Journal of Regional Research
Investigaciones Regionales

Regional disparities in amenities and the life satisfaction of internal migrants

Grace Carolina Guevara-Rosero*, Alexander Sarango-Iturralde**, Andrés García-Suaza***

ABSTRACT:

While migrants pursue better incomes, they might be driven by differences in amenities between the place of origin and destination. This study aims to determine the effect of differences in health, educational amenities, and the operational capacity between the place of origin and destination on the life satisfaction of internal migrants. To do so, a generalized ordered logit model is estimated using data from the Survey of Employment, Unemployment and Underemployment of Ecuador for the editions from 2015 to 2017. Our results show that income and amenities are not competing reasons for life satisfaction, they go hand in hand. Differences in health and educational amenities, as well as variations in the operational capacity of local governments between the places of origin and destination, have an influence on the life satisfaction of internal migrants. These effects vary depending on the age of the migrant, the size of the city of origin and destination, the reason for migration, and the duration of residence.

KEYWORDS: Migration; life satisfaction; regional amenities.

JEL CLASSIFICATION: R23; I31; R10.

Disparidades regionales en servicios urbanos y la satisfacción con la vida de los migrantes internos

RESUMEN:

Si bien los migrantes buscan mejores ingresos, también pueden verse impulsados por diferencias en los servicios urbanos entre el lugar de origen y el de destino. Este estudio tiene como objetivo determinar el efecto de las diferencias en salud, servicios educativos y capacidad operativa entre el lugar de origen y el de destino sobre la satisfacción con la vida de los migrantes internos. Para ello, se estima un modelo logit ordenado generalizado utilizando datos de la Encuesta de Empleo, Desempleo y Subempleo de Ecuador para las ediciones de 2015 a 2017. Nuestros resultados muestran que los ingresos y los servicios urbanos no son razones competitivas de satisfacción con la vida, sino que están interrelacionados. Las diferencias en servicios de salud y educación, así como en la capacidad operativa del gobierno local en las ciudades de origen y destino, influyen en la satisfacción con la vida de los migrantes internos. Estos efectos varían según la edad del migrante, el tamaño de la ciudad de origen y destino, la razón de la migración y la duración de la residencia.

PALABRAS CLAVE: Migración; satisfacción con la vida; amenidades regionales.

CLASIFICACIÓN JEL: R23; I31; R10.

* Departamento de Economía Cuantitativa, Escuela Politécnica Nacional. Ecuador. carolina.guevara@epn.edu.ec
** PhD student in ED Économie and DEVSOC, Université Paris 1 Panthéon Sorbonne. France.
alexandersarangoiturralde@outlook.com
*** Associate professor and acting dean. Universidad del Rosario. Colombia. andres.garcia@urosario.edu.co
Corresponding author: alexandersarangoiturralde@outlook.com

Guevara-Rosero, G. C., Sarango-Iturralde, A., García-Suaza, A.

1. INTRODUCTION

Internal migration is a complex phenomenon with multiple causes and effects. Among causes, the conditions of the place of origin and the conditions in future hosting places play a key role (Hakim et al., 2022). Such conditions involve numerous aspects from income to life conditions, living costs, accessibility to urban amenities, among others, all looking for wellbeing improvement. This implies that migrants pursue amenities as well as better incomes (Albouy et al., 2021). Due to a high regional disparity within countries, especially in developing countries with some regions with more and better amenities than others, internal migration is expected to be high. For instance, in the case of Ecuador, the focus country of this study, in 2017, 27% of the total population (4.5 million people) reported having migrated within the country. Furthermore, internal migration is highly concentrated in large cities, 27% of internal migrants have relocated to metropolises from smaller cities (7% from large cities, 8% from medium-sized cities, and 12% from small cities).

One important factor that explains a high level of internal migration, particularly toward major cities, is a bias or preference for these primary urban centers. Economic resources are devoted to increase the development in main cities, making them more attractive to live in, and making smaller cities less attractive. In Ecuador, for instance, main cities have historically received a high proportion of the government budget (Córdova and Meneses, 2019). Although the distribution of the budget is also assigned according to the index of unsatisfied basic needs, which raises funds to small municipalities, they generally have insufficient administrative capacity (Pérez and Cantuña, 2015). All of this has an impact on the amenities that cities can offer to their citizens (natives or migrants) and their welfare.

Therefore, the present study aims to examine how disparities in health and education amenities, along with the operational capacity of local governments, between migrants' places of origin and destination influence their welfare. This topic is relevant because it allows us to illustrate the importance of amenities on well-being and to propose recommendations on how access to essential services such as education and health drive migrants' integration. In addition, the potential heterogeneity between migrants regarding health and education amenities allows us to establish connections between life satisfaction and motivation for migration, both elements are crucial components of adaptation and integration programs. The characteristics of both the destination and the place of origin have been analyzed in theories of transnationalism (Levitt and Jaworsky, 2007). For instance, Niedomysl and Hansen (2010) include the conditions of the hosting place to analyze the decision to migrate. However, it is worth noting that only Berggren et al., (2022) analyze the life satisfaction of migrants considering the average life satisfaction of the origin and destination place at the country level.

The operational capacity of local governments is also examined. This is an important aspect since regions with a higher level of organization tend to provide better quality services and therefore attract migrants. Previous studies have analyzed the effect of public governance on citizens' welfare, obtaining a positive result (Cárcaba et al., 2022). However, to the best of our knowledge, there hasn't been any study that examines the impact of differences in local government capacity between the origin and destination on the life satisfaction of internal migrants.

The contribution of this study is threefold. First, it focuses on the well-being[1] effect of internal migrants of the differences of basic services such as education and health between the hosting and origin place, which are relevant in the context of many developing countries. Second, it considers heterogenous effects of amenity differences on different types of migrants: i. migrants coming from smaller cities and establishing in bigger cities, ii. migrants coming from bigger cities and establishing in smaller cities, and iii. migrants moving across cities of the same size. And third, given that the context influences on the individual welfare (Guevara-Rosero, 2023), this study constitutes an important basis for policy recommendations regarding the public action, specifically related to the operational capacity of local governments to improve the welfare of their inhabitants.

---

[1] We assess subjective well-being, measured by life satisfaction. Although, it does not encompass the full multidimensionality of well-being, life satisfaction is a cognitive judgment of life (Shin and Johnson, 1978). A person with high life satisfaction might reflect achieving of goals, desires, and standards based on the current conditions of his/her life. (Diener et al., 1985).

To do so, we use data at the individual level from the Survey of Employment, unemployment, and underemployment (ENEMDU 2018). We use a subjective measure of well-being: the life satisfaction level which is an ordinal variable ranging between 0 and 10, with 0, the lowest level of life satisfaction and 10, the highest level. Due to the nature of our dependent variable, a generalized ordinal logit model is estimated. Our econometric specifications include as a variable of interest the difference in amenities in education and health per 10 thousand inhabitants between the place of destination and the place of origin. These variables capture the change in the supply of health and education services. Similarly, our third variable of interest is the difference in the operational capacity index which reflects the capacity of local governments to be efficient in the provision of services. Finally, to control for differences in migration motivation, our analysis captures whether the effect of amenities and operational capacity differs between youth and adults.

Our results show that apart from the individual characteristics of migrants, the conditions of the place of origin and the conditions of the place of destination in terms of city size, education, health, and governance matter for their life satisfaction. First, internal migrants are more likely to report high levels of life satisfaction if they move to larger cities than if they move to cities of the same size. Interestingly, internal migrants that move to smaller cities are also more likely to report high levels of life satisfaction than those that move to cities of the same size. This can be explained by a larger availability of amenities per person in smaller cities. To better understand these interesting results, the differences in health and educational amenities and in the operational capacity between local governments are considered.

In this way, when the destination place accounts for more health and educational amenities and better operational capacity than the origin place, the life satisfaction of internal migrants increases. These effects differ depending on the age of the migrant, the city size of the origin and destination, the migration reason, and the time of residence in the destination place. In addition, our results shed light on the trade-off between economic opportunities and amenities. Income and amenities are not competing reasons of life satisfaction, they go hand in hand.

This paper is organized as follows. Section 2 presents the literature review. Section 3 describes the data and explains the empirical strategy. Section 4 presents and discusses the results and section 5 concludes.

2. LITERATURE REVIEW

The welfare of migrants has been first studied by looking at the differences between them and non-migrants. Migration improves migrants' income, however, in general, migrants report lower levels of life satisfaction than the local population or the majority group (Baltatescu, 2005; Safi, 2010; Kirmanoğlu and Baslevent, 2014). This happiness gap between migrants and locals has been explained through different mechanisms such as time use (Hendriks et al., 2016), migration distance (Nowok et al., 2013; Zheng et al., 2022) which is associated with the pecuniary and non-pecuniary costs of migrating, migration rationale (Switek, 2012), among others. Bartram (2011) argues that it is expected that migration does not necessarily affect happiness to the extent that migration has motivations more related to improving income. Moreover, Chen et al., (2019) also indicate that welfare of migrants could reduce due to non-pecuniary costs that include deterioration of physical and mental health. Determining the effect of these costs on welfare is crucial for guiding policies that promote economic integration and assimilation and thus provide a balance in the cost-benefit of migration.

Additionally, a strand of the existing literature focuses on the analysis of the decision to migrate, which considers income differentials, economic opportunities, costs, amenities, among others. To these factors are added the levels of well-being and happiness (Rodríguez-Pose and Ketterer, 2012; Constant and Zimmermann, 2013). The debate has mainly focused on analyzing the trade-off between economic opportunities and amenities (Knapp and Gravest, 1989; Clark and Hunter, 1992). The results in this branch suggest that both factors are relevant, however employment opportunities and wages seem to be more relevant than amenities (Greenwood and Hunt, 1989; Chen and Rosenthal, 2008). Differentials in location-specific amenities have been studied in Gabriel et al. (1987) and Clark and Cosgrove (1991), which results in a relevant driver of migration decisions.

While literature has focused on the influence of amenities on the monetary income, less attention is given to the influence of amenities on the life satisfaction of migrants. Albouy et al., (2021) study the effect of amenities in real wages of migrants by applying a theoretical spatial equilibrium model and they found that migrants are disproportionately in big cities with low real wages due to high living costs, indicating their willingness to pay for amenities, especially pre-existing enclaves of immigrants or deep immigrants networks (Card and Dinardo, 2000; Saiz, 2007). The spatial equilibrium model shows that immigrants sorting in cities reveals their preferences for amenities.

In the psychology field, Paloma et al., (2010), based on an exhaustive literature review, built a conceptual framework explaining the factors that influence on the life satisfaction of migrants from developing countries to developed ones and identify three types of factors: structural integration, social and cultural inclusion, and individual strengths. Structural integration comprises the access to community resources such as social, health and public administration services, which are related to urban amenities in regions. Likewise, Marzana et al., (2016), in a psychology study, show that migrants with culturally competent access to these community resources report higher life satisfaction levels. Migrants with perceived higher social support are more satisfied with their lives (Moreno-Jiménez and Hidalgo, 2011; de Vroome and Hooghe, 2014; Joarder et al., 2017; Leung and Tang, 2018).

Several authors have emphasized that migrants not only look for better incomes but also for better amenities. For this reason, although the real income in big cities is lower than in small cities, many migrants locate there and have an improvement in their welfare (Albouy et al. 2021). The migrants' welfare is, then, determined by the conditions of the hosting place, including amenities. However, studies that directly relate amenities and happiness or well-being for migrants are scarce. An exception is Liu et al., (2017) that studies whether neighborhood amenities determine the level of subjective well-being of migrants in China. Amenities in terms of food and climate that are more appreciated by migrants might be like the amenities that they had in their place of origin. Those migrants with different amenities from their origin place might bear psychic costs. This is true for international migrants but also for internal migrants due to intra-national differences between localities.

In other cases, migrants like to have different amenities from those of their origin place (Albouy et al. 2021). For instance, in developing countries, where some regions lack many basic services, migrants coming from there look for places with better basic infrastructure. Therefore, migrants would be more attracted towards places such as metropolitan areas (Borjas, 2001). In this sense, the comparison between amenities in the origin and destination place could be a relevant factor that explains the welfare of migrants. Despite the extensive literature analyzing the role of location-specific factors on the decision to migrate, less has been studied how these factors influence the life satisfaction of migrants.

The adequacy of life conditions in specific cities might be related to the operational capacity of their local governments. A local government with weak operational capacity would not provide quality services or its provision of basic service infrastructure would be deficient. In this respect, the existent literature has focused on the effect of local governments on public service delivery in a framework of a decentralization regime. Setiawan et al., (2022) show that the local government capacity positively influences on the public service delivery in Indonesia. Shin and Jhee (2021) analyzed the satisfaction of citizens with respect to public services and obtain that the citizens' satisfaction is not improved when the local government capacity is better. It is explained by low expectations of the population regarding decentralization in South Korea. Another strand of literature has analyzed the relationship between quality of governance and life satisfaction in general, not only regarding public services. For instance, Cárcaba et al., (2022) analyzed, for the Spanish case, the effect on subjective well-being of three aspects of governance: accountability, efficiency, and control of corruption. Only the government efficiency had a positive significant impact on citizens' subjective welfare.

3. DATA AND EMPIRICAL STRATEGY

3.1. DATA

To analyze the effect of basic amenities in life satisfaction of individuals, two types of data are combined: individual-level data from the National Survey of Employment, Unemployment and Underemployment (ENEMDU, acronym in Spanish) and aggregate-level data from the Master Archive of Educational Institutions (AMIE acronym in Spanish), the National Council of Competences and the Integrated Information System of the Ministry of Economic and Social Inclusion (SIIMIES acronym in Spanish).

The ENEMDU is a cross-sectional survey that provides a representative sample of the urban and rural areas of all 24 provinces of the country, as well as the five self-represented cities of Quito, Guayaquil, Cuenca, Machala, and Ambato. Accordingly, our aggregate data corresponds to these representative subnational regions according to the survey. The ENEMDU survey contains valuable information on the perception of life satisfaction and the migratory movements of the respondents.

For our study, we use the surveys corresponding to second quarters of years 2015 to 2017, creating a pooled dataset with 70,118 observations. For the classification of the 29 geographical units into small, medium-sized, and big cities, the United Nations methodology is used as conducted by Guevara and Del Pozo (2020) (see Table A 1.). Based on this classification, three types of transitions for internal migration are proposed: i. migration to a larger city; ii. migration to a smaller city, and iii. migration to a city of the same size. We estimate separate models for each of these transition types.

3.2. METHOD

To study the life satisfaction of internal migrants, we employ a generalized ordered logit model (*gologit*, see equation 1). Our dependent variable, the subjective well-being, is assessed through self-reported evaluations of life satisfaction using a 0-10 scale question from the ENEMDU survey. The question used in the survey is as follows: "Please respond using the following scale, where 0 means completely dissatisfied, and 10 means completely satisfied. How would you rate your overall satisfaction with your life, considering all aspects of your life?" This question is considered a valuable indicator of migrants' perceived quality of life in host countries (Chu et al., 2018) and has been widely used in psychological studies, aiming to analyze a person's cognitive evaluation of his/her own life (Diener et al., 2005). The most common way to measure subjective well-being is through individual self-evaluation of satisfaction, as suggested by Diener et al., (2003). The level of satisfaction can be characterized by a latent variable and is estimated using a generalized ordered logistic model as follows (Williams, 2006):

$$P(LS_i > j) = g(X\beta_j) = \frac{\exp{(\alpha_j + X_i\beta)}}{1 + \exp{(\alpha_j + X_i\beta)}}, j = 1, \dots, M \tag{1}$$

Where M corresponds to the number of categories of the Life Satisfaction (LS). In this case, the LS responses are grouped into three categories (M=3): low (LLS), medium (MLS), and high level of life satisfaction (HLS), following Guevara-Rosero and Bonilla-Bolaños (2021)'s suggestion. The probabilities that LS takes the values 1, 2 and 3 are equal to:

$$P(LS_i = 1) = 1 - g(X_i\beta_1) \tag{2}$$

$$P(LS_i = 2) = 1 - g(X_i\beta_1) - g(X_i\beta_2) \tag{3}$$

$$P(LS_i = 3) = g(X_i\beta_2) \tag{4}$$

This generalized ordered logit model corresponds to a series of binary logistic regressions where different categories of LS are combined as follows: category 1 is contrasted with categories 2 and 3; and categories 1 and 2 are contrasted to category 3. This specification is applied since the parallel lines/ proportional odds assumption in our case is not accomplished for all independent variables as shown in

Annexes (Table A 2. – Table A 4.). According to the Brant test and, some coefficients βs differ across levels of j but others do not.

In this study, three types of internal migrants are analyzed: i. migrants coming from smaller cities to bigger cities, ii. migrants coming from bigger cities to smaller cities and iii. migrants moving to cities of the same size. To identify migrants, two questions were used: where were you born? And where did you live before coming to this place? The vector X includes individual characteristics such as gender (females and males), relationship status (with or without a partner), educational level (primary, secondary, and postsecondary), ethnicity (indigenous, mestizos and whites, afro-Ecuadorians), employment status (employed, unemployed, inactive, and non-working age population), reasons for migration (economic and family-related), types of migrants based on migration duration (short-term less than 5 years and long-term more than 5 years), stage of life (youth- less than 28 years old and adults-older than 28 years old)[2], income, distance (in kilometers between the destination and place of origin) and contextual variables such as the difference in health (public and private health centers per 10,000 inhabitants) and education (institutions with basic education per 10,000 inhabitants from 5 to 14 years old) amenities between the destination city and the origin city, and the difference in the operational capacity between the destination municipality and the municipality of origin. The municipal operational capacity index is computed based on three components: planning, financial management and citizen participation by the National Council of Competences (see in Annex B.).

4. DESCRIPTIVE STATISTICS

Figure 1 provides a visual representation of migration flows between 2015 and 2017, categorized by city size. Based in our categorization into three distinct transition types, the migration movement from smaller cities to larger ones represents 35%, the movement from larger cities to smaller ones represents 23% and notably, the intra-city-size movements represent 42%.

Upon a closer examination of migration flows by city size, metropolitan cities, despite their size and expected attractiveness for internal migration, hosted a lower proportion of the total migration (30%) than small cities which hosted 36% of migration flows. Large cities received 19%, and medium-sized cities received 16%.

The most common internal migration movements are those from small cities to small cities (21.9%), those from small cities to metropolitan cities (11.73%), those from large cities to large cities (9.28%) and those from medium-sized cities to metropolitan cities (8.13%). It is striking that among migrants that move from metropolitan cities, the highest proportion of them move to small cities (5.6%). The least common migration routes encompass flows between metropolitan cities and migrations from medium-sized or small cities to large cities, each contributing to a mere 2% of the overall internal migration (see Figure 1.).

Table 1 displays the characteristics of migrants classified in three groups: i. those moving to larger cities, hereafter referred to as Larger city movers, ii. those moving to smaller cities, referred to Smaller city movers, and iii. those moving between cities of the same size, named as City-size indifferent movers. When examining the levels of life satisfaction among these migrant groups, our results show that a higher percentage of Larger city movers (61.17%) report a high level of life satisfaction compared to both Smaller city movers (59.72%) and City-size indifferent movers (57.26%). The higher percentage of individuals reporting a high level of life satisfaction among migrants moving to larger cities can be attributed to the potential for increased opportunities and improved amenities typically found in larger cities, as opposed to smaller ones. Among the three migrant groups, there are no differences in terms of gender proportion and relationship status.

---

[2] This classification of age groups was established due to stability of the models. More categories might be more difficult to interpret and may cause reduce statistical significance power due to less observations per group in our interaction terms.

FIGURE 1.
Migration flows by city size
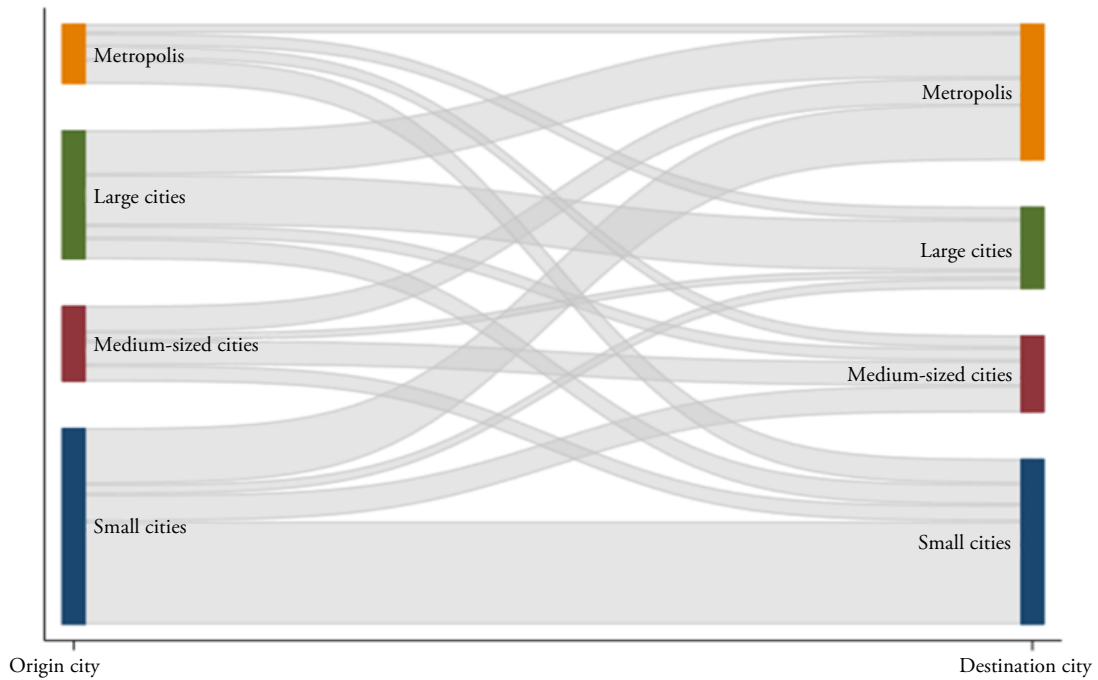
Source: authors' calculations using ENEMDU 2015-2017.

A higher proportion of internal migrants in the group of Larger city movers (19.72%) records higher levels of education (postsecondary) than migrants in the group of Smaller city movers (16.43%) and in the group of City-size indifferent movers (12.63%). Regarding ethnicity, indigenous represent a significant proportion among migrants in City-size indifferent movers (13.15%), compared to Larger city movers (3.89%) and Smaller city movers (3.03%). A greater percentage of migrants moving to cities of the same size are employed (64.82%) compared to migrants in the Larger city mover group (62%) and in the Smaller city mover group (59.9%). However, the proportion of unemployment is similar across three migrant groups. A striking feature is that most of internal migrants regardless the city size to which they move to, migrate for family reasons (63.32% in average), rather than for economic reasons (37% in average). Migrants moving to larger cities are mainly long-term migrants (85.79%) with more than 5 years residing at their destination. Smaller city movers are mainly short-term migrants (23.62%), compared to larger city movers (14.21%) and City-size indifferent movers (19.63%). In addition, Small city movers record the highest proportion of young migrants (31.09%) compared to the other groups. On average, migrants moving to larger cities record higher income levels compared to the other groups of migrants. This shows evidence that migrants seek for better incomes. Additionally, a change in city size involves greater displacement. Thus, migrants who move either to smaller cities or larger ones are further away from their origin city than migrants moving to cities of the same size.

In terms of amenities, migrants moving to smaller cities exhibit, on average, higher levels of amenities at the destination compared to the origin. This is reflected in their positive scores in the Operational Capacity Index, Educational and Health Amenities. In contrast, migrants moving to larger cities experience improved conditions only in the Operational Capacity Index at the destination compared to their origin. Finally, migrants moving to cities of the same size, on average, encounter worse conditions across the Operational Capacity Index and negligible differences in amenities.

TABLE 1.
Descriptive statistics by groups of migrants

	Migrants from small cities to larger ones	Migrants from large cities to smaller ones	Migrants between cities of the same size
High satisfaction level	61.17%	59.72%	57.26%
Medium satisfaction level	28.47%	28.76%	30.63%
Low satisfaction level	10.37%	11.51%	12.12%
Woman	53.90%	50.40%	51.98%
With couple	63.12%	64.63%	65.76%
Primary	37.76%	35.06%	46.09%
Secondary	42.51%	48.51%	41.28%
Postsecondary	19.72%	16.43%	12.63%
Indigenous	3.89%	3.03%	13.15%
Mestizo & White	90.29%	88.60%	81.00%
Afroecuatorian	5.82%	8.37%	5.84%
Employed	62.39%	59.99%	64.82%
Unemployed	2.23%	2.68%	2.08%
Inactive & Non-WAP	35.39%	37.33%	33.10%
Economics migration reasons	38.84%	35.77%	35.44%
Family migration reasons	61.16%	64.23%	64.56%
Short-term migrant	14.21%	23.62%	19.63%
Long-term migrant	85.79%	76.38%	80.37%
Young	22.23%	31.09%	26.74%
Adult	77.77%	68.91%	73.26%
Log income	5.37	5.12	4.98
Distance (log Km.)	4.59	4.94	3.75
Operational capacity index	0.93	0.32	-0.48
Educational amenities (institutions with basic education per 10,000 inhabitants from 5 to 14 years old)	-0.47	0.22	0.00
Health amenities (public and private health centers per 10,000 inhabitants)	-2.16	1.73	0.04
Observations	15,337	15,908	27,257

Source: authors' calculations using ENEMDU 2015-2017.

5. RESULTS

Table 2 presents the marginal effects stemming from the generalized ordinal logit models estimations using our three variables of interest, which are presented separately to address multicollinearity concerns: in block (1), the model using the difference in the operational capacity between the origin and destination

municipality, while in block (2), the model with the difference in educational amenities between the origin and destination municipality. In block (3), the model with the difference in health amenities between the origin and destination municipality. And in block (4), the complete model with all variables. To capture differentiated effects of amenities and the operational capacity associated with the life cycle, we introduce interactions with age categories. Figure 2. illustrates those results. In addition, to capture the differentiated effects by specific characteristics of migrants, we estimate and illustrate the marginal effects of amenities and the operational capacity by age groups.

For a comprehensive exploration of distinctive population groups, we present the marginal effects across the life cycle in Figure 2., across migrants by transition type, i.e. larger city movers, smaller city movers and city size indifferent movers in Figure 3., for migrants by reasons of migration, i.e. migrants driven by economic reasons and migrants driven by family reasons in Figure 4., and for migrants by time of residence, i.e. short-term migrants and long-term migrants in Figure 5.. By doing this, our analysis focuses on describing the role of amenities as well as economic opportunities on life satisfaction looking at distinct population groups. Before showing the results, it is worth mentioning that marginal effects estimated for each category of life satisfaction sum zero since as one category is more likely, other categories are less likely. Regarding the three types of migrants considering the city size of origin and destination, migrants moving to larger cities are more likely to report higher levels of satisfaction than those migrants moving to cities of the same size. This suggests that migrants might have achieved improved living conditions in a larger city compared to their city of origin, potentially due to factors such as more and better employment opportunities, infrastructure, or superior amenities (Yap, 1977; Greenwood, 1997; Buch et al., 2014; Xing and Zhang, 2017; Albouy et al., 2021).

Interestingly, migrants moving to smaller cities are also more likely to report high levels of life satisfaction in comparison to those migrating to cities of the same size. This implies that smaller cities movers might reach a higher quality of life in a smaller city than in their city of origin, influenced by factors such as reduced cost of living, a more tightly knit community, decreased congestion and stress levels, and possibly reduced competition within the labor market. Another explanation for a higher satisfaction level for smaller-city movers is that they benefit from more amenities in terms of health and education per inhabitant in the destination place, which has less citizens than bigger cities (as shown in Table 1.).

One explanation of differences in life satisfaction between larger city movers, smaller city movers and city size indifferent movers can be related to the differences in terms of amenities between their origin place and destination place, which are controlled by including related variables. In block 2 of Table 2., the results show that if the positive difference in the number of primary and secondary level educational institutions per inhabitant between the origin and the destination place increases, migrants are more likely to report a high level of life satisfaction in 0.9 percentage points. According to the UNESCO (n.d), education is a human right for migrants, which allows them to integrate into new societies and increases their self-esteem. Likely, when the number of public and private health centers per 10,000 inhabitants is higher in the destination place than in the origin place, migrants are less likely to report low levels of life satisfaction in 0.4 percentage points.

The operational capacity of municipalities is included to capture other amenities which are related to the competences of municipalities such as the provision of public services (water, waste collection, etc.). An increase in the difference in the operational capacity between the destination and origin place also leads to an increase in the likelihood of reporting a high level of life satisfaction. This result indicates that local governments have a key role in influencing the well-being of their inhabitants by improving their operational capacity which in turn, can be reflected in improved provision of public services as also documented in Setiawan et al., (2022) and Cárcaba et al., (2022). Cárcaba et al., (2022) indicated that a positive influence of government efficiency on life satisfaction can be explained by better financial management. Overall, these results show that migrants are driven by amenities (Albouy et al. 2021) apart from better incomes as stated in previous literature (Chen and Rosenthal, 2008). Educational and health amenities play a crucial role in determining well-being. Therefore, the service offer of the place of destination counts as a factor that explains satisfaction (see Hakim et al., 2022). It is worth noting that the effects of amenities and the operational capacity barely change when including all of them in one model (see block 4).

TABLE 2.
Marginal effects of general ordered logit estimation

Dependent variable: Life satisfaction level	(1) Operational capacity index			(2) Educational amenities			(3) Health amenities			(4) All amenities		
	HLS	MLS	LLS	HLS	MLS	LLS	HLS	MLS	LLS	HLS	MLS	LLS
Internal migrant: to larger city	0.016**	-0.009**	-0.007**	0.022***	-0.013***	-0.010***	0.017**	0.006	-0.023***	0.018**	0.006	-0.023***
	(0.007)	(0.004)	(0.003)	(0.008)	(0.004)	(0.003)	-0.008	-0.008	-0.005	(0.008)	(0.008)	(0.005)
Internal migrant: to smaller city	0.014*	-0.008*	-0.006*	0.016**	-0.009**	-0.007**	0.012	-0.007	-0.006	0.004	-0.002	-0.002
	(0.007)	(0.004)	(0.003)	(0.007)	(0.004)	(0.003)	-0.008	-0.004	-0.003	(0.008)	(0.004)	(0.004)
Woman	0.010*	-0.006*	-0.004*	0.010*	-0.006*	-0.004*	0.010*	-0.005*	-0.004*	0.010*	-0.005*	-0.004*
	(0.005)	(0.003)	(0.002)	(0.005)	(0.003)	(0.002)	-0.005	-0.003	-0.002	(0.005)	(0.003)	(0.002)
With couple	0.029***	-0.016***	-0.013***	0.029***	-0.016***	-0.013***	0.029***	-0.016***	-0.013***	0.029***	-0.016***	-0.013***
	(0.006)	(0.003)	(0.003)	(0.006)	(0.003)	(0.003)	-0.006	-0.003	-0.003	(0.006)	(0.003)	(0.003)
Secondary	0.032***	-0.018***	-0.014***	0.032***	-0.018***	-0.014***	0.031***	-0.018***	-0.014***	0.032***	-0.018***	-0.014***
	(0.006)	(0.004)	(0.003)	(0.006)	(0.004)	(0.003)	-0.006	-0.004	-0.003	(0.006)	(0.004)	(0.003)
Postsecondary	0.029***	-0.016***	-0.013***	0.028***	-0.016***	-0.012***	0.028***	-0.016***	-0.012***	0.029***	-0.016***	-0.013***
	(0.009)	(0.005)	(0.004)	(0.009)	(0.005)	(0.004)	-0.009	-0.005	-0.004	(0.009)	(0.005)	(0.004)
Indigenous	-0.036***	0.020***	0.016***	-0.038***	0.021***	0.017***	-0.038***	0.021***	0.017***	-0.037***	0.020***	0.017***
	(0.009)	(0.005)	(0.004)	(0.009)	(0.005)	(0.004)	-0.009	-0.005	-0.004	(0.009)	(0.005)	(0.004)
Afro-Ecuadorian	0.022**	-0.012**	-0.009**	0.022**	-0.013**	-0.009**	0.022**	-0.013**	-0.009**	0.021**	-0.012**	-0.009**
	(0.010)	(0.006)	(0.004)	(0.010)	(0.006)	(0.004)	-0.01	-0.006	-0.004	(0.010)	(0.006)	(0.004)

TABLE 2. CONT.
Marginal effects of general ordered logit estimation

Dependent variable: Life satisfaction level	(1) Operational capacity index			(2) Educational amenities			(3) Health amenities			(4) All amenities		
	HLS	MLS	LLS	HLS	MLS	LLS	HLS	MLS	LLS	HLS	MLS	LLS
Work satisfaction level	0.025***	-0.014***	-0.011***	0.025***	-0.014***	-0.011***	0.025***	-0.014***	-0.011***	0.025***	-0.014***	-0.011***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	-0.001	-0.001	-0.001	(0.001)	(0.001)	(0.001)
Education satisfaction level	0.015***	-0.008***	-0.006***	0.014***	-0.008***	-0.006***	0.014***	-0.008***	-0.006***	0.015***	-0.008***	-0.006***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	-0.001	-0.001	-0.001	(0.001)	(0.001)	(0.001)
Health satisfaction level	0.022***	-0.012***	-0.009***	0.022***	-0.012***	-0.009***	0.022***	-0.012***	-0.009***	0.021***	-0.012***	-0.009***
	(0.002)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	-0.002	-0.001	-0.001	(0.002)	(0.001)	(0.001)
Housing satisfaction level	0.021***	-0.012***	-0.009***	0.021***	-0.012***	-0.009***	0.021***	-0.012***	-0.009***	0.021***	-0.012***	-0.009***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	-0.001	-0.001	-0.001	(0.001)	(0.001)	(0.001)
Environmental satisfaction level	0.032***	-0.018***	-0.014***	0.032***	-0.018***	-0.014***	0.032***	-0.018***	-0.014***	0.032***	-0.018***	-0.014***
	(0.002)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	-0.002	-0.001	-0.001	(0.002)	(0.001)	(0.001)
Free time satisfaction level	0.024***	-0.008***	-0.016***	0.024***	-0.009***	-0.016***	0.024***	-0.009***	-0.016***	0.024***	-0.009***	-0.016***
	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)	(0.001)	-0.002	-0.002	-0.001	(0.002)	(0.002)	(0.001)

TABLE 2. CONT.
Marginal effects of general ordered logit estimation

Dependent variable: Life satisfaction level	(1) Operational capacity index			(2) Educational amenities			(3) Health amenities			(4) All amenities		
	HLS	MLS	LLS	HLS	MLS	LLS	HLS	MLS	LLS	HLS	MLS	LLS
Community participation satisfaction level	0.031***	-0.013***	-0.018***	0.031***	-0.013***	-0.018***	0.031***	-0.013***	-0.018***	0.031***	-0.013***	-0.018***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	-0.001	-0.001	-0.001	(0.001)	(0.001)	(0.001)
Unemployed	-0.033	0.018*	0.015	-0.033	0.018*	0.015	-0.033	0.018*	0.015	-0.034	0.019*	0.015
	(0.020)	(0.011)	(0.009)	(0.020)	(0.011)	(0.009)	-0.02	-0.011	-0.009	(0.020)	(0.011)	(0.009)
Inactive, Non-WAP	-0.014**	0.008**	0.006**	-0.013*	0.008**	0.006*	-0.013*	0.007*	0.006*	-0.013**	0.008**	0.006*
	(0.007)	(0.004)	(0.003)	(0.007)	(0.004)	(0.003)	-0.007	-0.004	-0.003	(0.007)	(0.004)	(0.003)
Log income	0.019***	-0.019***	0.001	0.019***	-0.019***	0.001	0.019***	-0.020***	0.001	0.019***	-0.020***	0.001
	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.002)	-0.003	-0.003	-0.002	(0.003)	(0.003)	(0.002)
Distance (log Km.)	-0.002	0.004**	-0.002*	-0.002	0.004**	-0.002	-0.001	0	0	-0.000	0.000	0.000
	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)	(0.001)	-0.002	-0.001	-0.001	(0.002)	(0.001)	(0.001)
Average regional wage	0.021	-0.012	-0.009	0.033**	-0.019**	-0.014**	0.040***	-0.022***	-0.017***	0.031*	-0.017*	-0.013*
	(0.015)	(0.008)	(0.006)	(0.015)	(0.008)	(0.006)	-0.015	-0.009	-0.007	(0.016)	(0.009)	(0.007)
Family migration reasons	-0.008	0.005	0.004	-0.008	0.005	0.003	-0.008	0.004	0.003	-0.008	0.005	0.004
	(0.006)	(0.003)	(0.003)	(0.006)	(0.003)	(0.003)	-0.006	-0.003	-0.003	(0.006)	(0.003)	(0.003)

TABLE 2. CONT.
Marginal effects of general ordered logit estimation

Dependent variable: Life satisfaction level	(1) Operational capacity index			(2) Educational amenities			(3) Health amenities			(4) All amenities		
	HLS	MLS	LLS	HLS	MLS	LLS	HLS	MLS	LLS	HLS	MLS	LLS
Long-term migrant	-0.027***	0.015***	0.011***	-0.026***	0.015***	0.011***	-0.025***	0.015***	0.011***	-0.026***	0.015***	0.011***
	(0.007)	(0.004)	(0.003)	(0.007)	(0.004)	(0.003)	-0.007	-0.004	-0.003	(0.007)	(0.004)	(0.003)
Adults > 28 years old	-0.005	0.003	0.002	-0.005	0.003	0.002	-0.005	0.003	0.002	-0.005	0.004	0.001
	(0.008)	(0.004)	(0.003)	(0.008)	(0.004)	(0.003)	-0.008	-0.004	-0.003	(0.008)	(0.004)	(0.003)
Operational capacity index	0.003***	-0.002***	-0.001***							0.004***	-0.002***	-0.002***
	(0.001)	(0.000)	(0.000)							(0.001)	(0.001)	(0.000)
Educational amenities (institutions with basic education per 10,000 inhabitants from 5 to 14 years old)				0.009*	-0.005*	-0.004				0.015	-0.017**	0.002
				(0.006)	(0.003)	(0.002)				(0.010)	(0.008)	(0.005)
Health amenities (public and private health centers per 10,000 inhabitants)							0.002	0.001	-0.004***	0.002	0.004	-0.005***
							-0.002	-0.002	-0.001	(0.003)	(0.002)	(0.002)

<div align="center">

Table 2. cont.
Marginal effects of general ordered logit estimation

</div>

Dependent variable: Life satisfaction level	(1) Operational capacity index			(2) Educational amenities			(3) Health amenities			(4) All amenities		
	HLS	MLS	LLS	HLS	MLS	LLS	HLS	MLS	LLS	HLS	MLS	LLS
Number observations	22,547	22,547	22,547	22,547	22,547	22,547	22,547	22,547	22,547	22,547	22,547	22,547

Notes: *** significant at the 1%, ** significant at the 5%, * significant at the 10%. Standard robust errors in parentheses. Low life satisfaction (LLS), medium life satisfaction (MLS), and high life satisfaction (HLS).
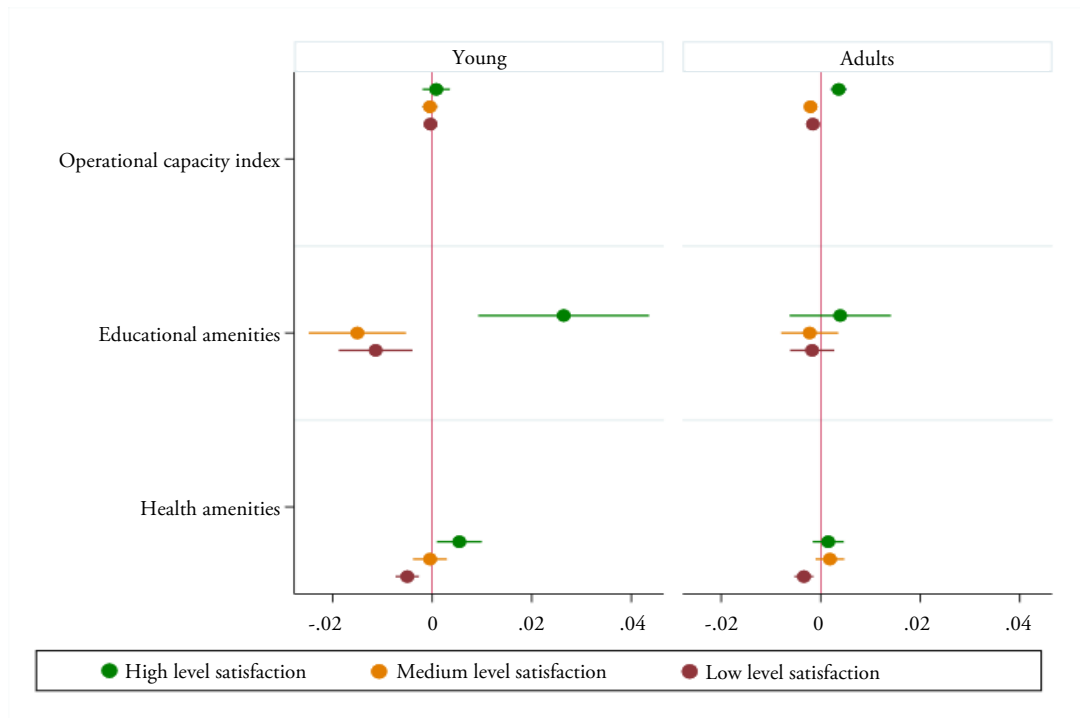**Source:** Authors' calculations using ENEMDU 2015-2017..

To capitalize on the representativeness of the ENEMDU at the provincial and self-represented city levels, we executed random effects models for each of our three main models (see Annexes C1 – C3). The results demonstrate that in all cases, the total variation in life satisfaction is significantly explained by the differences between provinces. Notably, cities such as Quito, Carchi, Cotopaxi, Imbabura, Orellana, and Guayaquil consistently exhibit life satisfaction levels significantly above the mean. Conversely, provinces such as Chimborazo, Tungurahua, El Oro, Esmeraldas, and Loja show satisfaction levels below the mean.

Our results show that the effect of amenities and operational capacity changes depending on the age groups: young people (younger than 28 years old) and adult people (older than 28 years old). The marginal effects depicted in Figure 2 indicate that the operational capacity index has a positive and statistically significant impact on adults. Specifically, an additional unit in the index, compared to the municipality of origin, increases the probability of experiencing high life satisfaction by 0.3 percentage points. This effect is not significant among young individuals. Educational amenities have a quantitatively significant impact on life satisfaction among the young population. This means that an additional unit of educational institutions with basic education per 10,000 inhabitants from 5 to 14 years old at the destination compared to the region of origin, increases the probability of experiencing high life satisfaction by 2.6 percentage points for young individuals, while no significant increase is obtained for adults.

Clark and Hunter (1992), by analyzing the net migration of male migrants by age, showed that education expenditure increases such net migration only for the youngest people (20-24 years old). In the Ecuadorian context, a positive effect of educational amenities for young people might be related to the fact that people become parents very early and therefore, the availability of primary and secondary educational institutions matter for their life satisfaction. Similarly, although to a lesser extent, an increase in health amenities in the destination place with respect to the origin place increases the probability of experiencing high life satisfaction by 0.5 percentage points among young individuals, while among adults, it significantly reduces the probability of reporting low levels of satisfaction by 0.3 percentage points.

FIGURE 2.
Differentiated well-being effects of amenities and operational capacity on migrants by age of migrants
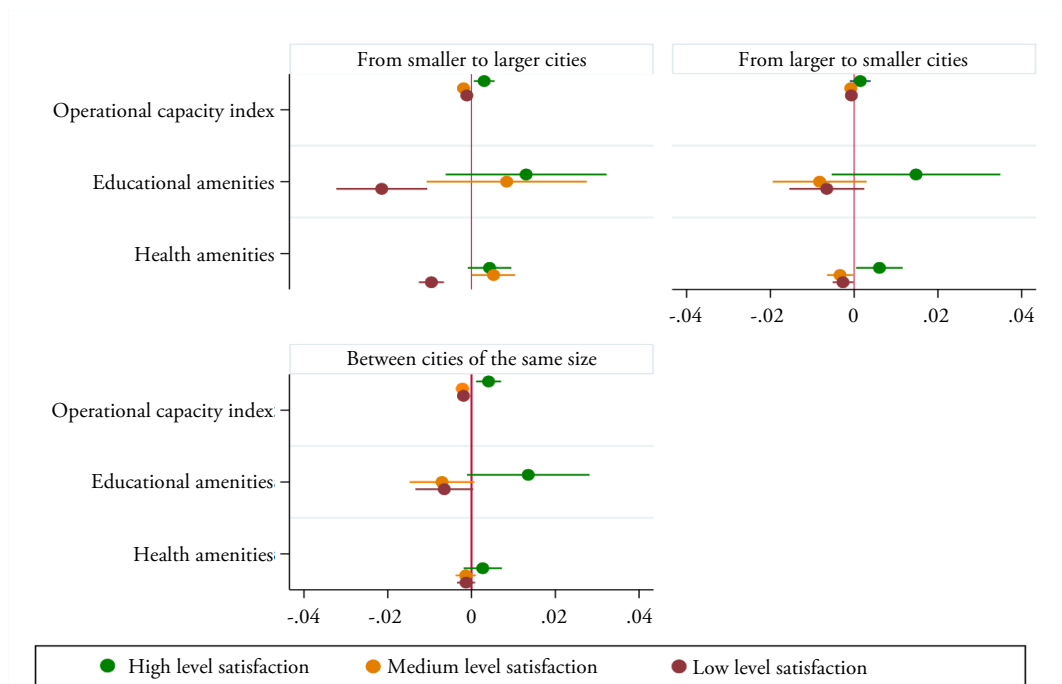

Notes: Point estimates of marginal effects, 90% confidence intervals.
Source: Authors' calculations using ENEMDU 2015-2017.

Moreover, according to our results shown in Figure 3., the effect of differences in amenities and in the operational capacity varies depending on whether the migrant comes from a smaller city, a larger city or a city of the same size compared to the destination city. Regarding the educational amenities difference between the origin and destination place, when it increases, the probability of reporting a low life satisfaction is significantly lower only for larger city movers. For smaller city movers and city size indifferent movers, the probability to report high, medium, or low life satisfaction is not significant. This result might indicate that while there are more educational institutions with basic education per inhabitant in the destination place (smaller city or a city of the same size), they offer a lower quality of education compared to the city of origin. Overall, our results reveal that the well-being effect of educational amenities differences depends on the city size of origin and destination.

FIGURE 3.
Differentiated well-being effects of amenities and operational capacity on migrants by city of origin and destination
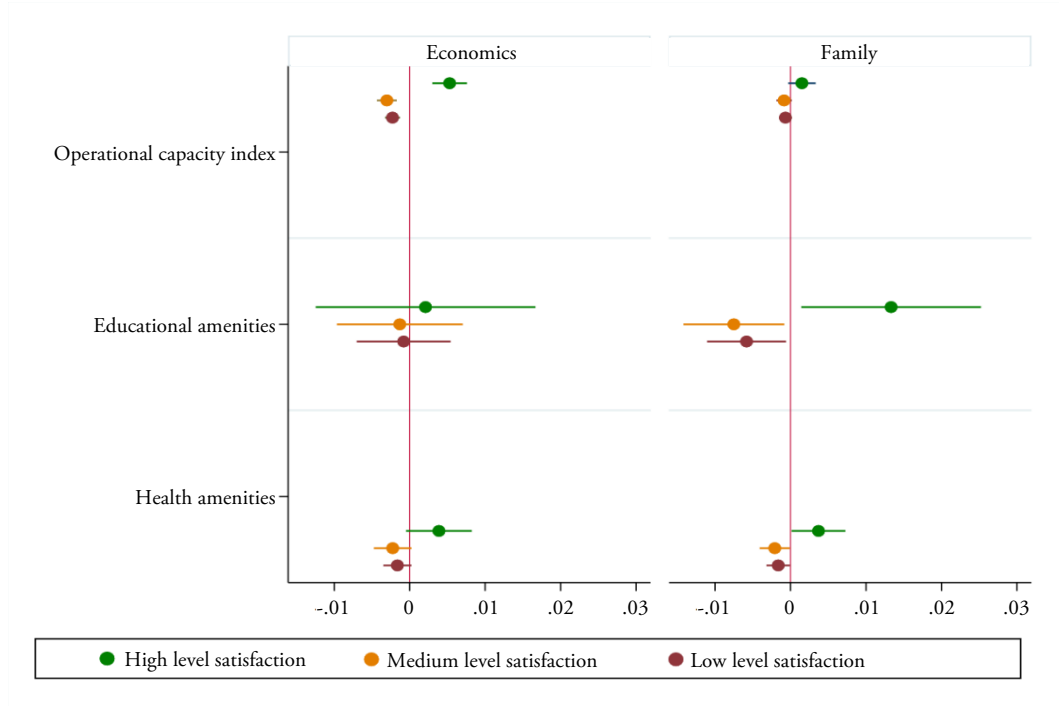

Notes: Point estimates of marginal effects, 90% confidence intervals.
Source: Authors' calculations using ENEMDU 2015-2017.

The educational amenities differences well-being effect also varies across migrants with different migration motivations (Figure 4.). Those that migrate for family reasons are more likely to report high life satisfaction levels when there are more educational institutions with basic education per inhabitant in the destination place compared to the place of origin because of their children. Migrants with economic motivation would give less importance to the educational amenities since they could be single.

When talking about migrant adaptation, time is a crucial variable (Figure 5.). When the migration event takes place, there is more information to compare origin and destination, so the differences between the two locations is important to determine the level of satisfaction. Our results show that educational amenities differences between the place of origin and the destination place increase the probability of reporting a high satisfaction level only for long-term migrants. This could indicate that as education is a continuous and permanent service, migrants need time to value educational amenities in a destination place.

FIGURE 4.

Differentiated well-being effects of amenities and operational capacity on migrants by reason of migration

Notes: Point estimates of marginal effects, 90% confidence intervals.
Source: Authors' calculations using ENEMDU 2015-2017.

FIGURE 5.

Differentiated well-being effects of amenities and operational capacity on migrants by time of residence
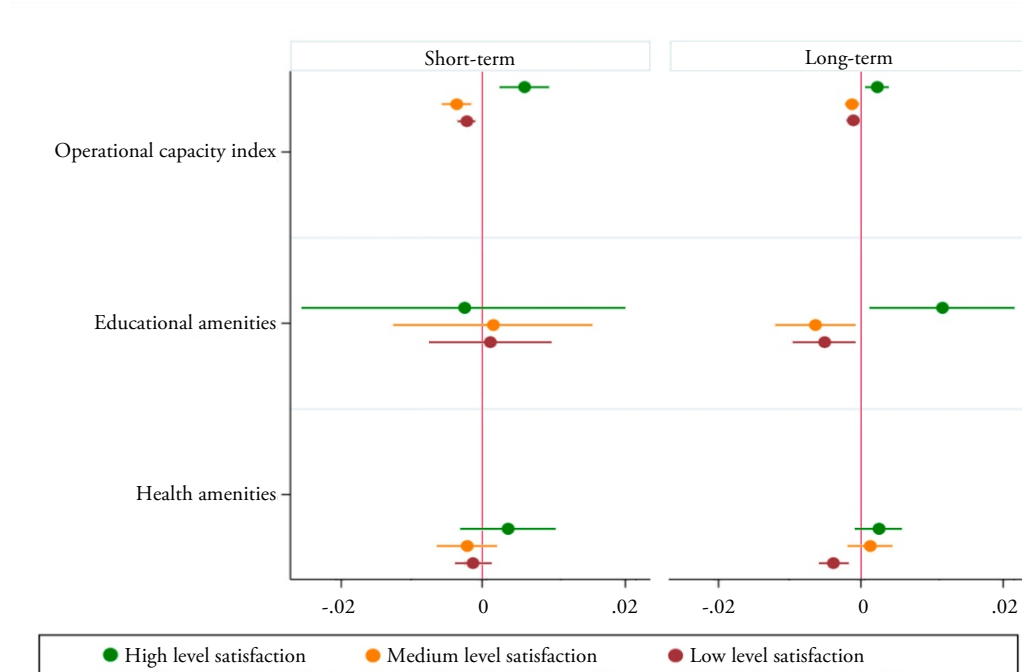
Notes: Point estimates of marginal effects, 90% confidence intervals.
Source: Authors' calculations using ENEMDU 2015-2017.

Regarding health amenities differences between the place of origin and destination, our results show that the probability of reporting a low level of life satisfaction is significant only for migrants that migrate to larger cities. For smaller city movers and city size-indifferent movers, health amenities are not significant to explain their probability of reporting high, medium or low life satisfaction. Here again, larger cities prove to be beneficial for migrants, but only for migrants that come from smaller cities. The well-being effect of health amenities does not differ between migrants by reason of migration, nor by time of residence.

With respect to the operational capacity of municipalities, when the operational capacity of the destination city is higher than that of the city of origin, the probability to report a high level of life satisfaction is higher and significant only for migrants that move between cities of the same size and to a lesser extent for migrants that move to larger cities. The difference in the operational capacity between municipalities plays an important role in increasing the high life satisfaction for migrants with economic motivations, whereas it is not significant for life satisfaction for migrants with family-related motivations. Economic migration involves a choice, while family reasons may generate restrictions to mobility, in which amenities may play a minor role.

Since the operational capacity of municipalities can be reflected in the city itself, migrants can benefit from it. Indeed, an increase in the operational capacity in the destination city compared to the city of origin leads to a higher level of life satisfaction for short-term migrants and to a lesser extent for long-term migrants. The difference between the origin and destination city could be more evident at the beginning of the migration move. For this reason, short-term migrants are more likely to report a high level of life satisfaction than long-term migrants. The differences found between young people and adults may be related to different aspects of the migration process. A crucial initial factor is the reasons for migration.

In our sample, 13.95% of young people migrate for economic reasons, while 44.29% of adults migrate powered by this motive. This would imply that a region with better local government operational capacity could offer better economic opportunities. Conversely, 7.2% of young people migrate solely for educational reasons, whereas only 3.8% of adults migrate for this purpose. Therefore, regions with better educational facilities provide greater possibilities for young people to adapt and thus improve their quality of life. The relationship between amenities and quality of life also depends on the migrant's adaptation process and primarily on the city's size. In this case, the evidence is mixed. Larger cities tend to generate greater economic opportunities, social networks, and access to other services, all of which facilitate the enjoyment of amenities and, consequently, increase life satisfaction. Similarly, larger cities can disrupt the daily dynamics of migrants and have a higher cost of living, which may mitigate the effects of greater amenities.

In terms of socioeconomic characteristics, higher levels of life satisfaction are more likely for women, individuals with secondary or higher education, migrants with a partner and migrants with higher incomes. Likewise, the probability of reporting a high life satisfaction level increases with the average wage of the destination place. Lower levels of life satisfaction are more likely for inactive and non-WAP migrants, indigenous migrants, long-term migrants, and migrants that are far from their place of origin. Migrants who live longer in the destination place would have a low level of life satisfaction. Therefore, long-term migrants are less likely to report high levels of life satisfaction than short-term migrants. Moreover, as expected, satisfaction with the domains of life satisfaction is positively associated with general life satisfaction. Comparing the magnitudes of the coefficients, which also remain marginally significant, the highest significance is obtained for environmental satisfaction and community participation satisfaction level (see Table 2.).

6. Conclusions

Internal migration flows in Ecuador take place between all types of cities: small, medium-sized, and big cities. A surprising feature of migration flows in Ecuador is that small cities host a higher proportion of internal migrants than metropolitan cities. According to our descriptive statistics results, smaller city movers are mainly young people, and they move due to familiar reasons, rather than economic ones. In addition, smaller city movers benefit from more educational and health amenities per capita than larger

city movers. The latter might face congestion in larger cities. Nevertheless, a larger proportion of larger city movers report high life satisfaction levels than smaller city movers.

Regarding the estimation results about the factors that influence on the life satisfaction of internal migrants, the movement from a small to a larger city leads to an increase of the life satisfaction level. This result stands when controlling for the income of the individual and the income average in the destination city, which supports the argument that internal migrants not only seek better incomes but also for better amenities which are generally found in big cities. Therefore, better income and better amenities are hand in hand. They are not opposed. Another fact that proves this is that a higher operational capacity improves the life satisfaction of migrants that move due to economic reasons. This could show that municipalities with better management are those that offer better economic opportunities. Amenities go hand in hand with economic motivations.

The way in which amenities and operational capacity affect migrants' well-being depends on changes in city size, migrant profile, and migration motive. Our results support the idea that a higher operational capacity of the destination city is only beneficial for migrants that move from small cities to larger ones. Thus, the city of origin and destination matter for a significant impact of the operational capacity of a local government. Similarly, the effect of differences in amenities vary depending on the migrant's age. Young migrants have a greater enjoyment of amenities, mainly education. Adults are more satisfied with their life when the operational capacity of the destination municipality is better than that of the place of origin. This result emphasizes the idea that migrants not only seek to improve their economic prospects, but also that the ability to provide services is a determinant of life satisfaction.

From a policy perspective, access to services for migrants must be a crucial component of adaptation and integration programs. Urban development in developing countries has been based on internal migratory flows between regions. Therefore, deepening the understanding of the well-being of migrants is a crucial input for social and local development policies. The well-being of migrants determines, among other decisions, the probability of staying and making long-term decisions such as investments in housing or human capital. These types of factors are also associated with higher levels of productivity. Higher levels of life satisfaction among migrants make it more likely that migrants will integrate, reducing conflict and promoting social capital. In sum, although economic opportunities are relevant for the assimilation of migrants, policies that facilitate access to amenities also promote well-being.

Funding

References

Albouy, D., Cho, H., & Shappo, M. (2021). Immigration and the pursuit of amenities. *Journal of Regional Science*, *61*(1), 5-29.

Baltatescu, S. (2005). Subjective well-being of immigrants in Europe. A comparative study. European Identity and Free Movement of Persons in Europe. *European Identity and Free Movement of Persons in Europe*, 128-143.

Bartram, D. (2011). Economic migration and happiness: Comparing immigrants' and natives' happiness gains from income. *Social Indicators Research*, *103*, 57-76.

Berggren, N., Bergh, A., Bjørnskov, C., & Tanaka, S. (2020). Migrants and life satisfaction: The role of the country of origin and the country of residence. *Kyklos*, *73*(3), 436-463.

Borjas, G. J. (2001). Does immigration grease the wheels of the labor market? *Brookings papers on economic activity*, *2001*(1), 69-133.

Buch, T., Hamann, S., Niebuhr, A., & Rossen, A. (2014). What makes cities attractive? The determinants of urban labour migration in Germany. *Urban Studies*, *51*(9), 1960-1978.

Cárcaba, A., Arrondo, R., & González, E. (2022). Does good local governance improve subjective well-being? *European Research on Management and Business Economics*, *28*(2), 100192.

Card, D., & DiNardo, J. (2000). Do immigrant inflows lead to native outflows? *American Economic Review*, *90*(2), 360-367.

Chen, J., Kosec, K., & Mueller, V. (2019). Moving to despair? Migration and well-being in Pakistan. *World Development*, *113*, 186-203.

Chen, Y., & Rosenthal, S. S. (2008). Local amenities and life-cycle migration: Do people move for jobs or fun? *Journal of Urban Economics*, *64*(3), 519-537.

Chu, Y., Shen, C., & Yang, J. (2018). Country-level bonding, bridging, and linking social capital and immigrants' life satisfaction. *Applied Research in Quality of Life*, *13*, 745–759.

Clark, D. E., & Cosgrove, J. C. (1991). Amenities versus labor market opportunities: Choosing the optimal distance to move. *Journal of Regional Science, 31*(3), 311-328.

Clark, D. E., & Hunter, W. J. (1992). The impact of economic opportunity, amenities and fiscal factors on age-specific migration rates. *Journal of Regional Science, 32*(3), 349-365.

Constant, A. F., & Zimmermann, K. F. (Eds.). (2013). *International handbook on the economics of migration*. Edward Elgar Publishing.

Córdova, and Meneses, (2019). Sostenibilidad de los gobiernos autónomos descentralizados municipales en el Ecuador: 2010-2016. Austeridad o crecimiento: un dilema por resolver. Ortiz, M.C. (Ed.). Quito: Consorcio de Gobiernos Autónomos Provinciales del Ecuador - CONGOPE: Ediciones Abya Yala: Incidencia Pública del Ecuador.

de Vroome, T., & Hooghe, M. (2014). Life satisfaction among ethnic minorities in the Netherlands: immigration experience or adverse living conditions? *Journal of Happiness Studies*, *15*(6), 1389–1406.

Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*(1), 71–75.

Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, Culture, and Subjective Well-Being: Emotional and Cognitive Evaluations of Life. *Annual Review of Psychology*, *54*(1), 403–425. https://doi.org/10.1146/annurev.psych.54.101601.145056

Diener, E., Lucas, R. E., & Oishi, S. (2005). *Handbook of positive psychology.* Oxford: Oxford University Press.

Gabriel, S. A., Justman, M., & Levy, A. (1987). Place-to-place migration in Israel: estimates of a logistic model. *Regional Science and Urban Economics, 17*(4), 595-606.

Greenwood, M. J., & Hunt, G. L. (1989). Jobs versus amenities in the analysis of metropolitan migration. *Journal of Urban Economics*, *25*(1), 1-16.

Greenwood, M. J. (1997). Internal migration in developed countries. *Handbook of population and family economics*, *1*, 647-720.

Guevara-Rosero, G. C., & Del Pozo, D. (2020). Determination of the urban wage premium in Ecuador. *Investigaciones Regionales-Journal of Regional Research*, (47), 57-77.

Guevara-Rosero, G. C., & Bonilla-Bolaños, A. G. (2021). Non-pecuniary Effects of Migration Inflows to Ecuador: Is Residents' Life Satisfaction Affected? *Journal of International Migration and Integration*, *22*(4), 1243-1270.

Guevara-Rosero, G. C. (2023). The effect of the healthcare system's structure on COVID-19 dynamics in Ecuador. *Regional Science Policy & Practice*, *1– 25*. https://doi.org/10.1111/rsp3.12666

Hakim, A. R., Nachrowi, N. D., Handayani, D., & Wisana, I. D. G. K. (2022). Do Amenities and Economic Factors Affect Migration? Empirical Evidence from Indonesian Cities. *Environment and Urbanization ASIA*, *13*(1), 11-26.

Hendriks, M., & Bartram, D. (2016). Macro-conditions and immigrants' happiness: Is moving to a wealthy country all that matters? *Social Science Research*, *56*, 90-107.

INEC (2021). Ficha metodológica del Índice de Capacidad Operativa. https://www.ecuadorencifras.gob.ec/documentos/web-inec/Sistema_Estadistico_Nacional/Planificacion_Estadistica/Plan_Nacional_de_Desarrollo_2017_2021/OBJETIVOS/Objetivo-10/ETN4%20FM-ICO_provinciales_municipales.docx

Joarder, M. A. M., Harris, M., & Dockery, A. M. (2017). Remittances and happiness of migrants and their home households: evidence using matched samples. *The Journal of Development Studies*, *53*(3), 422– 443.

Kirmanoğlu, H., & Başlevent, C. (2014). Life satisfaction of ethnic minority members: An examination of interactions with immigration, discrimination, and citizenship. *Social Indicators Research*, *116*, 173-184.

Knapp, T. A., & Gravest, P. E. (1989). On the role of amenities in models of migration and regional development. *Journal of regional science, 29*(1), 71-87.

Leung, D. D. M., & Tang, E. Y. T. (2018). Correlates of life satisfaction among southeast Asian foreign domestic workers in Hong Kong: an exploratory study. *Asian and Pacific Migration Journal*, *27*(3), 368– 377.

Levitt, P., & Jaworsky, B. N. (2007). Transnational migration studies: Past developments and future trends. *Annu. Rev. Sociol.*, *33*, 129-156.

Liu, Y., Zhang, F., Wu, F., Liu, Y., & Li, Z. (2017). The subjective wellbeing of migrants in Guangzhou, China: The impacts of the social and physical environment. *Cities*, *60*, 333-342.

Marzana, D., Alfieri, S., & Marta, E. (2016). The multidimensional nature of young immigrants' well-being. *Rivista Internazionale di Scienze Sociali*, *132*(1), 21–40.

Moreno-Jiménez, M. P., & Hidalgo, C. M. (2011). Measurement and prediction of satisfaction with life in immigrant workers in Spain: differences according to their administrative status. *Anales de Psicología*, *27*(1), 179–185.

Niedomysl, T., & Hansen, H. K. (2010). What matters more for the decision to move: Jobs versus amenities. *Environment and planning A*, *42*(7), 1636-1649. https://doi.org/10.1068/a42432

Nowok, B., Van Ham, M., Findlay, A. M., & Gayle, V. (2013). Does migration make you happy? A longitudinal study of internal migration and subjective well-being. *Environment and Planning A*, *45*(4), 986-1002.

Paloma, V., García-Ramírez, M., & Camacho, C. (2014). Well-being and social justice among Moroccan migrants in southern Spain. *American Journal of Community Psychology*, *54*(1–2), 1–11.

Pérez, R. and Cantuña, F. (2015). Estadísticas de los Gobiernos seccionales y provinciales en el Ecuador: 2004 – 2013. *Apuntes de Economía No.62. Banco Central del Ecuador*. https://contenido.bce.fin.ec/documentos/PublicacionesNotas/Catalogo/Apuntes/ae62.pdf

Rodríguez-Pose, A., & Ketterer, T. D. (2012). Do local amenities affect the appeal of regions in Europe for migrants? *Journal of Regional Science*, *52*(4), 535-561.

Safi, M. (2010). Immigrants' life satisfaction in Europe: Between assimilation and discrimination. *European sociological review*, *26*(2), 159-176.

Saiz, A. (2007). Immigration and Housing Rents in American Cities. *Journal of Urban Economics*, *61*(2), 345–371.

Setiawan, A., Tjiptoherijanto, P., Mahi, B. R., & Khoirunurrofik, K. (2022). The Impact of Local Government Capacity on Public Service Delivery: Lessons Learned from Decentralized Indonesia. *Economies*, *10*(12), 323.

Shin, D. C., & Johnson, D. M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, *5*(1), 475–492.

Shin, G., & Jhee, B. K. (2021). Better service delivery, more satisfied citizens? The mediating effects of local government management capacity in South Korea. *Asia & the Pacific Policy Studies*, *8*(1), 42-67.

Switek, M. (2012). Internal migration and life satisfaction: Well-being effects of moving as a young adult.

UNESCO (n.d.) Education as a Human Right for Migrants. https://en.unesco.org/node/301084

Williams, R. (2006). Generalized ordered logit/partial proportional odds models for ordinal dependent variables. *The stata journal*, *6*(1), 58-82.

Xing, C., & Zhang, J. (2017). The preference for larger cities in China: Evidence from rural-urban migrants. *China Economic Review*, *43*, 72-90.

Yap, L. Y. (1977). The attraction of cities: a review of the migration literature. *Journal of Development Economics*, *4*(3), 239-264.

Zheng, G., Yang, D., & Li, J. (2022). Does Migration Distance Affect Happiness? Evidence From Internal Migrants in China. *Frontiers in Public Health*, 1588.

ORCID

Grace Carolina Guevara-Rosero   https://orcid.org/0000-0001-7605-1443

Alexander Sarango-Iturralde   https://orcid.org/0009-0000-6211-8221

Andrés García-Suaza   https://orcid.org/0000-0002-9617-6873

ANNEXES

A. TABLES

TABLE A 1.
Classification of regional units by size

City/Province	Population	Percentage	City/Province size
Guayaquil	2,538,070	15.52%	Metropolis
Quito	2,065,950	12.63%	Metropolis
Cuenca	607,311	3.71%	Large
Ambato	366,359	2.24%	Large
Machala	274,580	1.68%	Large
Manabi	1,768,220	10.81%	Large
Guayas	1,061,453	6.49%	Medium
Los Rios	983,144	6.01%	Medium
Esmeraldas	697,037	4.26%	Medium
Pichincha	586,650	3.59%	Small

TABLE A 1. CONT.
Classification of regional units by size

City/Province	Population	Percentage	City/Province size
Loja	570,418	3.49%	Small
Chimborazo	567,807	3.47%	Small
Santo Domingo De Los Tsáchilas	495,749	3.03%	Small
Imbabura	460,419	2.81%	Small
Santa Elena	458,095	2.80%	Small
Cotopaxi	452,157	2.76%	Small
El Oro	358,860	2.19%	Small
Cañar	319,609	1.95%	Small
Azuay	311,870	1.91%	Small
Bolivar	194,145	1.19%	Small
Carchi	193,250	1.18%	Small
Sucumbíos	186,754	1.14%	Small
Orellana	169,711	1.04%	Small
Tungurahua	156,086	0.95%	Small
Morona Santiago	155,024	0.95%	Small
Napo	139,158	0.85%	Small
Zamora Chinchipe	114,764	0.70%	Small
Pastaza	96,066	0.59%	Small
Galápagos	9,275	0.06%	Small

Source: authors' calculations using ENEMDU 2015-2017.

TABLE A 2.
Brant test results of Operational Capacity Index Model

	chi2	p>chi2	df
All	59.87	0	25
2.transition1	2.72	0.099	1
3.transition1	0.08	0.772	1
2.p02	1.87	0.172	1
1.civil_status	0.01	0.936	1
2.level_educ	0.11	0.74	1
3.level_educ	0.03	0.86	1
1.ethnicity	1.75	0.186	1
3.ethnicity	0.16	0.693	1
satisx_trabajo	0.86	0.354	1
satisx_educacion	0	0.948	1
satisx_salud	0.58	0.445	1

TABLE A 2. CONT.
Brant test results of Operational Capacity Index Model

	chi2	p>chi2	df
satisx_vivienda	0.14	0.709	1
satisx_mambiente	0.08	0.78	1
satisx_tlibre	8.65	0.003	1
satisx_particomunidad	4.9	0.027	1
2.empl_status_2	0.08	0.781	1
3.empl_status_2	2.69	0.101	1
lnincome	22.51	0	1
distanciakm	3.77	0.052	1
xingrl_Y	0.01	0.935	1
2.reasons	0.12	0.734	1
2.migrant_time	3.06	0.08	1
2.age_cat2	0.22	0.638	1
ico	0.51	0.475	1
2.age_cat2#c.ico	0.32	0.57	1

Notes: Brant test obtained from the ordered logit model. The assumption of parallel lines or proportional odds is rejected.
Source: Authors' calculations using ENEMDU 2015-2017.

TABLE A 3.
Brant test results of Education amenities Model

	chi2	p>chi2	df
All	60.47	0	25
2.transition1	2.92	0.087	1
3.transition1	0.14	0.708	1
2.p02	1.83	0.177	1
1.civil_status	0	0.975	1
2.level_educ	0.13	0.716	1
3.level_educ	0.04	0.845	1
1.ethnicity	1.91	0.167	1
3.ethnicity	0.14	0.711	1
satisx_trabajo	0.92	0.337	1
satisx_educacion	0.01	0.943	1
satisx_salud	0.6	0.44	1
satisx_vivienda	0.14	0.708	1
satisx_mambiente	0.06	0.8	1
satisx_tlibre	8.57	0.003	1
satisx_particomunidad	4.95	0.026	1
2.empl_status_2	0.08	0.777	1

TABLE A 3. CONT.
Brant test results of Education amenities Model

	chi2	p>chi2	df
3.empl_status_2	2.71	0.099	1
lnincome	22.81	0	1
distanciakm	3.54	0.06	1
xingrl_Y	0.01	0.942	1
2.reasons	0.11	0.743	1
2.migrant_time	3.08	0.079	1
2.age_cat2	0.15	0.703	1
edu	1.64	0.201	1
2.age_cat2#c.edu	1.24	0.266	1

Notes: Brant test obtained from the ordered logit model. The assumption of parallel lines or proportional odds is rejected.
Source: Authors' calculations using ENEMDU 2015-2017.

TABLE A 4.
Brant test results of Health amenities Model

	chi2	p>chi2	df
All	64.93	0	25
2.transition1	5.83	0.016	1
3.transition1	0.92	0.337	1
2.p02	1.7	0.192	1
1.civil_status	0	0.991	1
2.level_educ	0.18	0.674	1
3.level_educ	0.03	0.869	1
1.ethnicity	1.95	0.162	1
3.ethnicity	0.16	0.686	1
satisx_trabajo	0.85	0.358	1
satisx_educacion	0	0.969	1
satisx_salud	0.64	0.423	1
satisx_vivienda	0.13	0.719	1
satisx_mambiente	0.03	0.865	1
satisx_tlibre	8.54	0.003	1
satisx_particomunidad	4.94	0.026	1
2.empl_status_2	0.06	0.803	1
3.empl_status_2	2.56	0.11	1
lnincome	22.42	0	1
distanciakm	3.18	0.075	1
xingrl_Y	0.33	0.566	1
2.reasons	0.13	0.713	1
2.migrant_time	2.72	0.099	1

<div align="center">

TABLE A 4. CONT.
Brant test results of Health amenities Model

</div>

	chi2	p>chi2	df
2.age_cat2	0.16	0.69	1
salud	4.24	0.039	1
2.age_cat2#c.salud	0.54	0.461	1

Notes: Brant test obtained from the ordered logit model. The assumption of parallel lines or proportional odds is rejected.
Source: Authors' calculations using ENEMDU 2015-2017.

B. OPERATIONAL CAPACITY INDEX CALCULATION

The National Council of Competences calculates the operational capacity index considering 3 components: planning and territorial order, financial management and citizen participation. The result of each component is the weighted average of some indicators. For the component of planning and territorial order, the indicators are: quality of the plan, articulation of programs and projects to the plan and the goals accomplishment index. For the Financial management component, the indicators are: investment budget execution, financial sustainability, efficiency in investment and capital spending and fiscal dependence. For the component of citizen participation, the indicators are: citizen participation system implemented, citizen participation mechanisms implemented, participatory budget, mechanism of social control by citizens, implementation of the complete accountability process.

To calculate the Operational Capacity index, each component has an equal weight of 10 points, due to their equal importance for measuring the municipal management. The resulting index is measured in a range of 0-30. The 10-point rating for each component does not correspond to any specific criterion but rather to the simplicity in the interpretation and management of the information.

A multi-criteria evaluation method, the Hierarchical Analytical Process Methodology (Saaty, 1986), is used to calculate the weight of each variable of each component.

The procedure for determining the weights is based on the following steps:

1. Preparation of the comparison matrix
2. Calculation of weights by indicator
3. Identification of indicator compliance ranges
4. Allocation of points by indicator
5. Calculation of the axis value.

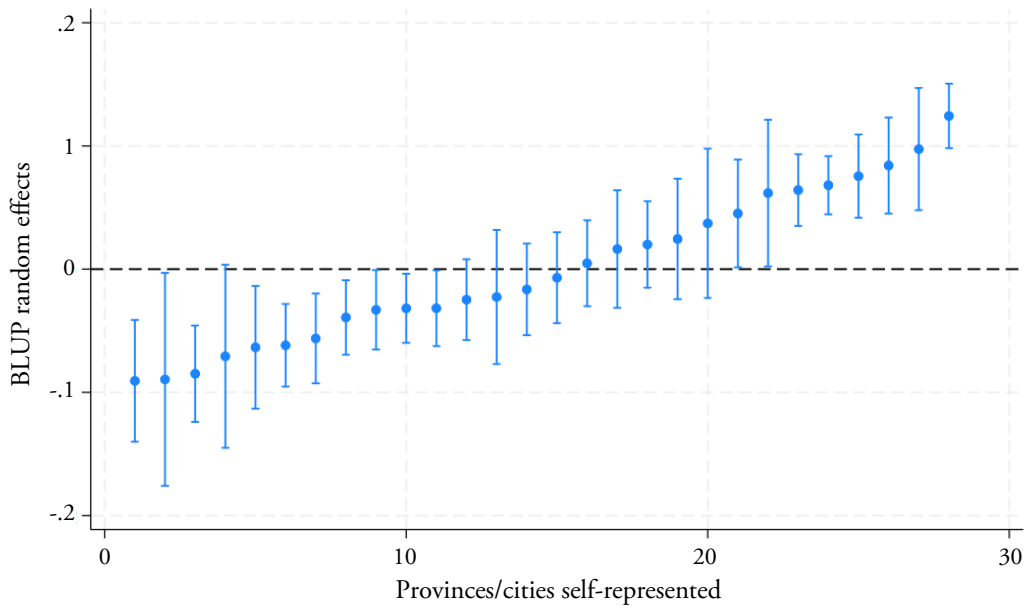For a deeper explanation of the methodology, see INEC (2021).

C. Figures
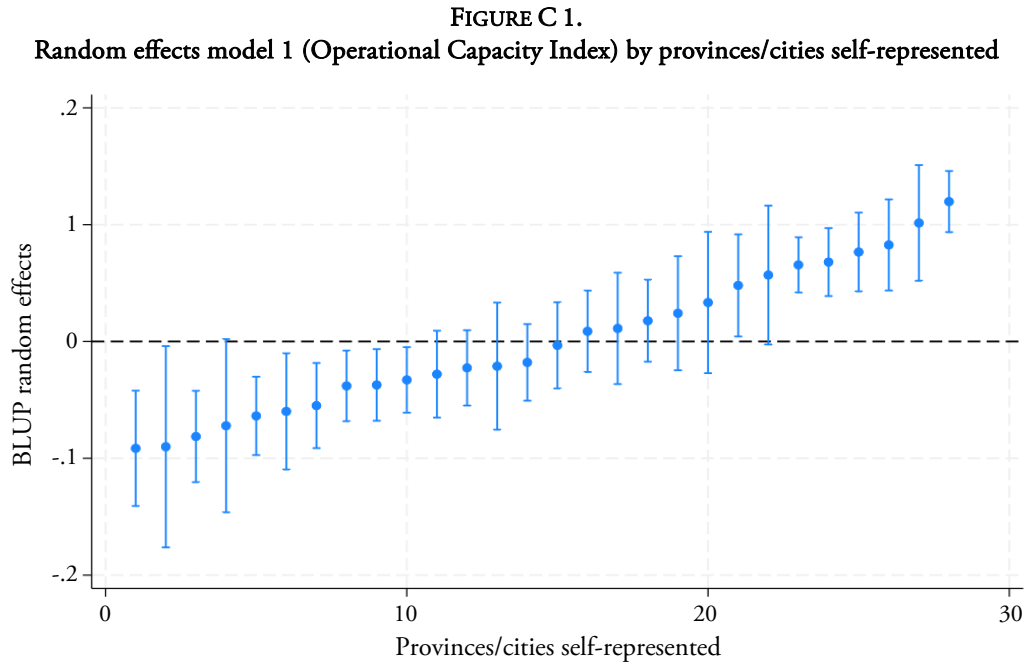
Figure C 1.
Random effects model 1 (Operational Capacity Index) by provinces/cities self-represented

Notes: Point estimates of BLUP random effects, 95% confidence intervals.
Source: Authors' calculations using ENEMDU 2015-2017.

Figure C 2.
Random effects model 2 (Education amenities) by provinces/cities self-represented
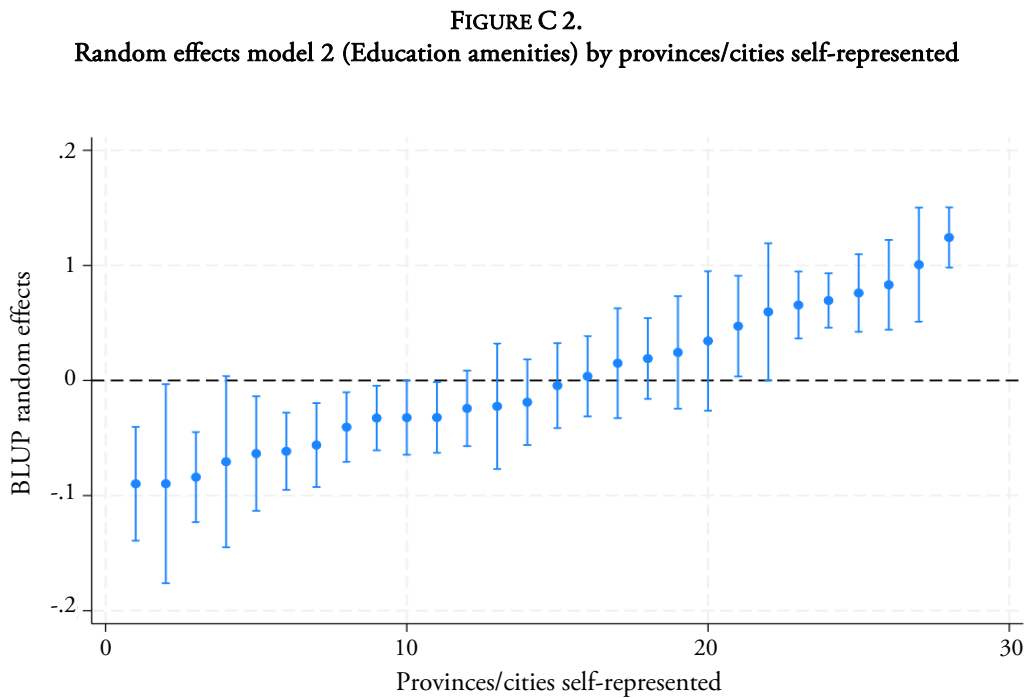
Notes: Point estimates of BLUP random effects, 95% confidence intervals.
Source: Authors' calculations using ENEMDU 2015-2017.

FIGURE C 3.
Random effects model 2 (Health amenities) by provinces/cities self-represented

Notes: Point estimates of BLUP random effects, 95% confidence intervals.
Source: Authors' calculations using ENEMDU 2015-2017.