first estimate Equation (1) using OLS. However, as mentioned, the main challenge in estimating the effect of parental absence is its endogeneity. There can be a bias in OLS estimators. The traditional econometric method to deal with endogeneity is instrumental variable regression. In this study, we are not able to find a convincing instrument for parental absence in our dataset. Thus, we rely on fixed-effects regression to estimate the effect of parental absence. Fixed-effects regression can remove biases caused by time-invariant unobserved variables. We expect that controlling for time-invariant variables and other observed time-variant variables can produce reliable estimates of the impact of parental absence on direct and indirect indicators of children's welfare .

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<sup>6</sup> Although the difference-in-differences with propensity score matching estimator is more robust to functional form assumptions of outcomes, we do not use this estimator in this study for several reasons. Firstly, the difference-in-differences is widely used when there are data before and after the treatment. Before the treatment, no one receives the intervention. In our study, there are no data before parental migration. Secondly, matching often produces large standard errors, especially when there is a small number of observations. Thirdly, to some extent, a fixed-effects estimator using panel data is more robust to omitted variables than a difference-in-differences estimator. The fixed-effect estimator eliminates the bias due to time-invariant unobserved variables at the individual level, while the difference-in-differences estimator eliminates the bias due to time-invariant unobserved variables at the aggregate level.

## ***5.2. Empirical results***

Since the parents work away from home for a higher income, it is expected that parental absence can affect consumption and consumption-based poverty of households as well as children. The parents' absence can change the decision-making process within a family (Giannelli and Mangiavacchi 2010). For example, if fathers are not at home, mothers will be the main people making decisions. Children experiencing temporary parental absence may spend less time on study, but more time on housework. Thus, in this study, we measure the effect of the temporary absence of parents, either mothers or fathers, on different welfare outcomes of children including household consumption and poverty, and children's time allocation. These outcomes can be regarded as short-term outcomes which are directly affected by parental absence.

As mentioned in the introduction, we do not look at children's education and work, since most children are enrolled in primary schools, and almost no children have to do paid work outside their household. We do not examine health outcomes, since these can be long term. In addition, the endogeneity is more serious in the case of health outcomes due to reverse causality. For example, parents whose children are ill might be less likely to work away from home.

Tables 7 to 9 present OLS regressions of indicators relevant to children's welfare on parental migration and other explanatory variables. The Table A.1 in Appendix presents summary statistics of variables in regressions. There is a positive correlation between parental absence and per capita expenditure of households. Per capita expenditure of households with migrant parents is around 29 per cent higher than households without migrant parents. Food and non-food expenditure per capita are also higher for households with migrant parents. Possibly, migrant-sending households can increase per capita consumption through remittances. The increase in per capita expenditure can also be caused by a reduction in household size. Due to household economies of scale, there is an increase in households' marginal propensity to consume as the number of household size decreases (Deaton and Paxson 1998).



Table 7. OLS regressions of per capita expenditure

Explanatory variables	Log of per capita expenditure	Log of per capita food expenditure	Log of per capita non-food expenditure	Share of food expenditure	Share of non-food expenditure
Parental migration	0.2899*** (0.0469)	0.3187*** (0.0548)	0.2161*** (0.0649)	0.0190 (0.0131)	-0.0190 (0.0131)
Child age (months)	0.0004 (0.0032)	0.0010 (0.0030)	0.0025 (0.0053)	-0.0001 (0.0008)	0.0001 (0.0008)
Household size	-0.0760*** (0.0100)	-0.0736*** (0.0083)	-0.0846*** (0.0170)	0.0014 (0.0022)	-0.0014 (0.0022)
Proportion of children below 15	-0.8366*** (0.1002)	-0.6992*** (0.0863)	-1.0992*** (0.1547)	0.0783*** (0.0246)	-0.0783*** (0.0246)
Proportion of elderly above 60	-0.3241** (0.1354)	-0.2344** (0.1137)	-0.3712* (0.2035)	0.0414 (0.0298)	-0.0414 (0.0298)
Highest school grade of mother	0.0368*** (0.0061)	0.0275*** (0.0051)	0.0603*** (0.0082)	-0.0058*** (0.0010)	0.0058*** (0.0010)
Highest school grade of father	0.0282*** (0.0037)	0.0201*** (0.0035)	0.0464*** (0.0063)	-0.0047*** (0.0010)	0.0047*** (0.0010)
Age of mother	-0.0045 (0.0028)	-0.0050** (0.0024)	-0.0064 (0.0047)	0.0000 (0.0008)	-0.0000 (0.0008)
Age of father	0.0043 (0.0027)	0.0038 (0.0028)	0.0067* (0.0039)	-0.0002 (0.0007)	0.0002 (0.0007)
Per capita land (hectare)	0.0074 (0.0410)	0.0114 (0.0476)	-0.0005 (0.0638)	0.0034 (0.0137)	-0.0034 (0.0137)
Northern Uplands	Omitted				
Red River Delta	-0.0423 (0.0820)	-0.1436** (0.0583)	0.2047 (0.1651)	-0.0574** (0.0227)	0.0574** (0.0227)
Central Coastal	0.1348* (0.0757)	0.0495 (0.0724)	0.3631*** (0.1207)	-0.0524*** (0.0152)	0.0524*** (0.0152)
Mekong River Delta	0.0531 (0.0540)	0.0298 (0.0490)	0.2117* (0.1148)	-0.0211 (0.0163)	0.0211 (0.0163)
Year 2009	0.2285** (0.1063)	0.1459 (0.0897)	0.3135* (0.1805)	-0.0358 (0.0272)	0.0358 (0.0272)
Constant	9.0675*** (0.2279)	8.8046*** (0.2198)	7.1801*** (0.4117)	0.8009*** (0.0614)	0.1991*** (0.0614)
Observations	3,666	3,666	3,666	3,666	3,666
R-squared	0.326	0.287	0.330	0.140	0.140

Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Source: Authors' estimation from Young Lives surveys 2007 and 2009.

Since poverty can be defined based on per capita expenditure, it is expected that parental migration is also correlated with poverty. Table 8 shows that parental absence due to work can be negatively correlated with poverty status.

Table 8. OLS regressions of household poverty

Explanatory variables	Poor (WB-GSO expenditure line)	Poor (poverty line of the bottom expenditure decile)	Poor (poverty line of the bottom 15 percent – expenditure)	Poor (poverty line of the bottomquintile)
Parental migration	-0.0163 (0.0106)	-0.0364** (0.0154)	-0.0630*** (0.0186)	-0.0710*** (0.0211)
Child age in months	-0.0011	-0.0014	-0.0017	-0.0024

Explanatory variables	Poor (WB-GSO expenditure line)	Poor (poverty line of the bottom expenditure decile)	Poor (poverty line of the bottom 15 percent – expenditure)	Poor (poverty line of the bottom quintile)
Household size	0.0010 0.0088* (0.0048)	(0.0016) 0.0181*** (0.0063)	(0.0016) 0.0284*** (0.0081)	(0.0020) 0.0360*** (0.0091)
Proportion of children below 15	0.0672*** (0.0209)	0.1683*** (0.0336)	0.2360*** (0.0436)	0.2856*** (0.0510)
Proportion of elderly above 60	-0.0109 (0.0432)	0.0389 (0.0640)	0.0827 (0.0758)	0.0488 (0.0938)
Highest school grade of mother	-0.0015 (0.0010)	-0.0038** (0.0016)	-0.0058** (0.0021)	-0.0068*** (0.0024)
Highest school grade of father	-0.0036*** (0.0012)	-0.0073*** (0.0016)	-0.0092*** (0.0019)	-0.0118*** (0.0023)
Age of mother	0.0004 (0.0006)	0.0004 (0.0011)	-0.0004 (0.0012)	-0.0011 (0.0017)
Age of father	-0.0000 (0.0006)	0.0011 (0.0011)	0.0017 (0.0014)	0.0017 (0.0017)
Per capita land (hectare)	-0.0406** (0.0155)	-0.0413 (0.0248)	-0.0437 (0.0266)	-0.0622** (0.0289)
Northern Uplands	Omitted			
Red River Delta	-0.0350 (0.0231)	-0.0339 (0.0350)	-0.0299 (0.0442)	-0.0475 (0.0518)
Central Coastal	-0.0340 (0.0257)	-0.0438 (0.0364)	-0.0519 (0.0418)	-0.0651 (0.0480)
Mekong River Delta	-0.0499* (0.0268)	-0.0734* (0.0366)	-0.0964** (0.0385)	-0.1085** (0.0433)
Year 2009	0.0089 (0.0242)	-0.0084 (0.0413)	-0.0173 (0.0495)	-0.0154 (0.0584)
Constant	0.0971 (0.0854)	0.0943 (0.1078)	0.1158 (0.1116)	0.2147 (0.1401)
Observations	3,666	3,666	3,666	3,666
R-squared	0.067	0.108	0.142	0.166

Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Source: Authors' estimation from Young Lives surveys 2007 and 2009.

The absence of parents can affect children's time allocation. Children without parents might spend more time on housework and less time on study (Park et al. 2010). However, this pattern is not observed in Vietnam (Table 9). Children whose parents work away from home even spend 0.15 hours less per day on work and care of other household members than children whose parents do not work away from home.

Table 9. OLS regressions of children's time spent on different activities during a typical day (hours)

Explanatory variables	Sleeping	School	Study outside school	Play time/general leisure	Work and care of others
Parental migration	-0.0973 (0.1338)	-0.0286 (0.1420)	0.0500 (0.0792)	-0.1044 (0.1636)	-0.1490** (0.0590)
Child age (months)	0.1463*** (0.0297)	0.0820*** (0.0194)	0.0148** (0.0059)	0.0985*** (0.0298)	0.0036 (0.0167)
Household size	-0.1301***	-0.0723*	-0.0306	-0.1014**	0.0896***

Explanatory variables	Sleeping	School	Study outside school	Play time/general leisure	Work and care of others
	(0.0334)	(0.0368)	(0.0240)	(0.0458)	(0.0289)
Proportion of children below 15	0.2031 (0.2796)	-1.5157*** (0.3863)	-0.0814 (0.1877)	0.9043*** (0.3157)	0.4584 (0.8016)
Proportion of elderly above 60	0.8045 (0.5690)	0.3156 (0.3912)	0.4578* (0.2645)	0.6235 (0.6402)	-0.9341* (0.5225)
Highest school grade of mother	-0.0254 (0.0164)	0.0981*** (0.0179)	0.0345*** (0.0094)	-0.1229*** (0.0177)	-0.0355 (0.0314)
Highest school grade of father	-0.0131 (0.0133)	0.0598*** (0.0169)	0.0258** (0.0095)	-0.0720*** (0.0183)	-0.0204* (0.0106)
Age of mother	-0.0113 (0.0149)	-0.0167 (0.0104)	-0.0051 (0.0057)	0.0178 (0.0236)	0.0118 (0.0290)
Age of father	0.0058 (0.0125)	0.0207* (0.0119)	0.0059 (0.0058)	0.0063 (0.0206)	-0.0072 (0.0068)
Per capita land (hectare)	0.2939** (0.1430)	-0.3959 (0.3312)	0.0314 (0.0974)	0.3148 (0.2011)	0.0757 (0.1066)
Northern Uplands	Omitted				
Red River Delta	0.5541*** (0.1519)	0.4501 (0.2847)	0.5352** (0.2308)	0.2411 (0.2095)	-0.4005* (0.2105)
Central Coastal	1.0533*** (0.1670)	0.1847 (0.3884)	-0.2753 (0.2507)	0.6085 (0.3759)	-0.2573 (0.1819)
Mekong River Delta	1.2202*** (0.1990)	-0.6786** (0.2853)	-0.3977* (0.2238)	1.3554*** (0.3077)	-0.5755*** (0.2015)
Year 2009	-4.4218*** (0.8415)	-2.8118*** (0.6315)	1.7217*** (0.3657)	-4.9346*** (0.9811)	0.8779* (0.5083)
Constant	-0.0187 (1.8703)	-0.5288 (1.2716)	-0.6149 (0.4324)	0.9137 (1.8167)	-0.1038 (0.8501)
Observations	3,666	3,666	3,666	3,666	3,666
R-squared	0.103	0.169	0.523	0.169	0.042

Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Source: Authors' estimation from Young Lives surveys 2007 and 2009.

Tables 10 to 12 present the fixed-effects regressions of per capita expenditure, poverty, and time allocation of children on parental absence. There is also positive association between parental absence and per capita expenditure of households when the new household size definition is used. Per capita expenditure of households with at least one migrant parent is around 11 per cent higher than those with both parents present. Food expenditure per capita is also higher for households with a migrant parent. However, there is no statistically significant effect of parental migration on non-food expenditure and poverty status.

It should be noted that the R-squared is small in fixed-effects regressions, since there is less variation in the difference over time in dependent and independent variables. The value of R-squared is not very important, since we are mainly interested in the coefficient of parental migration, not the forecast of the dependent variables. However, low R-squared can implies there is a large proportion of variation in the

dependent variables explained by unobserved variables, which can cause the estimates of parental migration to be biased. Thus the estimates should be interpreted with caution.

Table 10. Fixed-effects regressions of per capita expenditure

Explanatory variables	Log of per capita expenditure	Log of per capita food expenditure	Log of per capita non-food expenditure	Share of food expenditure	Share of non-food expenditure
Parental migration	0.1078** (0.0509)	0.1502*** (0.0496)	0.0368 (0.0654)	0.0210 (0.0132)	-0.0210 (0.0132)
Child age (months)	0.0061 (0.0075)	-0.0082 (0.0067)	0.0349** (0.0143)	-0.0078** (0.0030)	0.0078** (0.0030)
Household size	-0.1388*** (0.0187)	-0.1275*** (0.0209)	-0.1496*** (0.0186)	0.0061* (0.0032)	-0.0061* (0.0032)
Proportion of children below 15	-0.0487 (0.1231)	0.0211 (0.0945)	-0.3065 (0.1982)	0.0476 (0.0424)	-0.0476 (0.0424)
Proportion of elderly above 60	-0.3094 (0.2393)	0.0243 (0.2102)	-0.7767** (0.3449)	0.1578** (0.0733)	-0.1578** (0.0733)
Per capita land (hectare)	0.1141* (0.0649)	0.0895* (0.0529)	0.0836 (0.1190)	-0.0029 (0.0221)	0.0029 (0.0221)
Year 2009	0.0131 (0.2579)	0.4342* (0.2274)	-0.8187 (0.4921)	0.2265** (0.1018)	-0.2265** (0.1018)
Constant	9.2081*** (0.4997)	9.6506*** (0.4529)	6.1479*** (0.9552)	1.1560*** (0.1967)	-0.1560 (0.1967)
Observations	3,666	3,666	3,666	3,666	3,666
R-squared	0.220	0.210	0.171	0.041	0.041
Number of households	1,833	1,833	1,833	1,833	1,833

Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.  
Source: Authors' estimation from Young Lives surveys 2007 and 2009.

Table 11. Fixed-effects regressions of household poverty

Explanatory variables	Poor (WB-GSO expenditure line)	Poor (poverty line of bottom decile)	Poor (poverty line of bottom 15 percent – expenditure)	Poor (poverty line of bottom expenditure quintile)
Parental migration	0.0090 (0.0187)	-0.0052 (0.0286)	0.0034 (0.0331)	-0.0386 (0.0412)
Child age (months)	-0.0002 (0.0026)	0.0004 (0.0076)	-0.0035 (0.0076)	-0.0100 (0.0068)
Household size	0.0034 (0.0037)	0.0163** (0.0072)	0.0276** (0.0106)	0.0367*** (0.0124)
Proportion of children below 15	0.0647 (0.0390)	0.0890 (0.0564)	0.0686 (0.0621)	0.0544 (0.0817)
Proportion of elderly above 60	-0.0046 (0.0542)	-0.0111 (0.0934)	0.0918 (0.1226)	-0.1123 (0.1243)
Per capita land (hectare)	-0.0815** (0.0385)	-0.0545 (0.0626)	-0.0880 (0.0688)	-0.0821 (0.0742)
Year 2009	-0.0157 (0.0871)	-0.0595 (0.2496)	0.0546 (0.2601)	0.2470 (0.2307)
Constant	0.0127 (0.1709)	-0.0509 (0.4955)	0.1926 (0.4946)	0.6229 (0.4463)
Observations	3,666	3,666	3,666	3,666
R-squared	0.026	0.038	0.059	0.078
Number of households	1,833	1,833	1,833	1,833

Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.  
Source: Authors' estimation from Young Lives surveys 2007 and 2009.

Table 12. Fixed-effects regressions of children's time spent on different activities during a typical day (hours)

Explanatory variables	Sleeping	School	Study outside school	Play time/general leisure	Work and care of others
Parental migration	-0.6193 (0.3741)	-0.3328 (0.3353)	-0.3007 (0.1976)	-0.2486 (0.3102)	0.0337 (0.1583)
Child age (months)	0.1759 (0.1267)	0.1876** (0.0856)	-0.0550 (0.0466)	0.1215 (0.1283)	0.1398*** (0.0477)
Household size	-0.2232** (0.0917)	-0.1622* (0.0915)	-0.0920* (0.0483)	-0.0911 (0.0848)	-0.0431 (0.0899)
Proportion of children below 15	0.3643 (1.1130)	0.2455 (1.0858)	0.7229 (0.4305)	-0.7164 (1.0823)	1.7752*** (0.5539)
Proportion of elderly above 60	1.4366 (1.2472)	0.2111 (1.2292)	0.5510 (0.7502)	0.3977 (1.2273)	0.5502 (0.7597)
Per capita land (hectare)	-0.1435 (0.2369)	0.3016 (0.2517)	-0.2511 (0.1661)	-0.5321 (0.3621)	0.0209 (0.2617)
Year 2009	-5.4140 (4.1430)	-6.4078** (2.8210)	4.0514** (1.5505)	-5.5553 (4.2600)	-3.6072** (1.5149)
Constant	-1.1396 (7.9484)	-6.2174 (5.5263)	4.2229 (3.0886)	0.0671 (8.0282)	-9.2934*** (3.1590)
Observations	3,666	3,666	3,666	3,666	3,666
R-squared	0.033	0.012	0.624	0.149	0.056
Number of households	1,833	1,833	1,833	1,833	1,833

Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Source: Authors' estimation from Young Lives surveys 2007 and 2009.

In addition to one dummy variable of parental migration, we also use two dummy variables of the migration of parents and mothers. We also interact variables of mothers' migration and fathers' migration. This model allows us to compare the effect of mothers' migration and fathers' migration as well as the joint effect of migration of both parents. In Vietnam, there are families in which children live in home areas with grandparents, while their parents work in cities (*Lao dong thu do* newspaper 27 August 2011; Thuy 2012). Variables of mothers' migration and fathers' migration tend to have the same sign, and the sign is similar to parental migration in Tables 10 to 12.<sup>7</sup>

## 6. Conclusion

Although there are a large number of studies on the effect of migration on household welfare, there are only a few studies on the effect of parental migration on children's

<sup>7</sup> Due to length limitation of the paper, we do not present these regression results in this paper. However, the results can be provided for readers on request.

outcomes. Parents work away from home and leave children behind. The effect of parental absence due to work can be very different from the effect of parental absence due to divorce or death. In the latter case, children are more likely to be affected negatively by the absence.

This study aims to examine the effect of temporary parental absence due to work on households with children aged 5 and 8 years old in Vietnam, and on the time use of the children themselves, using panel data from the Young Lives surveys in 2007 and 2009. In our study, the cause of parental absence is work-related because parents work away from home. A child experiences temporary parental absence if he or she sees either the father or mother (or both) either monthly, annually or less than once a year because they have to work away from home.

To measure the effect of parental migration, we use OLS and fixed-effects regressions. There is a positive correlation between parental absence and per capita expenditure of households when the new household size definition is used. Per capita expenditure of households with at least one migrant parent is around 11 per cent higher than households where a parent has not migrated for work. Regarding poverty status, although children with migrant parents have a lower poverty rate than children whose parents have not migrated for work, the estimate of the effect of parental absence on poverty using the fixed-effects regression is not statistically significant.

Our findings are consistent with previous studies on migration in Vietnam. In 1990s and early 2000s, remittances were an important source for household consumption. Using data from household surveys in 1990s and early 2000s, De Brauw and Harigaya (2007), Nguyen (2008), and Pfau and Giang (2009) find that migration and remittances have a positive effect on the consumption expenditure and economic status of the migrant-sending households. Nguyen et al. (2011) find that migration does not lead to an increase in per capita income of the remaining household members, but an increase in per capita expenditure. They also interpret the increase in per capita expenditure as a result of an increase in households' marginal propensity to consume because of household economies of scale.

The effect of parental absence due to work on children's time allocation is negligible. In the case of Vietnam, it is often the case that only one parent is absent for work purposes and not both parents, and as a result the negative effect may be mitigated. While the absence of a parent may reduce parental care for children *per se*,

there can be positive effects of parental absence such as an increase in income due to remittances. As increased remittances are often associated with better welfare and a reduced need for child labour, the positive effect may offset the negative effect caused by parental absence.

Finally, the findings from this study that are obtained from the OLS and fixed-effects regressions should be interpreted with caution, since there can be endogeneity of the parental migration in regressions. If there is a bias due to omitted variables, the results should be interpreted as a correlation instead of a relationship between parental migration and children's welfare. The relationship between parental migration and circumstances which would affect children's welfare is complex and may need further research.

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## Appendix

Table A1. Summary statistics of variables in regression

Variables	Type	2007		2009	
		Mean	Std. Dev.	Mean	Std. Dev.
Parental migration	Binary	0.095	0.293	0.089	0.286
Child age (months)	Discrete	63.47	3.76	96.96	3.78
Household size	Discrete	4.554	1.513	4.519	4.734
Proportion of children below 15	Continuous	0.396	0.143	0.374	0.143
Proportion of elderly above 60	Continuous	0.039	0.089	0.038	0.085
Per capita land (hectare)	Continuous	0.099	0.192	0.106	0.252
Highest school grade of mother	Discrete	6.408	4.259	6.408	4.259
Highest school grade of father	Discrete	6.939	4.455	6.939	4.455
Age of mother	Discrete	34.08	5.68	36.08	5.68
Age of father	Discrete	37.04	5.92	39.04	5.92
Northern Uplands	Binary	0.201	0.401	0.201	0.401
Red River Delta	Binary	0.201	0.401	0.201	0.401
Central Coastal	Binary	0.402	0.491	0.402	0.491
Mekong River Delta	Binary	0.196	0.397	0.196	0.397
Number of observations		1,833		1,833	

Source: Authors' estimation from Young Lives surveys 2007 and 2009.