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Effects of the Geographical Distance on Economic Well-being: Evidence from Colombia with Emphasis on Displaced Population

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Abstract

Forced migration and displacement are two well-known results of internal armed conflicts of nations. A fundamental relationship associated with these humanitarian movements is the one entailing the link between the geographical distance travelled by migrants and their economic well-being. As such a link remains unstudied in previous works, its empirical scrutiny is timely for migration studies. In this paper, we take the Colombian conflict as a case study to analyze this relationship empirically. Using data from the Longitudinal Social Protection Survey (ELPS) - 2012, we estimated a regression model, in which we tested different welfare measures and blocks of control variables. Contrary to what we expected, the results show that the elasticity of distance is positive and that it does not determine welfare outcomes for the displaced population.

Keywords: *geographical distance; economic well-being; internal migration; Colombia.*

Introduction

During 52 years Colombia has suffered an armed conflict that produced the forced displacement of six millions of people (Correa et al., 2018). Forced migration implies the movements of internally displaced people by armed conflicts or natural, environmental, chemical or nuclear disasters, famine, or development projects. By definition, displaced migrants do not plan their migration, and such a circumstance put them in a disadvantage compared to other types of migrants. In most cases, these people have distinct types of losses. On the one hand, they lose their tangible assets and human capital, as they have to move to places where, we can assume, their skills and competencies do not meet the demands of the local labour market. On the other hand, they lose their social networks (e.g., friends, extended family, acquaintances), and cultural roots, as cultural differences can have a drastic impact on the adaptation of migrants at places of arrival (Lundborg, 2013). For many of these migrants, it is a challenge not only to find ways to match their living conditions before forced displacement, but they do not have the opportunities to overcome the living conditions of those most impoverished locals (Ruiz and Vargas-Silva, 2013; Silva and Massey, 2015; Lozano-Garcia et al., 2010). Despite the extensive literature around the determinants of migration (De Haas, 2010; Buch et al., 2014; Beine and Parsons, 2015; Bodvarsson et al., 2015; Sirkeci and Cohen, 2016; Kondoh, 2017; Mintchev et al., 2017; Carling and Collins, 2018; Van Hear et al., 2018), a less explored topic is the relationship between armed conflicts and the economic performance of migrants (Serneels and Verpoorten, 2015; Fiala, 2015). As we are not aware of any empirical study that has tackled the influence that geographical distance has on the economic well-being of displaced people, our goal here is to provide some preliminary analyses to shed lights in filling this

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gap. In particular, we direct ourselves to evaluate the existence of this relationship. We try to establish the impact that geographic distance has on the economic well-being, and we analyze if this relationship holds for the displaced population. Besides, we evaluate the stability of this relationship by alternating different well-being variables.

From the seminal work of Schwartz (1973), there is evidence of an adverse effect of distance on migration: greater displacements generate an increase in all types of costs (monetary and non-monetary). A victim of the armed conflict may move to nearby places because they do not have the time and resources to analyze the costs of migrating to a specific location. They choose a place because of its economic, social and cultural costs are as low as possible and where their human capital has chances of adaptation to the context in which they try to insert. In Colombia, however, such dynamics may not occur, given the strong centralization of the nation (i.e., few cities and the capital work as economic, political and social hubs that attract the majority of the workforce). This centralization, we posit, can lead migrants to choose different locations for reasons other than the cost-benefit analysis mentioned, and such decision might impact their economic well-being.

The organization of this paper is as follows. Section 2 presents a literature review; next, we provide the methodological aspects of our analytic technique and the construction of the necessary data to implement this methodology. In section 4, we describe our results before we discuss the implications of our findings in section 5. Then, we provide our conclusions and further insights for future research.

Literature Review

Our analytical framework relies on the works of migration, summarized by Brettell and Hollifield (2015). To understand the proposed relationships, we must address the following issues: internal immigration, the spatial dimension of immigration, the effects of flows on the economic well-being of migrants, and forced displacement. These topics are immediately analyzed.

The migration is frequently related to international flows, leaving internal movements relegated to the background (Vullnetari, 2013; von Berlepsch and Rodríguez-Pose, 2019). As Kuhn (2015) points out, internal migration remains relatively understudied, under- measured, and misunderstood. The related literature analyzes the problem in three levels. At a micro level, internal migration is devoted to the analysis of migration decisions build on characteristics of individuals (Morrison and Clark, 2016; Clark and Lisowski, 2017). In these studies, the focus is mainly on objective outcomes or externally identifiable issues that involve both employment and the salaries of individuals (De Jong et al., 2002). By comparison, Sloan and Morrison (2015) employ micro-behavioural approaches, those non-pecuniary outcomes based on subjective results according to the demographic and socioeconomic characteristics of individuals, to analyze the internal population flows. At mezzo-level, some studies are focused on the characteristics of the regions (Royuela and Ordoñez, 2018; Miguélez and Moreno, 2014; Akın and Dokmeci, 2014). It is recognized that among the main reasons behind internal migration are the socioeconomic differences between the regions. From this perspective, migratory flows occur from small to large cities, given that in the latter wages and productivity are higher (Mitra, 2013). In other words, this would imply that there is a relationship between the size of cities and migration. Finally, at a macro level, another essential feature in the literature on internal migration is to separate the role played by macroeconomic variables in determining the intensity and directions of inter-regional migration flow (Dungan et al., 2013) with how such movements can affect variables such as the rate of growth (Ozgen et al., 2010).

The works dedicated to the relationship between distance and migration derive from the so-called Ravenstein's Laws (Ravenstein, 1885). Some seminal works, for instance, claimed that the majority of migrants prefer to go to nearby places or with the most significant commercial or industrial development (Dorigo and Tobler, 1983). One of them affirmed that most migrants travel short distances, given that long paths discourage the displacement of people (Niedomysl and Fransson, 2014). The higher the costs of migration the lower the expected migration flows (Lewer and Van den Berg, 2008; Mayda, 2010; Abbott and Silles, 2016). Although empirical studies as Yano et al. (2003) and Koramaz and Dokmeci (2016) established that distance deters migrants from making long movements, the culture, large urban areas, concentric zones, nearby destinations, and the development of the regions can conditioner this relation. Koramaz and Dokmeci (2016) found that massive migrations occur less than 200-400km from the point of origin, beyond which movements decreases. However, this relationship can be distorted if the area of analysis is a concentric area. Otherwise, by decomposing of short and long distances, authors as Biagi (2011) modeled the effects of economic variables, social capital, quality of life, and amenities variables on the mobility behaviour of individuals. They found that long-distance migration reflects the economic advantages of some regions. Moreover, it seems the short- distance are correlated with small areas where the quality of life is better and contrary to long-distance movements, economic variables do not play a fundamental role. On the other hand, according to Niedomysl and Fransson (2014), people move in short distances for three fundamental reasons: monetary costs, availability of information and social networks. Some authors did not find empirical support on the relationship between monetary costs and distance; on the contrary, they revealed the economic benefits of migrating large distances (Sahota, 1968). The empirical evidence has shown that the decision making of migrants is better when they have networks in the place of arrival and count with greater availability of information (Epstein, 2008). For example, for a migrant, their costs are reduced if a relative lives in the place of reception and offers him help by providing housing and support to get him a job (Ibáñez and Vélez, 2003; Engel and Ibáñez, 2007). Finally, education can compensate for gaps in information, just as age can affect the decisions to migrate due to the emotional attachments of individuals regarding their families and friends (Schwartz, 1973; Niedomysl and Fransson, 2014).

Concerning the results on the economic well-being of migrants, the studies focus on analyzing income, job opportunities, and poverty. Brown and Moore (1970) indicated that the characteristics of households, their socio-economic conditions, and the social context are factors that affect migration. In general, push-and-pull factors that increase or reduce migration decisions are considered. According to Adser and Pytlikov (2016), job opportunities and quality jobs are always worse for migrants than natives. Clark and Lisowski (2017) found recent migrants tend to do worse on average in comparison to the native-born in terms of their employment rates and incomes. Through analyses of rural-urban migration, Zhao (2019) showed that, in general, migrants complement urban workers, especially those high-skills, given that an influx of migrants increases the wages of urban workers. In relation to poverty and migration, Stark (2006) and Stark et al. (2009) pointed out that there is a positive relationship between income inequality and migratory flows. However, according to Czaika (2013), a deepen cross-countries analysis does not seem to adjust to evidence. The relationship depends on inequality and labour skills: workers with high-skilled has a positive association between inequality and migration.

We now address a branch of migration literature devoted to forced displacement. Although there is a variety of causes that encourage this type of migration (Azam and Hoeffler, 2002; Ibáñez

and Vélez, 2008; Dueñas et al., 2014), a widespread consensus has been reached on the fact that the leading cause is armed conflicts and other forms of generalized violence (Davenport et al. 2003; Moore and Shellman 2004, 2006, 2007; Salehyan, 2019). Sirkeci et al. (2012) argued that conflicts play a central role in the decisions of individuals and that together with socioeconomic differences in regions, they define both migratory levels and patterns. According to Cohen and Sirkeci (2011) and Sirkeci and Cohen (2016) migration links migrants and natives through the so-called "culture of migration" (i.e., links of individuals through social, economic, and political contexts as well as opportunities, conflicts, security, and insecurity, etc.), which reinforces continuous population migratory flows. Melander, Erik and Magnus Öberg (2007) suggested that the number of forced migrants is more related to the geographical expansion of the conflict than to its intensity. On the other hand, it does not seem to have a consensus on the association between ethnic conflicts and forced migration. While some scholars found a positive relationship between those variables (Clay 1984; Newland 1993; Kaufman 1996, 1998; Moore and Shellman, 2004; Melander and Öberg, 2006, 2007) others did not support those evidence (Schmeidl 1997; Moore and Shellman 2004; Melander and Öberg 2006, 2007). By taking the Iraqi case as a reference, Sirkeci (2005) argued that the political and social instability caused by the conflict generated tensions between different ethnic groups, which finally increased migratory flows. In analyzing the relationship between ethnic conflict and levels of socio-economic development, Sirkeci et al. (2012) found that migration is mainly due to the perception of insecurity. Ethnic groups that perceive an environment of human insecurity choose to migrate to other parts of the country or abroad. In another area of this literature, some authors found evidence that supports the positive impact of violence perpetrated by the government on forced displacement, even at the same level of violence generated by illegal armed groups (Davenport et al. 2003; Moore and Shellman 2004, 2006).

Unlike other sort of migration where economic disparities play a root cause of international migration (Icduygu, Sirkeci, and Muradoglu, 2001), empirical studies on forced displacement can be divided into analysis of refugees, exiles and armed conflicts (minor disputes, tensions, latent conflicts, civil wars, etc.) in countries such as Turkey, Syria, Iraq, Palestine, Colombia, and some African countries (Saabneh, 2019). In Colombia, the literature indicates that the victims of the conflict migrate by direct attack, by threats, as pressure to avoid being killed or tortured by groups outside the law (guerrilla or paramilitary). Ibáñez and Vélez (2003) pointed out that the initial models of migration do not work for the Colombian case given that pull factors such as education, the location of assets, among other factors are distorted when violence intervenes in these decisions. These authors claimed that the great Colombian migration observed back in the nineties was a consequence of the violence experienced in that period, mainly caused by the illegal groups. Ibáñez (2008) built a model to identify the determinants of displacement at the municipal level. They found that institutional strength, formal property rights, and fiscal performance did not influence individual displacement, but prevented massive movements. The economic attractiveness of the municipality, except the royalties, determined to a great extent the individual and massive displacement. Besides, they pointed out that poverty and violence increase both individual and massive displacements.

One issue of great interest in the migration literature, and which will be evaluated in this document later, is the discrimination experienced by ethnic minorities. According to Ibáñez and Vélez (2003), factors of this sort can persuade the victims of the armed conflict to decide their arrival place. On the other hand, the analysis of forced displacement and its consequences on the socioeconomic conditions of this population has been studied by Ibáñez and Velásquez (2008),

Ibáñez and Vélez (2008), Ibáñez and Vélez (2003) and Fiala (2015). For the Colombian case, it is indicated that the rural nature of the conflict means that almost all displaced people were engaged in agricultural work as they come from rural areas, which means that their human capital was of little relevance if they moved out to cities (Ibáñez and Velásquez, 2008; Ibáñez and Vélez, 2008; Ibáñez and Vélez, 2003). Ibáñez and Vélez (2008) estimated the burden or welfare losses of displacement and found out evidence that its welfare loss was considerable reaching up to 37 per cent of the net present value of rural lifetime aggregate consumption for the average household.

In summary, the literature that addresses simultaneously geographic distance, forced displacement, and economic performance are almost non-existent, limiting itself to works that take the topic tangentially. As mentioned above, the mainstream of the literature focuses on the determinants of the migration, and to a lesser extent on the impact of the socio-economic factors on the displaced well-being. This review reveals a gap that will be addressed in our paper.

Methodology

Empirical strategy

We carry out a regression analysis to observe the impact of geographical distance on the economic well-being of forced displaced. To this end, we alternate three different metrics of well-being and control variables, by employing the following specification:

$$ln(y_i) = \alpha + \beta \times ln(distance_i) + X_i \times \gamma + \epsilon_i (1)$$

where $ln(y_i)$ is the log of our measuring of well-being for individual i; $ln(distance_i)$ is the log of the geographical distance; X_i is a vector of control variables; ϵ_i is the error term. Although our interest is on the sign and value of the parameter β, the estimation of equation 1 by this method faces some problems for its identification. One of them is the specific characteristics of each departament, which could be correlated with other regressors, making it possible to estimate the parameters consistently. Panel data models offer the possibility to avoid this problem by treating these individual characteristics as time-invariant and eliminating them through transformations. Unfortunately, we do not have that possibility given the data structure we have available. However, to solve this problem to some extent, we included some variables that characterize each department, such as the unemployment rate and the GDP per capita and a set of dummies for all the regressions. Another problem is that of endogeneity present in some variables. As usual, the instrumental variables approach can be used. The problem here is the difficulty of finding valid and strong instruments. The achievement of instruments is a complex task (Durlauf et al., 2005), much of the literature that builds "smart" instruments could be invalid or weak or both (Murray, 2006). The use of this sort of instruments and estimation by methods such as 2SLS could generate worse biases than those by OLS. We opted to estimate equation 1 through OLS given the impossibility of generating good instruments.

Data

We used the data from the Longitudinal Survey of Social Protection of the National Department of Statistics of Colombia that collected data from 14,407 households between October and December 2012, sampling the following regions: Andina, Caribbean, Pacific, Amazonia, and Orinoquia. The survey covered various topics such as access to the pension system, membership of the social security system in health, care of minors, education, the labour market of Colombians, among others. Table 1 summarizes the variables included in our data set.

Table 1: Description of variables

Variable	Description	Source
	Dependent variables	
Labour income	total household labour income divided by the number of people.	own calculations based on ELPS
Perception of poverty	is a perception scale, where 1 means the poorest people and 10 the richest.	ELPS
Poverty Line	is a dummy variable that takes the value of 1 if the household's income per capita is below half the median, 0 otherwise.	own calculations based on ELPS
	Explanatory Variables	
Geographical distance	linear distance between two locations (departments)	own calculations based on google maps
Forced displacement	is a dummy that takes the value of 1 if the person states that the reason to migrate is due to threat or risk to their life, their freedom or their physical integrity caused by violence, 0 otherwise	own calculations based on ELPS
	Control Variables	
Education	Years of Schooling	own calculations based on ELPS
Experience	approximate to potential (age - years of education - 6)	own calculations based on ELPS
Sex	dummy (1 if possess)	own calculations based on ELPS
Black ethnic group	dummy (1 if belongs to this ethnic group)	own calculations based on ELPS
Indigenous ethnic group	dummy (1 if belongs to this ethnic group)	own calculations based on ELPS
Physical assets	dummy (1 if possess)	own calculations based on ELPS
Financial assets	dummy (1 if possess)	own calculations based on ELPS
Debts	dummy (1 if possess)	own calculations based on ELPS
Departament Income	GDP per capita, departament	DANE
Unemployment	departmental unemployment rate	DANE

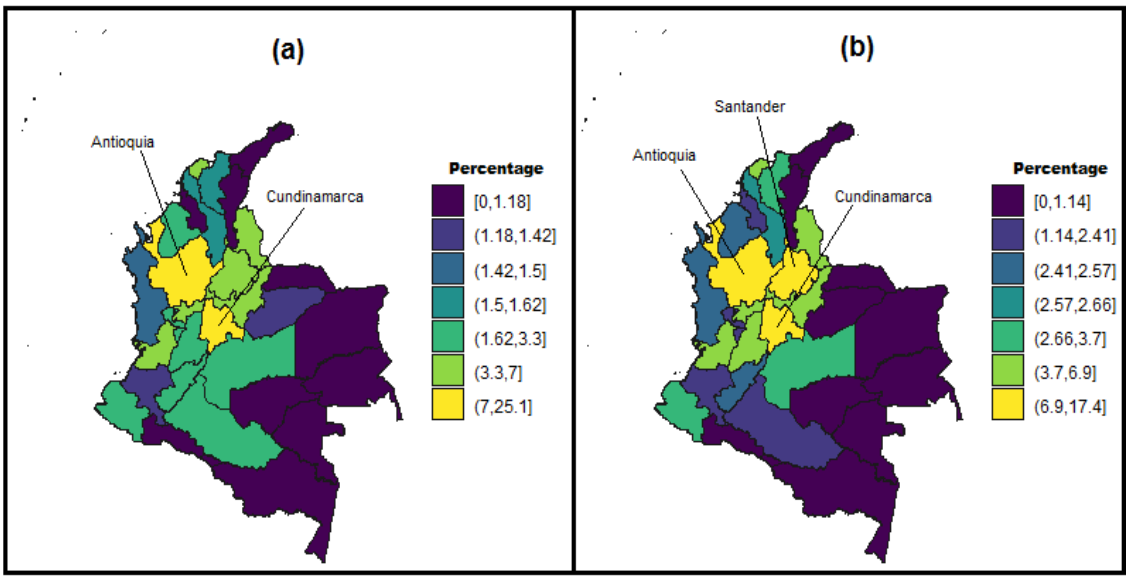
We added three different variables of well-being, one related to labour income, another based on poverty perception and another on the poverty line. According to the economic theory of welfare,

higher levels of income are associated with higher levels of well-being via more consumption. We also focus on the idea that well-being reflects on the mental states of the people, their so-called "subjective well-being" that goes beyond monetary metrics (Diener, 2009; Fuentes and Rojas, 2001). As independent variables, we differentiated people in forcibly displaced and non-displaced, and estimated its interaction with traveled distance by migrants. Control variables included a block of demographic characteristics, one of asset possession and one for attributes of the regions.

Results

A first exploration of the data shows that displaced people migrate to the central area of the country that includes Bogotá as its capital and the departments of Antioquia and Cundinamarca. These geographical areas are the richest and most developed in the country (see figure 1 (a)). However, these regions also expulse a considerable number of displaced persons (see figure 1-(b)). This configuration may indicate that large concentrations of displaced persons reside on the peripheries of these areas and prefer to move to highly dense areas of large cities. The zones of the Colombian Pacific and Caribbean move a portion of their displaced population to the nearby large capitals, while others move to the centre of the country. In Amazonia and Orinoquia does not seem to present significant movements of displaced people, partly due to the reduced number of population.

Figure 1: Migration flow of forced displacement by departments. (a) Departments that reception population. (b) Departments that expulsion population.

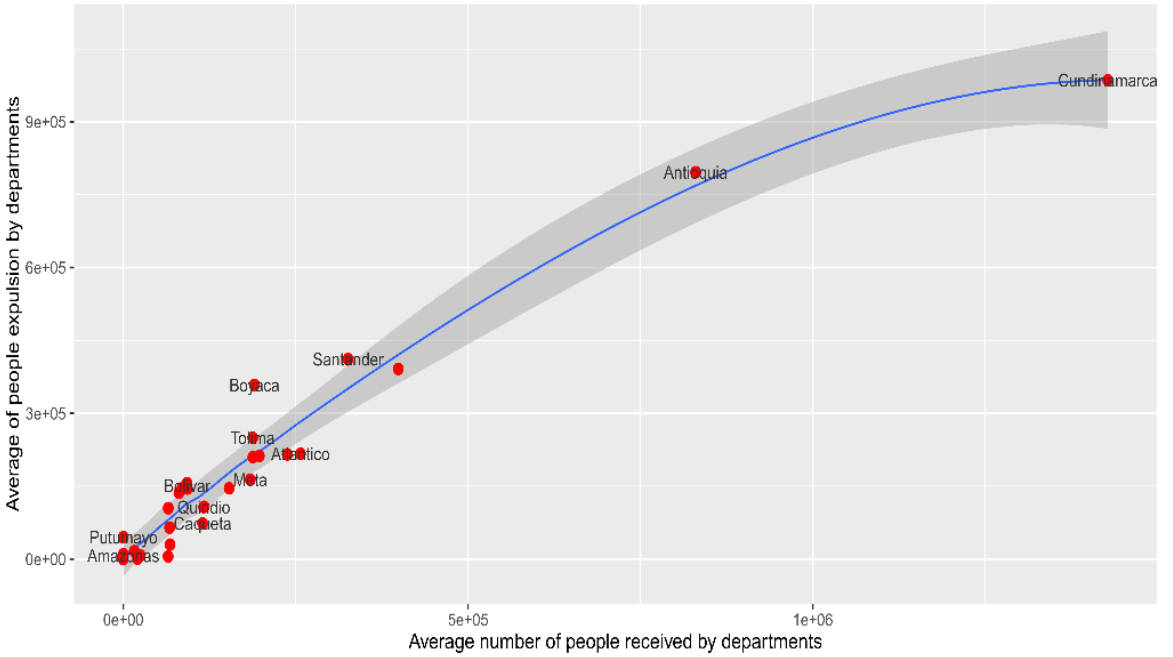


Source: Own calculations based on the Longitudinal Survey of Social Protection (ELPS) – 2012.

The same can be seen in figure 2, in which we show the relationship between the in- bound and the outbound number of migrants by each zone. The figure clearly shows a high correlation between these flows. The majority of departments show migration movements below the threshold of 7% of their population, while Antioquia and Cundinamarca agglomerate the main migration flows of the whole country. In Figure 3, we split the migration of displaced people by regions and correlate them with GDP per capita of each department. With the exception of the Orinoquia region,

the majority of people migrate to the richest and most developed zones (Andina region). It should be remembered that in Orinoquia, the presence of oil fields increases its GDP per capita via royalties, but this does not necessarily imply higher levels of well-being. The figure also reveals a positive relationship between the number of displaced people and their income per capita.

Figure 2: Scatter plot that shows the relationship between the inbound and outbound number of displaced people.

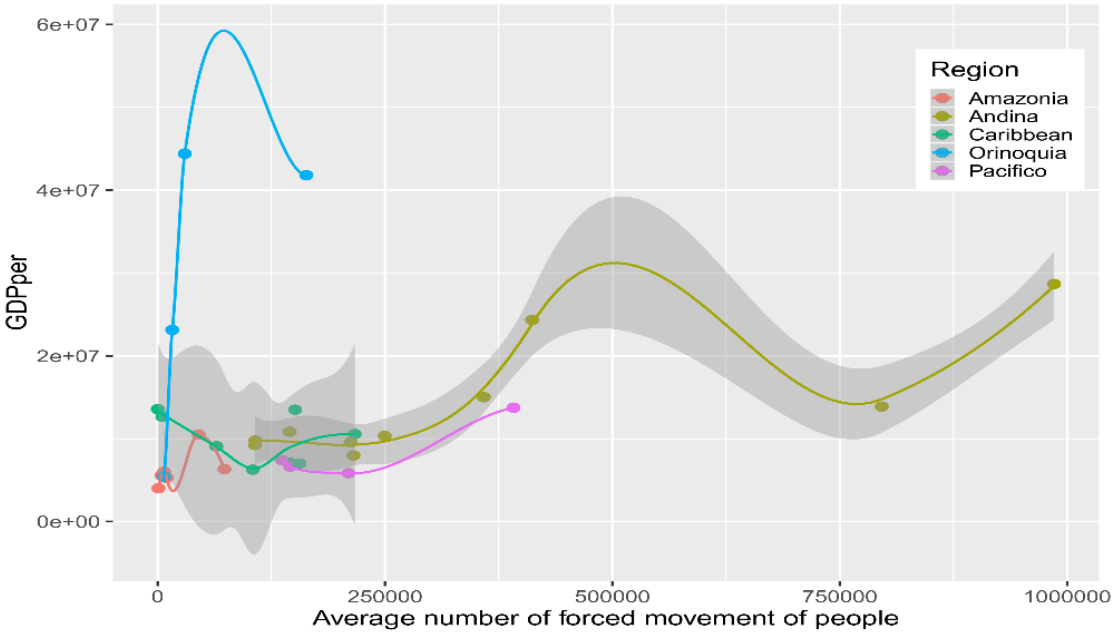


Source: Own calculations based on the Longitudinal Survey of Social Protection (ELPS) – 2012.

We now begin our regression analyses. Table 2 shows the regressions when we include demographic control variables and characteristics of the departments. Surprisingly, the geographical distance has a positive and strongly significant effect on well-being, regardless of the independent variable used. Following the literature that we cited previously, we could think that the people who migrate to nearby places may have better results. However, the characteristics of the Colombian armed conflict and the intense concentration of economic power exerted in Antioquia and Cundinamarca, may influence this relationship. The results also show that for the forced displaced people, the welfare conditions are worse than other groups.

As expected, formal education, age, and experience have a positive effect on well-being variables, while variables such as sex, ethnic groups and the characteristics of the regions are not conclusive in the impact they have. In table 3, the models are again run but including a different set of control variables related to resources and available assets. Although in the models in which the dependent variable is the household's income per capita and the poverty line, the explanatory power is too low, ratifying previous results consisting of a positive and significant relationship between the geographical distance and the economic well-being. Likewise, forcibly displaced people are in a condition of vulnerability concerning other groups. On the other hand, the results show, as expected, that most favourable conditions are for those who have some resources or assets.

Figure 3: Departments that move vs departments that receive people.



Source: Own calculations based on the Longitudinal Survey of Social Protection (ELPS) – 2012.

Table 2: Geographical distance and different measures of well-being

	ln(Labour Income)	Perception of poverty	Poverty line
	OLS	OLS	Probit
ln(Geographical distance)	0.061***	0.028***	-0.047***
	(0.019)	(0.007)	(0.006)
Forced displacement	-0.824***	-0.403***	0.150***
	(0.254)	(0.078)	(0.064)
Years of schooling	0.097***	0.086***	-0.059***
	(0.008)	(0.002)	(0.002)
Age		0.005***	0.003***
		(0.000)	(0.001)
Experience	0.062***		
	(0.010)		
Experience squared	-0.002***		
	(0.000)		
Sex (1 if male)	3.251***	0.052	-0.397***
	(0.104)	(0.031)	(0.026)
Indigenous ethnic group	0.111	-0.388***	0.165***
	(0.221)	(0.071)	(0.063)
Black ethnic group	0.414***	-0.488***	0.044
	(0.149)	(0.051)	(0.042)

Table 2: Geographical distance and different measures of well-being (*Continued*)

GDP per capita	-0.273	-0.340***	0.401
	(0.328)	(0.124)	(0.601)
Unemployment	-0.010	-0.056***	-0.027
	(0.033)	(0.011)	(0.041)
Constant	7.428***	7.871***	-4.556
	(0.646)	(1.694)	(7.667)
Observations	14150	14150	14150
R2	0.2022	0.236	
Pseudo R2			0.111
F-statistic	81.18***	155.13***	
Wald Chi2			1550.32***

Note: Huber-White standard errors. *p<0.1, **p<00.5, ***p<0.01. Includes dummy variables for departamental characteristics.

Source: Authors calculations using ELPS-2012

In table 4, we include the interactions between geographical distance and forced displacement to the models presented in tables 2 and 3. The results indicate that for people who are forcibly displaced, distance is not a determining factor in well-being outcomes, except in the case when the dependent variable is the household's income per capita and the controls are resources and available assets.

Table 3: Geographical distance and resources and available asset

	ln(Labour Income)	Perception of poverty	Poverty line
	OLS	OLS	Probit
Geographical distance	0.043**	0.019***	-0.040***
	(0.021)	(0.007)	(0.010)
Forced displacement	-1.365***	-0.545***	0.271***
	(0.278)	(0.074)	(0.064)
Physical assets	0.723***	0.121***	-0.070**
	(0.118)	(0.041)	(0.033)
Financial assets	1.331***	1.093***	-0.510***
	(0.101)	(0.033)	(0.026)
Debts	0.938***	0.057*	-0.152***
	(0.099)	(0.033)	(0.027)
Constant	10.461***	4.239***	-0.434
	(0.710)	(0.212)	(0.611)
Observations	14150	14150	14150
R2	0.0521	0.2144	
Pseudo R2			0.066
F-statistic	21.66***	134.74***	
Wald Chi2			989.92***

Note: Huber-White standard errors. *p<0.1, **p<00.5, ***p<0.01.

Includes dummy variables for departmental characteristics.

Source: Authors calculations using ELPS-2012

Table 4: Geographical distance with interaction between variables

Dependent variable	ln(Labour Income)	Perception of poverty	Poverty line
	OLS	OLS	Probit
With controls of demographic characteristics			
Distance × Desplaced	0.246	0.024	0.023
	-0.205	-0.063	-0.053
With controls for resources and assets			
Distance × Desplaced	0.476**	0.023	-0.007
	-0.217	-0.06	-0.052

Note: Huber-White standard errors. *p<0.1, **p<00.5, ***p<0.01.

Includes dummy variables for departmental characteristics.

Source: Authors calculations using ELPS-2012.

Discussion

The aim of this paper was to analyze the effects that geographic distance has on the economic well-being of Colombian migrants. As it is well-known, Colombia has suffered an internal war of 52 years among different groups of the society including guerrillas, paramilitaries, and government, resulting in six millions of displaced people (Correa et al., 2018). Given the vulnerability of these people, we posited the idea that their economic well-being would be inferior in comparison with other sorts of migrants, and this should be in perspective with the centralization of the country that could affect their decision to leave their homes and possessions.

Intra-regional distance is frequently taken as one of the main variables that determine where migrants ended up being. According to one of Ravenstein's fundamental laws, the intensity of migration decreases as the distance increases (Ravenstein, 1885). As already mentioned, many authors have found empirical evidence that shows the deterrent effect of distance in migratory flows elsewhere. Although there are good reasons to think that people move in short distances and that migration flows decrease with distance (e.g., economic, social or psychological costs, social and family networks, etc.), this is not always the case. The migration of people from the Mediterranean and Northern Africa who try to reach Northern Europe (Castañeda, et al., 2009), and the case of young people that travel long distances to go to university (Wajdi et al., 2017) are just two cases that illustrate why distance is not necessarily related to migration. In Colombia, the negative relationship between distance and migration flows is lost by the strong centralization of the country (i.e., Bogotá and Medellín work as financial, industrial, and transportation hubs that attract the majority of the workforce). The results of the analysis presented here are against those who claim that most migrants travel short distances (Niedomysl and Fransson, 2014). On the contrary, our results are closer to those who have claimed the benefits of traveling long distances (Biagi, 2011).

The results showed that migrants go to great urban centers, like Bogotá and Medellín that belong to Andina Region that concentrates more opportunities for employment and welfare, regardless of their distances from migrants' origins. According to our results, on average, migrants improve their living conditions by moving away from their places of origin. People travel long distances in search of places that guarantee more significant job opportunities.

Our findings are in agreement with those of Koramaz and Dokmeci (2016) who found, for the case of Turkey, that areas with significant development and economic potential, like Istanbul, are the ones with great migratory attractiveness regardless of their distances from migratory origins.

These benefits, however, do not extend to forcibly displaced persons. The evidence shown in this paper suggests that displaced migrants by the Colombian armed conflict perform economically worse than non-displaced migrants. This result, however, should be considered with a caveat. The underlying analysis could be biased because we did not control by differences between groups. For example, those migrants who were not displaced by force came earlier, and the economic conditions back then might have been different. Our analysis did not control for the economic conditions of these two groups as time goes by, because the structure of the data is cross-section instead of longitudinal. The inability of the former to plan travel takes them to markets they are not prepared for. Our results support the evidence presented by Ibáñez and Vélez (2008) on the well-being losses of displacement. Our findings remained even when we weigh it by distance. No matter where they go, displaced people are always in a worse condition of well- being. It worth to mention that the displaced population in Colombia is mostly peasants who are apt to work in agricultural activities, but their labour profile turns out to be obsolete for the markets they chose to go.

Fiala (2015) presented comparable results revealing that displaced households experienced a significant initial decline not only in consumption but in areas such as education and wealth, but with the aggravating factor that these welfare losses may even persist over time for a substantial proportion of the displaced population. These latter results represent a latent concern, not only for the researchers but also for policy-makers, given that this short-term situation could have lasting consequences. Ivlevs and Veliziotis (2018) found that people who fled the conflict 10 to 15 years ago are more likely to be long-term unemployed, experience steady job losses and work informally.

Surprisingly, in an exploration of our data, we found that the richest and most developed regions are, at the same time, those with the highest rates of expulsion and reception of the population. Our results could be aligned with Dueñas et al. (2014) who found that, at the municipal level, zones with higher homicide rates and conflict intensity were associated with higher indices of migration. An explanation for this is that the peripheries of these regions are rural areas with highly vulnerable persons, and illegal groups that increase the intensity of the conflict and homicide rates. This feeling of insecurity or threat generates massive displacements towards nearby capitals or centers highly developed.

Conclusions

This paper presented an analysis that allowed us to verify the possible effect that geographic distance has on the economic well-being of Colombians, who for several decades has suffered the effects of internal armed conflict. The specific characteristics of the country could distort the initial hypothesis about a possible negative distance elasticity, given that large displacements generate monetary costs, losses of social and cultural networks, making it more difficult to adapt to the place of reception for migrants. This situation could be even more difficult if the analysis is carried out for ethnic groups and especially for the forcibly displaced population. The last population does not have the possibility of planning their displacement, with which they lose in most cases their physical assets. The results found in this document go against these hypotheses. First, the elasticity of geographical distance is positive; migrants get better returns if they move further away from places of origin. Our result can be explained to the extent that the country concentrates a large part of its

development in some regions, making the most significant opportunities for employment, education, health, etc., are there. For many of them, moving to these regions involves traveling a long distance. Those that do not are located in neighbouring municipalities where opportunities are scarce, and labour markets are very narrow.

Furthermore, we found that this positive effect disappears when interacting with the forcibly displaced population. For these people, welfare conditions are more precarious than those of other migrants and natives regardless of the distance, traveled. This condition of vulnerability elucidates a focus for public policy.

The results presented in this document, although revealing, present some weaknesses in their estimation. The structure of the data does not allow observing the dynamic evolution of this population, limiting the analysis, not only from the conceptual viewpoint but also from the methodological one. We believe that future research should focus on deepening this topic with techniques that eliminate the possibility of biases in the estimates. Examining the distance effects in this context is a well-deserved venture.

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