




## Article

# Time to Get Emotional: Determinants of University Students' Intention to Return to Rural Areas

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**Abstract:** The social sustainability of rural areas is affected by the phenomenon of "brain drain" due to younger generations' outward migration. Our study examines how structural and subjective factors determine the returning intentions of university students over time, before completion of their studies. We conducted a longitudinal, 3-wave survey between 2018 and 2020, involving 349 students (Mean age = 21.89; 63.04% women) and originating from a rural, remote region of Portugal. Using a Tobit panel model approach for data analysis, we found that participants whose mothers had a university degree, who expected higher income 3 years after studies completion, and who were more attached to the place where they were studying were less inclined to return to their native rural area. Conversely, those who were more attached to their rural origins were more likely to show an increased interest in returning over time. Our findings show that university students originating from rural areas and their returning intentions are affected by both structural and subjective factors, in a context of increasing individualisation of mobility intentions and decision making. Consequently, decision makers must start to include the sustained promotion of youths' emotional bonds to rural areas as a vector of education policy packages in order to combat rural brain drain.

**Keywords:** youth mobility; rurality; brain drain; place attachment



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## 1. Introduction

In contemporary societies, the mobility decisions of young generations are generally considered and formed beyond the fulfilment of immediate needs. Youth mobility is, therefore, increasingly shaped by individual considerations and less by social constraints imposed by families and (local) communities. Free movement policies within the European Union, especially those addressing youth such as the "Youth on the Move" flagship initiative, have accelerated this process. In this context, mobility remains an important asset for youth employability and, thus, securing a better income [1].

Youth mobility intentions arise within the context of multiple personal factors such as skills development [1,2], personal social networks expansion and/or greater wellbeing [1]. A new paradigm of human movement has also diversified mobility across time and space. Temporary and long-term mobility pathways [3] are now combined with intra-regional, inter-regional and international ones [2] as well as with circular and return movements [4].

Although mobility intentions and decisions have become increasingly person-centred, this does not mean that they operate evenly across territories and social groups. Moreover, the changes in the underlying motives to move (or stay) have created other challenges.

Rural young people, especially the most skilled and resourceful, are indicative of such contemporary mobility intricacies. These youths are currently faced with metro-centric narratives pressuring them to move away to urban areas in order to fulfil a prosperity prophecy of cultural and economic capital accumulation [5]. This imperative not only pressures them to move away from the countryside, but it also delays or even blocks their intentions to return [6]. Our study examines this challenge, by looking at the return intentions of university students from a mostly rural Portuguese region, whilst they are still attending tertiary education. Specifically, our goal is to understand how much structural factors and subjective factors tailor the return intentions of these students over time, before studies completion.

Our goal is relevant for several reasons. Firstly, rural youth out-migration, especially from those with stronger social and cultural capital, has outstanding impacts on rural areas' sustainability. To begin with, rural youth out-migration has a relevant economic impact. At an individual level, mobility reduces the impact of youth poverty amongst rural youths [2]. This is important considering that a rural background has a stronger negative impact than an academic curriculum on personal income [7]. However, at the community level, rising numbers of youth out-migration are associated with a decrease in the local demand for services, making them more expensive to provide: in turn, this translates into fewer employment opportunities and unmet needs [8]. These risks are paralleled by a decline in productive activities in the primary sector and the rise of a consumption mode associated with a greater preponderance of the tertiary sector and an overall contribution to countryside sustainability that remains unclear [9].

Secondly, rural youth out-migration also has important social impacts including but not limited to brain-drain, namely the loss of qualified human resources, or a severe reduction of critical mass that prevents the emergence of community leaders or volunteers [10].

Thirdly, the demographic impacts of rural youth out-migration are also remarkable. This phenomenon selectively drains communities of young adults who have the potential to contribute to generational renewal and, consequently, to prevent population ageing [10]. In rural towns, population loss, especially the loss of the young population, can create what has long now been depicted as a downward spiral [8]. In the long-term, rural youth out-migration further threatens rural communities since a generational discontinuity may result in a sense of lost identity.

Finally, our study is important because research into this matter has tended to focus mainly on young adults' out-migration intentions. Our knowledge is limited concerning qualified young people's returning intentions, especially after graduation. Even so, previous studies have found that returning odds are stronger amongst young graduates making family plans, such as having children or a partner from where these graduates originate, or showing greater connectedness with the region, as indicated by the fact that these graduates' fathers have spent their youth there [11]. Our study aims to fill in this gap. Moreover, our study can potentially inform policy making in rural areas, as mobility intentions, including returning ones, frequently become enacted mobility [12]. Thus, by studying rural, qualified young people's intentions, regional and local governments can anticipate how much these youths are willing to come back and what are the key factors supporting those intentions.

### *1.1. Returning Intentions in the Context of Rural Youth Mobility*

In the context of accelerated globalisation of economic and cultural resources, geographical social mobility is now standard. However, mobility is not experienced equally across spaces or life spans. Rural young people are constantly invited to stay, go or return [2]. Such "mobility tension" demonstrates that rural youth (im)mobility is more complex than a simple dichotomy of attached stayers and detached migrants [13]. Between tenacious stayers and leavers, we can also find attached migrants planning to return to the countryside, detached stayers who dream of leaving and those who are somewhere in

between, meaning young people who either despise their hometown but have no plans to leave or those who adore their native place but cannot imagine returning [14].

Amongst rural youth migration trends, intended or enacted returning is the exception. To a certain extent, returning to rural areas is understood as an act of resistance against metro-centric narratives that situate young people's future and dreams in the cities [5]. Still, nurturing returning intentions in the transition to adulthood is a challenging task with several meanings attached. For some rural young people, going back to the countryside can be compared to the classic emigrant dream of returning home [15]. In other cases, returning intentions involve an intricate negotiation between local and traditional values and a cherished urban lifestyle [6]. For others, returning intentions are complicated as their hometown may have lost meaning or become strange to them. All of these possibilities apply to rural university students.

The diversity of mobility intentions amongst rural youths, as well as the different meanings associated with returning intentions illustrate how much human movement has become a matter of personal decision. Concurrently, the variety of rural youths' mobility intentions show the centrality of mobility decisions in the context of personal social and individual development, adding complexity to the transition to adulthood [6]. This growing complexity associated with rural mobility intentions requires, therefore, attention to be paid to its structural and subjective determinants.

### *1.2. Rural Youth Returning Intentions: The Push and Pull Factors Approach*

Human mobility is affected by push and pull factors [16]. Push factors are those that exist within the community that can influence mobility trends. Pull factors encompass a set of resources existing outside of the community that can attract people's movement [1]. According to this classical approach, income, job opportunities, parents' education and family mobility capital constitute an outstanding constellation of push factors. In fact, in rural regions where young people show greater levels of economic deprivation [17], where job opportunities for the young generations are scarce and where parents are less educated [11] or value more mobility [2,17], they struggle to retain or re-attract young people. These conditions, leaning towards stronger leaving intentions and lower returning prospects, have a greater impact when they are coupled with pull factors such as greater educational opportunities, more job offers and better income odds in urban centres [18]. However, while those in greater need may be more willing to move, they might end up in an involuntary immobility situation, meaning that they stay or return because they do not possess enough financial, social or cultural resources to fulfil their mobility dreams [4].

While the literature on push and pull factors has offered an outstanding overview of youth mobility trends, this approach fails to explain the individualisation of mobility processes. Therefore, several authors [4,12] suggest that young people's mobility intentions and enactment must be analysed according to subjective perceptions. In other words, not only structural factors such as income are interpreted in many distinct ways by young people [19], these interpretations must be understood according to how youths experience local culture, as well as family relationships [13].

### *1.3. Rural Youth Returning Intentions and Place Attachment: An Emotional Geographies Approach*

A greater focus on the role of subjective factors in youth mobility trends stems from a line of inquiry usually labelled as "emotional geographies". This approach blends knowledge from multiple disciplines (i.e., geography, sociology, psychology) to examine how people's sense of place and feelings of belonging/exclusion reflect local power relations and how this comes to influence their relationship with spaces [20].

Place attachment (PA) is a prototypical measure within this research realm. PA targets the affective bond that one develops regarding specific places and communities [21]. Therefore, PA is a multi-dimensional measure covering the subjective connection with both physical space and other people living in that space [22]. PA is usually seen as the affective dimension of place identity, a sub-structure of the individual's social identity,

consisting of aspects of a self-concept based on belonging to geographically defined groups. Place identity has tremendous importance for personal development and decision making. The way humans establish bonds with places makes them feel unique (distinctiveness), in control (continuity), good about themselves (self-esteem) and consistent with subjective ideas of who they are (self-concept) [23].

It is clear from prior reports that young people who show a strong PA to rural areas are more inclined to stay in or to return to such rural areas [6]. The strength and direction of PA amongst rural young people are multi-determinate. Greater permanence periods in one place lead to greater PA levels, meaning that older people will (in principle) feel more attached to rural areas than younger generations [23]. However, other authors [24] found that length of residence is an important predictor of place identity but not necessarily of PA, meaning that some fluctuations might exist in the relation between different dimensions of place identity and time of residence.

Place size also influences PA prospects. People seem more attached to smaller, local spaces, with PA levels to regional places falling behind when compared to the local and the national scale [25]. That said, bonds and identity associations with the size of a given place can vary. For instance, amongst islanders, PA tends to be higher regarding the island itself, compared to smaller-scale places such as the neighbourhood [26].

Socio-economic conditions also determine PA amongst rural young people. Low-income earners and those less educated will (in principle) wish to leave, but they may lack the resources to do so [4]. However, this may affect PA levels in opposite ways. Mobility limited choices may increase PA through cognitive dissonance (i.e., a lack of choice makes people convince themselves that their home/local area is better than others), but it can also reduce PA levels when leading young people to desire that their local areas looked more like other places, namely cities [24].

Beyond this, PA amongst rural youth is shaped by dominant social representations around rurality [5]. Contradictory rurality notions clash in the social sphere, with some highlighting rurality as an example of decaying, dull and anachronistic territories (the rural horror), whilst others emphasise countryside areas as beacons of sustainable development, full of opportunities for being in contact with nature and living a more balanced life (the rural idyll) [27]. The rural horror image is aligned with metro-centric visions of social organisation that have prevailed since the Industrial Revolution, when the countryside lost its centrality, opening up a submissive relationship with urban areas [28]. These images seem to co-exist in the mind of many rural young people, affecting their PA perceptions. Whilst they seem proud of their local places, marked by solidarity, freedom to roam and dense social ties, they are also influenced by a consistently negative image of the countryside, in which rural communities are associated with gossip, boredom, lack of opportunities and 'losers' [9].

Finally, it is important to acknowledge important gender differences in PA amongst rural young people. Girls are overrepresented amongst those youths that feel less attached and are expecting to leave, not wanting to return or who are actually leaving rural areas. This trend is part of a masculinisation phenomenon that seems to be spreading across European rural areas, threatening the social sustainability of these areas [13]. Greater female detachment towards rural areas is explained by greater female orientation towards education [13], more positive representations of rurality amongst young men [29], an employment structure offering male-dominated jobs in agriculture or small industries [13] or women needing to escape narrow traditional roles that dominate rural communities [5]. Still, some studies in Canada, Ireland, Portugal and the United Kingdom have shown different results amongst women. Greater inclination to form strong social ties in their communities [15,20] or specific local labour force demands for services [6,29] may justify stronger intentions to stay amongst rural women.

#### 1.4. Present Study: Towards an Integrative Model of Rural Youth Returning Intentions

In this investigation, our goal is to test a comprehensive model that integrates both the classic mobility push and pull factors approach (which details the main structural drivers of youth mobility intentions) with an emotional geographies perspective (which adds the subjective reasons to the discussion of rural youth mobility intentions).

We follow a holistic research perspective considering the increasingly central role of individuals in shaping mobility intentions and enactment [4,12,19]. To reach towards a comprehensive examination of push and pull factors we focused on the roles of gender, age, work experience, expected income after studies completion and mother's educational level. We included mother's educational levels in light of the fact that more educated mothers tend to have children who perform better in school and show higher completion rates. In the long run, this is likely to translate into greater odds of tertiary education enrolment and obtaining higher salaries [30]. Moreover, in rural areas, social disparities due to mother educational levels are more salient, since economic inequalities in these regions are greatly affected by women's prior educational performance [14]. These differences are translated into greater involvement of more educated mothers in rural schools [31]. To address subjective factors of the participant return intentions, we included PA to the islands where they originate, but also PA to the region where they are studying.

We are interested in rural young people who are still attending tertiary education. This interest is novel within the context of existing literature, and we believe it is justified. Rural university students are going through a transition period, which includes living between different places, with mobility prospects remaining fluid and open. To better capture these tensions, we focused on students who had moved to mainland Portugal having come from a mostly rural, peripheral Portuguese region, specifically The Azores Islands. Understanding the factors tailoring these students' returning intentions is required, since more educated young adults have a greater potential to produce significant economic and social impacts within rural areas. Our goal is also useful for informing public policies, because mobility intentions often turn into enacted mobility [5]. Anticipating youth mobility can help decision makers to match rural areas with young people's needs, thereby tackling some of these regions' sustainability challenges.

Based on the literature (and on preliminary cross-sectional findings [6]) our central hypothesis is that expected income 3 years after study completion and PA to the islands will be associated with greater intention to return to their region, after completion of studies.

## 2. Materials and Methods

### 2.1. Participants

The data used refers to an ad-hoc 3-time point longitudinal survey conducted with 349 participants (63.04% women). The survey involved 349 young people in the first wave, but the number of participants dropped to 133 in the second wave and 82 in the final wave.

The participants' age ranged from 18 (6.59%) to 38 (0.29%) ( $M = 21.89$ ;  $SD = 3.07$ ); however, most of them were aged 19–24 (67.02%). Almost half of the participants had no work experience (47.56%). Those remaining were roughly evenly distributed amongst those who had part-time (28.94%) and full-time (23.50%) work experience. Only 24.93% had a scholarship. Their expected income 3 years after graduation increased with time and was concentrated in the EUR 1000–1499 income class, including around 50.00% of cases.

A total of forty-one participants provided information on the intention to return in all waves, their age ranged from 18 (19.51%) to 23 (4.88%) ( $M = 19.85$ ;  $SD = 1.41$ ), however, most of them were aged 19–21 (68.29%). Almost half of the participants had no work experience (58.54%). Their expected income 3 years after graduation increased with time and was concentrated in the EUR 1000–1499 income class, including 58.54% of cases.

### 2.2. Site

The Azores is an archipelago of nine islands located in the middle of the Atlantic Ocean. It is a two-hour flight from the capital city of Lisbon, and has a population of

247,372 inhabitants. In 2020 (3rd trimester), the primary sector represented 8.76% of the region's employment; the secondary sector (manufacturing) covered 17.24%; the tertiary sector (attention, advice, access, experience and caring labour services) had a quota of 74.00% share of the total employment. Unemployment rates remained low (6.70%) in the aftermath of the pandemic crisis [32]. In 2020, the region has the highest rate by regions of early school leaving (27.00%), well above the national rate (8.90%). In 2019, the region also had the highest rate of youth unemployment by region (23.50%) [32].

### 2.3. Measures

#### 2.3.1. Structural Factors

The participants were characterised via gender (0 = male; 1 = female), age (in years), and work experience (0 = no work experience; 1 = part-time work experience; 2 = full-time work experience). Mother's educational level according to the International Standard Classification of Education (ISCED) (0 = ISCED 0-2-9th grade or less; 1 = ISCED 3-4-secondary education; 2 = ISCED 5-8-tertiary education), access to scholarship (0 = Yes; 1 = No) and expected monthly income 3 years after graduation (0 = between 1000 and 1499 euros; 1 = between 1500 and 1999 euros; and 2 = above 2000 euros) were also described.

#### 2.3.2. Place Attachment

PA to the islands and PA to the region where the participants are studying were assessed using the Portuguese version [33] of the Brief Sense of Community Scale (BSCS) [34]. This questionnaire is comprised of eight items that assess emotional bonds to a given community in terms of belongingness, influence, needs and shared emotional bonds (sample item: "I feel connected to this community"). Thus, this measure only captures PA social aspects. In this study, we slightly re-worded the items: references to the community were contextualised in the island of origin or the place where the participants were studying to allow specific PA assessments (sample items: "I feel I am a member of the community of my island"). Ratings ranged from 1 (totally disagree) to 5 (totally agree). Full-scale results for PA to the island ranged from 8 to 40 points. In the case of PA to the region where the participants were studying, scores ranged from 7 to 35 points, as one item was dropped after reliability analysis. In both cases, higher scores indicate stronger PA. Adequate reliability levels for the full-scale measure have been found for the original English language version ( $\alpha = .92$ ) [33] and for the Portuguese version of the BSCS ( $\alpha = .84$ ) [32]. Here, the BSCS was shown to be a reliable measure of PA to the islands, ranging from  $\alpha = .67$  (Time 3) to  $\alpha = .86$  (Time 1). PA to the place where the participants were studying reached  $\alpha = .86$  in Time 1 and Time 2.

#### 2.3.3. Intention to Return

We created a four-item measure to assess the intention to return. Two of the items measured the intention to return to the island of origin (sample item: "After graduation, I intend to return to my island of origin"); the remaining two assessed the intention to return to the archipelago, in general (sample item: "After graduation, I intend to return to The Azores"). Ratings ranged from 1 (totally disagree) to 5 (totally agree). Full-scale results ranged from 4 to 20 points; higher scores indicated stronger intentions to return to the archipelago. The measure displayed an acceptable reliability score, ranging from  $\alpha = .61$  (Time 3) to  $\alpha = .79$  (Time 1).

#### 2.3.4. Procedures and Data Analyses

The participants were surveyed for three consecutive years in November/December of 2018, 2019 and 2020. We conducted descriptive and correlational analysis between the study variables.

Our survey approach involving the same individuals over time allowed us to proceed with the use of a panel model specification. In comparison to the cross-section analysis, panel modelling has many advantages. First of all, it makes it possible to understand the

changes that occurred during the study period in a given set of variables. The second relevant advantage consists of controlling for possible omitted variable bias. This problem occurs when some relevant factor is not included in the regression model because it is not observed or is not observable. These omitted relevant regressors will be captured by the error term and, in the case where the omitted relevant regressor correlates with other covariates included in the model, the latter turn out to be endogenous thereby rendering the estimates inconsistent. Moreover, panel models account for differences between participants controlling for them. The main limitation of panel data is, however, panel attrition, which occurs when some participants initially included in the study permanently drop out of the panel. Their refusal to participate again in the survey may lead to biased estimates when the decision of dropping out is connected with the phenomenon of analysis.

The discrete nature of the variable of analysis intention to return (RET\_INT), which assumes all integer numbers between 4 and 20, suggested the use of a Tobit model for panel data with random effects in order to check how different structural and subjective factors were related to the intention to return evolution over time.

The model specification is the following:

$$\text{INT\_RET}_{(t,i)} = \alpha + \beta X_i + \delta K_{t,i} + v_i + \varepsilon_{(t,i)} \quad (1)$$

where  $\text{INT\_RET}_{(t,i)}$  is the latent construct referred to the intention to return to the islands after graduation;  $X_i$  is a vector of personal, time-constant characteristics for the  $i$ -th individual;  $K_{t,i}$  is the latent construct referred to the attachment to the isle of origin for  $i$ -th individual at time  $t$ ;  $\alpha$  is the intercept term;  $\beta$  and  $\delta$  are the coefficients for, respectively, the personal time-constant characteristics and the time-variant latent constructs;  $v_i$  are the individual-specific effects, and  $\varepsilon_{(t,i)}$  is an idiosyncratic error term. Both  $v_i$  and  $\varepsilon_{(t,i)}$  are i.i.d., with  $N(0, \sigma_\varepsilon)$ ,  $N(0, \sigma_v)$  and with  $\varepsilon_{(t,i)}$  independent of  $v_i$ ;  $i = 1, 2, \dots, 349$  individuals;  $t = 2018, 2019, 2020$ .

The model specification through random effects rather than fixed effects is justified, on the one hand, to maintain all the time-constant individual variables in the analysis. In parallel, the preference for a random-effects approach has been tested via the Hausman test, which led to the acceptance of the null hypothesis of absence of correlation between the error component  $v_i$  and the regressors with a 5% level of significance ( $p$ -value of 0.0632). We tested three very similar models. The only difference consisted of the fact that PA to the islands was replaced by PA to the region where the participants are studying in Model 2, whilst in Model 3, both the latent constructs are included. These alternative specifications allow us to verify the estimates' stability.

### 3. Results

#### 3.1. Descriptive and Correlational Analysis

Table 1 summarises yearly averages and standard deviations for time-varying latent variables. Results show that the intention to return decreased across the 3-time points of the study. Conversely, PA to the islands decreased from 2018 to 2019, with an increment in 2020.

**Table 1.** Yearly means (standard deviations).

Time-Varying Latent Variables	2018	2019	2020	Min–Max
	M (SD)	M (SD)	Mean (SD)	
Intention to return	12.27 (4.27)	11.92 (3.83)	11.66 (3.55)	4–20
PA to the islands	31.81 (4.62)	31.18 (5.09)	31.71 (4.71)	8–40
PA to the region where studying	24.49 (5.52)	23.94 (5.24)		7–35

Tables 2 and 3 report association measures between the intention to return and, respectively, qualitative time-invariant personal factors and the other latent constructs. Time-constant factors data was characterised in 2018. In Table 2, we report the chi-square

descriptive statistical index, the Cramer's V, which is a relativised measure of chi-square ranging from 0 to 1, and the Kendall rank correlation (which is a non-parametric index) allowing control for the direction (direct or inverse) of the relationship measured in terms of similarity of corresponding variable ranks. This correlation ranges from  $-1$  (fully different ranking and, therefore, a perfect inverse relationship) to  $1$  (identical ranking, that is a perfect direct relationship).

**Table 2.** Measures of association and chi-squared test (calculated only on the 1st year for ordinal variables).

Intention to Return with	Chi-2 ( <i>p</i> -Value)	Cramer's V	Kendall Rank Corr.
Sex	15.80 (0.47)	0.21	-
Exp. Income 3 years	45.38 (0.58)	0.22	$-0.14$
Mother's educational level	41.17 (0.13)	0.24	$-0.12$
Work experience	54.59 (0.01)	0.28	0.06

**Table 3.** Pearson's correlation coefficients for interval-scaled quantitative variables (calculated only on the 1st year values).

	1	2	3	4
1. Intention to return	1			
2. PA to the region where studying	$-0.17^{**}$	1		
3. PA to the islands	$0.30^{**}$	$-0.01$	1	
4. Age	0.06	0.1	$-0.20^{**}$	1

$^{**} p < 0.01$ .

According to Table 2, individuals with any kind of work experience manifest a higher intention to return to their place of origin. Conversely, the intention to return decreases when the expected income after 3 years is higher and for individuals with a more highly educated mother.

Finally, Table 3 shows that the intention to return is significantly related to PA to the islands and inversely to the new region of residence. Moreover, for older individuals, PA to the islands decreases whilst the attachment to the region of residence increases.

### 3.2. Tobit Panel Models Analyses

Table 4 sums up the results for the tested Tobit panel models.

When examining the estimates' consistency across models, it is clear that mother's education level significantly affects a participant's intention to return. Namely, we found that whilst a medium level of education (ISCED 4) is not significantly associated with the evolution of the intention to return, a high level of education (ISCED 5-8) is significantly associated with its decrease over time, when setting a low level of education (ISCED 0-2) as the reference category. We found that participants that displayed higher income expectations after 3 years also display a decrease in intention to return, across the study period. Furthermore, we also found that higher PA to the islands is associated with an increment of intention to return over time, above and beyond the effect of other factors. Conversely, higher PA attachment to the region where the participants attend university is linked to a decreasing intention to return to the islands. These associations are identical across models, even in Model 3, when accounting simultaneously for both PA variables. Akaike information criterion (AIC) is lower for Model 3 compared to Models 1 and 2, indicating an improvement in terms of goodness of fit.

The only relevant difference between the three models is that work experience coefficients are significant at 5% in Models 2 and 3, confirming prior bivariate analysis. In any case, the values of the other coefficients confirm the estimates' stability. The rho coefficients are substantially stable across the three models and highlight that between 66.00% and 71.00% of the total variability in the intention to return is due to the variability between

subjects across the selected predictors. Therefore, more than 30% of the residual variability of the intention to return is captured by the temporal dimension.

**Table 4.** Tobit panel model with random effects for the estimation of the determinants of the intention to return to the islands.

Intention to Return	Model 1	Model 2	Model 3
	Coefficients (SE)	Coefficients (SE)	Coefficients (SE)
Gender (ref. man)	0.72 (0.49)	0.33 (0.52)	0.72 (0.48)
Age	0.12 (0.08)	−0.01 (0.08)	0.12 (0.08)
Work experience (ref. no exp)	0.64 (0.47)	1.09 (0.51) **	−0.49 (0.23) **
Expected income after 3 years	−0.55 (0.23) ***	−0.59 (0.25) ***	0.76 (0.47) *
Mother's level of education (ref. low)			
Medium	0.06 (0.55)	−0.08 (0.60)	0.01 (0.55)
High	−1.29 (0.53) ***	−1.42 (0.57) ***	−1.23 (0.53) **
PA to the islands	0.31 (0.04) ***	—	0.32 (0.04) ***
PA to the region where studying	—	−0.10 (0.04) ***	−0.10 (0.03) ***
Constant	0.46 (2.52)	15.346 (2.11) ***	2.27 (2.64)
su	3.432	3.793	3.408
se	2.443	2.4	2.407
Rho	0.664	0.714	0.667
N	526	482	482
Wald chi	82.38 ***	32.23 ***	89.95 ***
AIC	2730.80	2560.12	2510.12

\*\*\*  $p < 0.001$ ; \*\*  $p < 0.01$ ; \*  $p < 0.05$ .

### 3.3. Discussion

As expected, as an overarching finding, we found that rural university students' return intentions to their place of origin while they attend university are shaped by both structural factors and subjective variables. These results fit the growing consensus in the literature showing that mobility intentions, in general, as well as rural youth mobility intentions, cannot be explained based only on a classical push and pull factors approach [4,12]. Push and pull factor scholarship correctly highlights the weight of structural conditions from declining rural areas (lower income, limited employment opportunities, worst educational background) in reducing returning expectations to these regions, especially amongst higher educated young people. However, the impact of these structural factors on younger rural generations' mobility intentions is shaped by local, cultural, social and family conditions [13,19]. These conditions create emotional bonds to the place of origin, playing a role when young adults start to anticipate where they want to settle. The determinants of rural young people mobility intentions are, therefore, increasingly complex, mirroring how movements in contemporary societies have progressively become a matter of personal choice, encompassing multiple possibilities in terms of goals [1] duration [2,3] and mobility forms [4].

Our overriding conclusion stems from three specific findings that support and go beyond our central hypothesis. Firstly, participants whose mothers completed tertiary education show a decreasing intention of returning to their place of origin. Parents' greater educational attainment has consistently been associated with greater mobility intentions amongst young people [1]. In the countryside, when parents have a greater educational level, they also tend to place more value on mobility as an asset to improve social, educational and professional capital [2,17]. Consequently, in our study, lower returning intentions echo and expand a biased mobility trend extensively documented. It shows that privileged young people also hold greater educational and professional aspirations that are nurtured through socialisation [5,10]. Often, these expectations can only be fulfilled in urban centres [18], leaving rural regions to face brain drain and critical mass decrease problems [10].

Secondly, we found that higher expected income is also significantly associated with a decrease in the participants' returning intentions over time. Again, this result expands prior conclusions, showing that mobility intentions are shaped by income prospects. In general, young people earn less in rural areas mostly because these regions are less affluent and have less diversified economic structures [35]. Therefore, youths graduating from university anticipate higher incomes in urban areas where the tertiary sector offers more well-paid jobs. Greater levels of economic deprivation also prevent greater retention of the most qualified amongst the younger generations in rural areas [17]. Our specific finding indirectly reflects the fact that rural youths with fewer resources more often stay in rural areas [36], sometimes adding justifications to stay through cognitive dissonance strategies [23]. This may have been the case with participants coming from socio-economically weak households, as they tend to be more negative about their life trajectories, including in terms of professional and income expectations. To cope with financial, social or cultural disadvantages, these youths might end up in an involuntary immobility situation [4].

Thirdly, subjective factors also matter in the evolution of the participants' intentions to return to their native region. Specifically, while greater PA to the islands is linked to increasing intentions to return, the participants' PA to the region where they are studying has the opposite significant effect. These results add two contributions to the literature. To begin with, emotional bonds are vital in shaping rural young people's mobility intentions. Prior reports had already demonstrated how young people who show a strong PA are more inclined to stay or to show greater intention to return to rural areas [6]. As mobility intentions are becoming increasingly personalised, important traits of each person's identity are becoming decisive in anticipating crucial decisions, such as where to settle after studies completion. Thus, going back home to the countryside involves pragmatic reasoning about income, but also personal wellbeing in terms of feeling attached to the community [23]. Secondly, our study captures an ongoing process of negotiation of being between places, during a long transition into adulthood. During this period, returning intentions remain fluid and open, but these options must also consider PA to the region where the students are attending university. The more these regions become significant for these youths, the less they will consider returning. Consequently, a complete personal emotional geography of the returning intentions of more educated rural young adults involves multiple places and an internal debate between the multiple and potentially conflicting meanings associated with a return movement [5,15].

Our results are worthy of further discussion when considering young generations returning intentions to particularly remote and isolated rural areas. While generalisations must be measured and cautious, it seems that emotional geographies play a substantial role amongst most qualified youths in shaping returning intentions to these areas, above and beyond pragmatic factors. The literature shows that people coming from these areas show stronger bonds with local communities because they cherish their origins for being unique in terms of landscape, social organisation and cultural identity [26]. This sense of distinctiveness is even more dominant in the case of young islanders, especially when they come from small and very remote islands, as is the case in this study [37]. As a result, young islanders often voice feelings of ownership and responsibility for the future of remote places [38], meaning that the conditions for emotional investment and subsequent return seem more favourable. Scholars may need, therefore, to stream these representations of ownership and uniqueness into youth mobility research associated with remote and isolated spaces. From our perspective, these representations have certainly played a key role in explaining the connections between PA and returning intentions within our study. Further qualitative exploration is useful for understanding how these representations may shape such connections. Comparative studies may further contribute to untangling how much these factors explain mobility intentions in comparison with young people originating in other rural areas.

Our findings also have implications in the policy arena. Brain drain and the loss of critical mass in rural areas associated with more educated young people choosing

outwards migration has economic, social and demographic impacts that threaten these areas' sustainability. Our findings suggest that a meaningful translation of EU strategies such as the European Green Deal into local contexts are required to promote, for instance, a more attractive agriculture sector, which requires a specialised labour force. These changes may open up a more vigorous and diverse services sector (e.g., agro-tourism) creating financially rewarding opportunities for young entrepreneurs as well as for qualified young people. However, much more commitment is needed in creating and sustaining future rural university students' bonds with their native areas. This vision demands a greater focus on and support for youth participation initiatives that target rural young generations from an early age and before they leave to continue their studies. After they leave, it is necessary to open up channels (forums, social media apps, decentralised participation initiatives—e.g., petitions) in order to keep these youths engaged with the future of their regions while they are studying elsewhere.

Although our findings can add some nuance to the youth mobility literature, its generalisation must take into consideration limitations such as the following: (a) the high participation drop-out rate (although estimates do not seem to have been biased by that fact); (b) the use of a measure that only captures the social dimension of PA; (c) the use of data that was collected before and after the pandemic crisis (which may well have altered the participants' PA and returning intention perceptions).

In conclusion, our results document the extent to which returning intentions of rural university students stem from both structural conditions with emotional bonds to places. Without a stronger focus on emotional geographies (and how they come to shape structural factors), public policies will remain incomplete and, to a great extent, unable to promote rural areas' social sustainability.

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