**The Long-Term Consequences of Conflict and Displacement:**

**Measuring Differences in Education and Nutrition in Afghanistan**

Craig Loschmann[[1]](#footnote-1)

Working Version: October 2014

**Abstract**

This study investigates the long-term consequences of conflict and displacement in Afghanistan by comparing differences between internally displaced households and non-displaced households in outcomes related to human capital formation, namely education and nutrition. The dataset originates from a unique household survey allowing for exogenous identification of households that were involuntarily displaced due to conflict, insecurity, persecution or natural disaster. The analysis finds strong evidence that displacement leads to greater food insecurity and lower dietary diversity. There is indication that displacement has a negative effect on school attendance, yet these estimates are not robust to the inclusion of location fixed effects.

**Keywords**: Conflict; Displacement; Forced Migration; Education; Nutrition; Afghanistan

1. **Introduction**

In 2013, the number of people forcible displaced worldwide reached a record high of 51.2 million individuals (UNHCR, 2014a). While such a statistic usually brings to mind the plight of international refugees spread across the globe, nearly two-thirds, or 33.3 million individuals, are displaced within their own countries (IDMC, 2014). Moreover, there is the general recognition that in most cases displacement, both externally and internally, is protracted over many years, if not decades, with little chance for immediate resolution (Loescher & Milner, 2009). Taking this into consideration, it is not the short-term effects that should be of sole concern, but also the long-term consequences which may be especially detrimental to the already fragile development potential of those countries most affected.

Over the years an extensive body of literature has explored the long-term consequences of conflict, many looking at the destruction of human capital during childhood given its potential to severely reduce welfare throughout one’s life (Akresh & de Walque, 2008; Bundervoet et al., 2008; Blattman & Annan, 2010; Shemyakina, 2011; Akresh et al., 2011; Leon, 2012; Justino et al., 2013). Within this field of study, displacement is acknowledged as a clear channel through which war may have an impact on human capital formation (Justino, 2011). Still, only recently has there been any scholarly work on the effects of displacement in particular, in contrast to war in general (Fiala, 2009; Fiala, 2012; Eder, 2013; Oyelere & Wharton, 2013; Verwimp & Van Bavel, 2013). It is within this still relatively unexplored space that this study aims to make a contribution, using a unique dataset for the understudied (post-) conflict context of Afghanistan.

This study investigates the long-term consequences of conflict and displacement in Afghanistan by inquiring how the younger generations within displaced households fare in their particular circumstances. More specifically, we compare the differences in child-specific outcomes between households that have experienced internal displacement and those who have not. As a way to infer future livelihood prospects of the child, these outcomes relate to human capital formation concentrating on both education and nutrition. The analysis relies on cross-sectional data from a household survey collected across Afghanistan in late 2012, which allows for exogenous identification of households that were involuntarily displaced due to conflict, insecurity, persecution or natural disaster. While data collection was conducted with a purposeful eye toward returning refugees[[2]](#footnote-2), the prevalence of internally displaced households in the sample allows for further consideration of this uniquely vulnerable group in comparison to those households who never moved.

In looking at the effects of displacement on human capital formation, Afghanistan makes for an interesting case study for two fundamental reasons. First, the instability that has plagued the country since the late 1970s has led to one of the worst occurrences of forced migration in recent memory. Internal displacement during this time has ebbed and flowed depending on the general level of insecurity, but more recently a renewed insurgency has resulted once again in a marked increase in the number of people driven from their homes. The latest approximation for end-of-year 2013 puts the number of individuals that are internally displaced at 631,000, a notable rise from a low of 129,000 in 2006 (UNHCR, 2014b). Moreover, given the political changes in 2014 including presidential elections along with the drawdown of international forces, there is ample uncertainty about the stability of the country looking forward. This suggests further movement is highly likely and may already be occurring in anticipation of heightened insecurity. Nevertheless, despite the high occurrence of displacement in the present day and likelihood that it will persist into the near future, there still exists an apparent lack of understanding pertaining to core protection and assistance needs which may help both national and international organizations better serve this at risk sub-population (Samuel Hall Consulting, 2012).

Relating to assistance needs, the second fundamental factor concerns the level of progress in Afghanistan in regards to both education and nutrition. Even though modest gains have been made since the last evaluation of its kind, the most recent National Risk and Vulnerability Assessment (NRVA) for 2011/2012 reports failings when it comes to both school enrollment and food security. For the former, only around a quarter of school-aged girls and under half of school-aged boys are enrolled in secondary education. For the latter, around a third of the total population has insufficient caloric intake and nearly a fifth consumes too little protein, “a deficiency which particularly affects the nutrition of children under five (CSO, 2014: xviii). As the demographic makeup of the country characterized by one of the youngest age structures in the world evolves in the coming years, the problems associated with low human capital formation will only complicate an already precarious socio-economic situation. If Afghanistan is going to strike a path towards recovery after years of instability, greater investment in the future generations, especially for those in particularly vulnerable circumstances, is indispensable.

Our analysis finds strong evidence that displacement leads to greater food insecurity and lower dietary diversity within those households. In particular, a displaced household is 17 percent less likely to have eaten meat in the week prior to the survey, and those displaced households that had eaten meat ate 30 percent less in comparison to their non-displaced counterparts. Moreover, there is indication that displacement has a negative effect on school attendance, not only for all children but also when differentiating by gender. However these estimates are not robust to the inclusion of location fixed effects. As such, it seems we can deduce then that the dynamics within the communities of displacement are more likely to influence educational outcomes regardless of whether the household is displaced or not. This may be due the lack of local services within the community (i.e. schools), or perhaps areas receiving the displaced are poorer in general resulting in a substitution of schooling for income-generating activities.

The remainder of this article is structured as follows. The next section provides an outline of the theoretical considerations and past evidence related to the consequences of conflict and displacement, with emphasis on the education and nutrition of children. Following that, a brief background of internal displacement within Afghanistan is presented. We then provide an overview of our methodology including further information about the dataset along with summary statistics, followed by the empirical models used for estimation. We finally present our results and conclude with a discussion concerning the limitations of our analysis and policy relevance.

1. **Literature Review: Theoretical Considerations and Past Evidence**

Interest in understanding the consequences of armed conflict within the fields of political science and development economics has blossomed over the years. Conceptually, the long-term effects on development are ambiguous. From a macro-level perspective, there is the expectation following neoclassical growth models that after fighting subsides a country will quickly recover back to its steady state growth rate (Blattman & Miguel, 2010). Even though the duration of recovery may vary, there exists empirical evidence mostly supporting such a conjecture in a diverse set of environments ranging from post-war Japan (Davis and Weinstein, 2002), West Germany (Brakman et al., 2004), Rwanda (Justino & Verwimp, 2006) and Vietnam (Miguel & Roland, 2011) along with cross-country analyses (Cerra & Saxena, 2008; Chen et al., 2008).

On the other hand however, more recent poverty trap and endogenous growth models suggest a more drawn-out recovery in the wake of conflict especially when taking into account asymmetric destruction of physical and human capital. As Blattman & Miguel (2010: 38) convey, “the disproportionate loss of human capital in war results in slower economic growth and recovery than the destruction of physical capital, during the transition back to steady state growth”. Moreover, violent conflict is likely to undermine the social and institutional foundations of a country, which could have long-lasting and possible less apparent consequences for economic and political development. Even though empirical evidence highlighting such a complex relationship is less clear-cut given the inherent measurement difficulties, a few novel approaches provide valuable insight. Miguel et al. (2011), for example, use fouls committed in European soccer to show how civil war over the continent’s history influences socio-cultural norms towards violence. Alternatively, Dell (2012) argues that insurgent activity during the Mexican Revolution in the early 20th century may well explain why certain municipalities in present-day Mexico are substantially poorer and have significantly less turnover when it comes to local political representation. More tangible still than these deeply entrenched historical effects, war may also simply curtail the ability of local civil institutions, like schools or health clinics, from fulfilling their critical functions. To assess this, however, it is necessary to focus not on the macro-level effects but rather the micro-level consequences for individuals and entire households.

During times of conflict it is usually the civilian population which incurs the greatest burden. With this in mind, the majority of the micro-level literature considers the effects of fighting on human capital accumulation amongst noncombatants, touching on topics like employment, education and health. It is natural then that questions arise concerning how children in particular are affected by war given investment in their human capital is most at stake. Indeed, the loss of human capital during childhood may have severe long-run effects on individual and household welfare as it reduces their future livelihood prospects (Justino, 2011). Looking at the effect on educational attainment, a number of studies over a range of settings provide evidence that children exposed to violence acquire fewer years of schooling (Akresh & de Walque, 2008; Swee, 2009; Chamabargwala & Moran, 2011; Shemyakina, 2011; Leon, 2012; Justino et al., 2013). While not all are directly comparable given differences in context and empirical approach, certain general findings seem to emerge including the disproportionate impact on secondary schooling as well as differences based on gender. Just as important, there are also those studies that document the negative effect on children’s health outcomes (Alderman et al., 2006; Bundervoet et al., 2008; Akresh et al., 2011; Minoiu & Shemyakina, 2014). In general, they provide evidence that exposure to fighting results in worse nutrition as well as a lower height-for-age. While there appears to be clear indication regarding the negative consequences of armed conflict for those factors related to human capital accumulation, the mechanism through which this effect takes place is not so clear.

Clearly many families confronted with violence in their communities respond by fleeing for safety. Displacement, therefore, is one potential channel through which violent conflict has an influence on a household’s well-being and human capital accumulation (Justino, 2011). Empirical research looking into the economic consequences of forced migration, including those regarding the impact on education and health, is relatively new with most studies emerging within the last five years (see Ruiz & Vargas-Silva, 2013 for a review). Oyelere and Wharton (2013), for example, attempt to establish causal evidence for the effect of conflict on education accumulation and enrollment gaps for children of internally displaced families in Colombia. After applying various econometric techniques in order to minimize any potential omitted variable and selection bias, their results indicate a significant education accumulation gap as well as a lower rate of enrollment at the secondary level for internally displaced households. In the case of Burundi, Verwimp and Van Bavel (2013) similarly find that the frequency of displacement leads to a decrease in the probability of completing primary school for both boys and girls. Looking at forced displacement in northern Uganda, Fiala (2012) finds that more affluent displaced households have significantly less educational attainment which suggests a strategic shift of human to physical capital investment. Alternatively, Eder (2013) uses ethnic divisions during the Bosnian War as a natural experiment to determine the educational outcomes of children of displaced parents. Even though no significant difference in school enrollment is found, displaced households are shown to spend significantly less on their child’s education at both the primary and secondary level. When it comes to health, Fiala (2009), again in the case of northern Uganda, shows that displacement is associated with a significant decrease in the consumption of meat, an indicator of dietary diversity and nutrition in general.

Taken altogether, the literature pertaining to the consequences of violent conflict and internal displacement unsurprisingly indicates a generally negative impact on those factors related to human capital accumulation for the civilian population. While the micro-level effect is detrimental for individual and household welfare for years to come, it also has severe implications at the macro-level via productivity loss and as a consequence stalled economic growth. With this in mind, we now turn towards the specific case of Afghanistan where, despite clear relevance, to the best of our knowledge no similar inquiry has been considered.

1. **Background: Internal Displacement in Afghanistan**

After three and a half decades of armed conflict and instability in Afghanistan, large swaths of the population, three-fourths by some accounts (ICRC, 2009), have at one time or another been forced into displacement. As such, migration is seen as a fact of life for many Afghan households, using it as a coping mechanism “ex-post” in light of conflict (World Bank, 2011). While involuntary flows outside the country, mainly to neighboring Pakistan and Iran, have been well documented since the present period of conflict erupted in 1978, involuntary flows within the country have only more recently been brought to light as a key concern.

Similar to forced migration abroad, the main periods of internal displacement predominately reflect the level of conflict during that time. The first period can be thought to have covered much of the 1980s in response to the Soviet invasion, and saw by some estimates two million individuals fleeing their homes for other communities within the country’s borders (Kuschminder & Dora, 2009). By the time of the Soviet retreat towards the end of the decade, flows overall began to subside, yet the respite in violence was short-lived as various mujahedeen factions began infighting in an effort to fill the power vacuum left by the communist regime’s fall in 1992. Between then and 2001, the number of internally displaced oscillated around one million depending on the level of conflict either between these various groups in the early part of the decade, or between the emerging Taliban and rebel groups in the North towards the end. A severe drought over much of the Central and Western regions of the country in 2000 also pushed many away from their rural homelands in search of other livelihood activities outside of farming (Schmiedl et al., 2010).

By the time of the US-led invasion in 2001, in the wake of the 9/11 attacks, the number of internally displaced individuals had reached a height of 1.2 million as some proactively left in anticipation of military intervention (see Figure 1). On the other hand, many also fell victim to anti-Pashtun violence and revenge or opportunistic attacks, regardless of whether they were aligned with the Taliban regime in the years prior (id.). Following this initial phase of heightened instability after the Taliban’s ouster, the arrival of the international community and a massive assisted repatriation scheme by UNHCR provided many of those displaced individuals, both internally and abroad, an opportunity to return.

By the end of 2006, the number of internally displaced had dropped to its lowest level since before conflict began, at 129,000. Since then however, a renewed insurgency along with a general deterioration of the security situation in various parts of the country has not only made it difficult for those remaining individuals to return, it also has led to further displacement up until present day. In particular, the recent disorderly handover of presidential power through elections, as well as the ongoing reduction of western military forces, has left much of the population nervous about what the future holds. With memories of the fighting fresh in the collective consciousness, many individuals and whole households are not only making contingency plans but already picking up and leaving once again in anticipation of renewed conflict. The most up-to-date figures for the end of the 2013 show internal displacement has bounced back up to 631,000, with this figure likely much higher in reality given the events in the early part of 2014 (UNHCR, 2014b).

Figure 1: IDP and Return IDP Stocks



1. **Methodology**

**Data**

This study relies on data collected by Samuel Hall Consulting in conjunction with the Maastricht Graduate School of Governance (MGSoG) for the independent evaluation of the UNHCR shelter assistance program from 2009 to 2011. The household survey took place in late 2012, across 15 provinces of Afghanistan. As the original purpose of the survey was to evaluate shelter assistance programs for return migrants and IDPs, the sampling reflects the general distribution of shelter assistance by international organizations while also taking into account local security restrictions, and therefore cannot strictly be considered representative across the country. Still, measures were taken to increase representativeness, including the selection of at least one province within each of the country’s eight regions. Within provinces, one or more districts were selected for cluster sampling, with villages then randomly selected in light of a general record of shelter assistance beneficiaries’ locations. Within these villages, both beneficiary and non-beneficiary households were surveyed at random (MGSoG & Samuel Hall Consulting, 2013).

Because the objective of the survey was to capture information for return migrants and IDPs, the questionnaire allows for direct identification of internally displaced households in comparison to those who have never moved[[3]](#footnote-3). Moreover, because respondents were asked two distinct questions about why they decided to move *from* their community of origin and why they decided to move *to* their current place of residence, we are able to identify households that were involuntarily displaced due to conflict, insecurity, persecution or natural disaster – arguable exogenous shocks resulting in minimal choice in the decision to move[[4]](#footnote-4) – and who chose their destination location without consideration for the outcomes in question (e.g. services like education, food and health). This allows for greater distinction between involuntary and voluntary movement as well as exogenous location choice, helping to minimize any potential bias in our estimates due to endogeneity. Ultimately, our sample is made up of 1,020 household-level observations of which 40percent are considered involuntarily and exogenously internally displaced. Figure 2 illustrates where these internally displaced households are located around the country by province.

Figure 2: Location of Internally Displaced Households



Note: For exact figures, see Table A1 in the Appendix.

Even though we arguably minimize any bias due to selection by only taking into account involuntary migration, it is still possible that some households may be systematically more exposed to violence, and therefore displacement, given inherent characteristics (e.g. wealth levels prior to displacement) leading to inconsistent estimates (Kondylis, 2010). While we cannot fully account for such selection bias using advanced econometric techniques due to the limitations of our dataset, we believe our estimates should be considered lower bounds for two reasons. First, one could readily suppose local violence in general is likely to be targeted towards those wealthy members of the community as they arguable have more local authority. However in Afghanistan there is little evidence to support such a conjecture as much of the violence has been noticeable indiscriminate against the civilian population (see Human Rights Watch, 2007). Our own data corroborates such a lack of targeted violence, as only 16 percent of those households considered internally displaced are so because of personal, family or ethnic persecution while the majority of households, 83 percent, are so because of general insecurity and conflict. Nonetheless, although we cannot categorically discount targeting, supposing true would mean displaced households should have been systematically better off before migration relative to non-displaced households in terms of general well-being. Second, the migration journey itself, even internally, is not without cost. Therefore similarly if those who migrated were able to assume such costs while those who stayed behind were not, one can assume that displaced households were again better off before migration took place. As such, our estimates, if in fact imprecise, should in principle be underestimating any true effect that shows a negative difference between displaced and non-displaced households.

As the goal here is to measure the extent to which internal displacement has an effect on livelihood prospects later on in life, we focus on child-specific outcomes related to human capital formation, namely education and nutrition. Both outcomes are widely recognized as fundamental determinants of future well-being and have been the focus of myriad studies in the development literature (e.g. Alderman et al., 2006; Rosenzweig, 2010). Regarding education, our outcome of interest is the categorical variable school attendance of school-aged children differentiated by whether no children attend school, all children attend school or only boys attend school[[5]](#footnote-5). As for nutrition, our outcomes of interest include the categorical variable food insecurity differentiated by whether the household never has problems satisfying food needs, rarely has problems (one or two times per month) or often has problems (greater than three times per month), and the continuous variable dietary diversity proxied by the number of times the household has eaten meat in the last week.

Table 1 presents summary statistics reporting the sample mean and standard deviation, not only for the entire sample but also differentiated by whether the household is considered non-displaced or internally displaced, including a means difference test in the final column. In terms of the outcomes of interest, out of 1,020 respondents who knew whether their school-aged children were in school or not, 35 percent reported no attendance whatsoever. On the other end of the spectrum 41 percent said that all children in the household attended school, and 20 percent reported only boys were in school. There is a highly statistically significant difference in responses when comparing non-displaced and displaced households, apart from when the response was only boys attended school.

As for food insecurity, 20 percent of households responded as having no problems satisfying food needs, while some 44 percent rarely had problems (one to two times per month) and another 37 percent often had problems (greater than three times per month). We find non-displaced households were much more likely to never have problems, and displaced households more likely to often have problems. Lastly, the average times households had eaten meat over the prior week indicating dietary diversity is around one, however this masks the fact that 46 percent of our sample reported having eaten no meat over the last week. Between groups, there is a statistically significant mean difference with non-displaced households eating meat more often than their displaced counterparts.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Table 1: Summary Statistics | | | | | | | |
|  | Full Sample | | Non-Displaced | | Internally Displaced | |  |
|  | Mean | SD | Mean | SD | Mean | SD | t-test |
| *Outcomes* |  |  |  |  |  |  |  |
| School Attendance: |  |  |  |  |  |  |  |
| None | 0.3539 | 0.4784 | 0.2946 | 0.4562 | 0.4425 | 0.4973 | \*\*\* |
| All school-aged children | 0.4078 | 0.4917 | 0.4550 | 0.4984 | 0.3374 | 0.4734 | \*\*\* |
| Only school-aged boys | 0.2029 | 0.4024 | 0.2111 | 0.4084 | 0.1907 | 0.3933 |  |
| Food Insecurity: |  |  |  |  |  |  |  |
| Never | 0.1951 | 0.3965 | 0.2357 | 0.4248 | 0.1345 | 0.3416 | \*\*\* |
| Rarely (1-2 times/month) | 0.4382 | 0.4964 | 0.4239 | 0.4946 | 0.4597 | 0.499 |  |
| Often (>3 times/month) | 0.3667 | 0.4821 | 0.3404 | 0.4742 | 0.4059 | 0.4917 | \* |
| Dietary Diversity  (times eaten meat/week) | 0.9725 | 1.3221 | 1.1178 | 1.4573 | 0.7555 | 1.0543 | \*\*\* |
| *Household-level Covariates* |  |  |  |  |  |  |  |
| Age of respondent | 37.74 | 14.09 | 37.64 | 14.12 | 37.89 | 14.06 |  |
| No formal education | 0.8265 | 0.3789 | 0.8200 | 0.3845 | 0.8362 | 0.3706 |  |
| Married | 0.8510 | 0.3563 | 0.8167 | 0.3872 | 0.9022 | 0.2974 | \*\*\* |
| Number of children | 5.20 | 3.07 | 5.25 | 3.04 | 5.11 | 3.11 |  |
| Disabled | 0.2225 | 0.4162 | 0.2013 | 0.4013 | 0.2543 | 0.4360 |  |
| Log of HH income | 3.5692 | 0.6106 | 3.5972 | 0.6206 | 3.5275 | 0.5935 |  |
| Received assistance | 0.4500 | 0.4977 | 0.3797 | 0.4857 | 0.5550 | 0.4976 | \*\*\* |
| Ethnicity: |  |  |  |  |  |  |  |
| Pashtun | 0.6255 | 0.4842 | 0.6072 | 0.4888 | 0.6528 | 0.4767 |  |
| Tajik | 0.0990 | 0.2988 | 0.1358 | 0.3429 | 0.0440 | 0.2054 | \*\*\* |
| Hazara | 0.0725 | 0.2595 | 0.0835 | 0.2768 | 0.0562 | 0.2307 |  |
| Other | 0.2029 | 0.4024 | 0.1735 | 0.3790 | 0.2469 | 0.4318 | *\*\** |
| *Location-based FE* |  |  |  |  |  |  |  |
| Rural location type | 0.7784 | 0.4155 | 0.7005 | 0.4584 | 0.8949 | 0.3071 | \*\*\* |
| Province |  |  |  |  |  |  |  |
| Kabul | 0.0520 | 0.2221 | 0.0524 | 0.2230 | 0.0513 | 0.2210 |  |
| Parwan | 0.0216 | 0.1453 | 0.0164 | 0.1270 | 0.0293 | 0.1690 |  |
| Bamyan | 0.0069 | 0.0826 | 0.0049 | 0.0700 | 0.0098 | 0.0985 |  |
| Laghman | 0.0598 | 0.2372 | 0.0917 | 0.2888 | 0.0122 | 0.1100 | \*\*\* |
| Nangarhar | 0.3147 | 0.4646 | 0.4124 | 0.4927 | 0.1687 | 0.3749 | \*\*\* |
| Balkh | 0.0333 | 0.1796 | 0.0491 | 0.2163 | 0.0098 | 0.0985 | \*\*\* |
| Faryab | 0.0725 | 0.2595 | 0.0360 | 0.1865 | 0.1271 | 0.3335 | \*\*\* |
| Jawzjan | 0.0402 | 0.1965 | 0.0524 | 0.2230 | 0.0220 | 0.1469 | \*\* |
| Sari Pul | 0.0118 | 0.1079 | 0.0180 | 0.1331 | 0.0024 | 0.0494 | \*\* |
| Kunduz | 0.0245 | 0.1547 | 0.0245 | 0.1549 | 0.0244 | 0.1546 |  |
| Takhar | 0.0559 | 0.2298 | 0.0164 | 0.1270 | 0.1149 | 0.3193 | \*\*\* |
| Helmand | 0.0931 | 0.2908 | 0.0409 | 0.1983 | 0.1711 | 0.3771 | \*\*\* |
| Kandahar | 0.0706 | 0.2563 | 0.0491 | 0.2163 | 0.1027 | 0.3039 | \*\* |
| Paktya | 0.0314 | 0.1744 | 0.0475 | 0.2128 | 0.0073 | 0.0854 | \*\*\* |
| Herat | 0.1118 | 0.3152 | 0.0884 | 0.2841 | 0.1467 | 0.3542 | \*\* |
| Note: \* 0.10, \*\* 0.05, \*\*\* 0.01. | | | | | | | |

As for covariates, we take into account an array of household-level factors including the age of the adult respondent (i.e. household head or spouse), whether they had received any formal education, whether the household head was married, the number of children in the household, whether the household had a physically or mentally disabled member, the log of monthly income per capita and whether they had received formal assistance from a NGO, government or international organization. Furthermore we control for ethnicity of the household and consider location-based fixed effects including rural location type and province.

Table 1 illustrates the fact that non-displaced and internally displaced households are similar in a number of ways including the fact that most adult respondents have no formal education, they have around the same number of children and similar wealth levels based on the log of monthly income. On the other hand, they differ in that displaced households are slightly more likely to have a married household head, as well as more likely to have received formal assistance. As for ethnicity, the majority of our sample is Pashtun, similar across sub-groups. Moreover, the Tajik are less likely to be internally displaced while “other” ethnic groups on the other hand are more likely. Regarding location, most households in our sample are located in rural areas with this figure noticeable greater for the internally displaced. Lastly in terms of provincial location, internally displaced households appear to be concentrated in much greater numbers than non-displaced households in Faryab, Takhar, Helmand, Kandahar and Herat, while the opposite is true in Laghman, Nangarhar, Balkh, Jawzjan, Sari Pul and Paktya.

**Empirical Models**

Taking into consideration the structure of the outcomes of interest, we apply two distinct models to estimate the effect of displacement. On the one hand, we take advantage of a multinomial logit model when considering the outcomes school attendance and food security, as each is a categorical variable with various response possibilities. This can be formally expressed as:

where represents category for either school attendance or food security of household *i*, indicates the vector of household-level covariates influencing school attendance or food security, and represents the vector of choice-specific coefficients.

On the other hand, because the outcome dietary diversity is of both a discrete and continuous nature due to the fact that nearly half of households in our sample reported unable to eat meat over the previous week, we employ a zero-censored tobit model expressed by the following equation:

where,

, and

.

Here is a dummy variable taking the value of one if the household is internally displaced, again represents household-level covariates, and is the error term. In principle, the zero-censored tobit model takes into account the linearity of the latent variable for those observations not equal to zero, while also assuming normality and homoscedasticity of the residuals.

1. **Results**

We here report the results of all three models depending on the outcome of interest. For the sake of parsimony, we focus solely on the variable of interest, whether the household is internally displaced or not, and indicate if the previously explained household-level covariates and location fixed effects are included in the model specification. The results of all full models can be found in the Appendix.

Table 2 presents the estimates for the effect of displacement on school attendance for those school-aged children of the household, reporting the relative risk ratio in comparison to the base category of no school attendance and robust standard errors in parentheses. We find that across both response categories, being a child within an internally displaced household yields a statistically significant and negative result for school attendance when not controlling for location fixed effects. None of the estimates, however, are robust to the inclusion of location fixed effects including whether the household is located in a rural setting along with the specific province of current location. As such, even though there is indication that internal displacement plays a role for school attendance, the relationship is not uniform across all locations. It seems we can deduce then that the dynamics within the communities of displacement are more likely to influence educational outcomes regardless of whether the household is displaced or not. This may be due the lack of local services within the community (i.e. schools) which is not uncommon throughout Afghanistan, or perhaps areas receiving the displaced are poorer in general resulting in a substitution of schooling for income-generating activities.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 2: School Attendance | | | | | | |
| Base Category: None | All School-Aged Children | | | Only School-Aged Boys | | |
| Internally Displaced | 0.4937\*\*\* | 0.4838\*\*\* | 0.7608 | 0.6013\*\*\* | 0.6008\*\*\* | 0.8363 |
|  | (0.0740) | (0.0849) | (0.1628) | (0.1099) | (0.1175) | (0.1976) |
| HH-level Covariates | No | Yes | Yes | No | Yes | Yes |
| Location-based FE | No | No | Yes | No | No | Yes |
| Adj. R-Squared | 0.0102 | 0.1158 | 0.1742 | 0.0102 | 0.1158 | 0.1742 |
| N | 1020 | 1020 | 1020 | 1020 | 1020 | 1020 |
| Note: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. Full results are presented in the Appendix. | | | | | | |

Table 3 provides the results for the effect of displacement on food insecurity, again reporting the relative risk ratio in comparison to the base category of never having problems satisfying food needs along with the standard errors in parentheses. Contrary to the former model, here we find robust results across model specification that a displaced household has a greater likelihood of being food insecure at both levels, rarely having problems satisfying food needs (1-2 times/month) and often having problems satisfying food needs (>3 times/month). In particular, when comparing across these two distinct levels of food insecurity we find a displaced household has greater odds of being more food insecure, although this result does not hold once controlling for location. Regardless, our findings paint a clear picture that displaced households are more food insecure than those that never migrated.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 3: Food Insecurity | | | | | | |
| Base Category: Never | Rarely (1-2 times/month) | | | Often (> 3 times/month) | | |
| Internally Displaced | 1.9005\*\*\* | 1.9340\*\*\* | 2.0554\*\*\* | 2.0895\*\*\* | 2.1239\*\*\* | 2.0358\*\*\* |
|  | (0.3522) | (0.3836) | (0.4628) | (0.3964) | (0.4434) | (0.4717) |
| HH-level Covariates | No | Yes | Yes | No | Yes | Yes |
| Location-based FE | No | No | Yes | No | No | Yes |
| Adj. R-Squared | 0.0080 | 0.0533 | 0.0823 | 0.0080 | 0.0533 | 0.0823 |
| N | 1020 | 1020 | 1020 | 1020 | 1020 | 1020 |
| Note: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. Full results are presented in the Appendix. | | | | | | |

Lastly, Table 4 illustrates the effect of displacement on dietary diversity taking into consideration the number of times the household had eaten meat in the week prior. Because we are employing a zero-censored tobit model, we report the marginal effects for both the probability of having eaten meat as well as the number of times if the former is greater than zero. Again, our estimates are robust across all model specifications with a displaced household being less likely to having eaten meat and eaten less if so. In particular, in the full model taking into account household-level covariates and location fixed effects as indicated in columns three and six, a displaced household is on the margin 17 percent less likely to have eaten meat in the week prior to the survey. And for those displaced households that had eaten meat, they ate 30 percent less in comparison to their non-mover counterparts.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 4: Dietary Diversity | | | | | | |
|  | Probability of Eating Meat | | | Number of Times Eating Meat (if > 0) | | |
| Internally Displaced | -0.1186\*\*\* | -0.1161\*\*\* | -0.1700\*\*\* | -0.2419\*\*\* | -0.2189\*\*\* | -0.2986\*\*\* |
|  | (0.0270) | (0.0286) | (0.0331) | (0.0558) | (0.0556) | (0.0599) |
| HH-level Covariates | No | Yes | Yes | No | Yes | Yes |
| Location-based FE | No | No | Yes | No | No | Yes |
| Adj. R-Squared | 0.0058 | 0.0518 | 0.0900 | 0.0058 | 0.0518 | 0.0900 |
| N | 1020 | 1020 | 1020 | 1020 | 1020 | 1020 |
| Note: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. Full results are presented in the Appendix. | | | | | | |

1. **Conclusion**

The number of individuals worldwide displaced from their homes is at a level not seen since the Second World War. In Afghanistan, decades of conflict have resulted in one of the worst cases of displacement, which is likely to endure into the near future. With this in mind, this study investigates the long-term consequences of conflict and displacement in Afghanistan by inquiring how the younger generations within displaced households fare in their particular circumstances. More specifically, we compare the differences in child-specific outcomes between households that have experienced internal displacement and those who have not. As a way to infer future livelihood prospects of the child, these outcomes relate to human capital formation concentrating on both education and nutrition.

Our analysis finds strong evidence that displacement leads to greater food insecurity and lower dietary diversity within those households. In particular, a displaced household is 17 percent less likely to have eaten meat in the week prior to the survey, and those displaced households that had eaten meat ate 30 percent less in comparison to their non-displaced counterparts. Moreover, there is indication that displacement has a negative effect on school attendance, not only for all children but also when differentiating by gender. However these last estimates are not robust to the inclusion of location fixed effects. As such, it seems we can deduce then that the dynamics within the communities of displacement are more likely to influence educational outcomes regardless of whether the household is displaced or not. This is likely due the lack of local services like schools in communities throughout Afghanistan, but especially in rural areas where many of the displaced are located. Indeed, the NRVA report for 2011/2012 makes note of the low absorption capacity of the education system overall, while also highlighting general impediments to school attendance like insecurity and distance to schools (CSO, 2014). Otherwise, it may be that areas commonly receiving the displaced are generally poorer resulting in a substitution of schooling for income-generating activities not only for displaced households but non-displaced households as well.

An evident limitation of our analysis is the inability to fully account for endogeneity, namely selection bias of displacement. We make efforts to minimize any potential bias by considering only those households involuntarily displaced due to conflict, insecurity, persecution or natural disaster – arguable exogenous shocks – and who chose their destination location without consideration for the outcomes in question (e.g. services like education, food and health). Nonetheless, it is still possible that some households may be systematically more exposed to violence, and therefore displacement, given inherent characteristics leading to inconsistent estimates. With this in mind, we believe our estimates should be regarded as lower bounds for two reasons that make it probable displaced households are better off a priori relative to non-displaced households: local violence, if targeted, is likely targeted towards wealthy members of the community; and the migration journey itself, even internally, is costly. As such, our estimates, if in fact imprecise, should in principle be underestimating any true effect that shows a negative difference between displaced and non-displaced households making them still fundamentally meaningful.

Another clear drawback is the fact that our analysis is done entirely at the household level. While certain questions within the original survey focused on individuals within the household (e.g. adult respondent’s level of education), we lose a level of insight by not having all information at the individual level. For instance, our results for food insecurity pertain to the whole household. However it is not difficult to imagine a case where intra-household differences in food consumption exist especially between children and adults, or even by gender. Even though cost limitations frequently hamper more detailed data collection at the individual level, future surveys in this still understudied context would be wise to do so.

The overall conclusion that internally displaced households are a particularly vulnerable sub-group within the population at large is not an unexpected revelation. What is salient, however, is the extent to which children of displaced households may be particularly afflicted, and the consequences this may have in the future. As such, in the context of Afghanistan there is a real need for further understanding pertaining to protection and assistance needs for this at risk sub-population. Such efforts are already under way as the national government supported by international organizations and NGOs begin to focus more closely on these households in an effort to develop displacement-sensitive programing and policies (see Schmeidl et al., 2010; World Bank, 2011; Samuel Hall Consulting, 2012; Brookings, 2013; Samuel Hall Consulting, 2014).

What is clear is that such policies need to take into account how best to protect displaced households given their particular needs and vulnerabilities. The study here identifies both food security and dietary diversity as clear problems facing displaced households which can be addressed through coordinated efforts to improve access to markets along with arable land. Moreover, even though we fail to find a direct link between displacement and education in this study, qualitative evidence still points to low levels of school enrollment for IDP children due to the lack of school facilities and the not uncommon practices of child marriage and child labor (Samuel Hall Consulting, 2014). As such, further investment in school facilities where internally displaced households commonly settle, as well as culturally-sensitive information programs about these customary practices may be particularly beneficial.

**Works Cited**

Akresh R., Verwimp P. & Bundervoet T. (2011). Civil War, Crop Failure, and Child Stunting in Rwanda. *Economic Development and Cultural Change*, 59 (4), 777-810.

Akresh, R. & de Walque, D. (2008) Armed Conflict and Schooling: Evidence from the 1994 Rwandan Genocide. HiCN Working Papers 47. Households in Conflict Network.

Alderman, H., Hoddinott, J. & Kinsey, B. (2006). Long term consequences of early childhood malnutrition. *Oxford Economic Papers*, 58, 450-474.

Bauer, T. K., Braun, S. & Kvasnicka, M. (2013). The Economic Integration of Forced Migrants: Evidence for Post-War Germany. *The Economic Journal*, 123, 998-1024.

Blattman, C. & Annan, J. (2010). The Consequence of Child Soldering. *Review of Economics and Statistics*, 92 (4), 882-898.

Blattman, C. & Miguel, T. (2010). Civil War. *Journal of Economic Literature*, 48 (1), 3-57.

Brakman, S., Garretsen, H. & Schramm, M. (2004). The Strategic Bombing of German Cities During Work War II and Its Impact on City Growth. *Journal of Economic Geography*, 4 (2), 201-218.

Brookings Institution (2013). Under the Radar: Internally Displaced Persons in Non-Camp Settings. Brookings-LSE Project on Internal Displacement. Washington, DC: The Brookings Institution.

Bundervoet, T., Verwimp, P. & Akresh, R. (2008). Health and Civil War in Rural Burundi. *The Journal of Human Resources*, 44 (2), 536-563.

Cerra, V. & Saxena, S. C. (2008). Growth Dynamics: The Myth of Economic Recovery. *American Economic Review*, 98 (1), 439-457.

Chamabargwala, R. & Moran, H. E. (2009). The human capital consequences of civil war: Evidence from Guatemala. *The Journal of Development Economics*, 94 (1), 41-61.

Chen, S., Loayza, N. V. & Reynal-Querol, M. (2008). The Aftermath of Civil War. *World Bank Economic Review*, 22 (1), 63-85.

CSO (Central Statistics Organization) (2014) ‘National Risk and Vulnerability Assessment 2011-2012. Afghanistan Living Conditions Survey’. Kabul: CSO.

Davis, D. R. & Weinstein, D. E. (2002). Bones, Bombs, and Break Points: The Geography of Economic Activity. *American Economic Review*, 92 (5), 1269-1289.

Dell, M. (2012). Path Dependence in Development: Evidence from the Mexican Revolution. Working Paper. Department of Economics, Harvard University.

Eder, C. (2013). Displacement and Education of the Next Generation: Evidence from Bosnia and Herzegovina. HiCN Working Paper 152. Households in Conflict Network.

Fiala, N. (2009). The Consequences of Forced Displacement in Northern Uganda. HiCN Working Paper 65. Households in Conflict Network.

Fiala, N. (2012). The Economic Consequences of Forced Displacement. HiCN Working Paper 137. Households in Conflict Network.

Human Rights Watch (2007). The Human Cost: The Consequences of Insurgent Attacks in Afghanistan. Volume 19, No. 6(C). New York: Human Rights Watch.

Internal Displacement Monitoring Centre (IDMC) (2014). Global Overview 2014: People internally displaced by conflict and violence. Geneva: Internal Displacement Monitoring Centre.

International Committee of the Red Cross (ICRC) (2009). Afghanistan: Opinion Survey and In-Depth Research, 2009. Geneva: International Committee of the Red Cross.

Justino, P. & Verwimp, P. (2006). “Poverty Dynamics, Violent Conflict and Convergence in Rwanda. HiCN Working Paper 16. Households in Conflict Network.

Justino, P. (2011). Violence Conflict and Human Capital Accumulation. HiCN Working Paper 99. Households in Conflict Network.

Justino, P., Leone, M. & Salardi, P. (2013). Short- and Long-Term Impact of Violence on Education: The Case of Timor Leste. *Work Bank Economic Review*, 28 (2), 320-353.

Kondylis, F. (2010). Conflict displacement and labor market outcomes in post-war Bosnia and Herzegovina. *Journal of Development Economics*, 93, 235-248.

Kuschminder, K. & Dora, M. (2009). Migration in Afghanistan: History, Current Trends and Future Prospects. Paper Series: Migration and Development Country Profiles. Maastricht Graduate School of Governance.

Leon, G. (2012). Civil Conflict and Human Capital Accumulation. *The Journal of Human Resources*, 47 (4), 992-1022.

Loescher, G. & Milner, J. (2009) Understanding the Challenge. *Forced Migration Review*, 33, 9-11.

Maastricht Graduate School of Governance (MGSoG) and Samuel Hall Consulting (2013). Evaluation of the UNHCR Shelter Assistance Programme: Full Report. MGSoG.

Miguel, E. & Roland, G. (2011). The long-run impact of bombing Vietnam. *J*o*urnal of Development Economics*, 96, 1-15.

Miguel, E., Saiegh, S. M. & Satyanath, S. (2011). Civil War Exposure and Violence. *Economics & Politics*, 23 (1), 59-73.

Minoiu, C. & Shemyakina, O. N. (2014). Armed Conflict, Household Victimization, and Child Health in Cote d’Ivoire. *Journal of Development Economics*, 108, 237-255.

Oyelere, R. U. & Wharton, K. (2013). The Impact of Conflict on Education Attainment and Enrollment in Colombia: lessons from recent IDPs. HiCN Working Paper 141. Households in Conflict Network.

Rosenzweig, M. (2010). Microeconomic Approaches to Development: Schooling, Learning, and Growth. *Journal of Economic Perspectives*, 24 (3), 81-96.

Ruiz, I. & Vargas-Silva, C. (2013). The Economics of Forced Migration. *Journal of Development Studies*, 49 (6), 772-784.

Samuel Hall Consulting (2012). Challenges of IDP Protection: Research study on the protection of internally displaced persons in Afghanistan. Kabul: Samuel Hall Consulting.

Samuel Hall Consulting (2014). Displacement Dynamics: IDP Movement Tracking, Needs and Vulnerability Analysis, Herat and Helmand. Kabul: Samuel Hall Consulting.

Schmeidl, S., Mundt, A. D. & Miszak, N. (2010). Beyond the Blanket: Towards More Effective Protection for Internally Displaced Persons in Southern Afghanistan. Brookings-Bern Project on Internal Displacement and The Liaison Office (TLO). Washington, DC: The Brookings Institution.

Shemyakina, O. (2011). The effect of armed conflict on accumulation of schooling: Results from Tajikistan. *Journal of Development Economics*, 95, 186-200.

Swee, E. L. (2009). On War and Schooling Attainment: The Case of Bosnia and Herzegovina. HiCN Working Papers 57. Households in Conflict Network.

United Nations Commissioner for Refugees (UNHCR) (2014a). Global Trends 2013: War’s Human Cost. Geneva: UNHCR.

United Nations Commissioner for Refugees (UNHCR) (2014b). UNHCR Statistical Online Population Database. Retrieved September 16, 2014 from < http://popstats.unhcr.org/ >.

United Nations Development Program (UNDP) (2009). Human Development Report 2009: Overcoming Barriers – Human Mobility and Development. Tokyo: United Nations Press.

Verwimp, P. & Van Bavel, J. (2013). Schooling, Violent Conflict and Gender in Burundi. CEB Working Paper 043. Centre Emile Bernheim.

World Bank (2011). Afghanistan – Research study in IDPs in urban settings. Washington, DC: World Bank.

**Appendix**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table A1: Sample, by Province | | | | |
|  | Internally Displaced | | |  |
| Province | | No | Yes | Total |
| Kabul | | 32 | 21 | 53 |
|  | | 5.24% | 5.13% | 5.20% |
| Parwan | | 10 | 12 | 22 |
|  | | 1.64% | 2.93% | 2.16% |
| Bamyan | | 3 | 4 | 7 |
|  | | 0.49% | 0.98% | 0.69% |
| Laghman | | 56 | 5 | 61 |
|  | | 9.17% | 1.22% | 5.98% |
| Nangarhar | | 252 | 69 | 321 |
|  | | 41.24% | 16.87% | 31.47% |
| Balkh | | 30 | 4 | 34 |
|  | | 4.91% | 0.98% | 3.33% |
| Faryab | | 22 | 52 | 74 |
|  | | 3.60% | 12.71% | 7.25% |
| Jawzjan | | 32 | 9 | 41 |
|  | | 5.24% | 2.20% | 4.02% |
| Sari Pul | | 11 | 1 | 12 |
|  | | 1.80% | 0.24% | 1.18% |
| Kunduz | | 15 | 10 | 25 |
|  | | 2.45% | 2.44% | 2.45% |
| Takhar | | 10 | 57 | 57 |
|  | | 1.64% | 11.49% | 5.59% |
| Helmand | | 25 | 70 | 95 |
|  | | 4.09% | 17.11% | 9.31% |
| Kandahar | | 30 | 42 | 72 |
|  | | 4.91% | 10.27% | 7.06% |
| Paktya | | 29 | 3 | 32 |
|  | | 4.75% | 0.73% | 3.14% |
| Herat | | 54 | 60 | 114 |
|  | | 8.84% | 14.67% | 11.18% |
| Total | | 611 | 409 | 1,020 |
|  | | 100% | 100% | 100% |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table A2: School Attendance | | | | | | |
| Base Category: None | All School-Aged Children | | | Only School-Aged Boys | | |
| Internally Displaced | 0.4937\*\*\* | 0.4838\*\*\* | 0.7608 | 0.6013\*\*\* | 0.6008\*\*\* | 0.8363 |
|  | (0.0731) | (0.0820) | (0.1526) | (0.1070) | (0.1177) | (0.1866) |
| Age of Respondent |  | 1.0240\*\*\* | 1.0175\*\*\* |  | 1.0125 | 1.0102 |
|  |  | (0.0064) | (0.0066) |  | (0.0079) | (0.0081) |
| No Formal Education |  | 0.2168\*\*\* | 0.2515\*\*\* |  | 0.3199\*\*\* | 0.3544\*\*\* |
|  |  | (0.0551) | (0.0702) |  | (0.0908) | (0.1084) |
| Married |  | 0.9172 | 0.9767 |  | 0.8518 | 0.8970 |
|  |  | (0.2236) | (0.2449) |  | (0.2349) | (0.2546) |
| No. of Children |  | 1.4467\*\*\* | 1.4191\*\*\* |  | 1.4165\*\*\* | 1.3748\*\*\* |
|  |  | (0.0663) | (0.0686) |  | (0.0683) | (0.0676) |
| Disabled |  | 1.0609 | 1.0261 |  | 1.0117 | 0.8844 |
|  |  | (0.2187) | (0.2245) |  | (0.2388) | (0.2147) |
| Log of HH Income |  | 0.9642 | 0.8366 |  | 1.0154 | 0.8493 |
|  |  | (0.1387) | (0.1322) |  | (0.1627) | (0.1438) |
| Received Assistance |  | 1.1178 | 1.0981 |  | 1.0328 | 1.1284 |
|  |  | (0.1859) | (0.2014) |  | (0.1953) | (0.2322) |
| Ethnicity |  |  |  |  |  |  |
| Pashtun |  | 1.0047 | 0.5357\* |  | 1.1322 | 0.4960\* |
|  |  | (0.2056) | (0.1722) |  | (0.2686) | (0.1941) |
| Tajik |  | 1.3890 | 0.9251 |  | 1.2603 | 0.6801 |
|  |  | (0.4503) | (0.3600) |  | (0.4706) | (0.3494) |
| Hazara |  | 4.9431\*\*\* | 4.7538\*\*\* |  | 1.3183 | 1.6275 |
|  |  | (1.6628) | (1.9833) |  | (0.6456) | (0.9697) |
| Other |  | Reference | Reference |  | Reference | Reference |
|  |  | (.) | (.) |  | (.) | (.) |
| Rural |  |  | 0.4831\*\*\* |  |  | 0.6840 |
|  |  |  | (0.1279) |  |  | (0.2208) |
| Province |  |  |  |  |  |  |
| Kabul |  |  | 1.5777 |  |  | 4.4663\*\* |
|  |  |  | (0.8360) |  |  | (2.9700) |
| Parwan |  |  | 0.4531 |  |  | 1.3420 |
|  |  |  | (0.3537) |  |  | (1.0804) |
| Bamyan |  |  | 1E+07\*\*\* |  |  | 2E+07\*\*\* |
|  |  |  | (9E+06) |  |  | (2E+07) |
| Laghman |  |  | 1.9940 |  |  | 4.9130\*\* |
|  |  |  | (1.0905) |  |  | (3.5149) |
| Nangarhar |  |  | 2.8862\*\* |  |  | 4.1197\*\* |
|  |  |  | (1.2621) |  |  | (2.5119) |
| Balkh |  |  | 0.7272 |  |  | 0.5546 |
|  |  |  | (0.3392) |  |  | (0.4542) |
| Faryab |  |  | 1.3677 |  |  | 0.2737 |
|  |  |  | (0.5445) |  |  | (0.2323) |
| Jawzjan |  |  | 2.5269\* |  |  | 6.9921\*\*\* |
|  |  |  | (1.3850) |  |  | (4.1786) |
| Sari Pul |  |  | 5.0302\* |  |  | 3.6228 |
|  |  |  | (4.6006) |  |  | (3.8298) |
| Kunduz |  |  | 2.2397 |  |  | 5.3083\*\* |
|  |  |  | (1.3064) |  |  | (3.5555) |
| Takhar |  |  | 0.2186\*\*\* |  |  | 1.1201 |
|  |  |  | (0.1241) |  |  | (0.6184) |
| Helmand |  |  | 2.6690\*\* |  |  | 6.6882\*\*\* |
|  |  |  | (1.2676) |  |  | (4.0804) |
| Kandahar |  |  | 0.8271 |  |  | 3.3102\* |
|  |  |  | (0.4561) |  |  | (2.0605) |
| Paktya |  |  | 1.2210 |  |  | 5.7361\*\* |
|  |  |  | (0.8061) |  |  | (4.2458) |
| Herat |  |  | Reference |  |  | Reference |
|  |  |  | (.) |  |  | (.) |
| Constant | 1.5444\*\*\* | 0.4043 | 1.1282 | 0.7167\*\*\* | 0.2294\* | 0.3458 |
|  | (0.1478) | (0.2927) | (0.9958) | (0.0827) | (0.1910) | (0.3389) |
| Adj. R-Squared | 0.0102 | 0.1158 | 0.1742 | 0.0102 | 0.1158 | 0.1742 |
| N | 1020 | 1020 | 1020 | 1020 | 1020 | 1020 |
| Note: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table A3: Food Insecurity | | | | | | |
| Base Category: Never | Rarely (1-2 times/month) | | | Often (> 3 times/month) | | |
| Internally Displaced | 1.9005\*\*\* | 1.9340\*\*\* | 2.0554\*\*\* | 2.0895\*\*\* | 2.1239\*\*\* | 2.0358\*\*\* |
|  | (0.3522) | (0.3836) | (0.4628) | (0.3964) | (0.4434) | (0.4717) |
| Age of Respondent |  | 1.0193\*\*\* | 1.0197\*\*\* |  | 1.0238\*\*\* | 1.0250\*\*\* |
|  |  | (0.0071) | (0.0074) |  | (0.0074) | (0.0076) |
| No Formal Education |  | 0.7521 | 0.7701 |  | 1.1937 | 1.2816 |
|  |  | (0.1792) | (0.1911) |  | (0.3143) | (0.3527) |
| Married |  | 1.2187 | 1.2448 |  | 0.7504 | 0.7144 |
|  |  | (0.2956) | (0.3118) |  | (0.1842) | (0.1814) |
| No. of Children |  | 0.9819 | 0.9845 |  | 0.9322\* | 0.9229\*\* |
|  |  | (0.0319) | (0.0348) |  | (0.0342) | (0.0366) |
| Disabled |  | 0.9700 | 0.9799 |  | 0.9221 | 0.8485 |
|  |  | (0.2178) | (0.2219) |  | (0.2173) | (0.2051) |
| Log of HH Income |  | 0.4445\*\*\* | 0.4556\*\*\* |  | 0.2740\*\*\* | 0.2673\*\*\* |
|  |  | (0.0836) | (0.0908) |  | (0.0573) | (0.0582) |
| Received Assistance |  | 0.7544 | 0.6970\* |  | 0.7084\* | 0.5804\*\*\* |
|  |  | (0.1352) | (0.1353) |  | (0.1343) | (0.1181) |
| Ethnicity |  |  |  |  |  |  |
| Pashtun |  | 1.1207 | 1.0771 |  | 1.4792 | 1.0746 |
|  |  | (0.2626) | (0.3916) |  | (0.3700) | (0.4313) |
| Tajik |  | 1.1362 | 1.0099 |  | 1.1038 | 0.8698 |
|  |  | (0.4018) | (0.4277) |  | (0.4092) | (0.4055) |
| Hazara |  | 1.4497 | 1.6255 |  | 1.0094 | 0.8475 |
|  |  | (0.5646) | (0.7403) |  | (0.4244) | (0.4296) |
| Other |  | Reference | Reference |  | Reference | Reference |
|  |  | (.) | (.) |  | (.) | (.) |
| Rural |  |  | 1.0559 |  |  | 1.8748\*\* |
|  |  |  | (0.2915) |  |  | (0.5398) |
| Province |  |  |  |  |  |  |
| Kabul |  |  | 0.8981 |  |  | 0.4612 |
|  |  |  | (0.4373) |  |  | (0.2452) |
| Parwan |  |  | 0.7343 |  |  | 0.3162 |
|  |  |  | (0.4961) |  |  | (0.2537) |
| Bamyan |  |  | 1.3172 |  |  | 1.4772 |
|  |  |  | (1.4272) |  |  | (1.6537) |
| Laghman |  |  | 1.3631 |  |  | 0.5933 |
|  |  |  | (0.7768) |  |  | (0.3722) |
| Nangarhar |  |  | 1.4112 |  |  | 1.6506 |
|  |  |  | (0.6519) |  |  | (0.7807) |
| Balkh |  |  | 0.9220 |  |  | 0.5201 |
|  |  |  | (0.4605) |  |  | (0.3023) |
| Faryab |  |  | 1.7592 |  |  | 0.6760 |
|  |  |  | (0.9194) |  |  | (0.3685) |
| Jawzjan |  |  | 0.6176 |  |  | 0.2206\*\*\* |
|  |  |  | (0.3067) |  |  | (0.1248) |
| Sari Pul |  |  | 0.5424 |  |  | 0.2451\* |
|  |  |  | (0.4640) |  |  | (0.2085) |
| Kunduz |  |  | 0.6538 |  |  | 0.7461 |
|  |  |  | (0.4426) |  |  | (0.5391) |
| Takhar |  |  | 2.3074 |  |  | 1.2984 |
|  |  |  | (1.4056) |  |  | (0.8226) |
| Helmand |  |  | 0.9170 |  |  | 1.3509 |
|  |  |  | (0.4750) |  |  | (0.7123) |
| Kandahar |  |  | 0.5688 |  |  | 0.7857 |
|  |  |  | (0.3016) |  |  | (0.4143) |
| Paktya |  |  | 2.1580 |  |  | 1.3834 |
|  |  |  | (1.4179) |  |  | (0.9172) |
| Herat |  |  | Reference |  |  | Reference |
|  |  |  | (.) |  |  | (.) |
| Constant | 1.7986\*\*\* | 21.7132\*\*\* | 16.4887\*\*\* | 1.4444\*\*\* | 97.4346\*\*\* | 96.4635\*\*\* |
|  | (0.1871) | (18.3901) | (15.9536) | (0.1567) | (88.8345) | (98.9842) |
| Adj. R-Squared | 0.0080 | 0.0533 | 0.0823 | 0.0080 | 0.0533 | 0.0823 |
| N | 1020 | 1020 | 1020 | 1020 | 1020 | 1020 |
| Note: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table A4: Dietary Diversity | | | | | | |
|  | Probability of Eating Meat | | | Number of Times Eating Meat (if > 0) | | |
| Internally Displaced | -0.1186\*\*\* | -0.1161\*\*\* | -0.1700\*\*\* | -0.2419\*\*\* | -0.2189\*\*\* | -0.2986\*\*\* |
|  | (0.0270) | (0.0286) | (0.0331) | (0.0558) | (0.0556) | (0.0599) |
| Age of Respondent |  | -0.0006 | -0.0004 |  | -0.0011 | -0.0007 |
|  |  | (0.0010) | (0.0010) |  | (0.0019) | (0.0018) |
| No Formal Education |  | -0.0518 | -0.0406 |  | -0.1023 | -0.0745 |
|  |  | (0.0374) | (0.0385) |  | (0.0761) | (0.0723) |
| Married |  | 0.0573 | 0.0845\*\* |  | 0.1063 | 0.1442\*\* |
|  |  | (0.0395) | (0.0403) |  | (0.0715) | (0.0664) |
| No. of Children |  | 0.0219\*\*\* | 0.0141\*\*\* |  | 0.0420\*\*\* | 0.0253\*\*\* |
|  |  | (0.0047) | (0.0053) |  | (0.0087) | (0.0093) |
| Disabled |  | -0.0675\* | -0.0670\* |  | -0.1253\* | -0.1164\* |
|  |  | (0.0371) | (0.0381) |  | (0.0660) | (0.0636) |
| Log of HH Income |  | 0.2340\*\*\* | 0.2196\*\*\* |  | 0.4482\*\*\* | 0.3933\*\*\* |
|  |  | (0.0397) | (0.0403) |  | (0.0683) | (0.0664) |
| Received Assistance |  | 0.0136 | 0.0570\*\* |  | 0.0260 | 0.1028\*\* |
|  |  | (0.0279) | (0.0288) |  | (0.0534) | (0.0523) |
| Ethnicity |  |  |  |  |  |  |
| Pashtun |  | 0.1328\*\*\* | -0.0601 |  | 0.2486\*\*\* | -0.1093 |
|  |  | (0.0348) | (0.0475) |  | (0.0663) | (0.0879) |
| Tajik |  | 0.0688 | 0.0055 |  | 0.1389 | 0.0099 |
|  |  | (0.0506) | (0.0579) |  | (0.1079) | (0.1045) |
| Hazara |  | -0.0632 | -0.1021 |  | -0.1159 | -0.1707 |
|  |  | (0.0606) | (0.0728) |  | (0.1067) | (0.1145) |
| Other |  | Reference | Reference |  | Reference | Reference |
|  |  | (.) | (.) |  | (.) | (.) |
| Rural |  |  | -0.2062\*\*\* |  |  | -0.4217\*\*\* |
|  |  |  | (0.0402) |  |  | (0.0974) |
| Province |  |  |  |  |  |  |
| Kabul |  |  | 0.1498\*\* |  |  | 0.3112\* |
|  |  |  | (0.0714) |  |  | (0.1759) |
| Parwan |  |  | 0.0977 |  |  | 0.1927 |
|  |  |  | (0.1025) |  |  | (0.2247) |
| Bamyan |  |  | -0.1543 |  |  | -0.2473 |
|  |  |  | (0.2408) |  |  | (0.3519) |
| Laghman |  |  | -0.1095 |  |  | -0.1820 |
|  |  |  | (0.0814) |  |  | (0.1267) |
| Nangarhar |  |  | 0.0620 |  |  | 0.1136 |
|  |  |  | (0.0658) |  |  | (0.1238) |
| Balkh |  |  | -0.1257 |  |  | -0.2059 |
|  |  |  | (0.0941) |  |  | (0.1426) |
| Faryab |  |  | 0.2442\*\*\* |  |  | 0.5695\*\*\* |
|  |  |  | (0.0505) |  |  | (0.1602) |
| Jawzjan |  |  | 0.1122 |  |  | 0.2239 |
|  |  |  | (0.0796) |  |  | (0.1791) |
| Sari Pul |  |  | -0.0399 |  |  | -0.0692 |
|  |  |  | (0.1327) |  |  | (0.2228) |
| Kunduz |  |  | -0.1231 |  |  | -0.2016 |
|  |  |  | (0.1097) |  |  | (0.1660) |
| Takhar |  |  | -0.1332\* |  |  | -0.2181\* |
|  |  |  | (0.0794) |  |  | (0.1200) |
| Helmand |  |  | 0.2491\*\*\* |  |  | 0.5763\*\*\* |
|  |  |  | (0.0570) |  |  | (0.1795) |
| Kandahar |  |  | 0.4274\*\*\* |  |  | 1.5189\*\*\* |
|  |  |  | (0.0338) |  |  | (0.3039) |
| Paktya |  |  | 0.1368 |  |  | 0.2818 |
|  |  |  | (0.0862) |  |  | (0.2075) |
| Herat |  |  | Reference |  |  | Reference |
|  |  |  | (.) |  |  | (.) |
| Constant | 0.4580\*\*\* | -4.5762\*\*\* | -3.0556\*\*\* | 0.4580\*\*\* | -4.5762\*\*\* | -3.0556\*\*\* |
|  | (0.0966) | (0.7524) | (0.7633) | (0.0966) | (0.7524) | (0.7633) |
| Adj. R-Squared | 0.0058 | 0.0518 | 0.0900 | 0.0058 | 0.0518 | 0.0900 |
| N | 1020 | 1020 | 1020 | 1020 | 1020 | 1020 |
| Note: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01. | | | | | | |

1. Maastricht Graduate School of Governance (MGSoG) | UNU-MERIT, Keizer Karelplein 19, 6211 TC Maastricht, the Netherlands. Email: c.loschmann@maastrichtuniversity.nl.

   I am grateful to the UNHCR for funding the data collection in Afghanistan. Moreover, I am indebted to both Sonja Fransen and Melissa Siegel for their valuable feedback on an earlier version of this paper, as well as attendees of the XXXX for timely and useful comments. The findings, interpretations and conclusions expressed in this paper are solely mine and do not necessarily reflect policies or views of MGSoG | UNU-MERIT. All remaining errors are my own. [↑](#footnote-ref-1)
2. The household survey was originally collected to evaluate UNHCR’s shelter assistance program implemented across Afghanistan. For more information, see the full report (MGSoG and Samuel Hall Consulting, 2013). [↑](#footnote-ref-2)
3. We exclude return migrants from our sample in order to minimize any potential selection bias. [↑](#footnote-ref-3)
4. Any displacement in general can be considered involuntary. However, restricting our sample to those who moved due to these four reasons helps strengthen our argument that displacement in this case is influenced by exogenous forces leaving less potential for selection bias. The other reasons for displacement include: no land or housing, no access to arable or pastoral land, no access to food and water, no access to health services, no access to education and no access to employment opportunities. [↑](#footnote-ref-4)
5. We exclude the category “only girls attend school” due to the low number of observations. Moreover, we do not consider households where no school-aged children are present. [↑](#footnote-ref-5)