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STUDY ON THE INFLUENCE OF POVERTY ON DISAPPEARANCES

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1. EXECUTIVE SUMMARY

The current study has two fundamental parts: to delve deeper into the profile of missing persons in Spain and those who disappear repeatedly (recidivists), and to analyze the relationship between poverty and disappearances. The study uses information from the Missing Persons and Human Remains System (PDyRH) regarding 321,687 missing persons reports.

The analysis of the profile of both missing persons and repeat offenders was carried out with a subsample of 15,759 people reported during the year 2024. In contrast, the relationship between disappearance and poverty was carried out from another subsample of missing persons between 2016 and 2024 (n=115,383), relating it to three poverty indicators: household income, risk of poverty and income inequality.

The sociodemographic profile of missing persons in 2024 is characterized by:

- They are mostly men (62.8%), with an average age of 29 years.
- Having been born mainly in Spain (64%).
- Primarily source from North Africa and Latin America.
- Suffering from physical, mental or addiction health problems in a very small proportion.
- Residing in provinces where the average income is lower than the Spanish average.
- Disappearing voluntarily, especially during the weekend.
- Las Palmas, Santa Cruz de Tenerife and Almería are the provinces with the highest disappearance rate per 100,000 inhabitants.

Regarding repeat missing persons:

- In 2024, the prevalence of recidivism was 28.9%.
- It is most common for repeat offenders to disappear twice a year (49% of repeat offenders).
- The distribution between repeat offenders among men and women is similar.
- Repeat offenders are mostly minors (67.2%).
- The most common situation of recidivism affects minors who have run away from protection centers or their homes voluntarily.

- Repeat disappearances occur most frequently during the last quarter of the year and on weekends.
- Repeat offenders reside in provinces with below-average Spanish income. Among these, the Canary Islands, Palencia, and Valladolid stand out.

Six predictive variables for repeat disappearances have been identified: 1) female sex, 2) being a minor, 3) Spanish nationality, 4) voluntary disappearance, 5) lower risk of poverty in the locality, and 6) high income inequality in the locality. These variables have a predictive capacity of 0.67, making them a better predictive model than chance.

Finally, the results of the relationship between poverty and disappearances point to the following conclusions:

- The Gini coefficient is the indicator that best correlates with total disappearances. In other words, localities with greater inequality between high and low incomes are the most prone to disappearances.
- The Gini indicator shows a positive association with repeat disappearance, which implies that the greater the economic inequality in the province, the greater the probability of recidivism.
- No poverty indicator is related to non-voluntary disappearances (involuntary and forced).

1. INTRODUCTION

The disappearance of a person is a complex and multi-causal phenomenon that affects all societies, and its consequences are suffered by both the missing persons and their loved ones (García-Barceló, 2019). From a quantitative perspective, the number of disappearances is not excessively high, and Spain is in line with other countries in its region. Since the implementation of the Missing Persons and Human Remains System (PDyRH) in 2009, more than 321,000 reports have been registered, of which 26,345 correspond to 2024 (0.01% of the Spanish population) (National Center for Missing Persons, 2025). In countries like the United Kingdom, the United States, and Australia, annual missing persons reports range from 80,000 to 600,000 (García-Barceló, 2019), also representing less than 1% of the population. While the scale of the phenomenon is not excessively large, the number of reports is high, and the number of people directly or indirectly affected justifies the need to understand this phenomenon in depth.

1.1. Definition of the phenomenon and classification of disappearances

When referring to the definition of disappearance, the first thing that stands out is the multiple approaches to the concept that exist and that, consequently, affect its identity and applicability (García-Barceló, 2019; Taylor et al., 2018). In Spain, for example, there is no legal definition of a "disappeared person." However, the Civil Code refers to the concept of "absence" in order to regulate two legal processes related to a person's disappearance: the declaration of legal absence and the declaration of death. For this reason, the Security Forces and Corps (hereinafter FFCCS) use the definition derived from the Council of Europe Recommendation (Rec. 2009/11, of 9 December 2009) which defines missing person as "that person who is absent from his or her usual residence without a known or apparent reason, whose existence is a cause of concern or whose new residence is unknown, giving rise to the search in the interest of his or her own safety and on the basis of family or social interest" (Doménech, 2018; Ministry of the Interior, 2019).

In the international context, different public bodies adopt different definitions for the concept of a missing person. For example, the Royal Canadian Mounted Police (2015) in Canada and the College of Policing in the United Kingdom (2024) define it as "a person whose whereabouts are unknown and who has been reported missing to the police." These definitions share the common characteristic of considering the disappearance without taking into account the circumstances surrounding it. In contrast, in the United States, the Association for Chief Police Officers (2013) proposes a definition that places greater emphasis on the cause of the disappearance, considering a person missing if they "are suspected of having been the victim of a crime and/or may be at risk of harm to themselves or others."

The causes of disappearances are diverse and not always related to a crime. In fact, both internationally and nationally, most reported cases involve voluntary disappearances or individuals who, in full possession of their faculties and volitions, make the decision to disappear (Halford, 2024; Kiepal et al., 2012; García-Barceló, 2021).

Given the heterogeneity of the circumstances and possibilities of disappearance, these are usually classified according to the degree of voluntariness involved in the person's decision to leave. In Spain, three main categories are distinguished: voluntary, involuntary, and forced (Ministry of the Interior, 2019). Voluntary disappearances are divided into two subtypes based on the age of the missing person: adults and minors. The latter group of minors includes those who have run away from home and those who have escaped from a protection or foster care center. On the other hand, involuntary disappearances are those caused by circumstances beyond the control of the missing person and include those resulting from accidents, natural disasters, or a decline in the person's mental capacity. Finally, enforced disappearances are those caused by the direct intervention of a third party and include those resulting from a crime, parental abduction of minors, and expulsions from the home. In this regard, Doménech (2018) adds a fourth category: disappearances pending classification or those that occur in circumstances unknown to law enforcement agencies.

In the international context, the classification of disappearances varies, although it coincides with that used in Spain in employing the degree of voluntariness in the disappearance as the main criterion. Halford's study (2024) presents different classifications of disappearances, and

ranging from the most generic, which divide between voluntary and non-voluntary; to the most exhaustive, which include a wide catalog of typologies of non-voluntary disappearances (Biehal et al., 2003; Bony et al., 2016).

1.2. Risk factors for voluntary, involuntary and forced disappearances

In recent years, interest in understanding this phenomenon has increased within the scientific community in order to delve deeper into its causes and identify the factors that increase the occurrence of disappearances (risk factors) and thus be able to reduce them (García-Barceló, 2019). Among these factors, the literature distinguishes between those that favor disappearance and those that increase the risk of suffering harm or a fatal outcome.

Tarling and Burrows (2004) made the first proposals regarding risk factors for disappearances, distinguishing between: a) precipitating factors (push factors) linked to situations that generate stress, conflict, or neglect, such as romantic breakups, precarious financial situations, domestic turmoil, or dissatisfaction with one's personal circumstances (Babuta & Sidebottom, 2020; Gaetz, 2004; Kiepal et al., 2012; Huey & Ferguson, 2020; Tarling & Burrows, 2004). And b) pull factors, which are related to the search for stimulating experiences, such as participation in illicit activities (Huey & Ferguson, 2020; Tarling & Burrows, 2004).

Other authors, predominantly Canadian, have identified individual risk factors, although the results are often not generalizable to other locations due to the sociocultural context. Ferguson (2022) and Kiepal et al. (2012) identify belonging to Indigenous communities and being a minor as predictors of disappearance. While the former is more specific to the Canadian context, being a minor has been a recurring factor identified by many studies in different locations (Ferguson, 2022; García-Barceló et al., 2021; Huey et al., 2020; Kiepal et al., 2012). In the United States, disappearances involving minors accounted for more than 60% of all missing persons reports in 2024 (NamUS, 2025); in Canada, 48.1% (Canada's Missing, 2024). And in Europe, more than 250,000 cases have been reported (ICMEC, 2023). In the case of Spain, 67% of missing persons reports registered between 2010 and 2020 correspond to minors, and during 2023, they represented

They represented almost half of the total complaints filed (National Center for Missing Persons, 2020, 2024; García-Barceló et al., 2021).

Psychopathological risk factors are also relevant, especially for involuntary disappearances. These include: a diagnosis of severe mental health condition, particularly patients who run away during a psychotic episode (Ferguson, 2022; Wilkie, 2014); drug or alcohol addiction problems, which impair a person's volitional capacity in states of intoxication (Bonny et al., 2016; Ferguson, 2022; Ferguson and Huey, 2020); and dementia, especially in advanced stages.

On the other hand, the risk factors associated with disappearances that result in harm include having been the victim of a crime, being female, being a foreigner, and having a low socioeconomic status, especially in countries with a high incidence of violence perpetrated by criminal or political organizations, such as those in Latin America or Africa (Cepeda-Alvear, 2022; Gutiérrez, Medellín-Hernández, 2024; Mexican Institute for Human Rights and Democracy, 2019; United Nations, 2021). Finally, when the outcome of a disappearance is the death of the person, the main cause is suicide (Bonny et al., 2016; Ferguson, 2022; García-Barceló, 2019, 2023). Fortunately, fatal outcomes represent only between 1% and 3% of all cases. In the Spanish case, almost 55% of disappearances are stopped within the first 72 hours and more than 72% within a week (National Center for Missing Persons, 2025; García-Barceló et al., 2021).

1.3. Recidivism of missing persons

In international literature, the phenomenon of recidivism in missing persons is known as repeatedly missing person/individual or chronic cases of missing persons (Ferguson and Picknell, 2022; Halford, 2024), and is defined as the situation in which the person disappears two or more times in a year (Sidebottom et al., 2020).

According to the most recent report from the National Center for Missing Persons (2025), in 2024, repeat disappearances accounted for 43.8% of all reports filed in Spain. Various studies in Anglo-Saxon contexts indicate that this type of disappearance represents between 50% and 65% of all reported disappearances. Furthermore, it is estimated that approximately half of repeat cases involve minors between the ages of 16 and 17, and among them, the following stand out:

Of particular note are minors who have run away from care or foster care centers (Babuta and Sidebottom, 2020; Department for Education, 2014; Galiano-López et al., 2021; Huey et al., 2020; Mewett and Thomas, 2025; Missing People UK, 2021; Sidebottom et al., 2020). It is important to note that this high rate of disappearances among minors leads to overrepresentation in police statistics on missing persons, as it is estimated that a minor can disappear more than 10 times in a single year (Babuta and Sidebottom, 2020; Galiano-López, 2021; Sidebottom et al., 2020).

Thus, children are more likely to disappear multiple times than adults. Precipitating and attracting factors in repeated disappearances are related to situations of abuse, neglect by primary caregivers, and the children's poverty (Galiano-López, 2021; Kietpal et al., 2014; Sidebottom et al., 2020). Individual risk factors for children who disappear multiple times include mental health problems, drug or alcohol use, problems with authority figures, and social isolation (Babuta & Sidebottom, 2020; Bennett et al., 2024; Hutchings et al., 2019; Sidebottom et al., 2020). Furthermore, being a minor is associated with greater vulnerability to harm during a disappearance. Recently, several research teams have identified a close relationship between the disappearances of minors and victimization by sexual or criminal exploitation (Galiano-López, 2021; The Children's Society, 2018).

1.4. Justification of the study

Throughout the introduction, various risk factors associated with disappearances have been presented, although these can vary depending on the characteristics of the population studied (Ferguson, 2022). In Latin America, several studies have highlighted the relationship between poverty and the risk of disappearance, especially in cases of involuntary or forced disappearance. In Spain, specific research has been conducted on forced disappearances and their predictive characteristics (García-Barceló et al., 2020, 2021, 2022, 2023). However, this type of disappearance represents a very small percentage. Despite advances in the study of forced disappearances, Spain lacks research focused on disappearances and their link to risk factors such as poverty. For this reason, the main objective of this study, in addition to analyzing the profile of missing and repeat offenders, is to explore the possible relationship between disappearances and poverty in the Spanish population.

2. OBJECTIVES

The aim of this study is to understand the profile of missing persons in Spain, their sociodemographic, criminological, and risk characteristics, as well as the profile of those who disappear repeatedly. Furthermore, this study also analyzes whether there is a relationship between poverty and both occasional and repeated disappearances.

Therefore, the present study has three objectives:

1. Analyze the profile of missing persons using the year 2024 as a reference.
2. To delve deeper into the profile of repeat offenders and the predictive factors of such recidivism.
3. Analyze the relationship between poverty and disappearance in order to find out if indirect indicators of poverty favor disappearances.

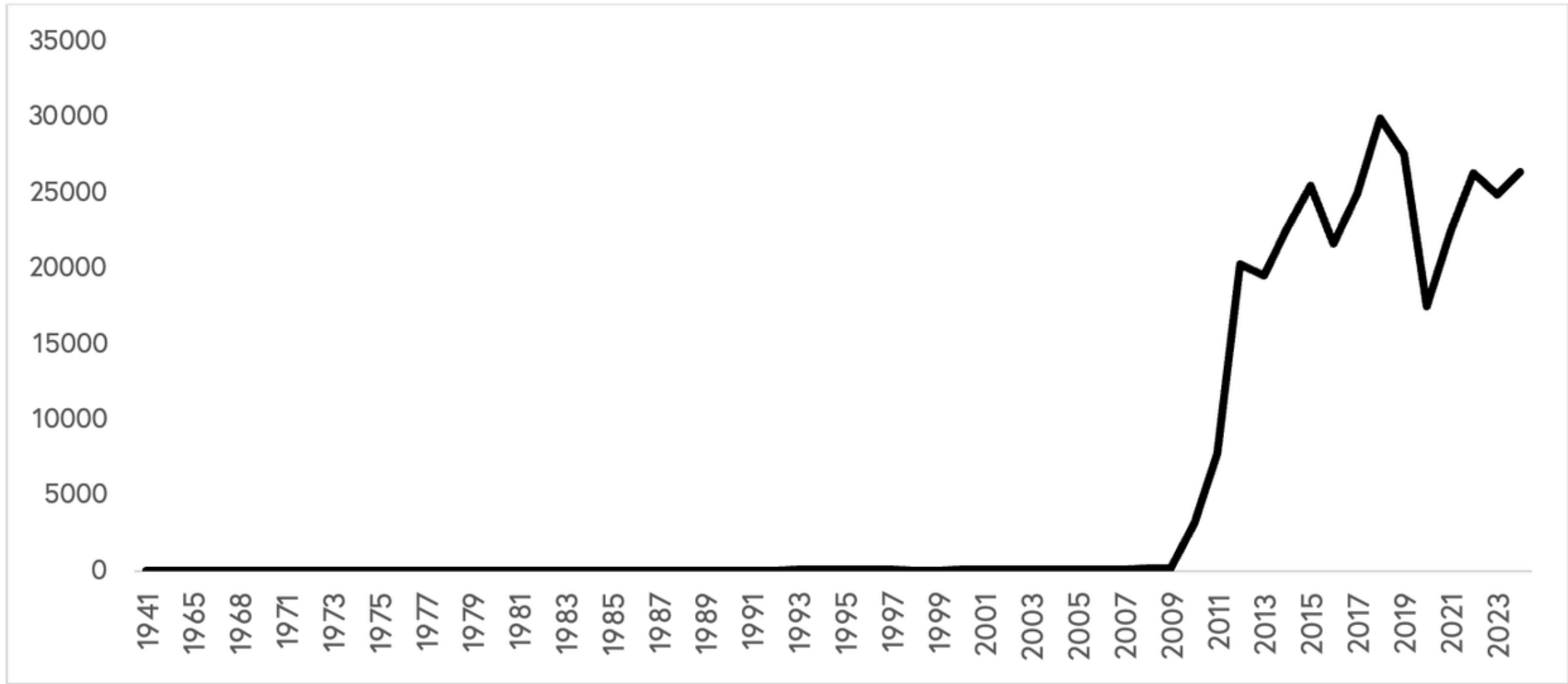
3. METHODOLOGY

This study was conducted using a quantitative methodology based on the analysis of information extracted from the Missing Persons and Unidentified Human Remains System (hereinafter referred to as the PDyRH System). A total of 321,687 reports filed between 1924 and 2024 were analyzed, corresponding to 183,959 missing persons.[1]

3.1. Sample

An initial analysis revealed that missing persons reports fluctuated between 1924 and 2024. As shown in Figure 1, from 2010 onwards, the number of reports increased until reaching a certain level of stability. This increase in reports is explained by the implementation of the PDyRH System in the summer of 2009, and since then, the State Security Forces and Corps (hereinafter FFCCS) have systematically computerized missing persons reports, in addition to incorporating previous reports.

Chart 1. Number of complaints filed per year (N=321,687)



For the purposes of this study and in order to meet the objectives, only the subsample of disappearances from the year 2024 has been taken as a reference because it is the most up-to-date and representative (the previous years corresponding to the Covid-19 pandemic were not representative).

[1] Considering that some people disappear more than once throughout their lives, the number of reports is higher than the number of missing persons.

Thus, a sample of 25,884 complaints corresponding to the disappearance of 15,759 people has finally been analyzed[2].

For the third objective, concerning the relationship between poverty and disappearances, the complete sample of missing persons between 2016 and 2024 was analyzed, excluding cases of minors who disappeared from protective custody. This exclusion is because the location of these institutions is determined by administrative criteria and does not reflect the socioeconomic situation of the minor or their family environment. The sample was also divided into voluntary and involuntary disappearances to relate them to poverty indicators independently.

Table 1 describes the subsamples analyzed for each research objective:

Table 1. Samples analyzed according to each research objective

Study objective	Period	Sample (Missing Persons)
Profile of missing persons	2024	15.759
Recidivism and predictive factors	2024	15.759
The relationship between poverty and disappearances	2016-2024	115.383
Non-voluntary disappearances [3]	2021-2024	10.119

3.2. Sources of information

The information used in this study comes from two different sources: 1) the PDyRH System, which collects information about missing persons and the characteristics of the disappearance; and 2) the National Institute of Statistics (INE), where three poverty indicators have been obtained.

[2] The figures for missing persons reports differ from those included in the 2025 Annual Report of the National Center for Missing Persons (CNDES). This is due to the use of different reference dates. This report uses the year in which the person disappeared as the reference date, while the CNDES uses the year in which the disappearance was reported.

[3] Non-voluntary disappearances include reports categorized as involuntary and forced; and the chosen time range, starting from 2021, is due to the inconsistency of the data in previous years.

3.2.1. Information extracted from the PDyRH System

The PDyRH System is a tool designed to integrate available information on missing persons, unidentified bodies, and human remains in Spain. It is the only tool used by all Spanish police forces with jurisdiction over public safety (including regional police forces). The database extracted from this system includes the following variables and categories, described in Annex I:

- Regarding the complaint: status (active/ceased) and reasons for cessation (reimbursements/request for cessation by the complainant/located by law enforcement/Incorrect data/Voluntary disappearance/Internment/Death/Detention/Minors).
- About the missing person: identification code, sex (male/female/unknown), age at the time of disappearance (number), nationality, place of residence (autonomous community/province/locality), missing minor (yes/no), needs medication (yes/no), repeat offender (yes/no).
- Regarding the disappearance: place of disappearance (country, autonomous community, province, locality), date of disappearance (day, month, year), type and subtype of disappearance (voluntary/involuntary/forced/standard[4]), escaped from a center (yes/no), type of center (mental health center/hospital/reception or protection center/reform).

3.2.2. Poverty Indicators

To obtain the poverty indicators, public data from the National Institute of Statistics (INE) on the distribution of different socioeconomic vulnerability indicators were used[5]. The three poverty indicators offered by the INE, disaggregated by municipality, were chosen[6]:

[4] This category is retained in order to include complaints prior to the publication of the Protocol of Action that determined the three types of disappearances.

[5] The data used are the most recent available on the INE website, published in October 2024. They refer to information on different income indicators for the year 2022. Atlases available at: https://www.ine.es/dyns/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736177088&menu=ultiDatos&idp=1254735976608 [6] Poverty indicators at the municipal level were used because they are the most disaggregated scale available. Other poverty indices, such as the AROPE indicator, were discarded because they integrate provincial data. They were considered too aggregated and not sensitive enough to internal inequalities within the territory.

- Average annual household income: represents the average of the total income received by households in Spain during a year.
- Risk of poverty: This measures how many people have low incomes relative to the total population. This indicator is one of the components of the AROPE index (At risk of poverty and/or exclusion), which indicates the percentage of the population at risk of poverty and/or social exclusion. To calculate the risk of poverty, the at-risk-of-poverty threshold is used, which is obtained by knowing the median income of the collected sample. That is, ordering incomes from lowest to highest, the median would be the value in the middle. Following the criteria recommended by Eurostat, the at-risk-of-poverty threshold is set at 60% of the median. Therefore, the risk of poverty is the percentage of people whose income falls below the calculated at-risk-of-poverty threshold. The higher the percentage, the more of the population in the territory is at risk of poverty.
- The Gini coefficient is a statistical measure used to assess inequality in the distribution of income or wealth within a population. It ranges from 0 to 100, with 0 representing no inequality and 100 representing maximum inequality.

3.3. Procedure

The original database contains information, extracted on December 31, 2024, on missing persons reports registered in the PDyRH System. To determine the number of people covered by these reports, and given that the data extraction is anonymous, the identification code was used as a reference variable. The identification code is a ten-digit number that identifies each case. In cases where a person disappears repeatedly, this code is repeated. In such cases, duplicates were removed, retaining only the record corresponding to the most recent disappearance. This method yielded the total number of missing persons.

Once the number of missing persons was obtained, in order to meet the first and second objectives, the "year of disappearance" filter was applied, the year 2024 was selected, resulting in 15,759 missing persons during the year 2024.

The procedure for obtaining the sample for the third objective is different, as it required merging two databases: one extracted from the PDyRH System and the other from the INE Atlases. To correctly include poverty indicators as new variables associated with the missing persons' place of residence, the postal code of the missing person's place of residence was used as a reference. This data was used as the merging variable, as it was found in both the database extracted from the PDyRH System and the database downloaded from the INE. During the merging process, 5,149 records were lost, corresponding to cases without information on poverty indicators. Finally, a unified database was obtained with 147,956 records of missing persons between 2016 and 2024, which, after removing cases of disappearances caused by minors who had left care facilities, resulted in an analyzed sample of 115,383 people.

3.3.1. Grouping of variables

To facilitate the statistical analysis of the information provided, it was necessary to recode the response options for the variables nationality and country of disappearance. Both variables included all countries as response options; therefore, these were grouped into regions following the United Nations Geoschema (n.d.). Thus, instead of having all countries as a response option, there are 17 possible responses corresponding to the 17 world regions (Southern Africa/Central Africa/North Africa/East Africa/West Africa/North America/Latin America/East Asia/South Asia/West Asia/Caribbean/Northern Europe/Southern Europe/Western Europe/Eastern Europe/Oceania/Southeast Asia). In both variables, "Spain" was the only country not included in its respective region, thus allowing for faster identification of missing persons in Spain and those who disappeared in Spain.

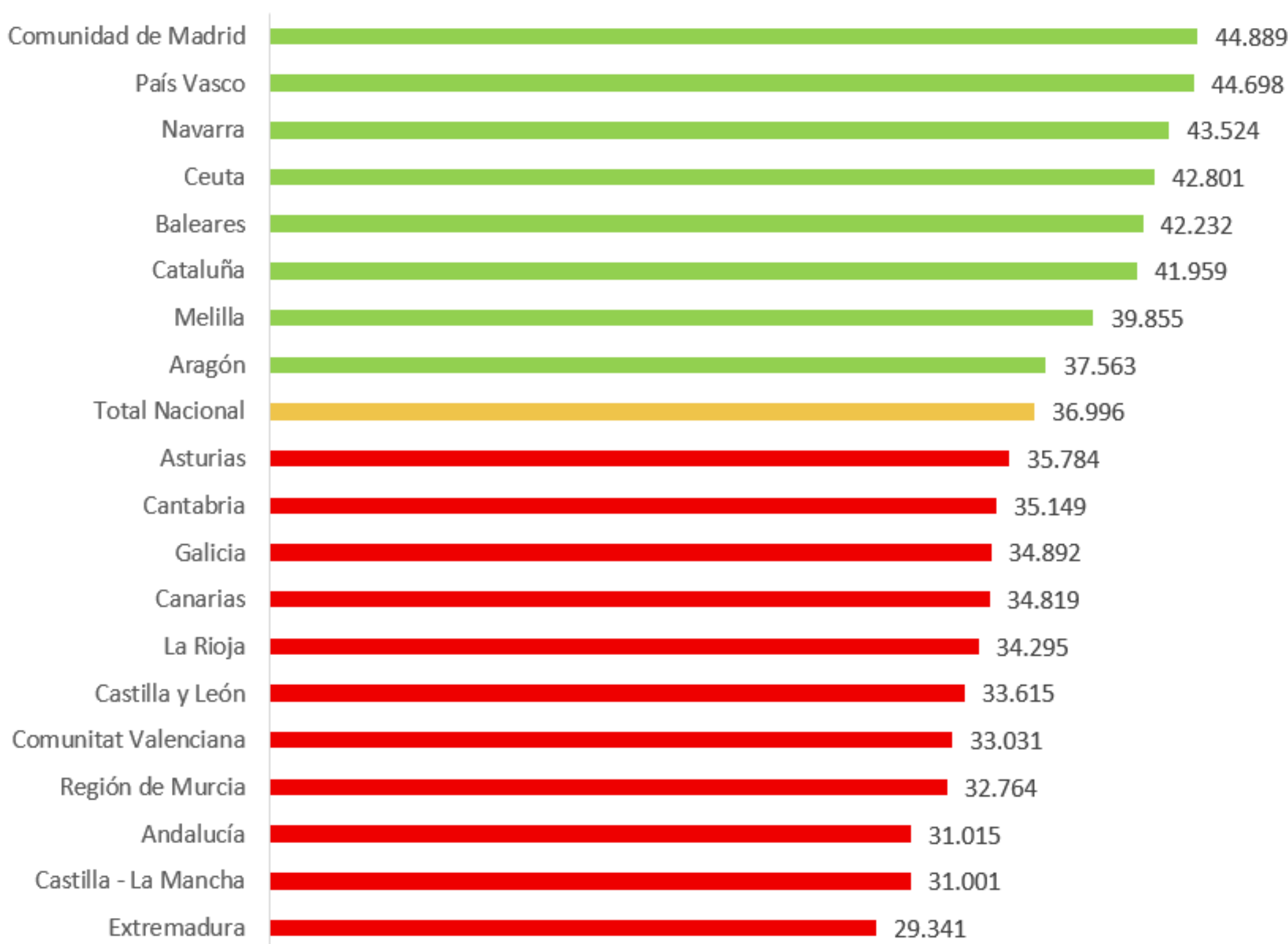
On the other hand, four new variables (addiction, disability, illness, and companion) were generated by grouping the following dichotomous (yes/no) response variables: 1) addiction category (includes the variables alcoholic and drug addict); 2) disability variable (includes the variables physical disability, sensory disability, and intellectual disability); 3) illness variable (includes the variables neurodegenerative disease, chronic illness, other illness, and amnesiac); and 4) finally, the companion variable (includes the variables accompanied by mother, accompanied by father, accompanied by siblings, accompanied by friends, and accompanied by others). The responses to the variables that comprise them were used to generate these new variables.

They were composed of, after recoding their values. The value 0 was assigned to "no" responses and the value 1 to "yes" responses. The sum of the responses was calculated for each variable. If the total value obtained was 0, the variable was coded as "no," indicating that all the variables that make up the variable received a negative response. Conversely, if the total value was equal to or greater than 1, the variable was coded as "yes," since at least one of the variables registered an affirmative response.

3.3.2. Incorporation of new variables

A new variable called "Income" was generated to collect information on whether the missing person resided in an autonomous community whose income was below or above the Spanish average. This variable was created from the "autonomous community of residence" variable and data provided by the INE (National Institute of Statistics) on the average annual income by autonomous community during 2024[7]. Once the income value was identified, the communities were classified according to whether their income was lower or higher than the Spanish average annual income. Therefore, the new variable is dichotomous, with two possible values: "Income below the average" (represented in red in Graph 2) and "Income above the average" (represented in green in Graph 2). The distribution of this variable is shown in the following graph:

Chart 2. Distribution of average income by Autonomous Community



[7] Data available at: <https://www.ine.es/jaxiT3/Tabla.htm?t=9949>

Finally, information on the poverty indicators described in the previous section was included, with values broken down by locality: the smallest sampling unit found. This information was extracted from the Household Income Distribution Atlases published on the website of the National Institute of Statistics (INE). The various Atlases include information on the population of the municipalities and the results of the different indicators.

3.4. Statistical analysis plan

To describe the characteristics of missing persons, as outlined in objective 1, a descriptive analysis of their sociodemographic variables and the circumstances of their disappearance was conducted. Furthermore, to identify differences between individuals who have disappeared only once and those who have disappeared repeatedly (repeat offenders), as outlined in objective 2, the Chi-square test and Student's t-test were used. These statistical analyses were performed using the SPSS statistical package (version 29.0.1.0).

Regarding objective two, which aimed to identify the predictor variables of recurrent disappearance[8], a logistic regression analysis was carried out using the R Commander statistical program.

To fulfill the third objective, the relationship between poverty and disappearances, the incidence of disappearances was analyzed according to poverty indicators using the statistical software R Commander. This allowed researchers to identify whether disappearances were overrepresented in localities with lower income levels, a higher risk of poverty, or greater levels of inequality. To ensure equitable representation of localities, they were grouped into 10 deciles, each representing approximately 10% of the total Spanish population. Decile 1 comprises the localities with the lowest 10% of the population on the indicators, and so on up to decile 10, which represents the localities with the highest values.

[8] Regarding recidivism, it was calculated using a variable so named that was provided to us for the study.

The following formula was used to calculate the incidence of disappearances:

$$\text{Incidencia de desapariciones} = \frac{\text{Desapariciones observadas}}{\text{Desapariciones esperadas}}$$

Where:

- Observed disappearances: total number of disappearances recorded in each decile.
- Expected disappearances: number of disappearances that would have been recorded if disappearances were evenly distributed throughout Spain, calculated using the following formula:

$$\text{Desapariciones esperadas} = \text{Total de desapariciones} \cdot \frac{\text{Población total en cada decil}}{\text{Población española total}}$$

The resulting value of the incidence of disappearances indicates whether a decile has more or fewer disappearances than expected.

- If the value is greater than 1, it indicates overrepresentation, that is, in that decile there are more disappearances than expected.
- If the value is less than 1, it indicates underrepresentation, that is, there are fewer disappearances than expected.

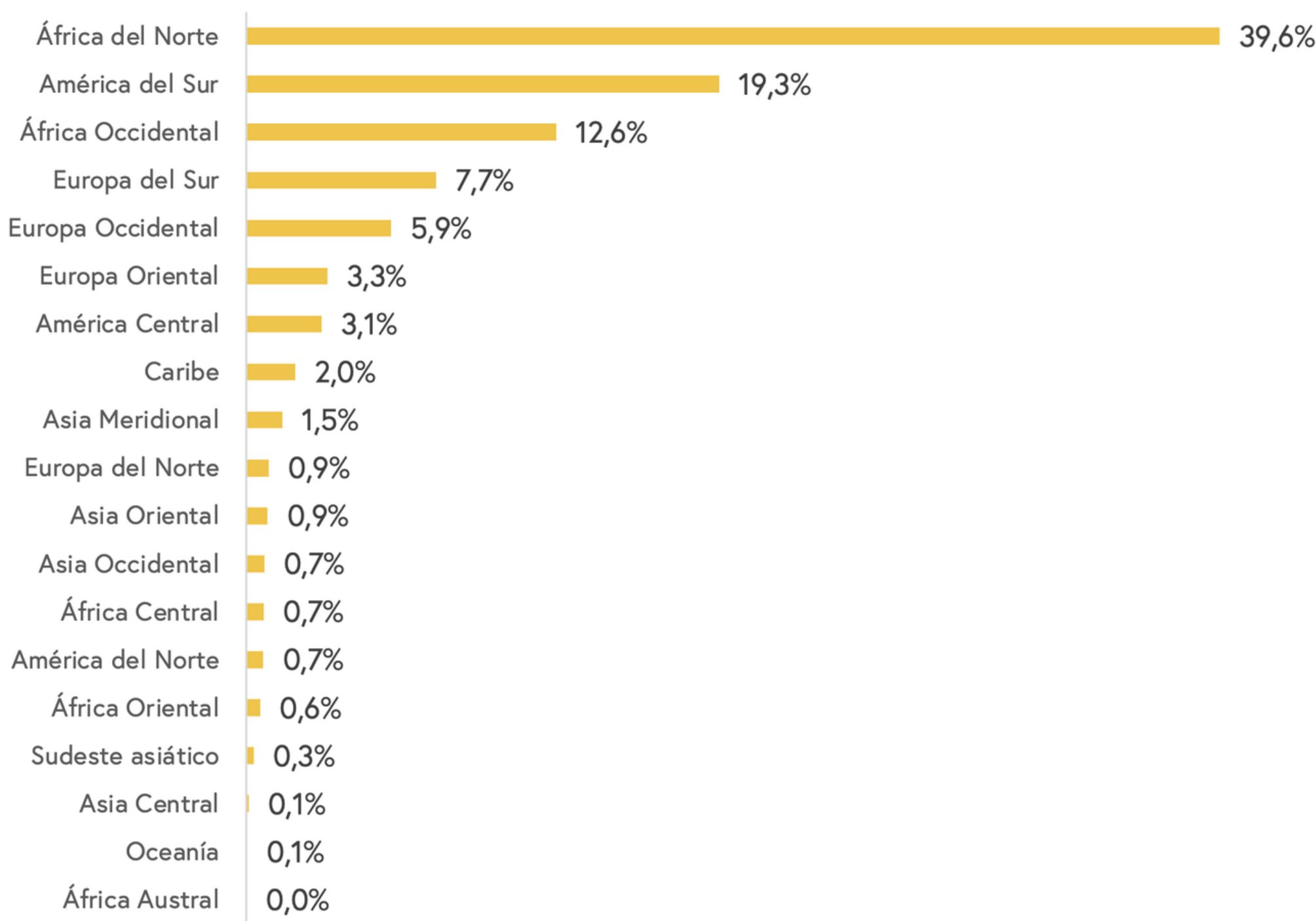
4. RESULTS

The results are presented below, divided into three sections related to the three objectives of the research: the profile and characteristics of missing persons, the profile of repeat offenders, and finally, the relationship between poverty and disappearances.

4.1. Profile of missing persons in 2024

As shown in Table 2, the analyzed subsample comprises 15,759 people who disappeared in 2024, of whom 62.8% are men and 37.2% are women. Regarding the age at disappearance, the mean is 29 years (SD = 18.8; max. 98; min. 0). Fifty percent of the missing persons are adults and 50% are minors, of whom 15.2% are minors who have run away from a foster care or protection center. As for nationality, Table 2 shows that 64% of the missing persons were born in Spain, while 36% come from foreign countries, particularly North Africa (39.6%), with Morocco and Algeria being the most frequent, and Latin America (19.3%), primarily Colombia and Peru (see Figure 3).

Chart 3. Regions of origin of missing foreign nationals (N=5,683)



Regarding the average income level of the autonomous communities where the missing persons reside, it is observed that 54.7% live in communities with an income lower than the Spanish average, while 45.1% live in communities with a higher income (Table 2).

Other characteristics explored are related to health aspects such as disability, illness, addiction, or whether the person requires medication. As shown in Table 2, missing persons with some type of disability (physical, intellectual, or sensory) represent a small proportion (1.2%). On the other hand, 6% of missing persons have been diagnosed with some type of illness, and 26.8% require medication. Finally, 11.1% of missing persons have addiction problems, either to alcohol or drugs (Table 2).

Table 2. Sociodemographic characteristics of missing persons

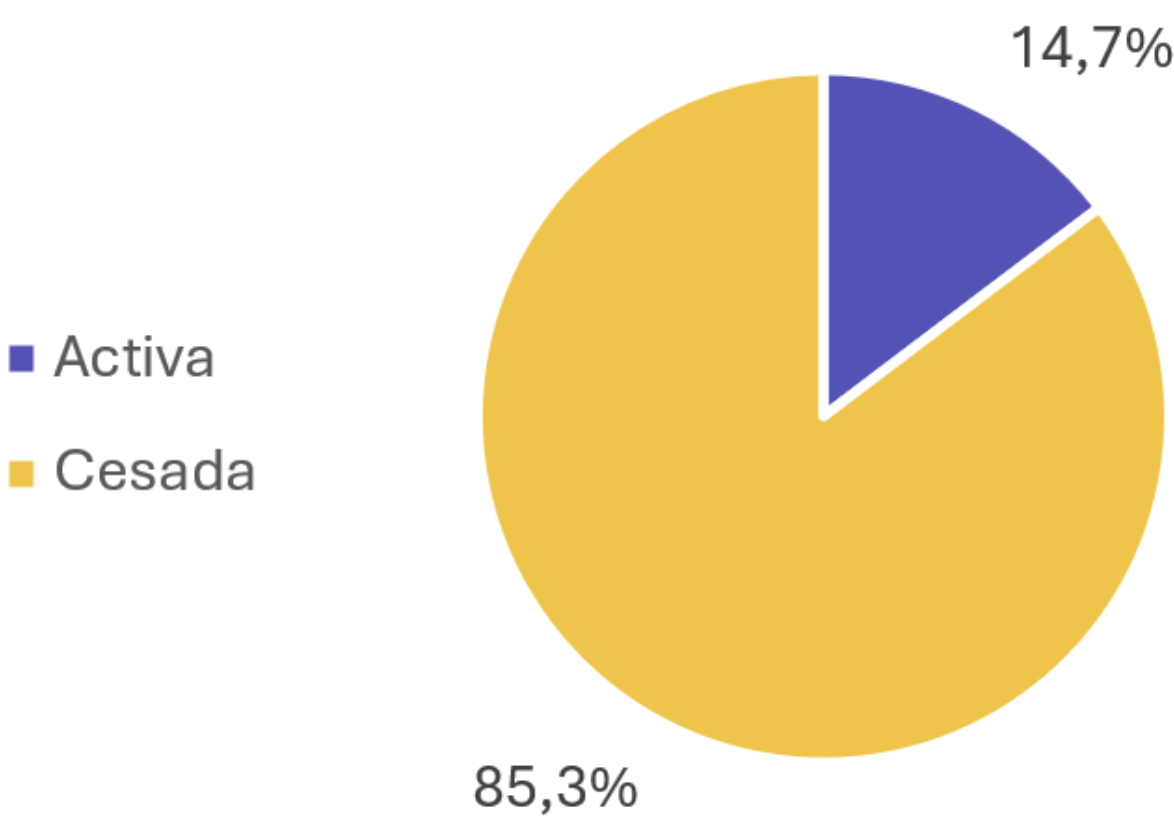
Sociodemographic characteristics	Frequency (n)	Percentage (%)
Sex (N=15,757)		
Male	9890	62,8
Women	5867	37,2
Age (N=15,751)		
Over 18	7886	50,0
Under-age	7865	50,0
Minor absent (Yes)	2393	15,2
Nationality (N=15,748)		
Spanish	10.076	64,0
Foreigner	5672	36,0
Community of residence income (N=15,101)		
Below average	8991	59,5
Above average	6110	40,5
Health Disability (Yes) (N=1,209)	14	1,2
Illness (Yes) (N=15,400)	927	6,0
Addiction (Yes) (N=15,304)	1699	11,1
Needs medication (Yes) (N=15,759)	4229	26,8

The characteristics of the disappearances of 15,759 people in 2024 are described below. The characteristics shown have been divided into three sections: the status and duration of the disappearance, the main reasons for ceasing the complaint, the place and time of occurrence; and the type of disappearance and its occurrence distributed by provinces.

4.1.1. Status and duration of disappearance

At the time the information was collected, 85.3% of disappearances had been closed because the person had been located (see Chart 4). Therefore, the remaining 14.7% were still active because the missing person's whereabouts were unknown.

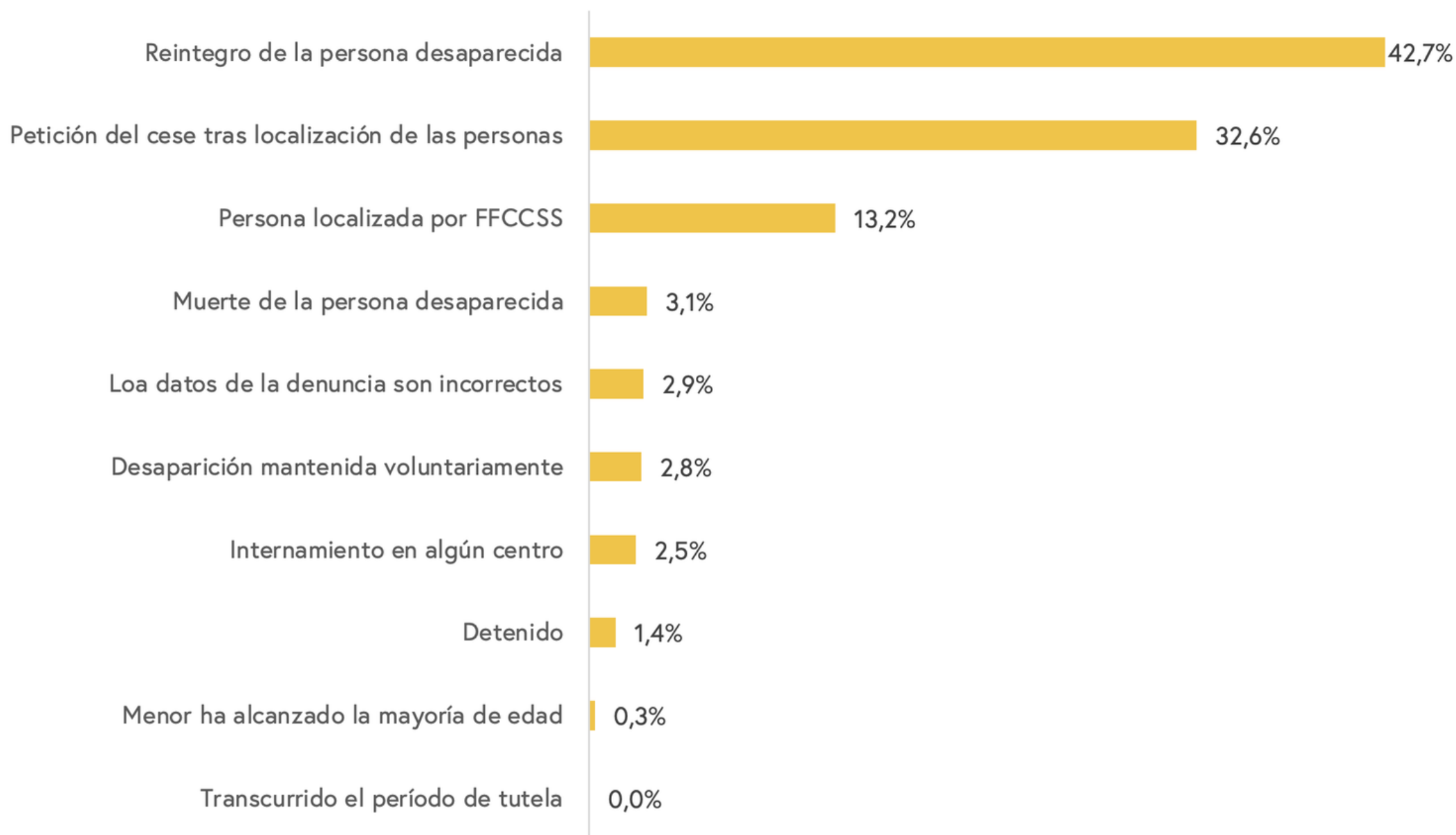
Chart 4. Status of the complaint



In 2024, missing persons reports remained active for an average of 11.5 days before the person was located (SD = 29.7), ranging from a minimum of 0 to a maximum of 329 days. However, it is important to note that most cases were resolved quickly, with 57% of disappearances resolved in less than 48 hours, although the most frequent timeframe was 1 day.

Figure 5 shows the reasons why disappearances cease. As can be seen, the most frequent reason is the return of the missing person (42.7%) to the place where they disappeared, with voluntary return being the most prevalent. Among the other reasons for the cessation of disappearances, the most frequent are the request of the person who reported the disappearance after verification or the location of the missing person (32.6%) by those who reported their disappearance. In smaller percentages (13.2%), the person is located by the Security Forces, the missing person is arrested (1.4%), or reaches the age of majority (0.3%).

Chart 5. Reasons for ceasing the complaint (N=10,927)



4.1.2. Time and place where the disappearances occurred

Regarding the timing of disappearances, Graph 6 shows a stable trend, remaining around 8% per month. From June onward, the prevalence of disappearances increases slightly and remains around 9%, with October registering the highest percentage of disappearances.

Regarding the time of the week, we observe an upward trend as the weekend approaches. As shown in Chart 7, Fridays, Saturdays, and Sundays are the days with the highest number of disappearances (60%).

Figure 6. Annual distribution of disappearances (N=15,759)

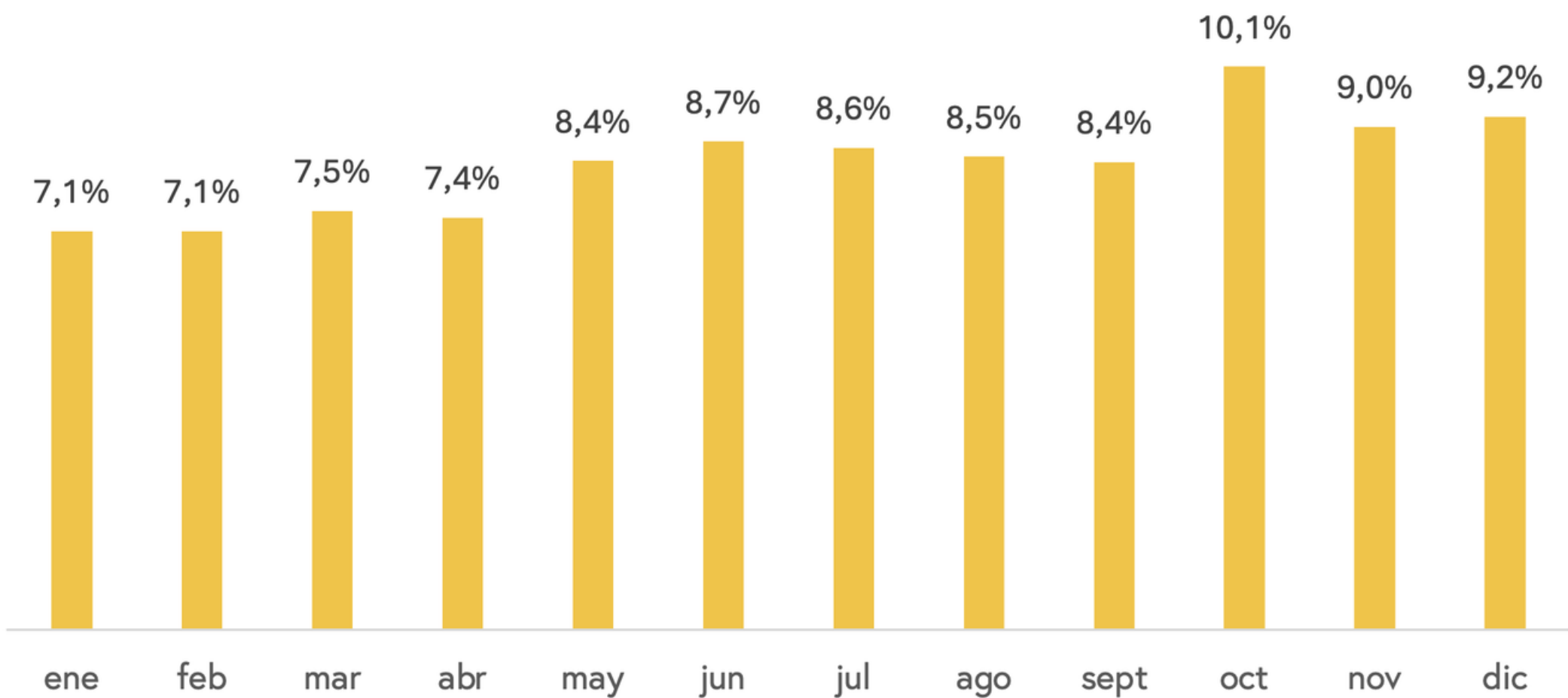
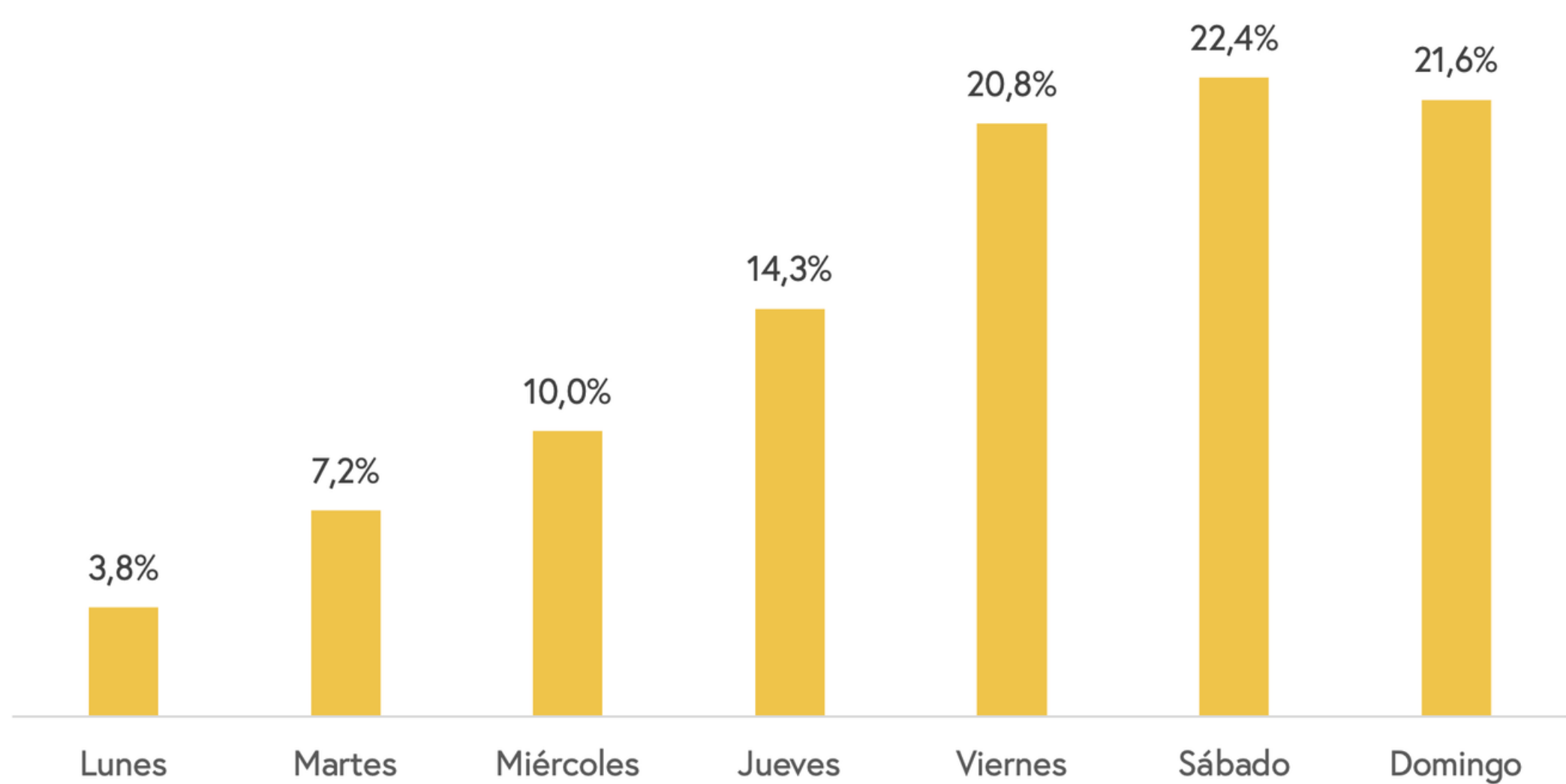
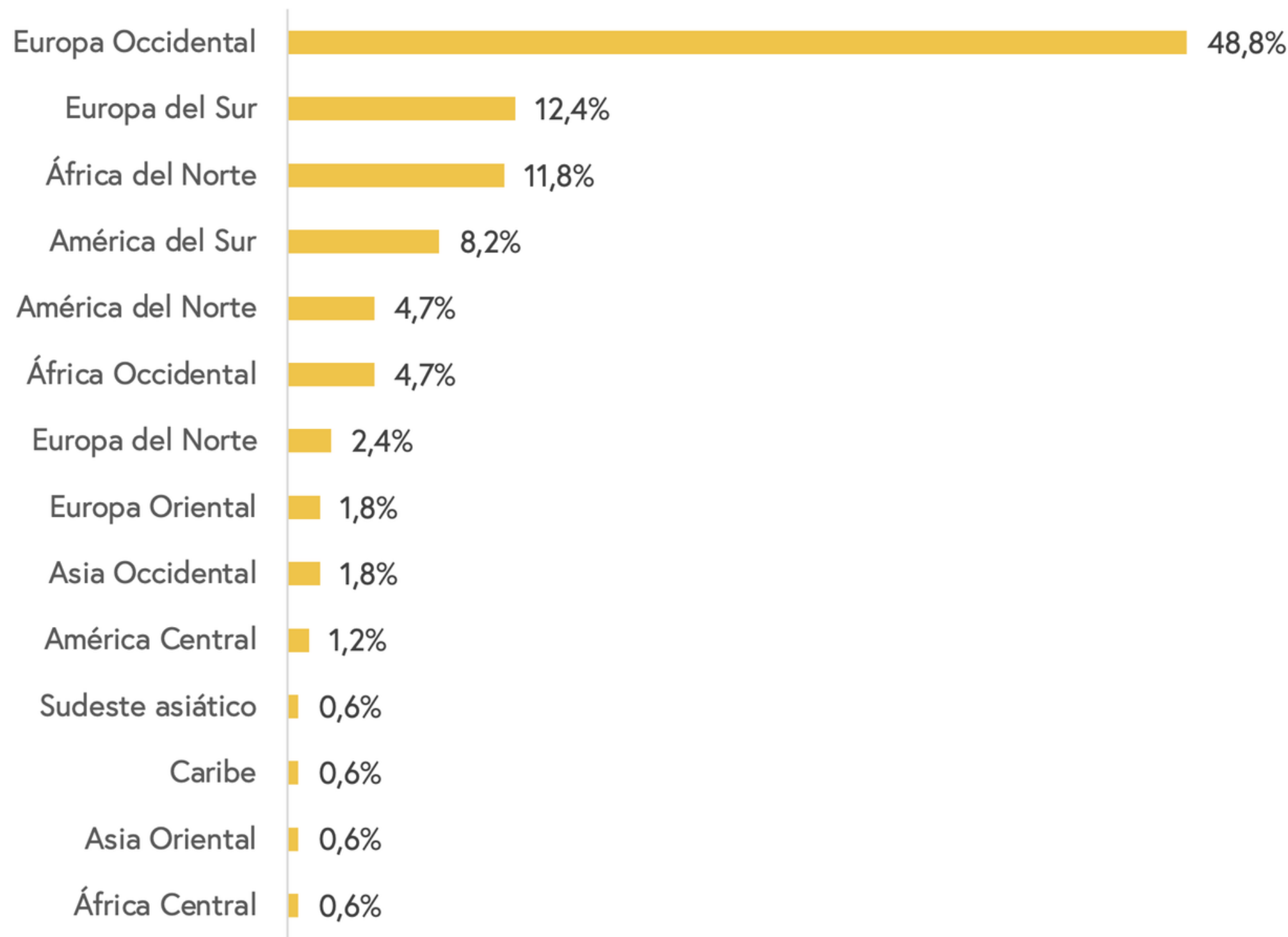


Chart 7. Distribution of missing persons according to the day of the week (N=15,759)



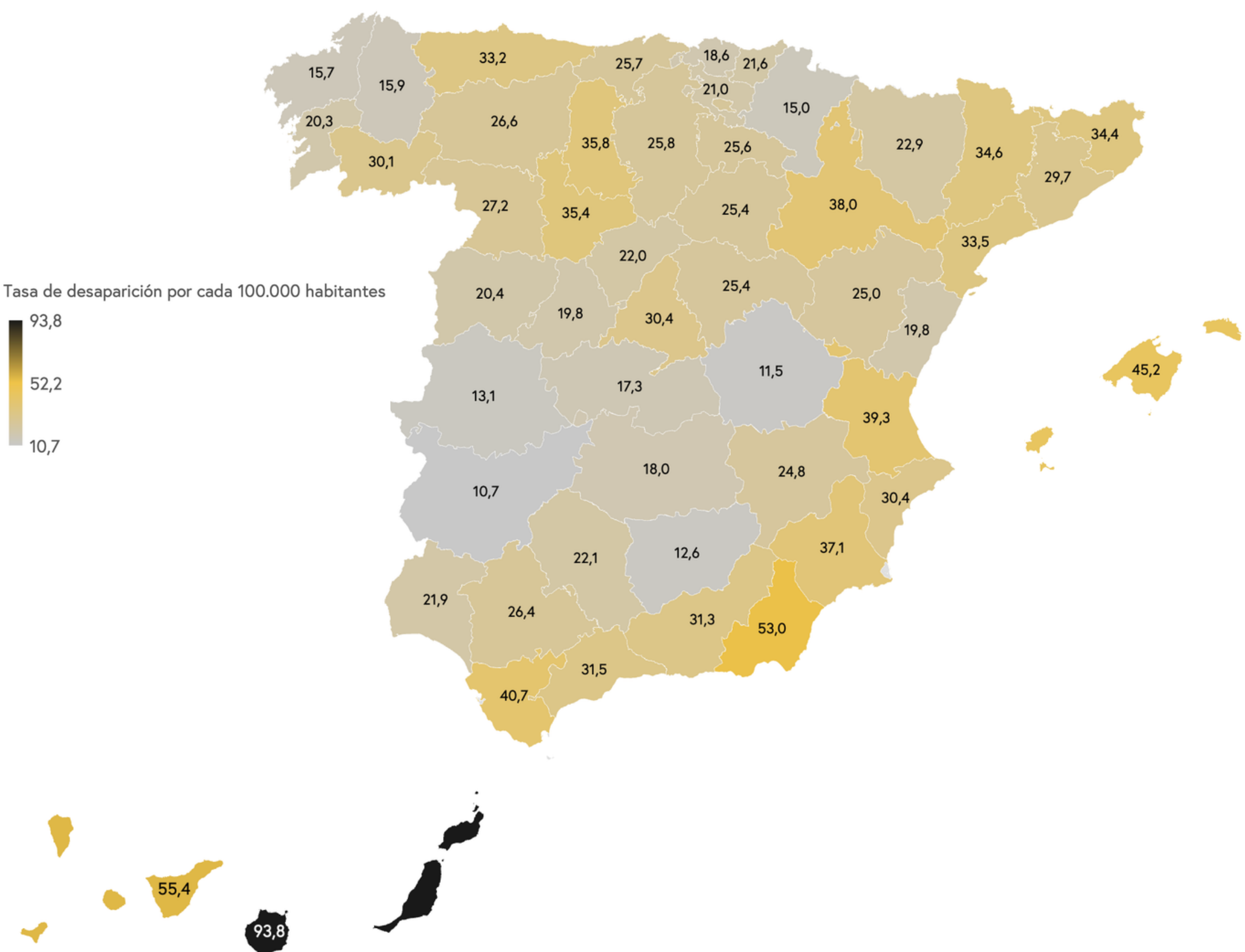
Regarding the place of disappearance, almost all disappearances occur in Spain (98.9%). Only 1.1% of disappearances have occurred in a foreign country, the most frequent being Western European countries such as France and Germany, and North African countries, primarily Morocco and Algeria (see Chart 8).

Chart 8. Foreign place of disappearance (N=170)



Regarding the distribution of disappearances in Spain, Chart 9 shows the geographical distribution based on the disappearance rate per 100,000 inhabitants. It can be observed that Las Palmas is the province with the highest disappearance rate in Spain (93.8 disappearances per 100,000 inhabitants), followed by Santa Cruz de Tenerife (55.4 disappearances per 100,000 inhabitants) and Almería (53 disappearances per 100,000 inhabitants). The provinces of Extremadura and Castilla-La Mancha, on the other hand, have the lowest disappearance rates.

Chart 9. Missing persons rate per 100,000 inhabitants by province of disappearance (N=15,435)



4.1.3. Type of disappearance and province of occurrence

Below, we present the distribution of disappearance types as categorized by the Security Forces (N=10,747). Figure 10 shows this distribution according to whether disappearances are voluntary, involuntary, or forced.

Chart 10. Type of disappearances cataloged in 2024 (N=10,747)

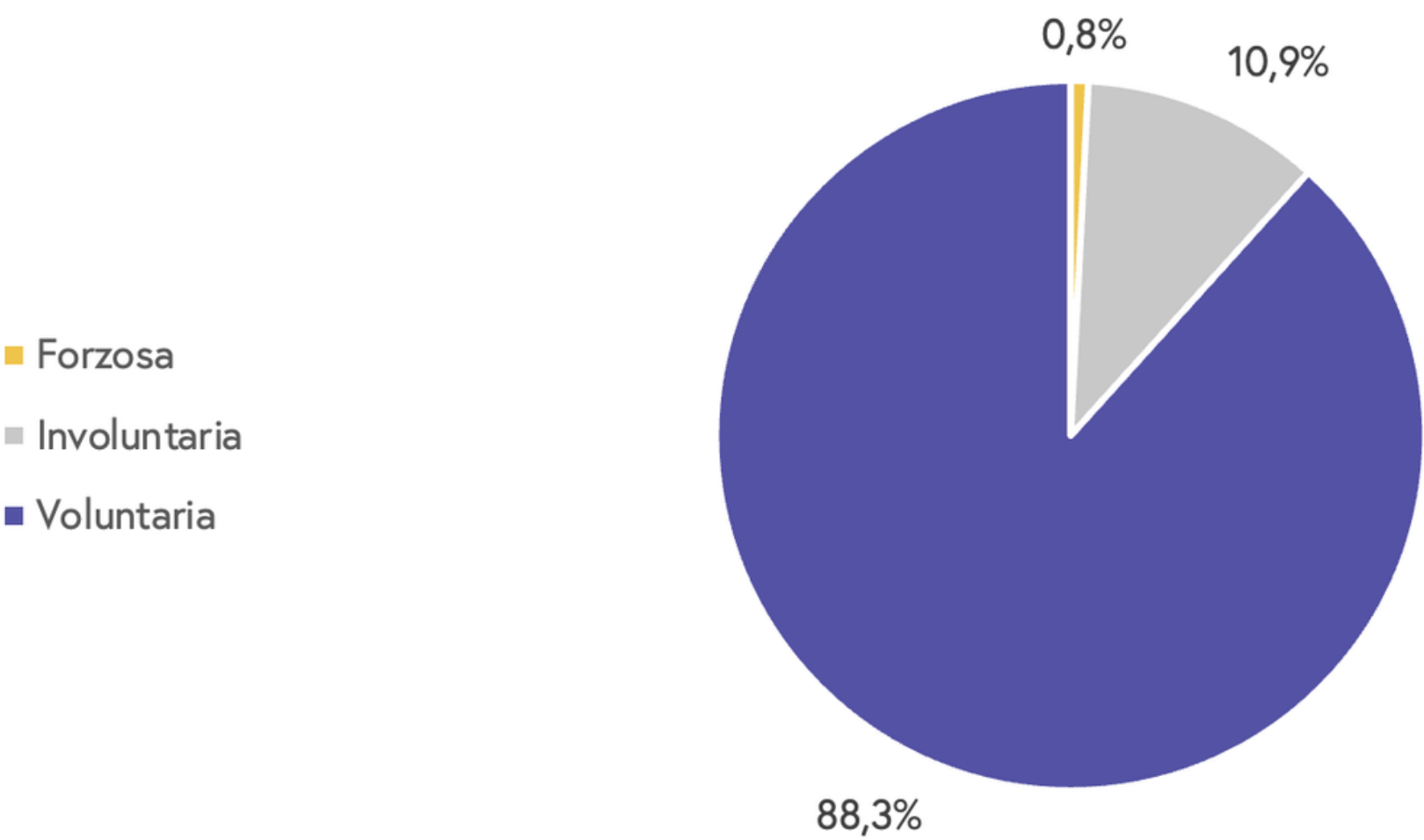


Table 3. Subtypes of disappearances that occurred in 2024 (N=10,747)

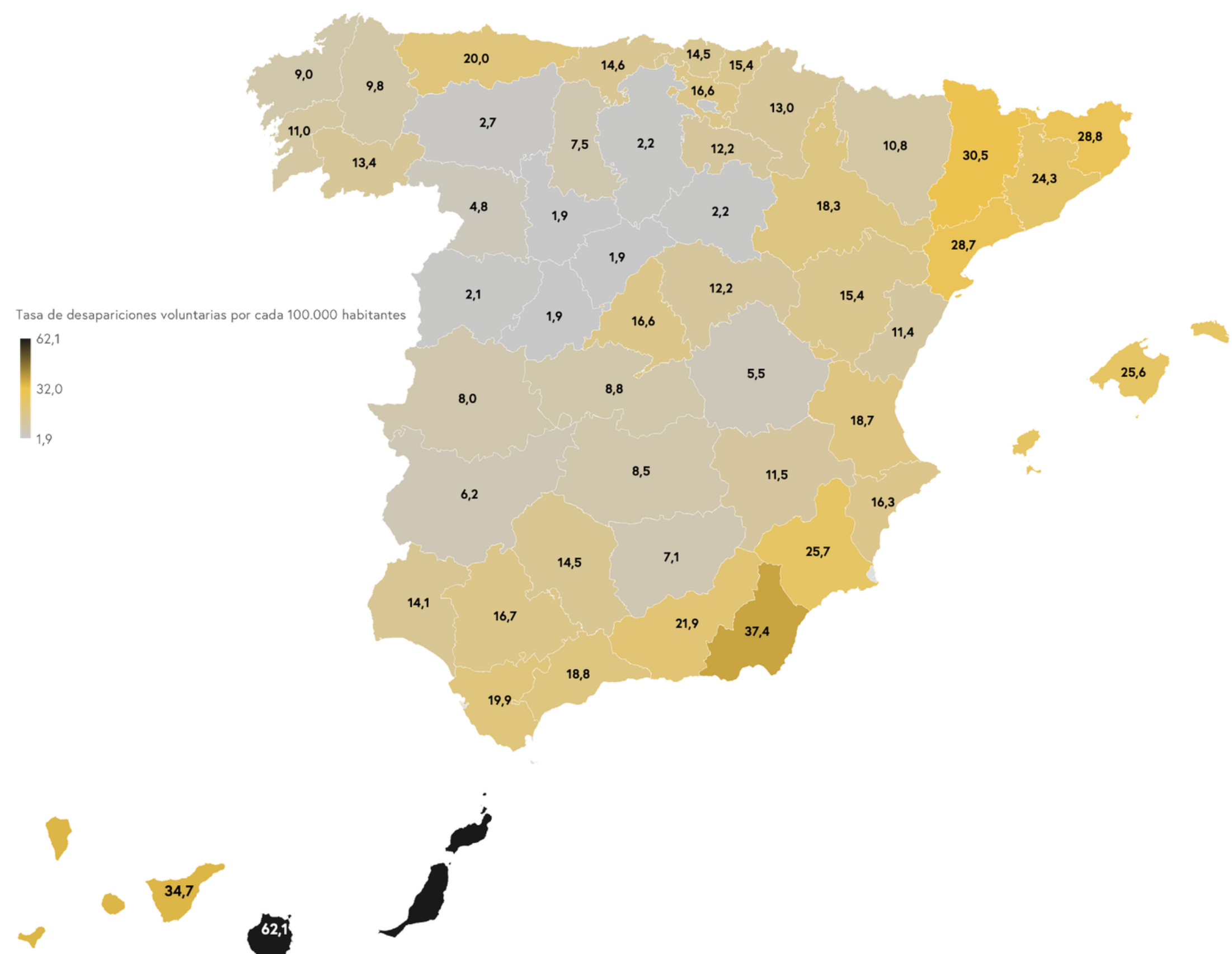
Disappearance subtype	Frequency (n)	Percentage (%)
Voluntary disappearance (N=9,485)		
Adults intentional absence	4471	47,1
Runaway minors	2355	24,8
Minors who have run away from foster care centers	2661	28,0
Involuntary disappearance (N=1,176)		
No apparent cause	785	66,8
People with cognitive impairment	229	19,5
Accidents	53	4,5
Catastrophes	109	9,3
Forced disappearances (N=86)		
Parental abduction of minors	65	77,4
Criminal scope	17	20,2
Kicked out of the house	2	2,4

Voluntary disappearances

88.3% of disappearances in Spain are voluntary and include people who, in full possession of their faculties and volitions, have disappeared of their own free will. Within this group, the most frequent subtype is that caused by adults (47.1%), followed by those involving minors who run away from foster care centers (28%) or their homes (24.8%) (see Table 3).

Figure 11 shows the geographical distribution of the rate of voluntary disappearances per 100,000 inhabitants in 2024. The highest figures are concentrated in the Canary Islands, especially in the province of Las Palmas, with 62 voluntary disappearances per 100,000 inhabitants. This is followed by Santa Cruz de Tenerife, Almería, and the Catalan provinces, where the rate is approximately half, at around 30 cases per 100,000 inhabitants. In contrast, in inland provinces such as Segovia, Salamanca, and Soria, the rates are very low, with only 2 voluntary disappearances per 100,000 inhabitants.

Chart 11. Geographical distribution of the rate of voluntary disappearances per 100,000 inhabitants

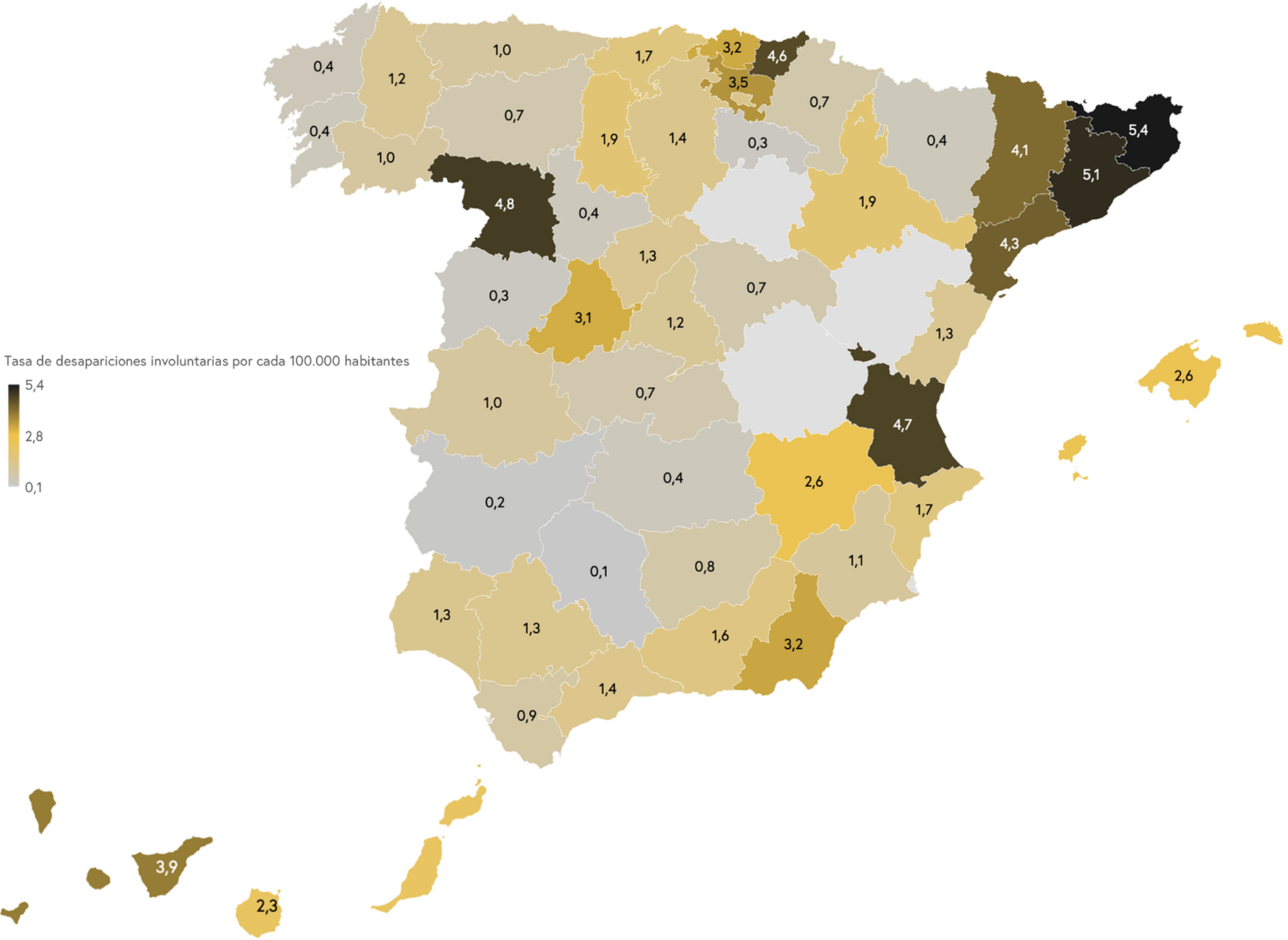


Involuntary disappearances

The second most frequent type refers to involuntary disappearances (10.9%), or people who disappear under circumstances beyond their control, except when the cause is a crime, in which case it is treated as enforced disappearance. Of these, the most prevalent subtypes are those occurring without apparent cause (66.8%), followed by those caused by people with cognitive impairment (19.5%), encompassing mental disorders, cognitive impairments, or neurodegenerative diseases; and, finally, those that occur as a consequence of catastrophes or accidents, which represent 9.3% and 4.5% respectively (see Table 3).

Figure 12 shows the geographical distribution of involuntary disappearances, revealing a reduction in rates compared to voluntary disappearances. The provinces with the highest rates of involuntary disappearances are Girona, Barcelona, Zamora, Valencia, and Guipúzcoa, reporting approximately 5 disappearances per 100,000 inhabitants. In Catalonia and Zamora, most of these disappearances involve individuals with cognitive impairment. In Valencia, disappearances are primarily linked to the devastating effects of the DANA storm during October and November 2024. Badajoz and Córdoba have the lowest rates, at 0.2 and 0.1 disappearances per 100,000 inhabitants, respectively.

Chart 12. Geographical distribution of the rate of involuntary disappearances per 100,000 inhabitants

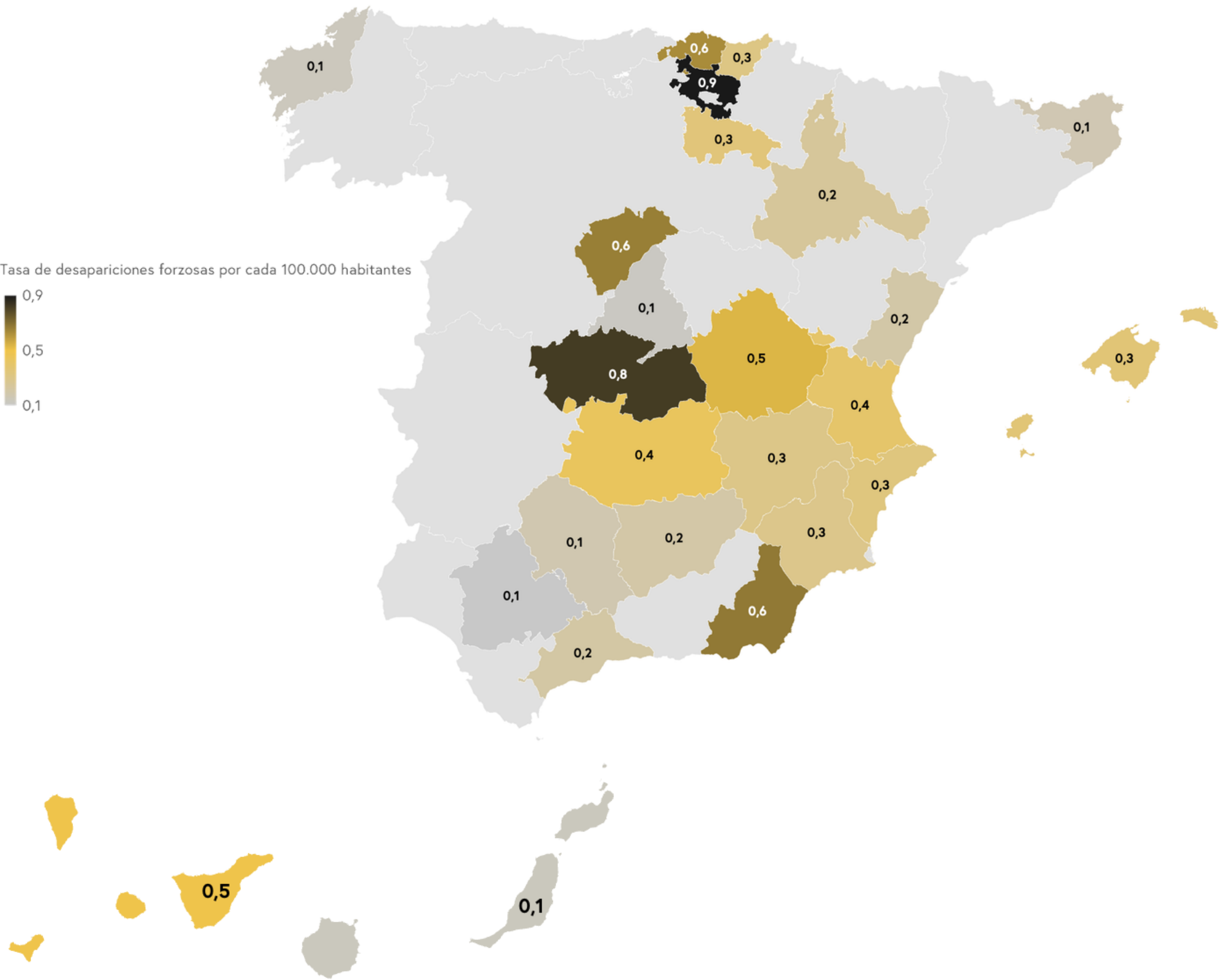


Enforced disappearances

The least frequent disappearances are enforced disappearances (0.8%) that occur in the context of crime. These include those related to parental abduction of minors (77.4%), those caused by criminal acts (20.2%), and expulsions from homes (2.4%) (see Table 3).

Regarding their geographical distribution, Figure 13 shows very low rates of this type of disappearance, occurring in very few provinces. The provinces of Álava, Toledo, Vizcaya, and Almería have the highest rates, primarily due to parental abduction.

Chart 13. Geographical distribution of the rate of enforced disappearances per 100,000 inhabitants

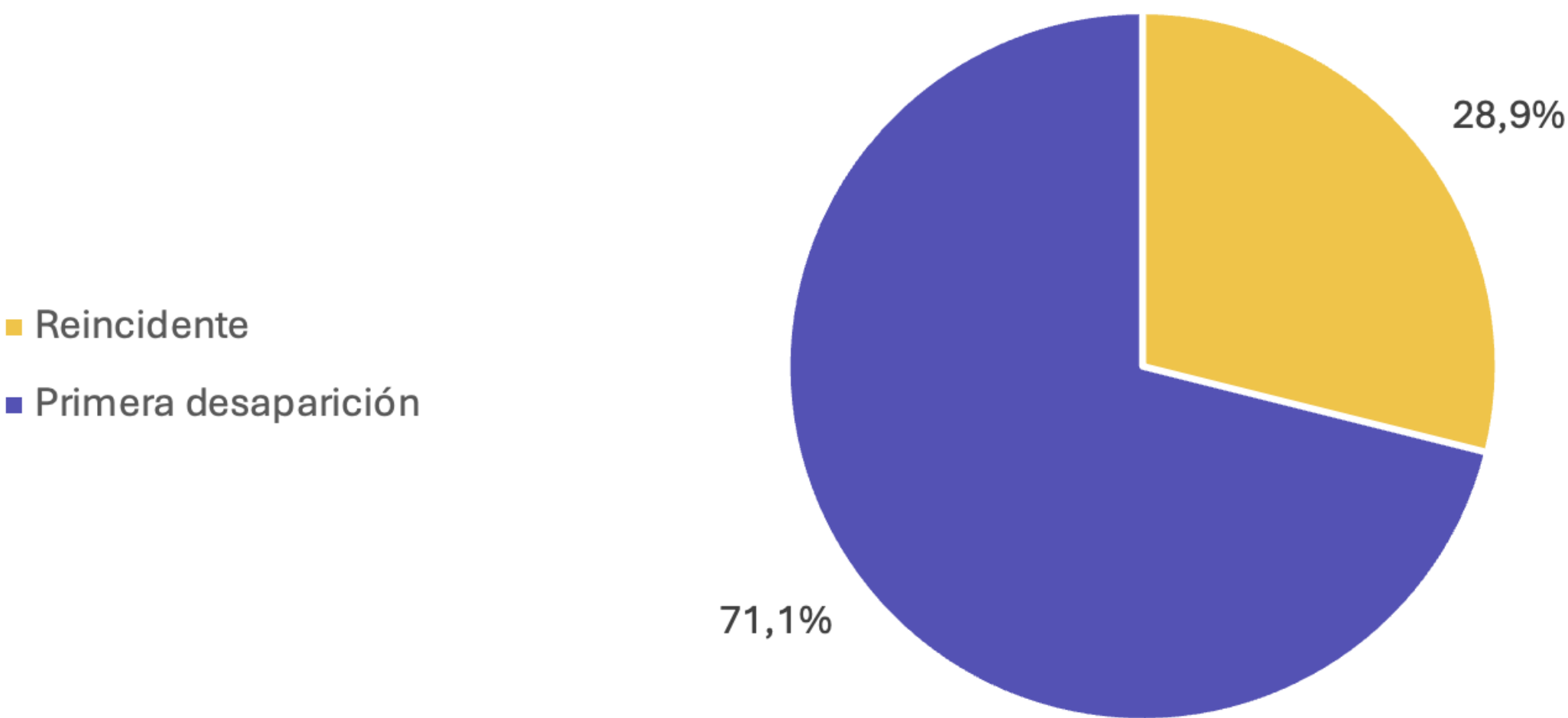


4.2. Disappearances and recidivism: profile and predictor variables

This section presents the results of objective number two, which consists of analyzing in depth the cases of people who disappear repeatedly. Specifically, it explores the profile of repeat offenders, their characteristics, the differences between repeat and non-repeat disappearances, and the variables found to predict recidivism.

Of the total subsample of people who disappeared during 2024 (N=15,759), 28.9% disappeared more than once (see Figure 14). The most common occurrence was two disappearances during the year (49% of repeat offenders disappeared twice), with an average of 4.5 disappearances (max. 198; min. 2).

Chart 14. Percentage of repeat missing persons (N=15,759)



4.2.1. Differences between repeat and non-repeat disappearances

Upon further examination of the differences between repeat and first-time disappearances, we found significant differences in the following sociodemographic variables (Table 4): gender, age, nationality, and health-related factors. Regarding gender, the distribution between repeat and first-time disappearances is more similar (56% men versus 44% women), although among first-time disappearances, the male presence is higher than the female presence (65.5% versus 34.5%). In terms of age, repeat disappearances tend to be younger than first-time disappearances, with a mean age of 23.1 years (SD=13.8; max. 90; min. 0) compared to 31.6 years (SD=19.9; max. 98; min. 0) for first-time disappearances. Significant differences are also observed in the presence of minors, which is higher in

Among repeat offenders, the percentage of missing persons was higher than among first-time offenders (67.2% versus 43.1%). Regarding nationality, Spanish nationals were more prevalent among repeat offenders than among first-time offenders (73.1% versus 60.2%). Finally, repeat missing persons had more addiction problems (12.3% versus 10.6%) but required less medication (24.5% versus 27.8%) than first-time offenders.

Table 4. Sociodemographic differences between repeat offenders (N=4,549) and non-repeat offenders (N=11,210)

Sociodemographic characteristics	Repeat offender (%)	Non-repeat offender (%)	X2	p
Sex (N=15,757)			126,444	0,000***
Male	56,0	65,5		
Women	44,0	34,5		
Age (N=15,751)			926,234	0,000***
Over 18	32,8	56,9		
Under-age	67,2	43,1		
Minor absent (Yes) (n=2,393)	15,5	15,0	0,632	0,433
Nationality (N=15,748)			232,628	0,000***
Spanish	73,1	60,2		
Foreigner	26,9	39,8		
Community of residence income (N=15,101)			3,326	0,070
Below average	60,7	59,1		
Above average	39,3	40,9		
Health Disability (Yes) (N=1,209)	1,7	1,0	0,934	0,352
Illness (Yes) (N=15,400)	5,6	6,2	2,419	0,127
Addiction (Yes) (N=15,304)	12,3	10,6	8,961	0,003*
Needs medication (Yes) (N=15,759)	24,5	27,8	18,272	0,000***

Note: *p<0.005; ****p<0.000

State and time of recidivism disappearances

No statistically significant differences were observed regarding the status of missing persons reports between repeat and non-repeat offenders, although more than 85% of disappearances are typically closed in both groups. However, differences do exist in the reasons for closure, as described in Table 5.

The return of the missing person is the main reason why disappearances cease in both groups, but it is more frequent among repeat offenders than non-repeat offenders (50.4% versus 39.4%). Regarding voluntary disappearances, repeat offenders tend to reappear voluntarily more often than non-repeat offenders (10.4% versus 14.4%). Finally, situations of arrest or death (and subsequent discovery of the body) of the missing person are also less frequent in repeat disappearances (0.8% and 0.0% respectively) than in non-repeat disappearances (1.1% and 1.2% respectively).

Table 5. Differences in status and reason for termination between repeat offenders (N=4549) and non-repeat offenders (N=11210)

State and cessation	Repeat offender (%)	Non-repeat offender (%)	X2	p
State of disappearance (N=15,759)	14,4 85,6	14,9 85,1	0,584	0,456
Reason for termination (N=10,927)			413,028	0,000***
Reinstatement	50,4	39,4		
Complainant's request	30,0	33,6		
Located by law enforcement	10,4	14,4		
Incorrect data	3,0	2,9		
Voluntary disappearance	1,5	3,3		
Detained	0,8	1,1		
Admission to health or prison center	2,1	2,8		
Minor has reached the age of majority	0,5	0,2		
End of guardianship period	0,1	0,0		
Death of the missing person	0,0	1,2		

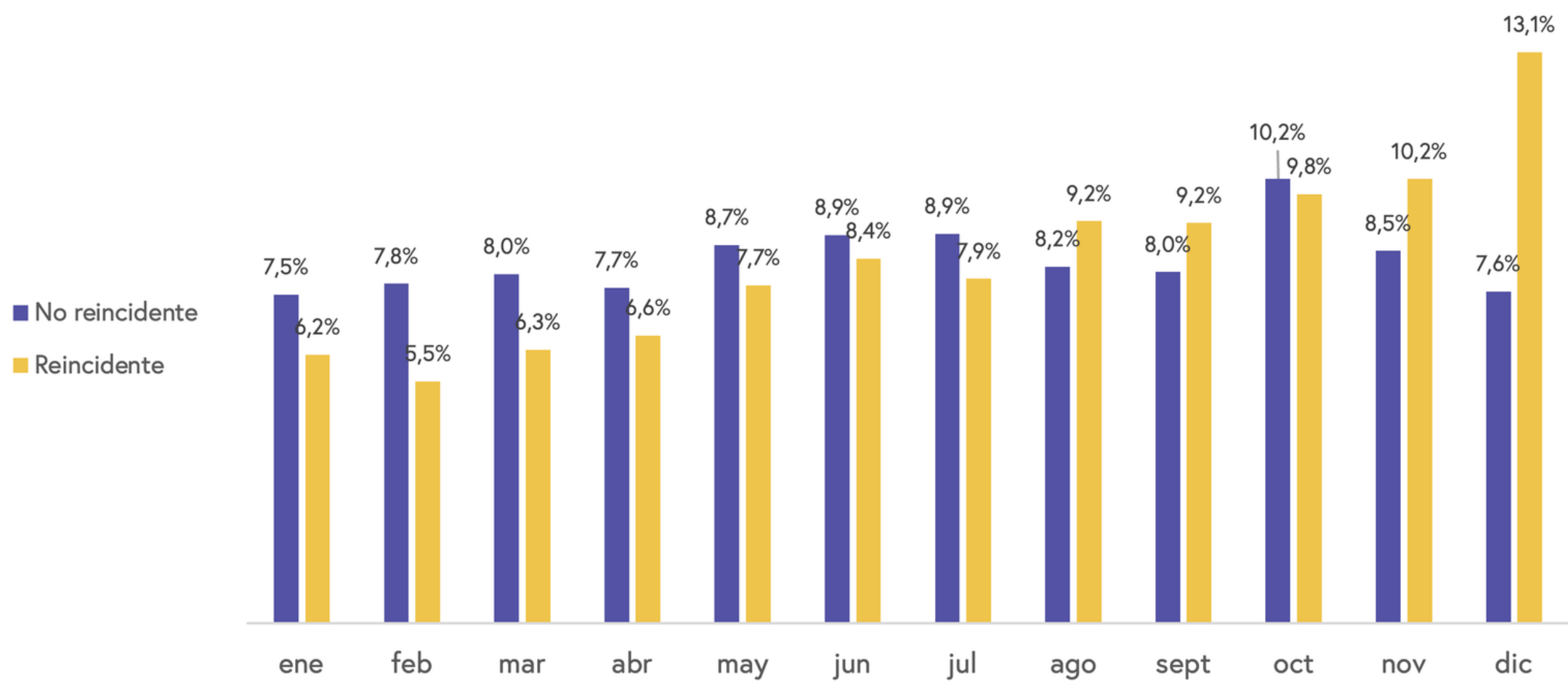
Note: ***p<0.000

Statistically significant differences were also found regarding the number of days a person was missing. Repeat missing persons tend to be missing for longer periods (M=14.7 days; SD=32.8; max. 325 days; min. 0 days) than those who have disappeared only once (M=10.2 days; SD=28.2; max. 329 days; min. 0 days). Even so, it is most common for reports to be closed when the person is located, after only one day has passed since the disappearance was reported.

Time and place of the recurring disappearances

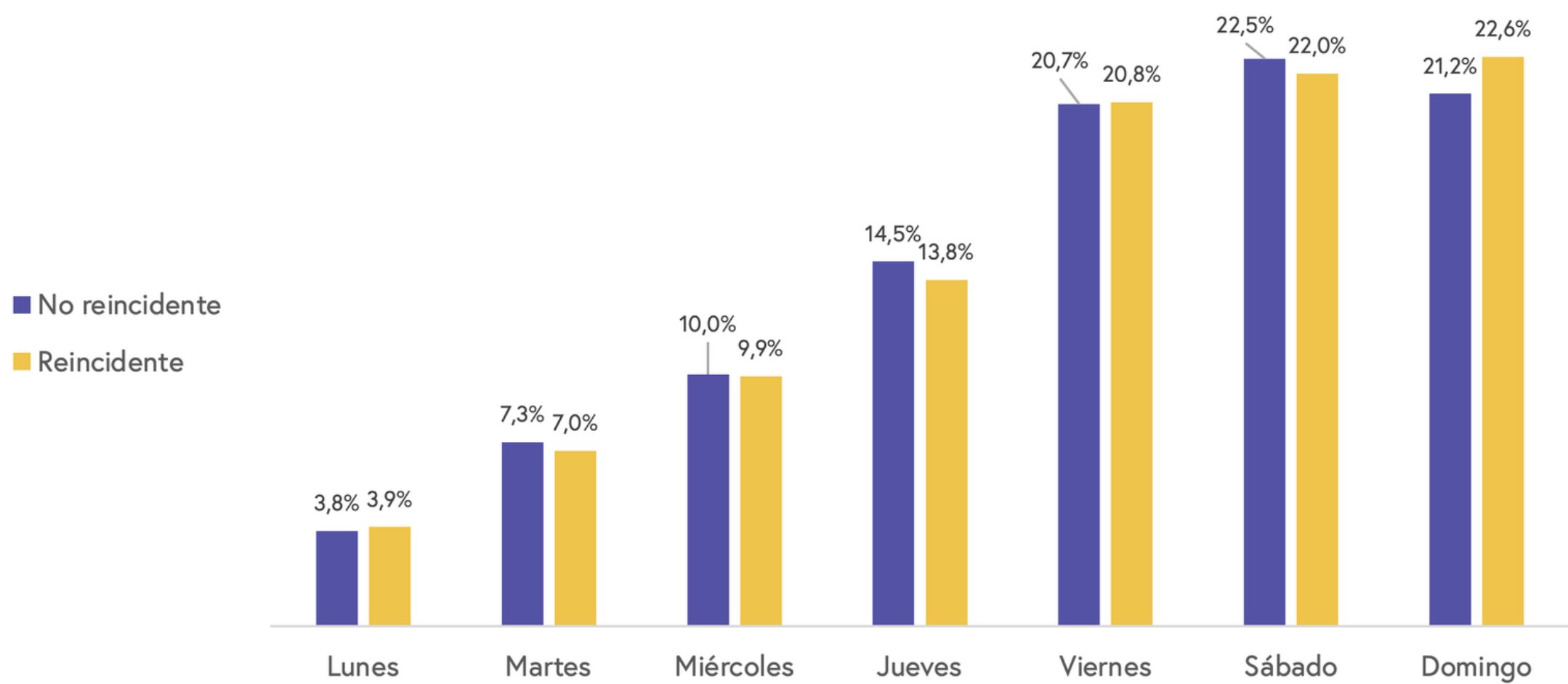
Regarding the timing of repeat and non-repeat disappearances, Graph 15 shows two distinct patterns. While non-repeat disappearances remain stable throughout the year, repeat disappearances show an upward trend from January to December, more than doubling by the end of the year.

Chart 15. Percentage of repeat offenders (N=4,549) and non-repeat offenders (N=11,210) during the year



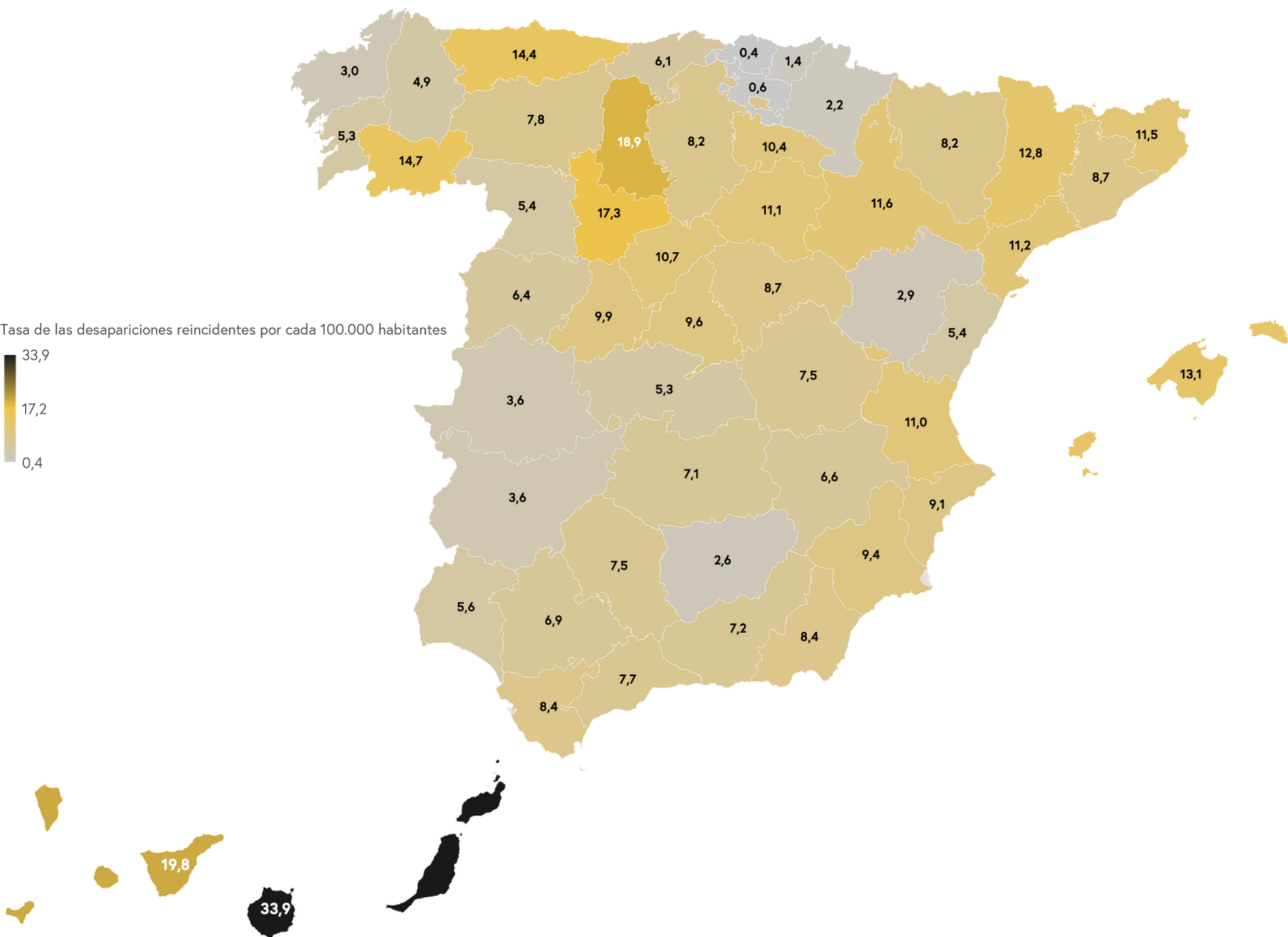
Looking at the distribution across the days of the week, there are no statistically significant differences between repeat and non-repeat offenders. Both groups disappear more frequently during the weekend (see Graph 16).

Chart 16. Percentage of repeat (N=4,549) and non-repeat (N=11,210) missing persons according to the day of the week



If we analyze the geographical distribution of repeat disappearances, Figure 17 shows that the province with the highest recidivism rate is Las Palmas, with 33.9 repeat offenders per 100,000 inhabitants, followed by Santa Cruz de Tenerife, Palencia, and Valladolid, which have a rate of approximately 18 repeat disappearances per 100,000 inhabitants. Conversely, the provinces of the Basque Country and Navarre have the lowest rates of repeat disappearances.

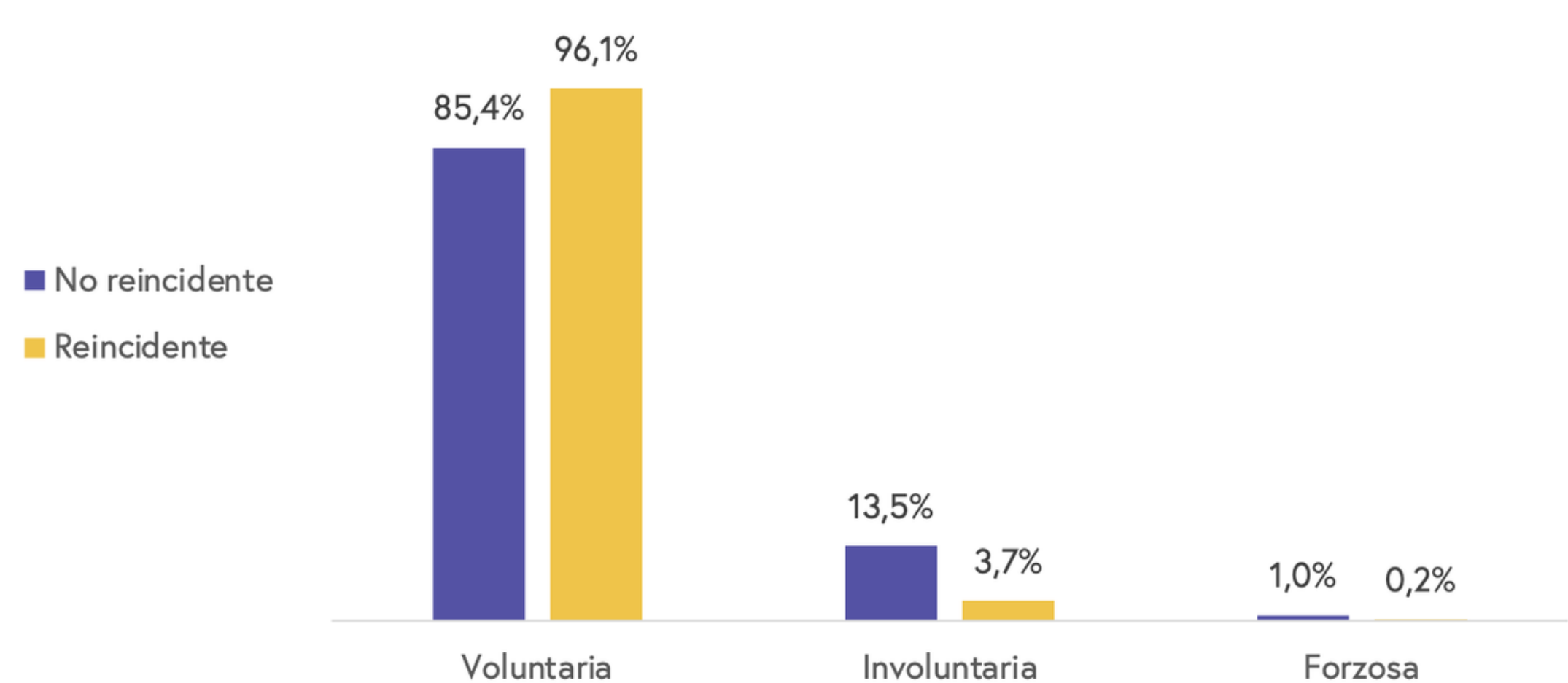
Chart 17. Rate of repeat disappearances in Spanish provinces (N=4,517)



Type of disappearance in repeat and non-repeat missing persons

The most prevalent type of disappearance in both groups is voluntary, although the percentage is significantly higher among repeat offenders (96.1% versus 85.4%) than among non-repeat offenders (Graph 18).

Chart 18. Type of disappearance caused by repeat offenders (N=2,829) and non-repeat offenders (N=7,918)



The most common subtype of voluntary disappearance among repeat offenders is the escape of minors from foster care (39.3%), followed by the voluntary disappearance of adults (36.4%). Conversely, in the group of non-repeat offenders, the most frequent subtype of voluntary disappearance is the intentional absence of adults (51.5%). Finally, involuntary and forced disappearances are less frequent among repeat offenders (3.7% and 0.2%, respectively), with hardly any cases recorded (see Table 6).

Table 6. Differences in the characteristics of disappearance between repeat offenders (N=2,829) and non-repeat offenders (N=7,918)

Subtypes of disappearance	Repeat offender n (%)	Non-repeat offender n (%)	X2	p
Volunteers (N=9,485)				
Adults Runaway	989 (36,4)	3482 (51,5)	525,13	0,000***
Minors	661 (24,3)	1694 (25,0)	525,13	0,000***
Minors centers	1070 (39,3)	1591 (23,5)	525,13	0,000***
Involuntary (N=1,176)				
Accidents	2 (1,9)	51 (4,8)	525,13	0,000***
Catastrophes	2 (1,9)	107 (10,0)	525,13	0,000***
Cognitive impairment	40 (38,5)	189 (17,6)	525,13	0,000***
For no apparent reason	60 (57,7)	725 (67,6)	525,13	0,000***
Forced (N=86)				
Parental abduction	4 (80,0)	61 (73,3)	525,13	0,000***
Criminal sphere	1 (20,0)	16 (19,8)	525,13	0,000***
Kicked out of the house	0 (0,0)	2 (2,5)	525,13	0,000***

Note: ***p<0.000

4.2.2. Predictors of recidivism

The results of the logistic regression model used to identify predictors of repeat disappearances are presented below. Variables such as sex, age, nationality, type of involuntary disappearance, and the three poverty indicators (household income, risk of poverty, and the Gini coefficient) were included in the regression model. As shown in Table 7, the predictors are female sex, being a minor, Spanish nationality, voluntary disappearances, lower risk of poverty, and inequality. Each of these is detailed below.

Regarding sociodemographic variables, all of them showed a significant relationship with repeat disappearances. Male sex and age had a negative effect ($\beta = -1.136$ and $\beta = -0.018$, respectively). This indicates that, on the one hand, being male reduces the probability of disappearing repeatedly compared to being female, and on the other hand, the younger the person, the greater the probability of disappearing again. Spanish nationality, however, was positively associated with repeat disappearances ($\beta = 0.867$), suggesting that people of Spanish nationality are more likely to disappear repeatedly compared to people of other nationalities.

Regarding the type of disappearance, involuntary and forced disappearances (non-voluntary disappearances) show negative and statistically significant associations with repeated disappearances ($\beta = -1.781$), which indicates that, if any of these types of disappearance occurs, it is unlikely that the person will disappear again.

Finally, among the poverty indicators, both the poverty risk and the Gini coefficient showed statistically significant associations with repeat disappearances. The poverty risk is negatively associated with repeat disappearances ($\beta = -0.002$), indicating that when the poverty risk decreases, the probability of recidivism increases. Conversely, the Gini coefficient shows a positive association with disappearances ($\beta = 0.025$), implying that the greater the economic inequality in the province, the higher the probability of recidivism.

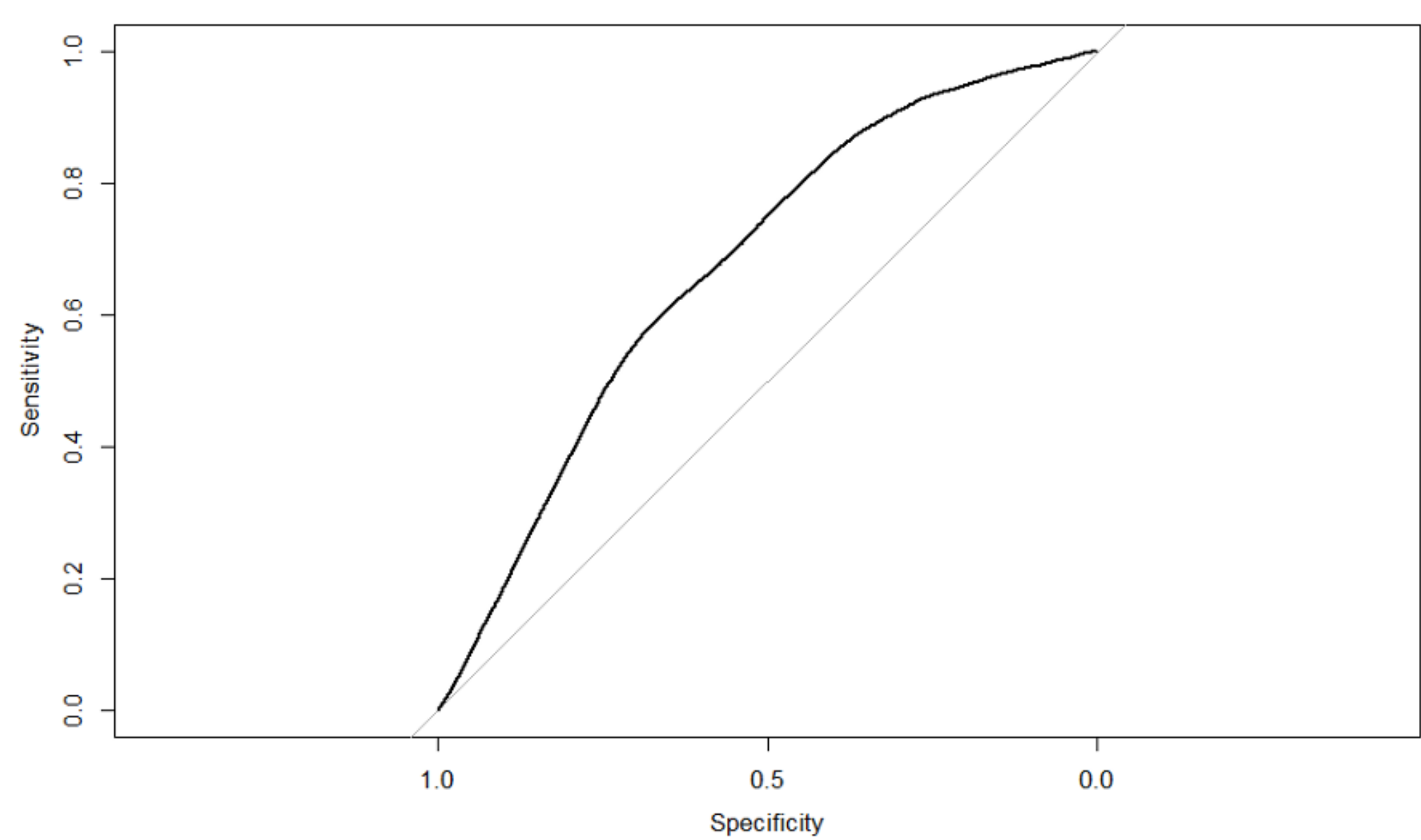
Table 7. Logistic regression model

Variables	b	Standard error	Valor Z	p
Sex (male)	-1,136	0,132	16,608	0,001**
Age	-0,018	0,001	-13,398	0,000***
Nationality (Spanish)	0,867	0,052	16,608	0,000***
Involuntary disappearance	-1,781	0,257	-6,924	0,000***
Poverty indicators				
Household income	-0,000	0,000	-0,170	0,865
Risk of poverty	-0,0002	0,007	-2,431	0,015*
Gini coefficient	0,025	0,010	2,250	0,024*

Note: *p<0.05; **p<0.001; ***p<0.000

To assess the predictive capacity of the selected variables, the ROC curve was calculated. Figure 1 illustrates this curve, drawn above a diagonal line known as the line of no discrimination, which represents a model with no predictive capacity. The area between the ROC curve and the line of no discrimination is called the area under the curve (AUC). An AUC value greater than 0.5 indicates that the model's predictive capacity is better than chance. In this case, the AUC value of the model presented above is 0.670, indicating a low to moderate predictive capacity [9]. In practical terms, this value suggests that the model is able to distinguish between repeat offenders and non-repeat offenders in approximately 67% of cases, which is better than random prediction (AUC = 0.5).

Figure 1. ROC curve analysis



[9] Swets (1988) proposes a classification of diagnostic accuracy based on the area under the ROC curve (AUC), interpreted as the probability that the system correctly distinguishes between a positive and a negative case. Thus, the models are classified as: 1) no predictive capacity ($AUC \leq 0.5$), 2) low capacity ($AUC 0.6-0.7$), 3) acceptable ($AUC 0.7-0.8$), 4) good ($AUC 0.8-0.9$), and 5) excellent ($AUC \geq 0.9$).

4.3. Disappearances and their relationship with poverty

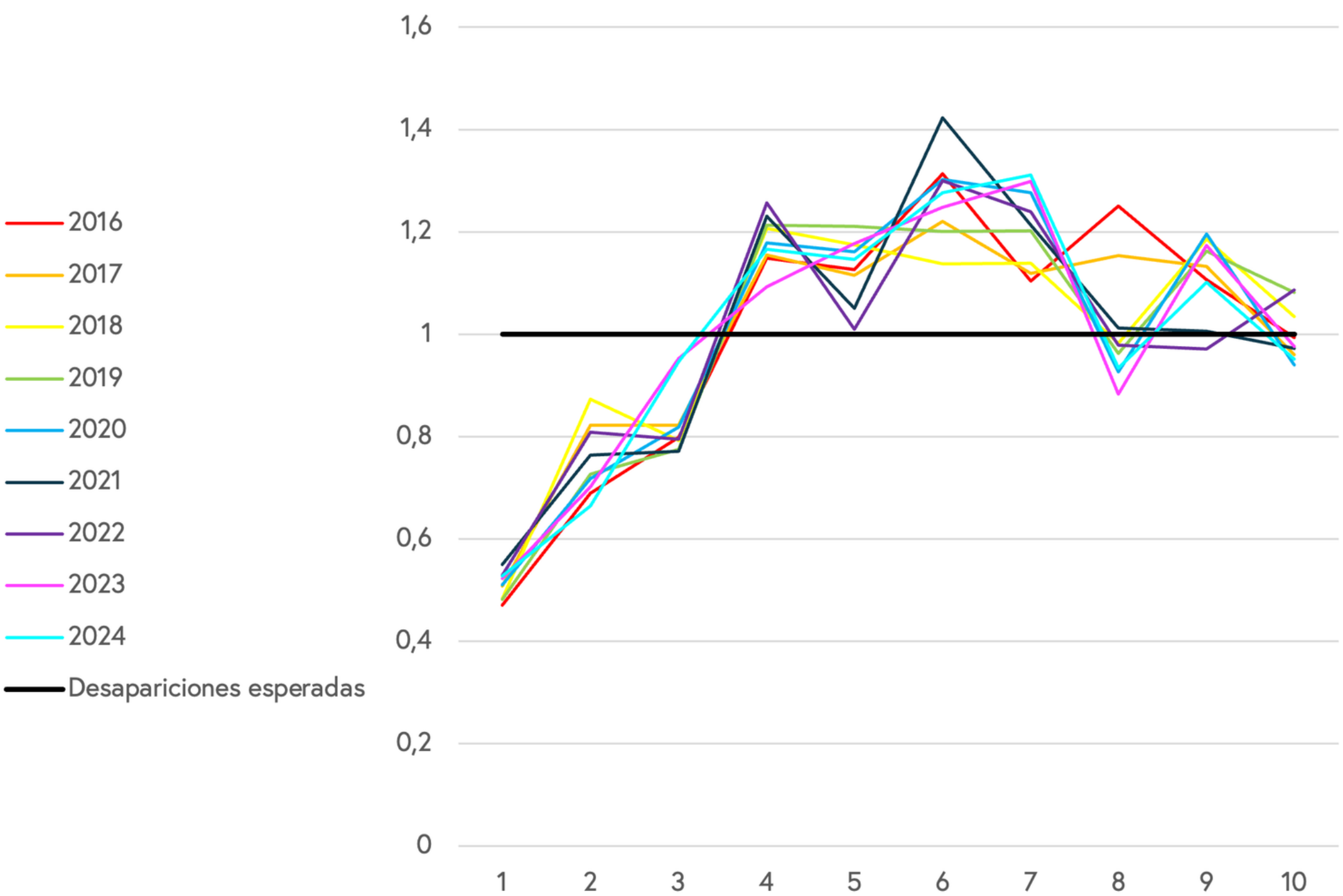
The third objective of this study is to examine the relationship between poverty and disappearances. To this end, the results are presented using three key indicators of socioeconomic vulnerability: average annual household income, risk of poverty, and the Gini index. The analysis includes disappearances recorded between 2016 and 2024, allowing for the observation of trends over a longer period.

The graphs below present the information as follows: the horizontal axis represents the localities grouped into deciles (groups 1 through 10) and ordered from lowest to highest according to the poverty indicator values. The vertical axis represents the incidence of disappearances. If this value is above 1.0, it indicates an overrepresentation of disappearances in that group, that is, a higher number of disappearances than expected.

4.3.1. Total disappearances

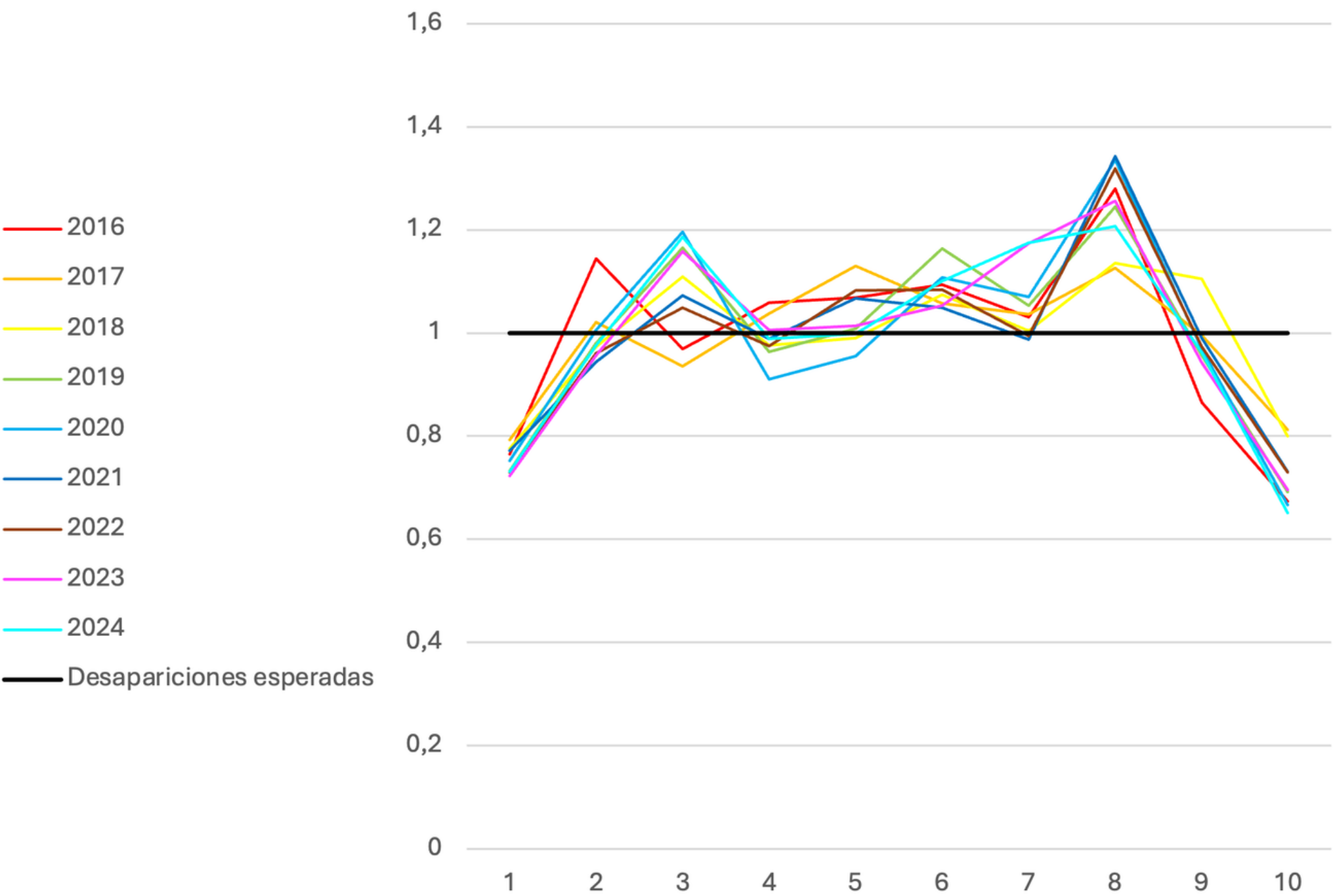
The evolution of the total number of disappearances as a function of average annual household income is shown in Figure 19. On the horizontal axis, the first decile represents the localities with the lowest income, and the tenth decile represents those with the highest income. For a positive relationship to exist between the poverty indicator and a higher incidence of disappearances, Figure 19 should reflect a downward trend, showing an overrepresentation (values above 1.0) in the localities with the lowest household income. As can be seen in the figure, the overall trend indicates the opposite of what would be expected: an underrepresentation of disappearances (values below 1.0) in the localities with the lowest household income. Therefore, low household income is not related to a higher frequency of disappearances.

Chart 19. Incidence of total disappearances as a function of average household income



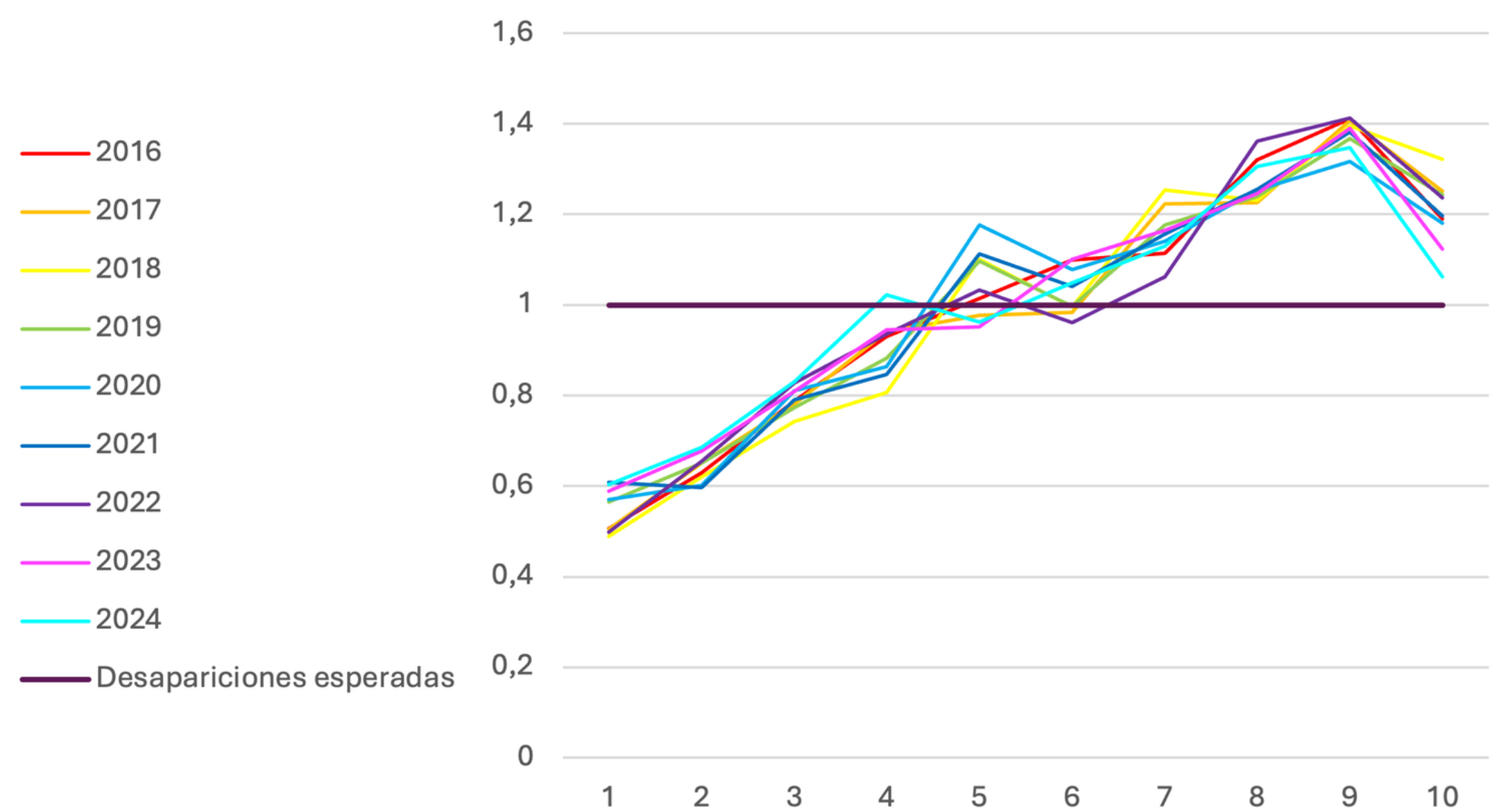
Regarding the poverty risk indicator, the expected trend in the graph is upward: the higher the percentage of the population at risk of poverty, the higher the incidence of disappearances should be. In this sense, Graph 20 shows a stable trend around the expected disappearances (values around 1). The localities grouped in the first and tenth deciles are those that show the greatest underrepresentation of disappearances. Therefore, the results suggest that the risk of poverty cannot be related to a higher incidence of disappearances in Spain.

Chart 20. Incidence of total disappearances as a function of poverty risk



Finally, regarding the Gini coefficient, an upward trend in disappearances is also expected, with more disappearances occurring in localities with greater inequality between low and high incomes. Graph 21 indicates this same trend in all the years evaluated, suggesting that the Gini coefficient may be related to disappearances, and more strongly than income indicators. In this sense, there is a clear relationship between income inequality and disappearances.

Chart 21. Incidence of total disappearances based on the Gini indicator

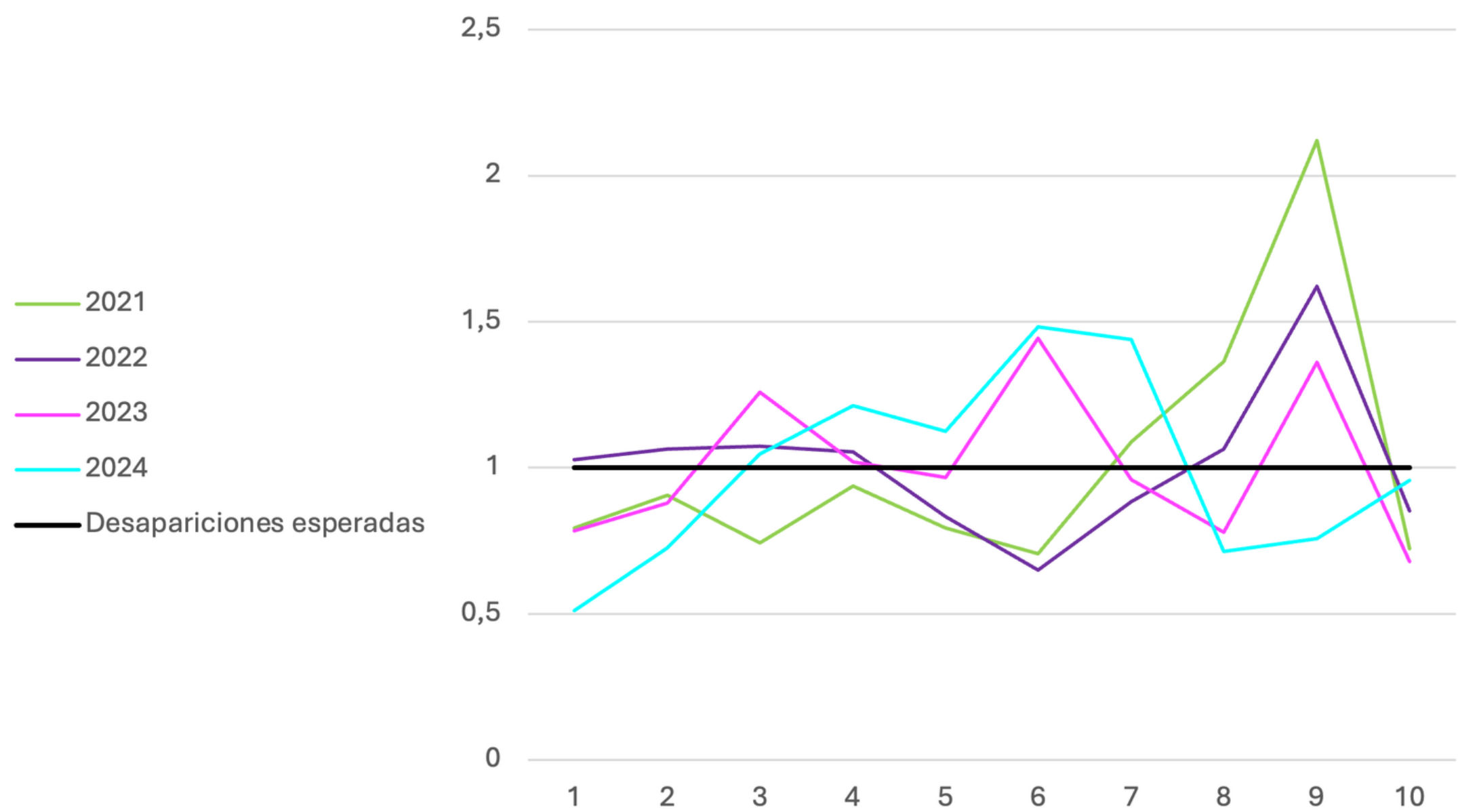


4.3.2. Involuntary and forced disappearances

This section presents the results of the same analyses as before, but only with respect to non-voluntary disappearances, which include involuntary and forced disappearances. This is because global disappearances comprise two very heterogeneous groups: voluntary and non-voluntary (involuntary and forced), which should be analyzed separately in their association with poverty. Unlike the other sections, for this type of disappearance, the trend was analyzed only from 2021 onwards, due to inconsistent records in previous years.

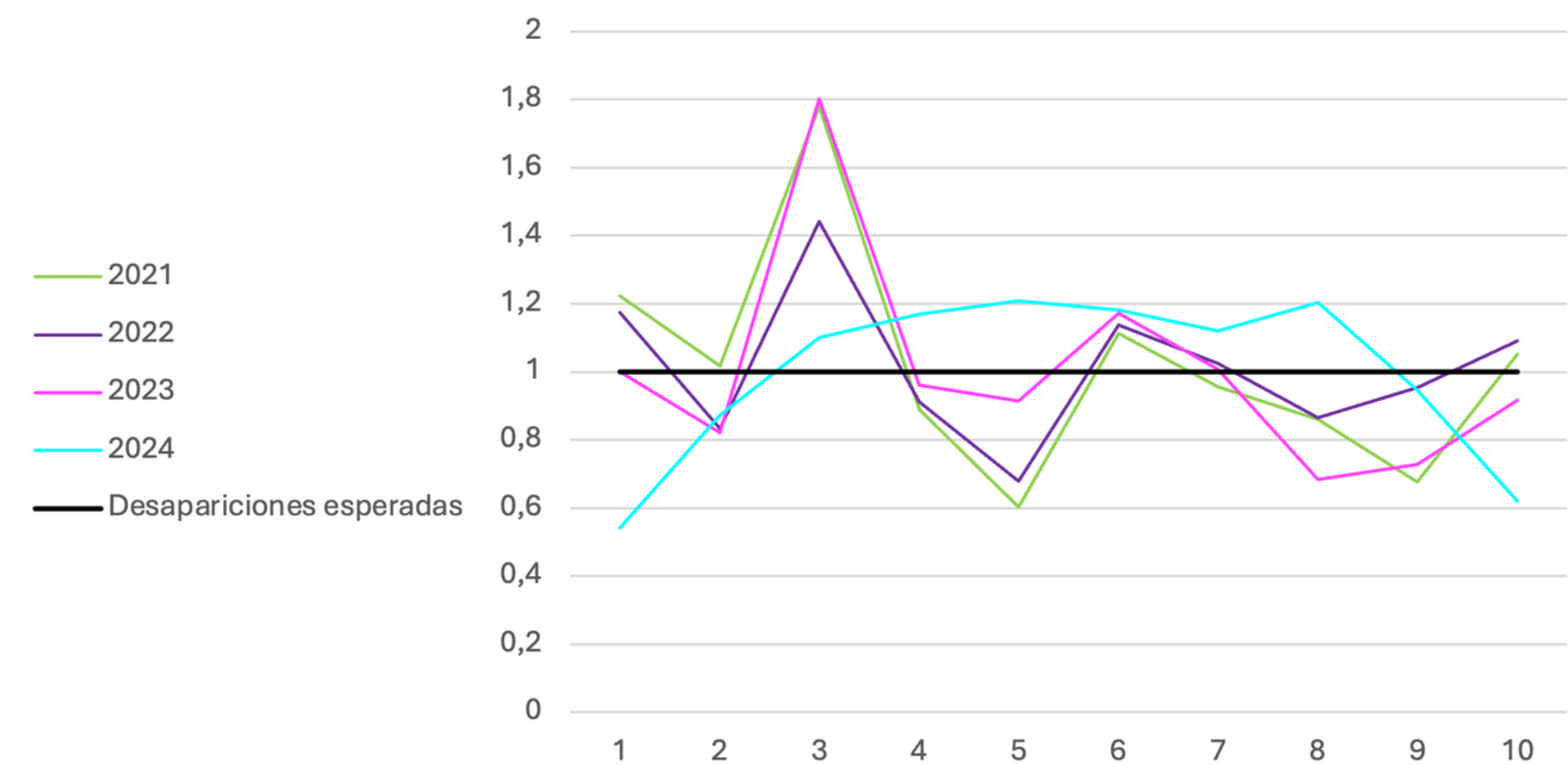
In this regard, Figure 22 shows an inconsistent trend over the years analyzed. A peak in disappearances is identified in the localities located in the 9th decile, and until then, disappearances were around the expected figure (around 1). These results suggest that non-voluntary disappearances (involuntary and forced) occur in localities with low household income levels.

Chart 22. Incidence of involuntary disappearances according to average household income



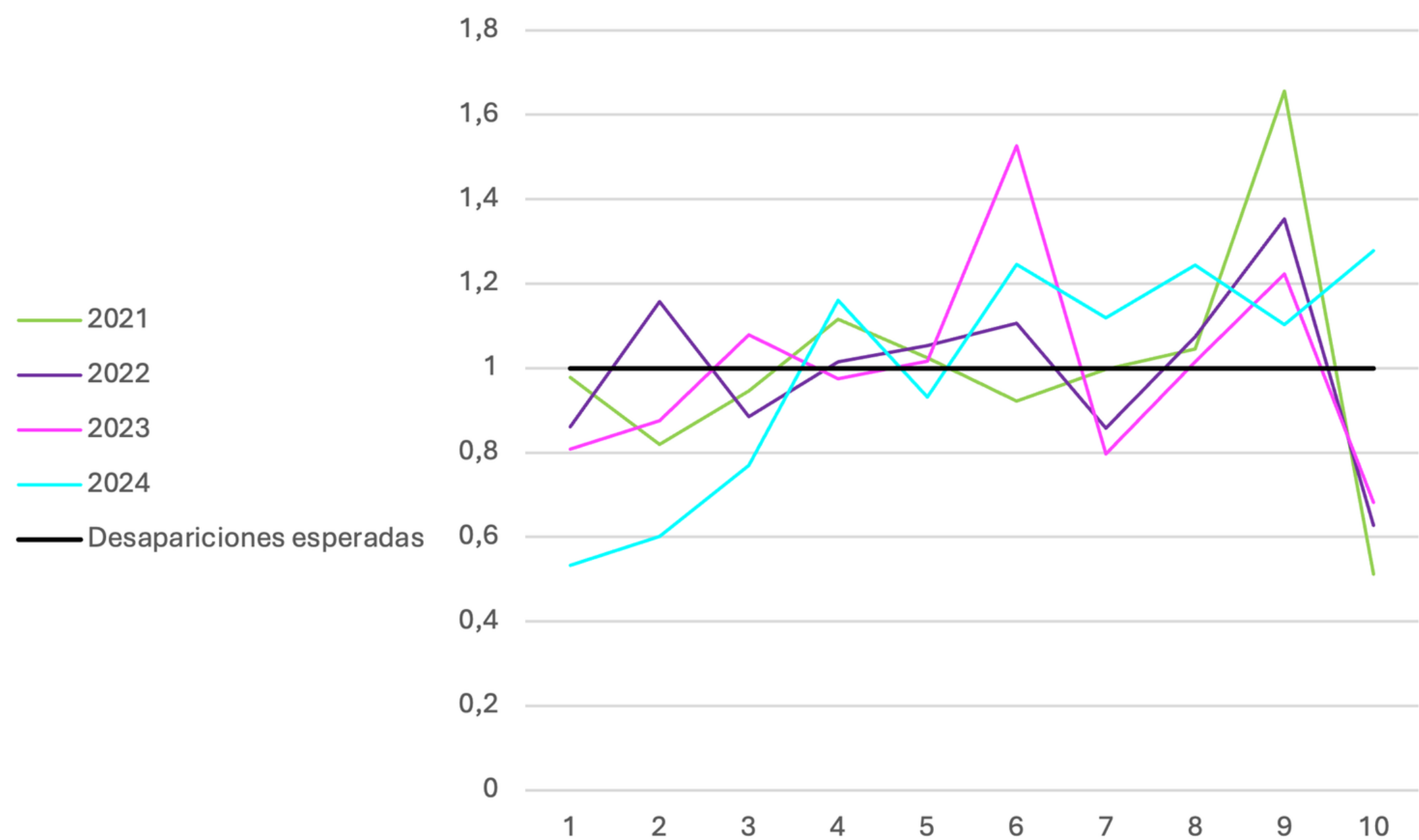
Regarding the relationship between involuntary disappearances and the poverty risk indicator, no correlation is observed with the incidence of disappearances (Graph 23). All years follow a trend contrary to what was expected, with the exception of 2024, which shows an inverse parabolic trend.

Chart 23. Incidence of involuntary disappearances as a function of poverty risk



Finally, the Gini coefficient shows a positive trend between disappearances and greater income inequality only during the year 2024 (see Figure 24). Since this trend does not remain constant over the years, it would not be a good indicator for relating involuntary disappearances to poverty.

Chart 24. Incidence of involuntary disappearances according to the Gini coefficient



5. CONCLUSIONS

This study has made it possible to define the profile of missing persons in Spain, as well as to describe the differences between single and repeat disappearances, identify the factors that predict repeat disappearances, and explore the role that poverty plays in the occurrence of these events.

- Regarding the first objective, concerning the general profile of missing persons in 2024, the study concludes that they are predominantly young men, born in Spain, without health problems or addictions, and residing in provinces with average incomes below the national average. Las Palmas, Santa Cruz de Tenerife, and Almería are the provinces with the highest disappearance rates per 100,000 inhabitants. More than 88% of disappearances are voluntary, especially on weekends. These results align with information contained in previous CNDES reports (2020, 2024).
- Regarding objective number two, related to repeat disappearances, 28.9% of people who disappeared in 2024 had disappeared more than once. There is a similar distribution between men and women, and they are predominantly minors who run away from care facilities in areas with lower average incomes. Furthermore, five variables with predictive capacity for recidivism have been identified: being female, being a minor, having Spanish nationality, having been involved in a voluntary disappearance, and residing in areas with a low risk of poverty but greater income inequality. This predictive model achieves an explanatory power of 0.67.
- Finally, the study of the relationship between poverty and disappearances between 2016 and 2024 reveals that, of the selected poverty indicators, low household income is not associated with a higher frequency of disappearances. The poverty risk indicator is not associated with a higher incidence of disappearances in Spain.

However, the Gini coefficient, which measures economic inequality between incomes within the same locality, is more strongly correlated with disappearances. In contrast, with respect to non-voluntary disappearances, which include involuntary and forced disappearances, no poverty indicator for the selected province has been linked to a higher incidence of such disappearances.

5.1. Limitations of the study

The results presented here should be interpreted with caution, given the study's limitations. To link disappearances to poverty indicators, it was necessary to integrate external sources into the Missing Persons and Human Remains System (PDyRH). Although this reduced the analyzed sample size due to the loss of cases during the database merging process, we consider the samples representative. Another significant limitation of the study concerns the methodology used to link poverty to disappearances. The poverty indicators used do not directly relate to missing persons but rather to the socioeconomic characteristics of the locality where they reside, which affects the interpretation of the results and the possibility of a direct correlation. Even so, given the lack of socioeconomic variables in the analyzed missing persons database, this was the most direct and accessible way to analyze the relationship. Finally, the poverty indicators found are at the municipal level, which also limits the results by not having any lower level information that would allow for greater precision.

5.2. Practical implications

The results of this study yield three conclusions that could have an immediate impact on policies aimed at preventing disappearances in Spain. First, a high percentage of repeat disappearances involve minors in foster care. International studies are consistent with these conclusions, considering minority status, mental health problems, alcohol or drug use, and social isolation as risk factors for repeat disappearances (Galiano-López, 2021; Kietpal et al., 2014; Sidebottom et al., 2020). These risk factors should be taken into account when developing strategies to prevent these types of disappearances, which would reduce both the resources allocated to these repeated disappearances. Furthermore, the geographical distribution presented in this study...

This study, which identifies the provinces with the highest recidivism rate per 100,000 inhabitants, allows resources to be directed towards the areas with the highest risk of recidivism, which require priority attention.

Secondly, the predictive model applied to repeat disappearances yields a series of predictive variables that help identify the population most likely to disappear repeatedly. Both the characteristics of the at-risk population—women, minors, Spanish nationals who disappear voluntarily—and the high-risk areas characterized by greater income inequality within their province should guide the development of preventative policies that could reduce repeat disappearances.

Finally, analyses of the relationship between poverty indicators and disappearances reveal that it is not so much the poverty of the territory itself, but rather income inequality among its inhabitants, that is most strongly linked to disappearances in general. This means that all policies aimed at alleviating income inequality and providing opportunities to the most disadvantaged populations directly contribute to preventing and reducing disappearances.

However, a caveat is necessary to distinguish between voluntary and involuntary disappearances. While voluntary disappearances are affected by the municipality's economic inequality, the same cannot be said for involuntary disappearances, whose relationship with poverty rates has not been proven. This does not mean that socioeconomic factors are not affecting this type of disappearance, as many studies indicate that risk factors such as socioeconomic status, along with other factors like mental health, alcohol or drug use, dementia, etc. (Bonny et al., 2016; Ferguson, 2022; Ferguson and Huey, 2020), are related to involuntary disappearances. What we have demonstrated in this study is that involuntary disappearances are not related to inequality or poverty in the area, but they could be related, among other factors, to individual or family poverty, which could not be explored due to a lack of data. In this regard, further studies would be needed to delve deeper into the level of individual income in order to definitively rule out that poverty is not related to involuntary disappearances.

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7. ANNEXES

Annex I. Definition of the variables used

Types of disappearance:

- Voluntary disappearance. This occurs when a person disappears of their own free will, in full possession of their faculties and volition, without any external agent forcing or influencing them to make that decision. This type of disappearance can be further classified into three groups:
 - Runaway minors.
 - Escape of minors from protection centers.
 - Intentional disappearances of adults with full legal capacity and ability to act.
- Involuntary disappearance. This occurs when a person disappears under circumstances beyond their control, provided the reasons are not based on evidence of criminal activity. The causes of involuntary disappearance are:
 - People with cognitive impairment, mental disorders, neurodegenerative diseases, people with disabilities, etc.
 - Accidents.
 - Catastrophes caused by natural causes or resulting from human action.
 - For no apparent reason.
- Enforced disappearance. This occurs when a person disappears due to causes based on a criminal act or activity.
 - Thrown out/expelled from home (minors and disabled people).
 - Parental abduction of minors (national and international).
 - Disappearances of people based on a criminal environment or context.
- Standard disappearance: Occurs when the subtype is unknown and it is pending cataloging.

Status of the complaint:

- Active. This occurs in situations where the disappearance of the person has been reported to the Security Forces, but the whereabouts or situation of the missing person is unknown.
- Dismissal. This occurs when the disappearance of a person has been reported to the police and their whereabouts are known. The dismissal of the report can be caused by:
 - The identification of the human remains or corpse of the missing person.
 - The missing person is over 110 years old and the relevant investigations have been carried out.
 - The voluntary or parental return of the missing person.
 - The request of the complainant who reports the appearance of the missing person.
 - The information in the complaint is incorrect.
- Inconsistent. This occurs when, at the time of registering the data in the System:
 - Mandatory information is missing.
 - The case is duplicated.
 - The complaint was not found in the National Signals Database (BDSN)



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