ISET WORKING PAPER SERIES

WP 02-18

Job market outcomes of IDPs: the case of Georgia

Karine Torosyan, Norberto Pignatti and Maksyn Obrizan

The International School of Economics at Tbilisi State University (ISET) is supported by BP, the Government of Georgia, the Norwegian Ministry of Foreign Affairs, Higher Education Support Program of the Open Society Institute, the Swedish International Development Agency and the World Bank.

International School of Economics at Tbilisi State University
16 Zandukeli Street, Tbilisi 0108, Georgia
www.iset.ge

Job market outcomes of IDPs: the case of Georgia

Karine Torosyan*, Norberto Pignatti** and Maksym Obrizan***

* International School of Economics at TSU, Tbilisi, Georgia and Global Labor Organization

** International School of Economics at TSU, Tbilisi, Georgia and IZA Institute of Labor Economics

***Kyiv School of Economics, Kyiv, Ukraine

Abstract

Internally displaced people (IDPs) constitute a serious economic, social and cultural problem for many countries, including countries in transition. Despite the importance of the problem, there are only a handful of previous studies investigating the issue of labor market outcomes of IDPs. We aim to fill this gap in the literature using 13 years of Integrated Household Surveys over 2004-2016 from Georgia, which experienced large flows of internal migrants from the early 1990s until now. Our analyses indicate that the labor market outcomes of IDPs are much worse than those of local residents. Specifically, IDPs are 3.9 to 11.2 percentage points less likely to be in the labor force, depending on the period and duration of IDP status. IDPs are also up to 11.6 percentage points more likely to be unemployed, sometimes even after 20 years of forced displacement. Finally, IDPs residing in a locality for more than 5 years receive persistently lower wages than local residents with similar characteristics, with the gap widening over time, reaching some 16 percentage points in the last period under analysis.

JEL Classification: D74, J21, O15, P23, R23

Keywords: conflict, internally displaced people, IDPs, labor market outcomes, transition countries

Corresponding author:

Karine Torosyan
International School of Economics
Tbilisi State University
Zandukeli Street 16
0108 Tbilisi
Georgia

Email address: k.torosyan@iset.ge

1. Introduction

By the end of 2014 there were 38 million internally displaced people (IDP) worldwide, according to the UN Refugee Agency.[1] A major increase of 11 million of new IDPs occurred in 2014, the figure rising at a rate of 30,000 people a day. Unlike refugees, who may be supported and protected by international organizations, IDPs are a major concern for the national governments (Engel & Ibanez, 2007).

An increasingly alarming trend worldwide is that many IDPs stay displaced for extended periods of time – often for a decade or more. UNHCR identifies protracted (also: prolonged, chronic, or extended) displacement as a situation when displacement lasts for 5 years or more, affects 25,000 people or more, and leaves the basic needs and rights of IDPs unaddressed, keeping them largely in an aid-dependent condition. Protracted displacement is often a result of a failure to find political solutions to long-lasting conflicts, which blocks the possibility of IDP return; at the same time, political unwillingness of local governments to accept and act upon the situation results in the lack of timely integration of IDPs into their host locations.

Increased unemployment and large inflows of IDPs into cities are among the main economic problems caused by forced displacement (Engel & Ibanez, 2007). One might also expect that forced internal re-allocation has negative effects on job market outcomes, including lower labor force participation rates and lower wages for workers of comparable characteristics. Negative job market experience is also associated with worsened well-being of individuals, families and communities.

Many transition countries have also experienced military conflicts so it is important to study job market outcomes of IDPs who could suffer from an additional disadvantage compared to non-displaced households that also went through a prolonged and often painful transformation of labor markets. Given the lack of reliable data on IDPs, "Life in Transition III" survey (Life in Transition Survey III: a decade of measuring transition, London: EBRD LITS series, 2016) provides an important reference on the scale of IDP problem in transition. Table 1A provides data from Internal Displacement Monitoring Center (IDMC) and LITS III on average shares of IDPs in 14 transition countries. This Table indicates that the problem of IDPs is quite severe in transition countries affecting a few percent of population and hence it is important to study labor market outcomes of this disadvantaged group.

In the Appendix (Tables 2A and 3A) we show that labor market outcomes of IDPs are in general worse compared to those of non-displaced households in a subsample of transition countries with recent conflicts. However, coefficients on IDP status are not significant in many cases, probably due to a relatively small number of IDPs in LITS III. For example, in the original LITS III there are only 32 households in Georgia (out of 1,459) and 34 households (out of 1,507) in Ukraine that gave a positive answer to the question about a forced move. While these results suggest that IDPs in transition countries have deprived labor market status, for an in-depth analysis of the issue one needs to rely on a more detailed data with a much better coverage of IDP cases.

Currently, there is limited evidence in the literature on the job market outcomes of internally displaced people, especially in cases of protracted displacement, with data limitations being the major difficulty.

[1] http://www.unhcr.org/internally-displaced-people.html

Specifically, an "ideal" analysis of prolonged displacement would require pre-, during and post-forced migration data for a long period of time, which are often not available. An additional issue is that it might not be possible to explicitly identify forced migrants in the data set (Ruiz & Vargas-Silva, 2013). The issue of selection into displacement or return is also a major deterrent for investigating the true impacts of displacement.

We aim to fill in this important gap in the literature on protracted displacement by exploring 13 years of Integrated Household Surveys (IHS) from Georgia, a country with about 6% of its population internally displaced by 2016. Although we do not have data on pre- and post-forced migration, we are able to overcome most of the other data limitations.

The fact that IHS data starts one decade after the first massive displacement in Georgia in 1992-93 and spans one additional decade allows us to observe the long-term dynamics in the labor market outcomes of IDPs. In the IHS data we can identify internally displaced people with high degree of accuracy because the survey explicitly asks respondents if they have IDP status. This status is granted to all Georgian nationals who have experienced internal displacement, and it extends to children born to IDP mothers. It is given unconditionally[2] until such a time when the internally displaced person moves back and settles in his/her original area of residence. The facts that most ethnic Georgians from the country's breakaway territories of Abkhazia and South Ossetia have been displaced and are contained within the borders of Georgia proper, and that there are very limited return options for these IDPs, help us avoid major selection issues.

The robustness of our findings builds on several features of the study. The massive scale of displacement in Georgia, combined with a very large and representative dataset covering a wide time span, give us good power to identify the impacts of long-term displacement on the labor market outcomes of IDPs. In addition, the IHS contains a large number of socio-demographic and socioeconomic questions, which we explore to reduce potential bias from omitted variables. To net out the impact of moving (on a voluntary base), we compare job market outcomes of IDPs with those of local residents with similar tenure at the current location. Finally, we explore regional variations in IDP outcomes to net out contextual factors and their impact on the labor market situation.

Additionally, in the case of Georgia we study the possibility of labor market integration of IDPs in host locations with a relatively stable environment. In contrast, some of the existing studies look at IDPs upon their return to their home settlements – places often devastated by war that need to be rebuilt, which could result in very different labor outcomes due to the inflow of aid or demand for labor, for example.

Our analyses show that IDPs are 3.9 to 11.2 percentage points less likely to be in the labor force, depending on the period and duration of IDP status. IDPs are up to 11.6 percentage points more likely to be unemployed, sometimes even after 20 years of forced displacement. Finally, IDPs residing in a locality for more than 5 years receive persistently lower wages than local residents with similar characteristics, with the gap widening over time, reaching 16 percentage points in the last period under analysis.

[2] For example, IDP status in Georgia is not conditional on the duration of stay in host location, on income and wealth, or on any other factors.

The rest of this paper is organized as follows. First, we review the literature on the job market outcomes of IDPs and negative effects of unemployment on well-being of individuals, families and communities in general. Second, we discuss the background of military conflict in Georgia and the issues related to possible sample selection. Third, we explain how we created a final sample and provide descriptive statistics. Next, we discuss the job market outcomes of IDPs for the entire sample over three periods and separately for three macro regions. The last section concludes.

2. Literature review

Although labor market outcomes of IDPs are discussed in many policy papers, these are largely descriptive in nature and there are relatively few academic papers on the topic. We could identify only two papers that are closely related to the question of the labor outcomes of IDPs: Kondylis (2009), focusing on post-war Bosnia and Herzegovina, and Calderon and Ibanez (2009), studying the Colombian conflict.[3] To our knowledge, there has been no systematic investigation of the impact of long-term displacement on labor outcomes.

Kondylis (2009) uses longitudinal post-conflict household survey data to estimate the effects of displacement on labor market outcomes of Bosnians who left their place of residence after the 1992/95 war relative to those who did not. IV estimates obtained by Kondylis (2009) imply large negative effects of displacement on the employment of Bosnian men (16-29 percent) and women (17-19 percent). This reduction in employment is driven by higher unemployment for men (11-18 percent) and by increased inactivity for women (11-18 percent), with no effect on female unemployment.

This high cost of displacement in terms of the labor market outcomes of Bosnians is linked to the informality of the labor market and destruction of networks. Given the underdevelopment of the Georgian labor market these conclusions might be relevant in the Georgian context as well.

Calderon and Ibanez (2009) study the effect of internal migration caused by the Colombian conflict on labor market outcomes. Their results indicate that inflows of forced internal migrants have negative statistically significant effects on city wages, and a positive and statistically significant effect on employment in the informal sector.[4] Specifically, a 10 percentage points increase in the share of migrants reduces wages by 1.4 percentage points in an IV model with fixed effects. As a result of a 200 percent increase in the number of displaced workers between 2001 and 2005 overall wages fell by 28.4 percentage points. IDPs in Colombia are directly competing for jobs with the most vulnerable groups of the population (informal and female workers), which leads to a sharp decline in wages in the informal sector of about 60 percentage points.

[3] There are a number of relevant papers on refugees (such as Ruiz and Vargas-Silva (2015)), but this literature is focused on international migrants who left the country and may experience additional cultural, contextual and linguistic disadvantages compared to locals. Alix-Garcia and Bartlett (2015) compare the difference in labor markets of a city affected and a city not affected by the Darfur conflict. However, they control for the IDP effect by a city dummy for Nyala rather than directly controlling for individuals who are IDPs.

[4] The problem with the Calderon and Ibanez (2009) paper is that they cannot distinguish between economic migrants and IDPs.

Difficulties with labor market outcomes have been shown to have a profound impact on the well-being of individuals, families and communities in general. Employment is the main source of income for most people, and therefore unfavorable labor market outcomes – such as economic inactivity due to lost hope of finding a job, high unemployment, job insecurity and wage discrimination – generate financial strain on individuals and their households, which in turn translates into a decline in subjective well-being (Ervasti and Venetoklis, 2010; Barnette and Michaud, 2012). Financial resources improve access to other important resources, such as social and leisure activities, food, health care, housing and general physical security (Hobfoll et al., 1996).

Income generation might be the main function of employment, but it is not the only one. Early social-psychological studies on unemployment (Jahoda et al., 1971; Jahoda, 1982) emphasize the importance of multidimensional additional functions of employment in people's lives. These functions include: time structure, purposefulness, participation, contacts and regular shared experiences outside the family, information about personal identity, a link with collective purpose and enforced activity. Lack of proper employment damages mental well-being because it deprives people of those important functions that employment provides.

Additionally, there is evidence of an intergenerational transmission mechanism from parental unemployment to a child's outcomes. Kind and Haisken-DeNew (2012) show that parental unemployment has a negative impact on the subjective well-being of sons, while it has no similar impact on daughters' subjective well-being. Rege et al. (2011) find that job loss experienced by fathers translates into lower school performance of children, while maternal unemployment might have a positive but negligible impact.

The temporal aspects of negative labor market outcomes have an important role on the well-being of individuals. It appears that a "scarring" effect from past unemployment can impact the well-being of individuals well into the future (Clark et al., 2001). The negative impact of entry unemployment is also shown to have a large and lasting impact on life satisfaction (Kassenboehmer and Haisken-DeNew, 2009). Finally, the cumulative effect of suboptimal labor market outcomes lasting for prolonged time periods can be especially devastating for the well-being of individuals and their families (Clark, 2006).

Another key dimension of analyzing the consequences of suboptimal labor market outcomes on individuals' well-being is the scale of the problem. Families often pull their resources together to better cope with shocks they might face, including adverse labor market outcomes experienced by some family members. This coping mechanism works well when shocks affect one member of the household and for a limited period only, but when the problem is more widespread (affecting all working age family members, for example) and/or long-lasting in nature, this "family insurance system" breaks down and family well-being suffers greatly. At a more aggregate level, there is a negative effect on community well-being if many workers in the same geographic area are experiencing difficulties with labor market outcomes, especially on a long-term basis (Nichols et al., 2013).

3. IDPs in Georgia

3.1 Background

The case of Georgia is very suitable for studying the implications of protracted displacement. In 2015, there were up to 239,000 IDPs[5] (about 6 percentage points of total population of 3.7 million) registered by the government in Georgia, most of whom were displaced in the early 1990s as a result of armed conflicts in the self-proclaimed republics of Abkhazia and South Ossetia, with a smaller number being displaced in 2008 after the conflict in South Ossetia.[6] Until relatively recently, IDPs in Georgia were regarded as temporary settlers in their host locations – in line with the government's view of the breakaway territories as being only temporarily out of Georgia's control. Hence, IDPs were mostly receiving temporary relief assistance and little was done to integrate them into their host communities. After 2013, the situation changed somewhat as the government policy shifted towards the provision of more durable solutions to the IDP situation, including their permanent settlement in Georgia proper.

The main form of government assistance to registered IDPs is a monthly allowance, temporary shelter and plots of arable land, free primary and secondary education, and assistance in finding employment (Gassmann, Berulava, & Tokmazishvili, 2013).

Until 2008, the monthly IDP allowance was provided unconditionally, however after 2008 it could be replaced by assistance to poor families (who received a slightly higher amount than pure IDP allowance, see below) in cases where the family qualified for the social assistance program. In 2014, the government introduced a ceiling of GEL 1,250 in personal monthly taxable income (nearly €535 or 1.5 times the average wage in Georgia in 2014) for receiving IDP payments. In total, in 2009, GEL 65.0 million (nearly €27.9 million) was allocated to 216,427 IDPs and 850 refugees with a monthly benefit of GEL 28 (nearly €12.0) paid to beneficiaries resettled in private accommodation and GEL 22 (nearly €9.4) to IDPs living in organized settlements (ISSA, 2011). From 2014, the two levels of IDP payments were unified into a single monthly IDP allowance of 45 GEL (nearly €19.2). The monthly benefits are not indexed and, given the substantial inflation in the country, the purchasing power of IDP allowances quickly erodes over time, depressing the living conditions of IDP families relying on public assistance.

Following the policy switch towards finding durable solutions to the IDP situation, the Georgian government adopted Action Plans (2009-2012 and 2012-2014[7]) that envisaged the resolution of IDP housing problems over time. As part of these plans, the IDPs living in communal centers were offered the option of privatizing their living spaces. In cases where the currently occupied housing cannot be privatized, IDPs will be gradually moved to other accommodations (however, this process is moving very slowly and will take considerable time and resources).

Despite assistance provided by the government, IDPs remain deprived of physical resources. Gassmann, Berulava and Tokmazishvili (2013) report that IDPs are less likely to own land (more than 80 percentage points of IDPs do not own land vs 40 percentage points for Georgia in general) and also less likely to own the house they live in (60 percentage points of IDPs do not own the house they live in vs 9 percentage points on average in Georgia).

[5] http://www.internal-displacement.org/database/country/?iso3=geo

[6] Displacement due to disaster is a much smaller phenomenon in Georgia, with only 1,200 individuals classified as such in 2015. The vast majority of individuals with IDP status in Georgia are displaced due to conflicts.

[7] MRA Action Plan 2012-2014, http://mra.gov.ge/eng/static/3185.

Georgia is characterized by a high unemployment rate (15.1 percentage points in 2011) which, in addition, masks the fact that 64 percent of employed individuals are self-employed, with a large share engaged in subsistence farming (Gassmann, Berulava, & Tokmazishvili, 2013). It is not surprising that jobs remain the main national issue for Georgians, considered even more pressing than territorial integrity and poverty (Navarro & Woodward, 2010). In this situation of limited employment opportunities, internally displaced people may be especially vulnerable. One estimate is that only 31 percentage points of economically active IDPs throughout Georgia are employed, with substantial regional variation (ISSA, 2011). In this paper, we explore employment rates and wages for IDPs versus local residents with comparable tenure in residence. An important contribution of our work is exploring how IDP employment prospects depend on the duration of stay in a given location and how these prospects change as time passes. Specifically, we study whether IDPs manage to "catch up" with the local population in terms of labor market outcomes as the duration of their residence in a given location extends to many years.

3.2 The issue of selection among IDPs

One of the main concerns in the literature on the topic is the possibility of selection taking place as people have to relocate. More specifically, it is not clear that those who end up leaving their homes and becoming IDPs in other locations, or those who return to their home regions are a representative group of the population affected by the conflict. If individuals who decide to move are more or less economically active or productive than the average population, then differences observed between those individuals and the population in the given locations could be due to selectivity of displaced people. Given that many of the differences in individual characteristics are not observed, one cannot fully control for those when comparing labor market outcomes, and it becomes challenging to identify the pure impact of displacement.

Our literature section gives examples of studies that use an IV estimation technique to deal with the possible endogeneity of IDP status. In our case, we do not have suitable instruments to follow this path. Nevertheless, we argue that our results contain minimal bias due to selection given the special circumstances that the case of Georgia presents. Unlike in many other examples with partial displacement of the population due to conflict, in the case of the war of 1992-93 almost the entire Georgian population of Abkhazia was uprooted and moved to Georgia. Table 4A in the Appendix details some statistics and projections on the number of ethnic Georgians in the two breakaway territories of Georgia (Abkhazia and South Ossetia) at the outset of the first conflict and how the populations changed during the years of the conflict.

The majority of IDPs in Georgia from the early conflicts arrived from Abkhazia. The two "outflows" from the entire population of ethnic Georgians in Abkhazia are individuals who died in the conflict (estimated at 10,000 people, which is about 4 percentage points of the Georgian population of the region as of 1992), and people who migrated away from the area (40,000 individuals, or 16 percentage points of the population). So, according to our calculations, 80 percent of the Georgian population of Abkhazia settled in Georgia as IDPs, strongly limiting the possibility of selection.

The case of early resettlement from South Ossetia is a bit different: here we observe 43 percent of Georgians fleeing to Georgia and 7 percent losing their lives as the result of the conflict of 1992-93, while half of the Georgian population of South Ossetia remained in the region. In this case the question of selection is more relevant; however, given that the number of IDPs from South Ossetia

is much smaller than from Abkhazia (comprising only 6 percentage points of the overall number of IDPs settling in Georgia in 1993) there should be minimal influence on the overall composition of IDPs in the country in the period before 2008. In addition, Table 5A in the Appendix makes it clear that the majority of Georgians still residing in South Ossetia after 1993 had to flee to Georgia proper following the conflict of 2008: most of the 16,000 additional IDPs uprooted in 2008 originated from South Ossetia and adjacent territories. Thus, in the case of IDPs from South Ossetia, the issue of selection, especially after 2008, is not so problematic either.

Overall, our projections of the population of IDPs in Georgia[8] closely follow the numbers reported by the Ministry of Refugees and Accommodation of Georgia (MRA) based on their IDP registry. This indicates that there were no additional major outflows or inflows of IDPs during the period under consideration, and that overall the population of IDPs in Georgia encompasses at least 80 percent of the population of ethnic Georgians originally residing in Abkhazia and South Ossetia.

According to Internal Displacement Monitoring Center (IDCM) estimates, around 45,000 IDPs are believed to have spontaneously returned to Abkhazia. Official data on the IDP situation within Abkhazia are very sketchy, as access to the region is extremely limited. For example, the IHS dataset does not cover the two breakaway regions at all. This is an additional source of selection that we have to take into account. Our inquiry into this issue showed that people who were able to return to Abkhazia where predominantly residents of the Gali region – an area bordering Georgia proper – while resettlement to any other territories of Abkhazia was impossible. So, the main selection mechanism in this case is tied to geographic factors and can be considered exogenous. We do not expect any significant bias in our results arising from this issue.

Finally, selection could be due to high migration propensity among those IDPs who settled in Georgia. However, there were many non-IDP Georgians migrating in the period following 1992-93 (Tchaidze & Torosyan, 2010), so it is not obvious that migration would have a particularly strong selective impact on IDPs, but not on locals. As an additional argument highlighting the limited impact of migration on labor market outcomes, we would like to cite evidence found by Gerber and Torosyan (2013) who quantify the impacts of migration in Georgia using evidence from a large countrywide survey conducted in 2008. One of the outcomes studied in this work is the impact of having a migrant family member and/or remittances on the labor market participation of family members staying in Georgia. The finding is that there is no significant lowering of motivation to work in such cases.

To conclude this discussion, while we cannot ignore the selection issue completely, given the specifics of the situation in Georgia, it is likely to have a relatively mild impact on our findings.

4. Data and methods

4.1. Definition of the final sample

[8] We project population assuming a 0.8% growth rate in the period of 1993-2003 (the fertility rate countrywide was a bit lower in this period) and 1% afterwards.

The rich IHS dataset collected by GeoStat[9] offers a great resource base for exploring the questions we have in mind. The survey was initiated in 2003, and has been conducted regularly since then following the same methodology. The survey is organized as a rotating panel, with each household being interviewed in four consecutive quarters of the year and then being replaced by a new observation.

GeoStat uses a relatively simple sampling strategy which aims to maintain a random sample representative of the population by region and settlement type (rural and urban). There are 10 regions in total, with the capital city of Tbilisi being one of the regions (predominantly urban), and the remaining nine regions covering various geographical areas of the country.

The total size of the sample in most years is kept to about 10,000 households, with the exception of 2008, 2009 and 2010 when, due to an increase in funding, GeoStat was able to double the size of the collected sample. After 2010, however, the size of the sample returned to its original level. Overall, the IHS offers data for 684,195 individuals for the period 2003-2016.

Given our interest in labor market outcomes, we focus our attention on a subsample of 409,499 working age individuals, defined as adults between 18 years old and pension age (60 years for women and 65 for men). Due to some irregularities observed in the very first wave of GeoStat survey in 2003, we decided to drop 26,128 observations for that year from our analyses.

Figure 1 in the Appendix shows a map of Georgia with a distribution of IDPs by region as of 2011. The overall number of IDPs at that point was 257,367 individuals and the map shows the number of IDPs in each region of Georgia. There is large heterogeneity between the regions in IDP numbers, with several regions, namely Kakheti, Samtskhe-Javakheti, Adjara, and Guria, hosting relatively small numbers of internally displaced individuals (see Table 6A). We drop 128,302 individuals from these regions from our analyses and focus instead on areas with sizeable IDP populations. Finally, we drop 25,412 observations with missing job market status which leaves us with up to 229,657 observations depending on the model specification.[10]

The IHS survey contains information on any special status that respondents have, with one of them being an IDP. One caveat with this status is that there is no possibility to check whether the IDP status stems from displacement due to conflicts and violence or from a natural disaster. However, from the statistics reported by the Internal Displacement Monitoring Center (IDMC)[11] on the types of displacement in Georgia, it looks like the share of disaster-related displacements among all IDPs in the country was not higher than 1-1.5 percentage points in 2015, and was mostly due to floods in the summers of 2013 and 2015. We thus ignore this source of displacement and attribute all IDPs that we identify in the GeoStat sample to conflicts.

All in all, IDPs comprise 3.7 percentage points of the population captured by the IHS, which underestimates the total number of IDPs in Georgia. To check if there is any evidence of selectivity in the coverage of IDPs in the IHS survey, we conduct several data checks and make comparisons between the IHS and other official data sources.

[9] Data are publicly available at http://www.geostat.ge/index.php?action=meurneoba&mpid=1&lang=eng
[10] Our conclusions remain robust if we include this group back into a sample. These results are available upon request.
[11] Available at the IDMC website: http://www.internal-displacement.org/countries/georgia/

Comparing the Georgian census data for 2014 with the data from IHS 2014 (see Table 7A in the Appendix), we notice some differences in regional representation in the IHS compared to the census. However, these differences are not at a level that would raise any alarm.

Next, we compare the regional distribution of IDPs based on IDP registration data for 2013 by the Ministry of Refugees and Accommodation of Georgia with that of the GeoStat survey (we pull together data for 2012-14 to smooth out sampling variations). From Table 7A we observe that the share of IDPs by region in the IHS dataset are not very different from those based on IDP registration data. The biggest discrepancy is observed in Tbilisi where we capture a disproportionally high number of IDPs. This observation could reflect the fact that many IDPs come to take advantage of temporary opportunities in the capital, while still being registered in other regions. Another region with a large difference is Samegrelo-Zemo Svaneti where we capture fewer IDPs than the MRA registry shows. Given that the population of the region is properly represented in GeoStat survey, this discrepancy in IDP population must be due to the fact that the IDPs who subsequently returned to Abkhazia are not captured in the GeoStat survey. Except for these two deviations, we do not detect any serious/unexplained discrepancies in the regional coverage of IDPs in the GeoStat survey – it does not seem that the survey suffers from selective geographic coverage of the IDP population.

For an additional check, we compare the age and gender distribution of IDPs in the IHS dataset with that from IDP registration data (see Table 8A in the Appendix). We observe a very similar share of males in the IHS sample (46.7 percentage points) to that of the MRA data (46.0 percentage points), which indicates that the gender balance is not skewed by the sampling of the IHS. When comparing the distribution of IDPs by age groups, some discrepancies do emerge; however, these are very modest. In particular, we detect a relatively minor under-representation in the share of IDP males of working age and older IDPs (especially females) in the IHS survey, while children with IDP status are somewhat over-represented. Overall, there is no strong sign of selectivity in IDP coverage in the IHS sample based on age.

In conclusion, even though the IHS sample under-represents the population of IDPs, we believe that IDPs included in the survey provide a good representation of the full IDP population of Georgia.

4.2 Descriptive statistics

One of our main goals is to follow how the situation with IDP labor market outcomes evolves over time. This is achieved by performing analysis separately for several time periods, including:

- Period 1. This period encompasses observations before quarter 3 of 2008, and it captures the situation 15 years after the conflicts in South Ossetia and Abkhazia in 1992-1993. Most IDPs observed in this period were displaced by those early conflicts and have either lived in the same locations since then or have been moving within Georgia. A comparison on labor market outcomes of these IDPs to those of local residents reveals how well the IDPs managed to integrate in their host communities after more than 10 years of being displaced.
- Period 2. This period stretches from quarter 3 of 2008 to the end of 2012 – the period following the war with Russia in August 2008. This military conflict resulted in a new wave of Georgian IDPs. Incidentally, this period overlaps with the global economic crisis which, in tandem with geo-political shocks faced by Georgia, led to a significant worsening of economic

conditions in the country. This period provides an opportunity to observe the IDP situation in times of crisis and to study the outcomes of newly displaced individuals.

- Period 3. This period lasts from the start of 2013 to the end of 2016, integrating the period under the new administration that came to power in 2013. This period is marked with changes in political thinking related to management of the IDP situation in Georgia and can help shed light on how a switch in IDP management policies might impact the IDP situation.

Table 9A in the Appendix shows the sample size and IDP numbers over time and space in our final subsample, which contains data on around 230,000 individuals after removing observations with missing data. The table also reports the shares of IDPs by duration of stay in their current residence: IDPs who report being in their current residence for less than one year; those who have already been living in the present location for 1 to 3 years; for 3 to 5 years; for 5 and more years, but less than always; and finally, IDPs who report always being residents in a given location. The last category of IDPs is mostly comprised of children of IDPs who were born in the new/host location. Given that this category is very small (especially in the beginning of the period under consideration), we omit it from our analysis. The remaining categories are aggregated in the following way: the first three groups are put together and termed "new IDPs" – these are IDPs who have been in their current residence for less than 5 years; IDPs with residence above 5 years form the category of "old IDPs" – IDPs who moved into their current residence 5 or more years ago.

Along the same lines, we define the following categories for non-IDPs: "new movers" – non-IDP residents who have lived in their current location for less than 5 years, "old movers" – individuals with 5 years or longer in their current residence, "locals"- individuals who report always living in their current location.

Table 1 shows the distribution of respondents by five types (new IDPs, old IDPs, new movers, old movers, locals) across three periods in the final sample. Interestingly enough, non-IDP respondents who moved to current location more than 5 years ago represent the largest category in our analysis. One can also observe that IDPs are well represented in models for labor force participation and unemployment while the number of new IDPs with non-missing wage is relatively small.

Table 1. Distribution of respondents by type across periods

Outcome	2004-2008 (Q2)		2008 (Q3)-2012		2013-2016	
	IDP	Non-IDP	IDP	Non-IDP	IDP	Non-IDP
Models for Labor Force Participation and Unemployment						
0-5 years	383	6,656	1,149	11,918	481	5,883
5+ years	2,433	35,381	3,783	47,197	1,707	28,294
Locals	**27,306**		**35,721**		**21,119**	
Models for Labor Income (excludes observations with missing income)						
0-5 years	93	2,191	377	3,833	159	2,141
5+ years	711	12,722	1,171	16,838	671	11,196
Locals	**7,671**		**10,930**		**7,812**	

Table 2 provides summaries of the three outcome variables of interest, namely: labor force participation (defined as the percent of working age individuals); unemployment (computed as percent of working age individuals currently unemployed); income from labor (including wages, any job-related bonuses, and income from self-employment; excluding agricultural income; all values are converted to constant 2010 GEL).

From Table 2 we see that the labor force participation of the local population is steadily increasing over the period under consideration. Compared to locals, all individuals subject to relocation show a lower participation rate. The gap between new movers (both voluntary and IDPs) and locals is around 20 percent, so relocation by itself results in a decreased labor market participation rate. With time, voluntary movers seem to regain labor market activity, almost catching up to that of locals. Nothing like that is evident for IDPs – long tenure in the same location does not seem to improve labor market participation for IDPs.

Table 2: Summary statistics for outcome variables, by period

Outcome	2004-2008 (Q2)		2008 (Q3)-2012		2013-2016	
	IDP	**Non-IDP**	**IDP**	**Non-IDP**	**IDP**	**Non-IDP**
Labor Force Participation (percent of working age individuals)						
0-5 years	-23.4	-18.5	-15.9	-19.2	-16.8	-24.3
5+ years	-24.6	-3.0	-12.3	-3.7	-15.2	-6.6
Locals	**75.6**		**79.1**		**82.8**	
Unemployment (percent of working age individuals)						
0-5 years	7.7	0.6	5.0	0.4	12.2	-1.0
5+ years	3.0	0.6	11.8	-1.2	6.4	-2.4
Locals	**13.5**		**15.7**		**14.5**	
Labor Income (in constant 2010 GEL)						
0-5 years	62.0	91.4	28.1	96.1	149.0	142.2
5+ years	-26.3	14.4	-38.1	29.3	-36.3	62.9
Locals	**250.3**		**330.5**		**405.3**	

Note: Statistics for IDP and non-IDP movers show the difference with local residents.

The situation with unemployment is particularly dramatic for IDPs: roughly one out of every 4 or 5 working age IDPs reports being unemployed, which in some periods is almost double the incidence of unemployment among local residents. Importantly, there is no visible improvement in the situation over time: more time elapsing since the outset of the conflict, or longer tenure of IDPs in the same location do not result in better employment propensity for this group of people.

Finally, we inspect the average labor income received by Georgian citizens. In general, new movers enjoy a wage premium, especially in the last period under consideration when the economic expansion of the country presents more earning opportunities, and people who are flexible and can relocate seem to take benefit of these opportunities. The only group that continuously seems to receive lower wages is the group of old IDPs (who comprise around 80 percent of all IDPs): in relative terms, old IDPs receive on average a 10 percent lower monthly paycheck compared to local residents and a 24 percent lower wage compared to other groups of movers.

In all of the cases discussed above it is concerning that the situation with IDPs is not improving sufficiently over time – their labor market outcomes are far from converging with those of local residents. The situation is especially difficult for IDPs who are less mobile. This fact suggests that the labor market costs of forced displacement are long lasting in nature and warrant serious attention from researchers and policy makers.

As part of our analysis we estimate a series of regressions where we control for a variety of observed characteristics with the hope to net out differences in labor market outcomes that could be due to these characteristics. Our goal is to document whether there are any significant gaps in the labor market outcomes of IDPs after we control for differences in characteristics of individuals.

We estimate three models with the following dependent variables: (1) labor market participation among the working age population (binary variable 0/1); (2) unemployment among the working age population (binary variable 0/1); and (3) average monthly labor income for those in employment (continuous variable).

In all three models, we use the same explanatory variables:

- Demographic/personal characteristics: ethnicity, age, gender, marital status, education level, disability.
- Household characteristics: size of the household, number of children of different ages, other members' labor income, non-labor income of the household.
- Contextual/locality characteristics: type of location (urban/rural), local unemployment rate, local labor force participation rate.
- Relocation variables: new IDP (less than 5 years in current residence), old IDP (5 and more years in current location, but not always), new movers (non-IDP, moved to current location within the last 5 years), old movers (non-IDPs moved to current location 5 or more years ago.)

All three models are estimated using OLS techniques (weighted using sample weights), which in the case of binary choice outcomes is interpreted as a linear probability model. We perform a robust estimation of standard errors and cluster observations at the household level. The models control for time fixed effects by including quarter and year dummy variables. Estimation is performed for each period separately.

Before turning to the results, we would like to discuss some interesting aspects that surfaced while studying the summary statistics for the independent variables in our models (see Tables 10A and 11A in the Appendix). When comparing observable characteristics of IDPs and non-IDP residents, the following differences stand out: there are almost no representatives of ethnic minorities among displaced individuals; IDPs are slightly younger; there is a slight gender imbalance among IDPs in favor of women; IDPs have a better educational profile; they tend to settle in urban areas with higher unemployment; finally, IDP families have lower labor income earned by other household members and higher income from alternative sources. Many of these differences might partially explain the gaps in labor market outcomes we have reported above. In the next section, we investigate what is left of that gap after taking these differences into account.

5 Results

5.1 General analysis of labor market outcomes

Below we present a subset of results from our analysis of the three models (Table 3). We display estimates of relocation variables only, to illustrate differences in labor market outcomes between local residents, IDPs (new and old) as well as non-IDP movers (new and old), using the group of local residents (who have never moved) as a base category. In our opinion, it is instructive to look at outcomes of voluntary movers in order to understand how the local labor market might reward or punish mobility in general, and to contrast these results to the outcomes of IDPs.

Table 3: Regression results, main coefficients of interest

Outcome	2004-2008 (Q2)		2008 (Q3)-2012		2013-2016	
	IDP	**Non-IDP**	**IDP**	**Non-IDP**	**IDP**	**Non-IDP**
Labor force participation (among working age individuals)						
0-5 years	-5.80*	-4.64***	-5.41***	-3.06***	-6.31*	-6.90***
5+ years	-11.20***	0.08	-3.87***	2.80***	-6.90***	-0.00
Adjusted R^2	0.27		0.25		0.24	
Observations	68,266		99,768		57,484	
Unemployment (among working age individuals)						
0-5 years	4.05	-1.86**	3.61*	0.70	11.62***	0.38
5+ years	0.25	0.63	9.85***	1.80***	6.76***	1.61***
Adjusted R^2	0.07		0.07		0.07	
Observations	68,266		99,768		57,484	
Labor income (log of income)						
0-5 years	0.28***	0.11***	-0.07	0.09***	0.13**	0.05*
5+ years	-0.05	0.02	-0.12***	0.01	-0.18***	0.01
Adjusted R^2	0.24		0.25		0.25	
Observations	22,524		33,149		21,979	

Results in Table 3 indicate that observable characteristics explain 24 to 27 percent of variation in the labor force participation of IDPs compared to that of local residents. The gap for new IDPs[12] closely reflects that of voluntary movers in all time periods, possibly capturing the cost of moving on labor force integration. However, with a longer tenure in a residence the labor force participation (LFP) gap disappears for voluntary movers, while this is not the case for IDPs. In Period 1, there is more than a 10 percentage points difference in the participation rate of old IDPs (who comprise close to 90 percent

[12] This group captures both mobile IDPs from earlier periods and newly displaced individuals.

of all IDPs in this period). Two decades after being relocated, many IDPs with a long tenure of residence in the same location are still not joining the labor force. The gap for old IDPs reduces a bit in the next two periods, but always remains significant and large.

Our results from the unemployment regression show that observable characteristics explain only about 7 percent of the variation in unemployment rate. Even after controlling for many variables, there is a significant and somewhat widening gap between IDPs and locals. We document a drastic worsening of the situation for IDPs in Periods 2 and 3, with the last period being especially worrisome as the gap reaches 12 percentage points for new IDPs and almost 7 percentage points for old IDPs (despite intensified measures attempted by the government to help find durable/long-term solutions to IDP situation). The comparison with the labor market outcomes of voluntary movers suggests that the negative performance of the IDPs cannot be attributed simply to the shorter duration of stay in the location. In all periods, in fact, the labor market outcomes of voluntary movers with the same duration of stay in the location are much closer to those of locals than to those of IDPs.

An attentive reader has already noticed from Table 1 that only 24.3 to 39.6 percentage points of respondents in five categories report positive labor income. Hence, a substantial part of the sample is missing from models for labor income. Heckman (1979) is a standard approach in the literature to deal with observations that might be missing not at random. We estimated models with and without Heckman two-step correction procedure and obtained very similar results. Due to space limitations, we only report a model without Heckman correction.[13]

The wages that old IDPs receive are persistently below those of local residents, with the gap widening over time, reaching some 16 percentage points[14] in the last period under consideration. The wage dynamics for new IDPs who manage to secure a job are rather different. In general, there is a 5-12 percentage points wage premium for mobility (with the premium being the highest in the first period and gradually reducing as time passes), but it seems that IDPs who are mobile enjoy an even higher wage premium – pretty much twice that of voluntary movers (with the exception of Period 2). Overall, the prevalence of old IDPs in the sample and the fact that they receive a lower average wage indicates that the issue of lower labor income is there for the majority of displaced individuals (while it does not seem to affect old – non-IDP – movers). Only a small portion of IDPs are benefiting from highly paid job opportunities, and only then when they are relatively mobile.

5.2 Regional analysis of labor market outcomes

For gaining additional insight into the situation regarding the labor market outcomes of IDPs, we turn to a more detailed analysis of the situation in different areas of the country. More specifically, we distinguish the following three areas:

- Tbilisi – the country's capital and a major hub for IDPs (mostly from the conflicts of 1992-93, but also from the conflict of 2008).
- Samegrelo-Zemo Svaneti, Imereti, Racha Lechkumi-Kvemo Svaneti (combined) – regions that absorbed most of the IDPs displaced by the early conflicts of 1992-93.

[13] Models for labor income with Heckman correction are available upon request.

[14] These and other differences in wages are calculated using the formula: diff=[exp(b)-1]*100%, where b is the estimated coefficient for the corresponding variable from Table 3.

- Shida Kartli, Kvemo Kartli, and Mtskheta-Mtianeti (combined) – regions that absorbed most of the IDPs from the 2008 conflict.

We repeat our analysis of labor market outcomes for each to these regions. The results are presented in Tables 4-6.

The capital city of Tbilisi has absorbed a very large number of IDPs, mostly from the first wave of conflicts in 1992-1993. Thus, in the early period of our study we capture those IDPs after more than 10 years of being displaced. There is no evidence of lower LFP for recent movers – people moving to or within the capital have no issues with joining the labor force (except for non-IDPs in the last period). However, IDPs living in the same residence for more than 5 years show 9 percentage points lower propensity of being economically active, and this gap in LFP is as bad in the last period as it is in the first period under consideration.

Table 4: Regression results for Tbilisi, main coefficients of interest

Outcome	2004-2008 (Q2)		2008 (Q3)-2012		2013-2016	
	IDP	Non-IDP	IDP	Non-IDP	IDP	Non-IDP
Labor force participation (among working age individuals)						
0-5 years	-1.56	-1.76	0.26	0.87	-0.77	-3.56*
5+ years	-9.11***	-2.62**	1.85	2.77***	-9.66***	-1.63
Adjusted R^2	0.27		0.25		0.21	
Observations	18,446		27,305		15,232	
Unemployment (among working age individuals)						
0-5 years	9.92**	-0.42	3.48	-2.40*	13.45***	2.29
5+ years	1.58	2.70**	8.53***	-1.03	4.03	2.53**
Adjusted R^2	0.03		0.03		0.03	
Observations	18,446		27,305		15,232	
Labor income (log of income)						
0-5 years	0.45***	0.11**	-0.12	0.09***	0.12	0.09**
5+ years	-0.07	0.02	-0.10**	-0.02	0.00	0.02
Adjusted R^2	0.21		0.19		0.18	
Observations	8,137		11,902		7,740	

While recent IDP movers do not have issues being among economically active in Tbilisi, they certainly do have difficulties finding jobs. We observe a very high rate of unemployment among this group of IDPs, with a very sizable 13.5 percentage points gap in the last period. The unemployment gap among old IDPs is significant only in Period 2, and it seems to be picking up exactly those IDPs who are typically out of labor force, but are driven to look for jobs (albeit unsuccessfully) in a period of economic crisis.

In terms of wages, there is a robust 10 percent wage premium for mobility in Tbilisi; however, IDPs are unable to make use of this premium (except for the first period). In addition, we document a 10

percent wage drop for old IDPs in the second period – highlighting the vulnerability of a large group of IDPs in periods of crisis.

Overall, results for Tbilisi suggest that IDPs in the capital face lower LFP participation and/or higher unemployment, and in times of economic crisis their wages decrease. Most importantly, we do not document any improvement in their labor market outcomes over time.

Samegrelo and Imereti, being close to Abkhazia, absorbed a large wave of IDPs from the Abkhazia war of 1993. According to GeoStat data, there is very low mobility of IDPs in this area – there are only a few new IDPs in this region in the first period, but also later in time.

Table 5: Regression results for Samegrelo/Imereti, main coefficients of interest

Outcome	2004-2008 (Q2)		2008 (Q3)-2012		2013-2016	
	IDP	Non-IDP	IDP	Non-IDP	IDP	Non-IDP
Labor force participation (among working age individuals)						
0-5 years	-19.73***	-12.08***	-18.52***	-9.19***	-11.52**	-15.14***
5+ years	-17.96***	0.07	-8.42***	1.93***	-2.49	1.08
Adjusted R^2	0.30		0.24		0.25	
Observations	24,227		36,704		21,697	
Unemployment (among working age individuals)						
0-5 years	-5.65	-2.29*	3.59	1.83*	19.93***	-1.84
5+ years	-0.95	0.11	11.18***	3.30***	11.34***	1.43*
Adjusted R^2	0.08		0.11		0.10	
Observations	24,227		36,704		21,697	
Labor income (log of income)						
0-5 years	0.36*	0.12**	-0.12	0.10**	0.13	0.00
5+ years	-0.06	0.03	-0.08	0.04	-0.39***	0.04
Adjusted R^2	0.19		0.16		0.17	
Observations	7,111		10,842		7,535	

The labor force participation of non-IDP movers in Samegrelo and Imereti tends to be lower, with a gap of 9-15 percentage points compared to local residents. This can be explained by the fact that Samegrelo and Imereti are predominantly rural/agricultural area, and people tend to stay attached to their land/household. Most movements are due to changes in family composition (marriage, for example), and are associated with follow-up economic inactivity, especially for women. The situation for IDP movers is even worse: their LFP participation gap is close to 20 percentage points in Periods 1 and 2, and even though it drops in Period 3, it is clear that new IDPs move from inactivity into unemployment in this period – which is not a very encouraging result.

The inactivity gap for old IDPs is also very high in Period 1 (18 percentage points), but it partially closes as old IDPs move from inactivity into unemployment in the second period, resulting in a 11 percent unemployment gap. This gap, unfortunately, continues into the third period: a very large group of IDPs in this region face a much higher unemployment rate compared to local residents. In addition, our wage regression results indicate a very large wage gap (32 percentage points) that old IDPs in the region face in the last period.

The dynamics in IDP outcomes in this region are also not very encouraging, with the majority of long-term IDPs wanting to have jobs (there is no labor force participation gap), but either not finding them and ending up unemployed, or accepting jobs with a much lower wage rate.

It is important to recognize that many IDPs from this region managed to return to Abkhazia and possibly found employment there (working on their land). On one hand, the GeoStat survey does not capture such individuals and, as long as we maintain our assumption that the option of returning was determined exogenously (only former residents of the Gali region had this chance), this should not directly impact our results. On the other hand, in the event that some, arguably less productive, family members of the returning IDPs stay in Samegrelo/Imereti this might attenuate the negative impacts we have estimated for the region.

Table 6: Regression results for Mtskheta/Kartli, main coefficients of interest

Outcome	2004-2008 (Q2)		2008 (Q3)-2012		2013-2016	
	IDP	Non-IDP	IDP	Non-IDP	IDP	Non-IDP
Labor force participation (among working age individuals)						
0-5 years	3.99	-8.70***	-1.87	-4.01***	-12.19**	-6.19***
5+ years	2.96	1.91**	-6.63*	4.22***	-10.03***	1.95**
Adjusted R^2	0.26		0.27		0.28	
Observations	25,593		35,759		20,555	
Unemployment (among working age individuals)						
0-5 years	2.32	-1.75	0.82	3.21***	-6.11**	-0.71
5+ years	3.05	-0.94	6.53**	2.91***	2.10	0.40
Adjusted R^2	0.08		0.07		0.08	
Observations	25,593		35,759		20,555	
Labor income (log of income)						
0-5 years	-0.29	0.02	0.02	0.04	0.22*	0.01
5+ years	-0.07	0.01	-0.27***	0.02	0.05	0.02
Adjusted R^2	0.22		0.22		0.20	
Observations	7,276		10,405		6,704	

The next set of regions – Mtskheta, Shida and Kvemo Kartli – have the majority of IDPs from the 2008 conflict. As there are not too many IDPs in the first period in this area, we focus on later periods.

In general, this area is a mix of rural and urban settlements, so it is somewhere in the middle between Tbilisi and Samegrelo/Imereti in terms of labor market functioning and opportunities. As in the case

of Samegrelo/Imereti, movers in this area typically have a lower participation rate, but the gap is not as high as in the previous case.

In the second period, this area goes through both the 2008 military crisis followed by a wave of new IDPs and the global economic crisis. Old IDPs in the area face lower labor force participation, higher unemployment, and lower wages compared to local residents with the same tenure. However, unlike in the previous regions, these difficulties in the labor market seem to be less long lasting. Apart from labor force participation, which continues to be significantly lower for all IDPs, long-term IDPs seem to have the same level of unemployment and wage rate as local residents, while in the case of new IDPs we document much lower unemployment and much higher wages (with an almost 25 percentage points wage premium). So, new IDPs in Mtskheta/Kartli who are economically active have better chances of finding a well-paid job compared to local residents and non-IDP movers with similar characteristics.

We attribute the labor market success of new IDPs in the Mtskheta/Kartli area – during the third period – primarily to government policies. Several reasons point us towards this direction. The issue of IDPs came under very close attention both internally and internationally due to the escalation of the conflict with Russia, and became a top item on the government's political agenda in the last period under consideration. Most government and international programs targeted IDPs from the 2008 conflict and concentrated on the development of the regions where most of recent IDPs were located (Development & Training Services Inc., 2015, World Bank 2016). These programs provided IDPs with individual housing (as opposed to collective housing, which was the case for most of the IDPs from 1992-93), land plots, easier access to finance, training and employment services, lasting until (at least) 2014. The fact that, in the third period, we observe a positive change for new IDPs in only this area confirms that many of the programs that the government initiated were limited in scope and indicates that their benefits were highly geographically concentrated.

6. Conclusion

The tensions around Abkhazia and South Ossetia have lasted for nearly 25 years, creating a large population of IDPs in Georgia. Unfortunately, until relatively recently management of the IDP situation in Georgia followed a strategy of merely providing temporary support to the relocated populations, delaying the proper response to the IDP crisis, which had a high human and economic costs – both for the IDPs and for society as a whole. Surviving in rather harsh socio-economic conditions for so long and not being able to permanently settle must have had an impact on the livelihoods of IDPs.

Our analysis of the Georgian case suggests that there are significant disadvantages in the labor market outcomes of IDPs compared to local residents and voluntary movers with similar observable characteristics. It is especially alarming that difficulties faced by IDPs in the labor market persist far into the future: even after many years of being displaced, the labor market outcomes of IDPs are not comparable to those of local residents or voluntary movers.

The only exception from this rule is the situation of new IDPs in the Mtskheta/Kartli area in the period 2013-2016. This follows a period in which significant resources were invested by the

government and international organizations to support the IDPs caused by the 2008 conflict (most of which concentrated exactly in these regions) and overlaps with the period of the new approach of looking for more long-term solutions to the IDP problem, which the Georgian government adopted after 2013. Most of these programs have been (and still are) small in scale and targeted geographically, hence it is not surprising that their impact has not yet reached the entire population of IDPs in the country. Evaluating the impact (and efficiency) of various policies on IDP labor market outcomes is an important area for future research on this topic.

The Georgian experience is relevant for many countries that have either experienced, or are currently facing, massive movements of population due to conflicts. The issue is especially relevant in the post-transition region, where some of the conflicts have a "frozen" nature or are long-lasting – making the timely return of displaced populations virtually impossible. The most important lesson that the Georgian case can teach in those cases (and the main contribution of our work) is that without active policies aimed at the improvement of IDP labor market outcomes, there is no evidence of an improvement in those outcomes in the long-run. It is true that these policies are costly, but the costs of inaction might be much higher, especially as they accumulate over time.

References

Alix-Garcia, J., & Bartlett, A. (2015). Occupations under fire: The labor market in a complex emergency. *Oxford Economic Papers 67(3)*, 687–714.

Calderon, V., & Ibanez, A. M. (2009). Labor Market Effects of Migration-Related Supply Shocks: Evidence from internally displaced populations in Colombia. *MICROCON Research Working Paper 14*.

Engel, S., & Ibanez, A. (2007). Displacement due to violence in Colombia: A household-level analysis. *Economic Development and Cultural Change, 55(2)*, 335–365.

Gassmann, F., Berulava, G., & Tokmazishvili, M. (2013). Economic and Social Vulnerability in Georgia. *United Nations Development Programme Georgia: Tbilisi*.

Gerber, T., & Torosyan, K. (February 2013). The Remittances in Georgia: Correlates, Economic Impact, and Social Capital Formation. *Demography*.

ISSA. (2011). Social Protection and Social Inclusion in Georgia. *Institute of Social Studies and Analysis and European Commission, Directorate-General for Employment, Social Affairs and Inclusion*.

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

Life in Transition Survey III: a decade of measuring transition, London: EBRD LITS series. (2016). *European Bank for Reconstruction and Development*.

Navarro, L., & Woodward, I. (2010). Public attitudes towards elections in Georgia. *National Democratic Institute Georgia, Tbilisi;* .

Ruiz, I., & Vargas-Silva, C. (2013). The economics of forced migration. *The Journal of Development Studies, 49(6)*, 772–784.

Ruiz, I., & Vargas-Silva, C. (2015). The Labor Market Impacts of Forced Migration. *American Economic Review: Papers & Proceedings, 105(5)*, 581–586.

Tarkhan-Mouravi, G. (2009). Assessment of IDP Livelihoodsin Georgia:Facts and Policies. *UNHCR report*.

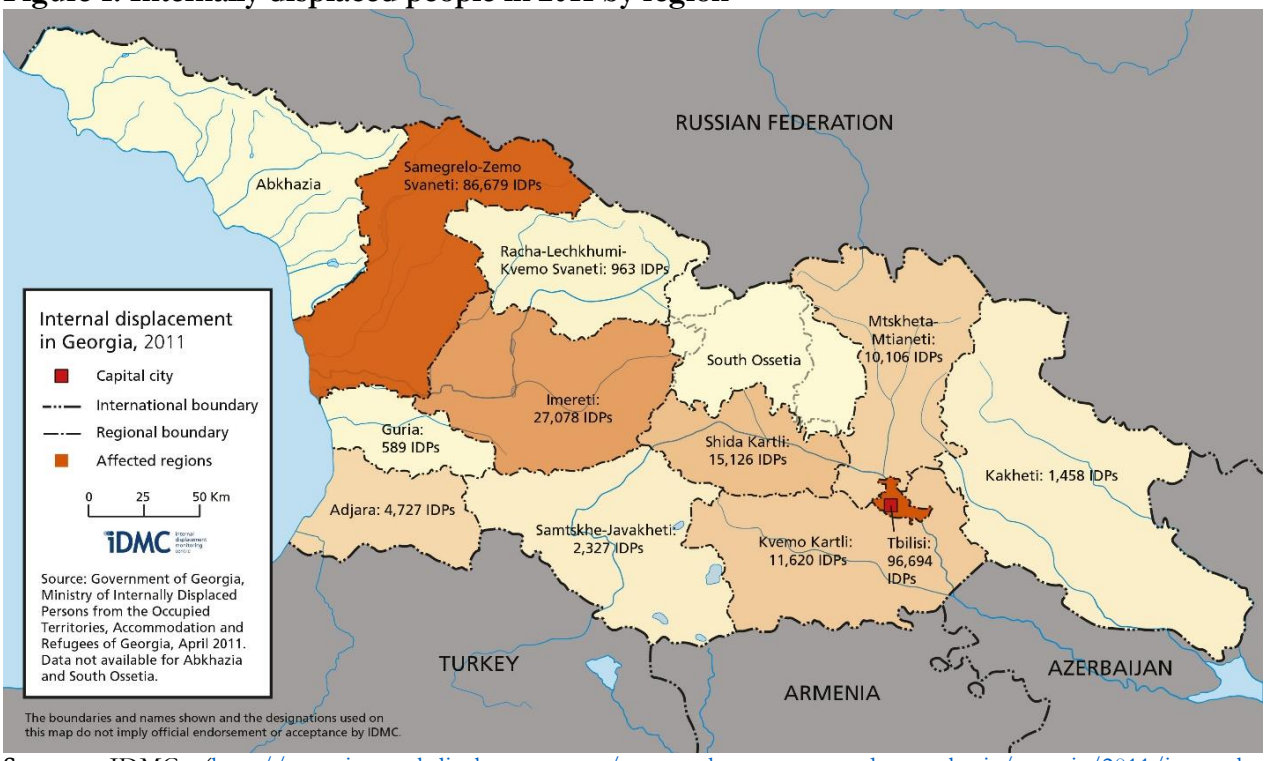
Tchaidze, R., & Torosyan, K. (2010). Development on the move: measuring and optimizing migration's economic and social impacts in Georgia. *GDN/IPPR commissioned migration study "Development on the Move"*.

World Bank (2016). Transitioning from Status to Needs Based Assistance for IDPs. A Poverty and Social Impact Analysis. The World Bank, Washington, DC, USA

.

Appendix

Figure 1. Internally displaced people in 2011 by region



Source: IDMC (http://www.internal-displacement.org/europe-the-caucasus-and-central-asia/georgia/2011/internal-displacement-in-georgia-2011)

Job market outcomes of IDPs in transition countries

Given that civil conflicts are common in transition countries it is important to understand the scale of displacement as a result of conflict. However, it is very difficult to judge on this problem based on official statistics, because there seem to be vast gaps and controversies when one looks at official data. For example, Table 1A provides the data from IDMC (for 2016[15]) and LITS III on the number of IDPs for countries from Transition region that experienced large-scale military conflicts. Comparing IDMC numbers to those from LITS III sample where people self-report if their family has been displaced by a conflict, it is clear that IDMC data may misrepresent the prevalence of displacement in transition counties. In this respect LITS III becomes a valuable data source for cross-country comparisons of the job market outcomes of IDPs.

The European Bank for Reconstruction and Development (EBRD) conducted the "Life in Transition III" survey (Life in Transition Survey III: a decade of measuring transition, London: EBRD LITS series, 2016). Respondents were drawn randomly using a two-stage sampling method, with census enumeration areas as Primary Sampling Units and households as secondary sampling units. The advantage of the "Life in Transition III" survey is that it covers all transition countries in a recent 2016 round of nationally representative surveys. The disadvantage is that some of the key outcome

[15] Except for Serbia in which case IDMC data are from 2014.

variables cannot be exactly identified and sample size is below 1,500 observations for each country. The subsample that includes recent conflicts is limited to former Yugoslavia[16], Armenia, Azerbaijan, Georgia, the Kyrgyz Republic, Russia, Tajikistan and Ukraine.

The survey includes a question about households that have been forced to move because of a conflict, which can serve as a good starting point to identify the prevalence of IDP problem in transition countries. The exact question formulation to identify displaced households is "Did your household have to move as a result of the conflict in [COUNTRY] (from [DATE] to [DATE])". This question was to be asked in former Yugoslavia, Armenia, Azerbaijan, Georgia, the Kyrgyz Republic, Russia, Tajikistan and Ukraine so the analysis is limited to those countries only.[17] Hence, we define an indicator variable "Household moved because of a conflict" which takes the value of 1 for such households and 0 otherwise (excluding respondents who did not know or refused to answer).

For better comparison with our main dataset for Georgia we limit the sample from LITS III to primary respondents between 18 years old and 60 years old for women and 65 years old for men. We tried to create outcome variables that closely resemble our three main job market outcomes of IDPs: whether the primary respondent is in the labor force, whether he or she is employed and also their wage level.

First, we will explain in detail the difference in variable composition dictated by the peculiarities of the LITS III survey. Specifically, the primary respondent was considered to be employed if he or she answered positively to the question "Did you work in the last 7 days, at least one hour?". Unemployed workers were identified as those primary respondents who chose options "Could not find a job" and "I got fired" when answering the question "Why did you not work during the past 7 days (even for 1 hour)?".[18] Labor force is then defined as the sum of employed and unemployed. Hence, an indicator variable "In labor force" takes value of 1 if a primary respondent is employed and unemployed and 0 otherwise. This definition is not ideal, however, because the labor force participation state could not be identified for some workers. For example, people who chose option "Did not want to work" could have just been taking a short break or may have completely left the labor force. There is also a question "Have you ever worked or are you currently working?" which we used as an alternative definition of labor market participation. Finally, we converted periodical wage rates to a monthly wage rate and excluded wages greater than three standard deviations from the mean as an outlier. To allow for cross-country comparisons, we then computed the percentage deviations of wages from the mean wage within country (excluding outliers).

Table 2A presents descriptive statistics of the sample used in regressions. In the final sample of age eligible respondents, 1,129 households had been forced to move, while 13,429 had not. The model for unemployed is limited to primary respondents in the labor force and has 568 displaced and 6,740

[16] Countries that were part of former Yugoslavia include Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia and Slovenia.

[17] Notice that four more countries (Bulgaria, Kazakhstan, Mongolia and Romania) have households with a positive answer to a question about forced move, but did not have a recent internal conflict of a major scale. The first two parts of the same question (9.24) deal with the Second World War. We suspect that some of the answers may relate to the Second World War as well. The results remain robust if we keep these countries in the sample.

[18] There is a separate question whether a person is actively looking for a job, but the answer could be positive even for those respondents who are currently employed.

not displaced households. The sample reduces to 328 internally displaced and 4,338 non-displaced households in the wage equation.

The evidence about job market outcomes of primary respondents in displaced vs non-displaced households is mixed. For example, in all countries but one primary respondents in displaced households are less likely to be in the category "never worked" compared to non-displaced households. For other outcome variables the countries in the sample are split approximately in half. We realize that descriptive statistics may be misleading because they do not control for the demographic characteristics of primary respondents which may drive the results. Hence, we next rely on regression analysis to identify the effect of a household's forced move on the job market outcomes of a primary respondent.

Table 3A reports the regression results for job market outcomes of primary respondents in displaced versus non-displaced households in a subsample of countries with recent conflicts in LITS III. All models use robust standard errors clustered at a country level. Primary respondents in displaced households are 5.4 percentage points more likely to report that they never worked compared to non-displaced households. Internally displaced households also demonstrate worse job market outcomes in other models, but the results are not significant – probably due to the small representation of IDPs.

To conclude, the results for other transition countries are in general consistent with the case of Georgia. However, the indicator variable for internally displaced households is not always significant given the limitations of the LITS data, such as the small number of IDPs.

Table 1A. Share of IDPs in IDMC and LITS III.

Country	IDMC (numbers in thousands)			LiTS III		
	Population	IDP	Share of IDP	All	IDP	Share of IDP
Armenia	3,026	8.4	0.3%	1102	50	4.5%
Azerbaijan	9,868	582	5.9%	1122	42	3.7%
Bosnia and Herzegovina	3,802	98	2.6%	1000	286	28.6%
Croatia	4,225	0	0.0%	1059	125	11.8%
Georgia	3,980	208	5.2%	1030	26	2.5%
Kosovo	1,900	17	0.9%	1113	371	33.3%
Kyrgyz Republic	6,034	39	0.6%	1289	23	1.8%
Macedonia, FYR	2,081	150	7.2%	912	22	2.4%
Montenegro	0,626	0	0.0%	907	33	3.6%
Russian Federation	143,440	19	0.0%	950	26	2.7%
Serbia	8,813	97	1.1%	884	50	5.7%
Slovenia	NA	NA	NA	861	20	2.3%
Tajikistan	8,669	0	0.0%	1233	29	2.4%
Ukraine	44,624	1653	3.7%	1096	26	2.4%
Observations	**241,088**	**2871.4**	**1.2%**	**14558**	**1129**	**7.8%**

Note: The numbers are based on IDMC country profiles, LITS III database and authors' calculations.

Table 2A: Job market outcomes of age eligible primary respondents, by IDP status

	# of observations		Share in Labor Force		Share Never Worked		% deviation from mean wage		% unemployed	
Country	IDP HHs	Non IDP HHs	IDP HHs	Non IDP HHs	IDP HHs	Non IDP HHs	IDP HHs	Non IDP HHs	IDP HHs	Non IDP HHs
Armenia	50	1052	0.420	0.360	0.080	0.225	-19.275	3.342	0.060	0.041
Azerbaijan	42	1080	0.524	0.255	0.452	0.686	-23.580	-11.939	0.048	0.007
Bosnia and Herzeg.	286	714	0.500	0.520	0.304	0.342	3.798	-0.863	0.010	0.006
Croatia	125	934	0.576	0.654	0.152	0.153	1.502	-0.235	0.016	0.018
Georgia	26	1004	0.346	0.395	0.154	0.236	-49.576	7.304	0.000	0.023
Kosovo	371	742	0.415	0.392	0.412	0.447	9.288	-3.980	0.035	0.047
Kyrgyz Republic	23	1266	0.696	0.405	0.217	0.430	1.849	4.397	0.000	0.004
Macedonia, FYR	22	890	0.364	0.530	0.409	0.290	-38.660	-15.264	0.045	0.012
Montenegro	33	874	0.727	0.514	0.030	0.219	-0.324	2.096	0.030	0.014
Russian Federation	26	924	0.769	0.798	0.038	0.078	-1.879	3.399	0.000	0.012
Serbia	50	834	0.660	0.619	0.160	0.236	11.396	-4.124	0.000	0.012
Slovenia	20	841	0.700	0.622	0.100	0.158	-4.403	0.468	0.050	0.011
Tajikistan	29	1204	0.586	0.394	0.276	0.416	4.927	-0.169	0.000	0.004
Ukraine	26	1070	0.577	0.684	0.077	0.085	-11.862	-0.534	0.000	0.007
Observations	1129	13429	1129	13429	1129	13429	382	4338	568	6740

Table 3A. Job market outcomes of primary respondents in transition countries with conflicts

Variable	In labor force	Never worked	Mean wage dev (%)	Unemp.
Household size	-0.006	0.009	0.813	0.001
	(0.006)	(0.007)	(2.825)	(0.003)
Respondent age	0.000	-0.005***	-0.034	-0.001**
	(0.001)	(0.001)	(0.182)	(0.000)
Female	-0.169***	0.153***	-22.633***	-0.008**
	(0.030)	(0.037)	(4.888)	(0.004)
Number of children under 18	0.010	-0.009	-0.780	-0.002
	(0.011)	(0.008)	(4.769)	(0.003)
Number of adults over 60	-0.101***	0.041***	-4.036	0.010
	(0.021)	(0.012)	(3.321)	(0.006)
Respondent with post-secondary educ.	0.137***	-0.132***	-15.408	-0.015**
	(0.017)	(0.012)	(12.867)	(0.007)
Respondent with higher education	0.217***	-0.182***	-0.972	-0.025**
	(0.011)	(0.017)	(14.259)	(0.009)
Rural household	-0.048***	0.040*	-11.644*	-0.004
	(0.015)	(0.021)	(5.409)	(0.006)
Azerbaijan	-0.085***	0.413***	-22.234***	-0.083***
	(0.010)	(0.007)	(3.210)	(0.002)
Bosnia and Herzegovina	0.134***	0.124***	-10.181**	-0.104***
	(0.009)	(0.008)	(4.409)	(0.003)
Croatia	0.271***	-0.059***	-7.559	-0.088***
	(0.008)	(0.008)	(4.597)	(0.003)
Georgia	0.005	0.040***	3.056	-0.052***
	(0.005)	(0.004)	(1.896)	(0.003)

Kosovo	0.058***	0.194***	-9.669**	-0.012***
	(0.009)	(0.008)	(3.513)	(0.003)
Kyrgyz Republic	0.017***	0.213***	1.229	-0.102***
	(0.005)	(0.008)	(2.302)	(0.002)
Macedonia, FYR	0.158***	0.068***	-25.937***	-0.094***
	(0.007)	(0.005)	(4.519)	(0.002)
Montenegro	0.143***	-0.006	-3.686	-0.089***
	(0.007)	(0.006)	(3.684)	(0.003)
Russian Federation	0.331***	-0.071***	0.764	-0.093***
	(0.009)	(0.008)	(4.168)	(0.005)
Serbia	0.259***	0.015*	-9.420*	-0.100***
	(0.007)	(0.008)	(4.816)	(0.003)
Slovenia	0.259***	-0.053***	-6.728	-0.098***
	(0.009)	(0.009)	(5.857)	(0.003)
Tajikistan	0.044***	0.155***	-3.773	-0.104***
	(0.010)	(0.013)	(3.673)	(0.007)
Ukraine	0.230***	-0.062***	-2.561	-0.096***
	(0.006)	(0.005)	(3.306)	(0.004)
HH forced to move due to conflict	-0.016	0.054***	-0.089	0.001
	(0.023)	(0.015)	(3.323)	(0.009)
Constant	0.487***	0.238***	24.308	0.160***
	(0.055)	(0.041)	(16.655)	(0.028)
Observations	14558	14558	4720	7308
Adjusted R-squared	0.159	0.207	0.002	0.037

Note: ** p<0.10, ** p<0.05, *** p<0.01. Standard errors in parentheses.*

Table 4A: Movements of the populations of Abkhazia and South Ossetia, 1992-1993

Category	Abkhazia	South Ossetia
Population of ethnic Georgians, Census 1989	239,872	28,500
Estimated ethnic Georgian population in 1992	247,140	29,364
Number of Georgians killed during the war of 1992-93	10,000	2,000
Number of Georgians migrated to Russia/elsewhere	40,000	NA
Estimated number of IDPs settling in Georgia in 1993	197,140	12,100

Note: population projections are made based on an 1% annual growth rate. The numbers quoted are based on census data and various MRA and IDMC reports.

Table 5A: IDP dynamics in Georgia – estimates versus official statistics

Category	Individuals
Estimated total number of IDPs settling in Georgia in 1993	209,240
Estimated number of IDPs in Georgia by 2008	235,805
Reported number of new IDPs after the war of 2008	16,000
Estimated number of IDPs in Georgia at the outset of 2008	251,805
Estimated number of IDPs in Georgia in 2011	257,897
MRA official number of registered IDPs in Georgia in 2011	**257,367**
Estimated number of IDPs in Georgia in 2013	262,040
MRA official number of registered IDPs in Georgia in 2013	**259,247**
Estimated number of IDPs in Georgia in 2016	269,980
MRA official number of registered IDPs in Georgia in 2016	**273,765**

Sources: Census 2014 data (http://geostat.ge/index.php?action=page&p_id=53&lang=eng), MRA registration statistics (http://mra.gov.ge/eng/static/55), authors' calculations based on IHS sample for 2012-2014.

Table 6A: Disaggregated data on IDPs, according to the year of displacement

Region	Total	1992-1993	2008	1992-1993	2008
Kakheti	1,532	1,270	262	82.9%	17.1%
Tbilisi (capital)	106,093	103,078	3015	97.2%	2.8%
Shida Kartli	17,538	8,219	9,319	46.9%	53.1%
Kvemo Kartli	13,276	9,834	3,442	74.1%	25.9%
Samtskhe-Javakheti	2,422	2,396	26	98.9%	1.1%
Adjara Autonomous Republic	6,845	6819	26	99.6%	0.4%
Guria	523	515	8	98.5%	1.5%
Samegrelo-Zemo Svaneti	87,312	87,225	87	99.9%	0.1%
Imereti, Racha-Lech., Kv. Svaneti	27,017	26,653	364	98.7%	1.3%
Mtskheta-Mtianeti	11,207	1361	9,846	12.1%	87.9%
Overall total	**273,765**	**247,370**	**26,395**		

Source: MRA registry, December 16, 2016.

Table 7A: General and IDP population distribution by regions

Region	Population			IDPs		
	Census, 2014	IHS, 2014	Diff.	MRA, 2013	IHS, 2012/14	Diff.
Total individuals, of which (%)	3,713,804	39,558		259,247	3704	
Kakheti	8.6	9.0	0.4	0.6	0.2	-0.4
Tbilisi (capital)	29.9	26.4	-3.5	38.1	46.0	7.9
Shida Kartli	7.1	7.0	-0.1	6.4	7.4	1.0
Kvemo Kartli	11.4	10.3	-1.1	4.8	6.8	2.0
Samtskhe-Javakheti	4.3	4.6	0.3	0.9	0.0	-0.9
Adjara Autonomous Republic	9.0	9.2	0.2	2.5	0.9	-1.6
Guria	3.1	3.3	0.2	0.2	0.4	0.2
Samegrelo-Zemo Svaneti	8.9	10.1	1.2	32.6	24.5	-8.1
Imereti, Racha-Lech., Kv. Svaneti	15.2	18.1	2.8	9.8	9.6	-0.2
Mtskheta-Mtianeti	2.5	2.0	-0.5	4.2	4.3	0.1

Sources: Census 2014 data (http://geostat.ge/index.php?action=page&p_id=53&lang=eng), MRA registration statistics (http://mra.gov.ge/eng/static/55), authors' calculations based on IHS sample for 2012-2014.

Table 8A: Distribution of IDPs by age and gender

Total, of which (%):	All			Males			Females		
	MRA, 2013	IHS, 2012-14	Diff	MRA, 2013	IHS, 2012-14	Diff	MRA, 2013	IHS, 2012-14	Diff
	246,606	**3,704**		**113,537**	**1,728**		**133069**	**1,976**	
0-6 years	10.3	11.8	1.5	11.5	13.4	1.9	9.2	10.3	1.1
6-11 years	7.1	8.9	1.8	8	9.5	1.5	6.3	8.4	2.1
11-18 years	9.8	10.4	0.6	11.1	12.6	1.5	8.7	8.5	-0.2
18-60 years	55.2	53.8	-1.4	54.5	51.3	-3.2	55.8	56.1	0.3
60 + years	17.6	15.1	-2.5	14.9	13.2	-1.7	20	16.9	-3.1

Sources: MRA Action Plan 2012-14, authors' calculations based on GeoStat sample for 2012-2014.

Table 9A: Distribution of IDPs over time and space

	All Georgia			Tbilisi			Samegrelo, Imereti			Kartli, Mtskheta		
	Per1	Per2	Per3	Per1	Per2	Per3	Per1	Per2	Per3	Per1	Per2	Per3
IDPs	**3106**	**5868**	**2466**	**1105**	**2202**	**870**	**1512**	**2527**	**1105**	**489**	**1139**	**491**
0 to 1	5.4%	7.6%	5.3%	8.5%	7.9%	5.4%	3.1%	5.5%	3.6%	4.3%	12.5%	10.0%
1 to 3	4.1%	8.1%	8.6%	5.0%	7.8%	8.9%	3.2%	5.6%	10.4%	5.0%	15.7%	2.7%
3 to 5	4.0%	5.3%	5.6%	5.5%	6.6%	7.3%	2.4%	3.9%	1.1%	5.7%	4.9%	13.1%
Above 5	85.1%	77.5%	76.0%	80.8%	76.7%	74.2%	89.2%	83.4%	78.8%	82.1%	64.2%	73.2%
Always	1.4%	1.5%	4.5%	0.3%	1.0%	4.2%	1.9%	1.7%	6.2%	2.9%	2.5%	1.0%
Non-IDPs	**69341**	**94836**	**55296**	**18467**	**25411**	**14447**	**24247**	**34603**	**20731**	**26627**	**34822**	**20118**
0 to 1	4.5%	5.7%	4.5%	7.6%	9.0%	7.0%	2.6%	3.4%	3.1%	2.6%	4.1%	3.2%
1 to 3	3.9%	5.2%	5.5%	6.0%	7.3%	8.1%	2.3%	3.2%	4.3%	3.0%	4.8%	3.7%
3 to 5	2.4%	3.0%	2.2%	3.4%	3.4%	2.3%	1.5%	2.4%	2.0%	2.3%	3.2%	2.3%
Above 5	53.9%	51.7%	52.8%	64.1%	59.0%	59.8%	46.6%	45.4%	46.4%	49.3%	50.0%	51.9%
Always	35.3%	34.5%	35.0%	18.9%	21.2%	22.8%	46.9%	45.6%	44.3%	42.6%	37.9%	38.9%
Total N	**72447**	**100704**	**57762**	**19572**	**27613**	**15317**	**25759**	**37130**	**21836**	**27116**	**35961**	**20609**

Source: Authors' calculations based on working age population (18-60 for women and 18-65 for men) from GeoStat IHS survey.

Table 10A: Summary statistics for independent variables in LFP and unemployment regressions, all Georgia

Variable	2004-2008			2008-2012			2013-2016		
	non-IDP	IDP	t-stat	non-IDP	IDP	t-stat	non-IDP	IDP	t-stat
Azerbaijani	0.076	0.000	87.46	0.074	0.002	80.35	0.065	0.004	47.84
Armenian	0.037	0.001	34.39	0.028	0.000	39.48	0.031	0.000	40.33
Another ethnicity	0.030	0.012	6.04	0.029	0.006	13.52	0.022	0.004	12.30
Age	38.71	38.06	2.55	39.41	38.71	2.92	40.35	39.69	2.18
Male	0.477	0.424	5.62	0.482	0.472	2.86	0.498	0.468	3.56
Married (officially)	0.640	0.581	6.22	0.661	0.614	6.23	0.665	0.615	4.60
Married (unofficially)	0.003	0.007	-2.41	0.011	0.008	1.54	0.017	0.009	4.14
Divorced	0.028	0.031	-1.63	0.032	0.030	0.96	0.037	0.038	-0.27
Widowed	0.058	0.082	-3.68	0.040	0.053	-3.67	0.041	0.063	-4.12
Disabled (I)	0.007	0.019	-4.63	0.009	0.011	-1.48	0.008	0.014	-2.97
Disabled (II)	0.032	0.087	-9.06	0.033	0.049	-4.04	0.030	0.040	-2.41
Disabled (III)	0.004	0.008	-1.89	0.001	0.004	-2.15	0.002	0.001	1.87
No schooling	0.001	0.001	-0.47	0.004	0.002	2.23	0.040	0.044	-0.33
Minimal education	0.060	0.025	13.21	0.059	0.032	14.08	0.036	0.027	4.08
Secondary special school	0.144	0.165	-3.42	0.173	0.173	-1.06	0.225	0.216	2.99
Hand craft school	0.069	0.109	-3.41	0.031	0.024	3.42	0.037	0.018	6.52
Higher education	0.304	0.267	-1.36	0.329	0.372	-8.75	0.264	0.272	-3.63
Rural	0.409	0.104	46.13	0.426	0.233	31.91	0.428	0.260	19.92
Local unemployment	0.107	0.129	-32.93	0.116	0.142	-42.94	0.099	0.116	-20.59
Local LFP	0.619	0.555	43.85	0.633	0.608	24.88	0.653	0.629	17.23
Household size	4.586	4.477	4.60	4.565	4.529	1.68	4.481	4.298	4.72
N children (0-2 years old)	0.145	0.136	1.61	0.192	0.205	-2.22	0.225	0.214	0.93
N children (3-5 years old)	0.166	0.163	1.61	0.175	0.173	1.13	0.207	0.181	1.98
N children (6-10 years old)	0.266	0.225	4.88	0.240	0.250	-1.15	0.260	0.279	0.14
N children (11-14 years old)	0.230	0.226	1.68	0.203	0.187	3.42	0.180	0.173	0.72
Labor inc., other HH adults	0.019	0.014	6.52	0.025	0.020	6.90	0.036	0.029	2.27
Non-lab income, HH	1.429	1.841	-11.01	2.078	2.960	-16.46	2.985	3.879	-8.66
Observations	**65586**	**2734**		**94836**	**5015**		**55296**	**2297**	

Table 11A: Summary statistics for independent variables in wage regression, all Georgia

Variable	Period 1			Period 2			Period 3		
	non-IDP	IDP	t-stat	non-IDP	IDP	t-stat	non-IDP	IDP	t-stat
Azerbaijani	0.044	0.000	36.94	0.039	0.005	21.19	0.032	0.006	13.13
Armenian	0.035	0.000	27.48	0.025	0.000	27.64	0.031	0.000	25.17
Another ethnicity	0.033	0.012	4.18	0.031	0.008	8.43	0.026	0.002	7.36
Age	41.99	40.97	2.64	41.61	41.36	0.65	41.76	41.25	1.30
Male	0.572	0.542	1.22	0.583	0.575	1.31	0.577	0.543	3.29
Married (officially)	0.710	0.653	3.90	0.709	0.696	0.27	0.698	0.655	2.95
Married (unofficially)	0.003	0.006	-0.92	0.011	0.005	3.46	0.015	0.006	2.59
Divorced	0.036	0.035	-1.18	0.039	0.020	5.34	0.046	0.035	0.23
Widowed	0.064	0.084	-1.14	0.043	0.067	-3.71	0.044	0.086	-4.21
Disabled (I)	0.002	0.012	-2.79	0.002	0.001	0.56	0.001	0.002	-0.93
Disabled (II)	0.012	0.058	-5.09	0.011	0.029	-3.75	0.008	0.029	-3.26
Disabled (III)	0.003	0.000	7.69	0.001	0.001	-1.21	0.001	0.000	4.13
No schooling	0.000	0.000	1.41	0.001	0.000	0.47	0.042	0.046	-0.04
Minimal education	0.025	0.016	2.70	0.019	0.006	8.58	0.014	0.008	1.56
Secondary special school	0.168	0.149	1.32	0.181	0.177	-0.11	0.190	0.204	0.27
Hand craft school	0.077	0.170	-4.72	0.036	0.034	0.85	0.037	0.011	7.35
Higher education	0.457	0.370	1.76	0.489	0.466	0.36	0.377	0.370	-0.93
Rural	0.264	0.076	17.64	0.280	0.163	12.52	0.293	0.203	7.76
Local unemployment	0.123	0.134	-11.11	0.130	0.148	-17.96	0.110	0.118	-7.61
Local LFP	0.593	0.549	18.50	0.612	0.597	9.71	0.629	0.622	5.03
Household size	4.467	4.318	2.79	4.433	4.475	-0.65	4.362	4.031	4.32
N children (0-2 years old)	0.137	0.136	0.33	0.180	0.209	-2.83	0.208	0.198	0.69
N children (3-5 years old)	0.158	0.171	-0.20	0.169	0.199	-2.76	0.208	0.191	1.16
N children (6-10 years old)	0.276	0.197	4.52	0.243	0.256	-1.49	0.266	0.250	0.56
N children (11-14 years old)	0.237	0.234	0.76	0.208	0.209	1.58	0.185	0.162	1.06
Labor inc., other HH adults	0.019	0.015	1.84	0.027	0.021	6.03	0.039	0.028	3.48
Non-lab income, HH	1.107	1.569	-6.31	1.711	2.579	-9.74	2.370	3.392	-6.15
Observations	21764	770		31601	1562		21149	849	

Table of Contents