THE WELL-BEING IN THE ITALIAN PERMANENT POPULATION AND HOUSING CENSUS: FIRST RESULTS[1]

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Abstract. Since 2022, the Permanent Population and Housing Census, a combined census that integrates data from registers and sample surveys, collects information useful for measuring equitable and sustainable well-being at the local level.

To this end, a set of questions was added to the census questionnaire covering the domains of Social Relationships (network of relationships with relatives, friends and neighbours), Safety (perception of safety when walking alone in the dark and perception of crime risk in the place of usual residence) and Subjective Well-being (satisfaction with life).

This paper presents the first analyses aimed at highlighting well-being disparities across Italian provinces, while also considering demographic dynamics and socio-economic indicators. The Adjusted Mazziotta-Pareto Index (AMPI) was applied to synthesize individual indicators into a single, cohesive measure.

1. Introduction and objectives

In recent decades, the concept of well-being has undergone profound transformations. While economic wealth and the growth of Gross Domestic Product (GDP) were long regarded as the primary indicators of a society's progress, there is now a growing recognition that such measures, though useful, are insufficient to provide a comprehensive picture of quality of life. Well-being is a multidimensional phenomenon encompassing subjective, relational, psychological, and environmental aspects. In this context, indicators measuring how individuals perceive their lives, the social relationships they maintain, and the degree of safety they feel in their place of usual residence have gained increasing relevance. Among these, five are particularly significant: satisfaction with life, the presence of relatives, neighbours, or friends to rely on, and the perception of safety when walking alone in the dark. These are interconnected dimensions that reflect, from different perspectives, the degree of serenity, trust, and integration experienced in everyday life.

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[1] Sections are attributed as follows: sections 1 and 2.4 to Simona Mastroluca, sections 3.1, 3.2 and 3.3 to Valeria Quondamstefano, sections 2.1, 2.2 and 2.3 to Maria Carmela Russo and sections 2.5 and 4 to Donatella Zindato.

Starting from 2022, the Permanent Population and Housing Census (PPHC), which employs a combined approach integrating register data and sample surveys, has collected information relevant to the Social Relationships, Safety and Subjective Well Being domains. This new census strategy enables the annual collection and dissemination of data, making the census more responsive to emerging user needs, including the investigation of territorial disparities in well-being indicators down to the NUTS3[2] level and in the largest cities[3]. Taken together, the five census indicators provide insights into fundamental aspects of people's lives that would otherwise be overlooked in a purely economic analysis. However, the integration of structural data and subjective perceptions remains one of the most complex yet essential challenges in the measurement of well-being today. Accordingly, this study first conducts a descriptive analysis of 2022 PPHC data at the provincial level to highlight disparities in subjective well-being across Italy. It then applies the Adjusted Mazziotta-Pareto Index (AMPI) both to these subjective indicators and, separately, to three structural indicators, also derived from Census data: the employment rate (20-64 years), the dependency rate and the percentage of population aged 25-64 with at least upper secondary education. The objective is to assess whether, in contexts of structural well-being, subjective well-being levels also exceed the national average, or conversely, whether these "immaterial" indicators – concerning social relations, feelings of security, and life satisfaction – are largely independent of the socio-economic conditions of the place of residence.

2. Census subjective indicators: a descriptive analysis

This section presents a descriptive analysis of the five subjective well-being indicators: networks of relationships with relatives, friends, and neighbours; perception of safety when walking alone in the dark and satisfaction with life. Using data from the PPHC 2022, the study highlights significant regional disparities, also focusing on gender differences.

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[2] The NUTS classification (Nomenclature of territorial units for statistics) is a hierarchical system that divides the territory of the European Union into different areas, used for statistical purposes. The NUTS3 level corresponds to provinces/metropolitan cities. In the paper, the term "provinces" refers to both provinces and metropolitan cities. In Italy, 14 of the 107 sub-regions at NUTS 3 level are called "metropolitan cities"; these are: Bari, Bologna, Cagliari, Catania, Florence, Genoa, Messina, Milan, Naples, Palermo, Reggio di Calabria, Rome, Turin, Venice, Verona
[3] Largest cities are municipalities with at least 150.000 usual residents.

2.1 Network of relationships with relatives

The network of personal relationships, through the sharing of both material and non-material resources, provides support in daily life and enhances individual well-being. Within the social and relational context, the family network plays a crucial role in Italy. Indeed, 87.2% of the population aged 14 and over report having non-cohabiting relatives they can rely on in case of need. This indicator presents a high territorial variability, with the highest values recorded in Southern Italy and in the Islands. The provinces with the highest shares are Nuoro (94.7%), Enna (93.4%) and Vibo Valentia (92.7%), whereas the lowest values are recorded in Prato (80.2%), Pesaro and Urbino (81.2%) and Rovigo (82.8%). At national level, the share of women who report receiving support from relatives is higher than men with a gap of 2 p.p. (88.2% of women versus 86.2% of men). The analysis confirms this trend across all provinces. The gender gap oscillates between 3.9 percentage points in Foggia, representing the highest disparity observed, and 0.5 percentage points in Rimini, the lowest value recorded.

2.2 Network of relationships with friends

Within the domain of subjective well-being, another dimension related to the sphere of social support is the network of friendships.

In Italy the percentage of people who have friends they can count on is 74.6%. At the provincial level, this value ranges from 87.8% of Nuoro to 67.8% of Rovigo, showing wider geographical differences compared to the data relating to relatives to rely on. Friendship networks are more present in Calabria, Sardinia and in the provinces along the northern border of the country, such as Sondrio and Bolzano/Bozen.

The breakdown by gender reveals only minor differences among males and females: in 81 out of 107 provinces/metropolitan cities the gap is minimal and in favour of men. The widest disparity is observed in L'Aquila (2.2 p.p.), followed by Pistoia (1.9 p.p.) and Lecce (1.6 p.p.). On the other hand, albeit overall low values, Ragusa, Bolzano, and Bergamo report the highest gender disparities in favour of women with 1.6, 1.4 and 1.3 percentage points respectively. Provinces characterized by a uniform gender distribution, where disparities are almost non-existent, include Sondrio, Enna and Prato.

2.3 Network of relationships with neighbours

The final indicator contributing to the social support network is the presence of neighbours (one or more individuals or households) one can rely on in times of need. According to 2022 PPHC data, 71.5% of the population aged 14 and over report being able to count on neighbours. The provinces of Nuoro (84.8%), Isernia (82.1%) record the highest percentages, followed by four of the five provinces of Calabria: Cosenza (81.8%), Reggio di Calabria (81.4%), Vibo Valentia (80.9%) and Catanzaro (79.4%). In contrast, the territories with the lowest percentage values are the provinces of Trieste (64.1%), Barletta-Andria-Trani (65.2%) and Foggia (65.5%). Women, with 72.4%, are more likely to report having access to a neighbourhood support network, (70.7% for men). At the NUTS3 level, gender differences in neighbourhood support networks are more pronounced than those observed in support networks based on relatives and friends. In particular, Ragusa registers the largest gender gap, with a difference of 5 percentage points in favour of women, followed by Foggia (3.6 p.p.) and Gorizia (3.2 p.p.).

Conversely, a limited number of provinces including Teramo, L'Aquila, Perugia, Isernia and Benevento exhibit gender gaps favouring men, although these differences remain marginal (below one percentage point).

2.4 Perception of safety when walking alone in the dark

One of the dimensions of well-being investigated in the PPHC is the perception of safety when walking alone in the dark in one's place of residence. The indicator considers those who declare themselves safe or fairly safe. Feeling safe in one's place of usual residence is essential for quality of life. However, this perception varies greatly according to geographical context and, especially, gender. The provinces with the highest incidence of residents aged 14 or over who consider themselves safe, despite the darkness and loneliness, are Sondrio (84.6%), Aosta (83.2%) and Nuoro (82.9%). On the contrary, in Prato, Naples and Rome the perception reaches the lowest levels with shares of 51.6% for the first one and 56.3% for the remaining two. Therefore, in all sub-regions considered the perception of safety is above 50% but there is a difference of more than 33 percentage points between the highest and the lowest extreme of the ranking.

Men always perceive themselves as more confident than women. More than three-quarters of men feel safe walking alone when it is dark, while the proportion is just over half among women (56.2%). The largest gender gap lies in the province of Monza and Brianza (26.6 p.p.), followed by Modena (25.0 p.p.) and Varese (24.9

p.p.). The distribution between men and women is more homogeneous in Agrigento and Isernia, where the differences are, in both cases, below 12 percentage points.

2.5 Satisfaction with life

Another dimension of subjective well-being investigated in the PPHC is the satisfaction with life, an indicator measuring the extent to which individuals feel their lives align with their expectations beyond temporary circumstances. The indicator considers those who declare themselves very satisfied (i.e. who rate their satisfaction with life between 8 and 10 on a scale of 1 to 10).

The national average life satisfaction rate across all provinces is 53.05%, with substantial intra-regional variability. In all provinces the percentage of people very satisfied is over 40%, though there is a difference of almost 23 percentage points between Bolzano and Napoli, at respectively the highest and the lowest extreme of the ranking. However, no clear territorial pattern or dichotomy North-South can be identified, as the provinces with the lowest shares of very satisfied people can be found all across Italy. In fact, Napoli ranks lowest, with only 41.5% of the population reporting high life satisfaction, followed by another southern province i.e. Taranto (45.2%) and then by the Tuscan province of Prato (45.6%) and by the two northern provinces of Rovigo (45.8%) and Ferrara (47.3%).

Similarly, at the other end of the spectrum, both northern and southern regions are represented, with Bolzano, Enna, Trento, Vibo Valentia and Sondrio displaying the highest life satisfaction shares (with respectively 64.4%, 61.6%, 61.2%, 60.0% and 59.8%). This suggests that regional averages may conceal important local dynamics and that life satisfaction reflects diverse local economic, social, or environmental conditions.

Even in a context of substantial gender balance (the gender parity index, comparing the value of the life satisfaction indicator for the female population to that of the male population falls between 0.95 and 1.05 for the large majority of the provinces), men consistently report being more satisfied with life compared to women. Only exceptions are of the provinces of Bolzano/Bozen, Siracusa, Crotone, Ragusa and Lecce, showing a slight female advantage (less than one percentage point). While on average men are nearly 2 percentage points more likely than women to report being very satisfied, the largest gap (4 or more percentage points) is observed in Tuscany and Emilia-Romagna provinces (Siena, Pistoia, Pisa, Piacenza, Reggio Emilia). The gender gap is usually smaller in provinces that display higher life satisfaction.

3. Methodology and Main results

3.1 The Adjusted Mazziotta-Pareto Index

The methodology of composite indices in statistics provides a means of summarizing information from multiple variables into a single measure. This approach is particularly valuable in situations where it is necessary to condense a large amount of data into a more manageable and interpretable form (OECD, 2008). Among the different methods available for synthesising individual indicators into a single, consistent measure, this study employs the Adjusted Mazziotta-Pareto Index (AMPI), a partially non-compensatory composite index designed to standardize indicators at a reference point in time. This standardization ensures that indicators are independent of their original units of measurement (De Muro et al., 2011). By assigning equal weights to all indicators, the AMPI enables absolute temporal comparisons (Mazziotta and Pareto, 2016). The AMPI applies a re-scaling mechanism to individual indicators, positioning them within an open range of 70 to 130. This re-scaling relies on two 'goalposts' - minimum and maximum values - that define the potential range of each variable across time and units. These goalposts ensure comparability of indicators over time by providing a consistent measurement framework.

3.2 Application to subjective well-being indicators

An influence analysis of the subjective indicators was conducted to determine the average number of positions by which each territorial unit's ranking shifts when one indicator is excluded (Figure 1).

Figure 1 – *Influence Analysis of subjective indicators - Year 2022.*

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A	Network of relationships with relatives
B	Network of relationships with friends
C	Network of relationships with neighbours
D	Perception of safety when walking alone in the dark
E	Satisfaction with life

Source: *Elaborations on Permanent Population and Housing Census (PPHC) data, Istat.*

The indicator that produces the largest average ranking shifts for women and for the total population was "Perception of safety when walking alone in the dark" (4.2 and 4.3 positions, respectively), whereas for men it was "Satisfaction with life" (4.5 positions).

The AMPI of subjective indicators depicts a heterogeneous picture of Italy, with territorial patterns that are, in some cases, unexpected (Figure 2).

Figure 2 – *Maps of AMPI Subjective Indicators - Year 2022.*
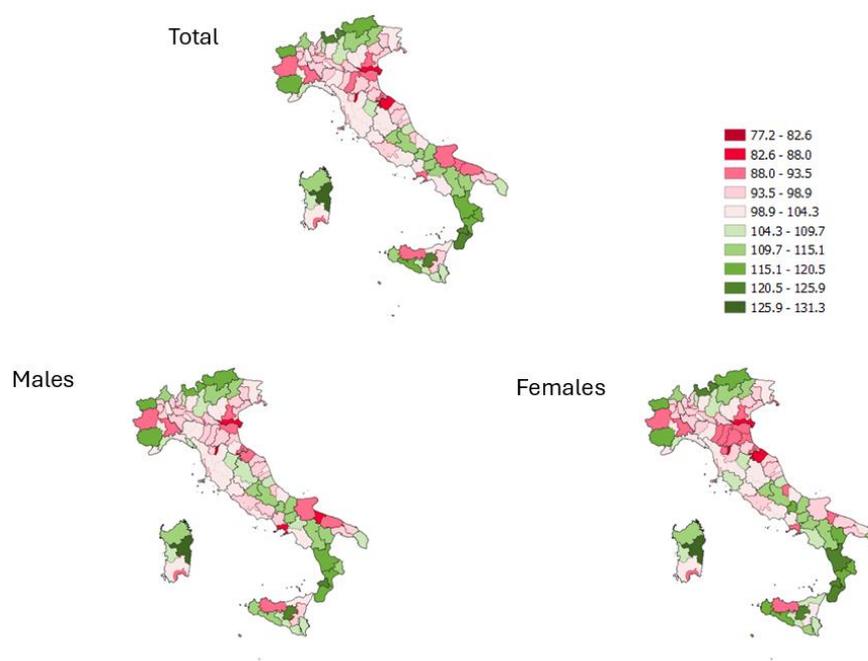
Source: Elaborations on PPHC data, Istat.

Regions traditionally regarded as models of welfare policies and efficient public services, such as Emilia-Romagna, display lower levels of subjective well-being than structurally more disadvantaged areas, such as, for instance, Calabria and Sicilia.

Gender differences in perceived well-being also display distinct regional patterns. In all provinces of Emilia-Romagna, Umbria, and Veneto, women report lower levels of subjective well-being than men. Conversely, in Campania, Calabria, Molise, Apulia, Sicily, and Trentino-Alto Adige, women report higher levels than men, reversing the trend observed in most of the Centre-North.

The gap between the province with the highest AMPI score (Nuoro) and that with the lowest (Prato) amounts to as many as 53.3 points, underscoring marked territorial

disparities (Table 1). Remarkably, all five provinces of Calabria rank among the top 12 in the national distribution. Conversely, one of the lowest AMPI score is recorded in Naples followed only by Prato, Rovigo, Pesaro-Urbino, and Barletta-Andria-Trani.

Another metropolitan city in the South, Reggio di Calabria, stands out with one of the highest AMPI scores, exceeded only by Nuoro, Enna, Vibo Valentia, and Sondrio. The data also reveal notable gender disparities in perceived support networks and safety: in Ragusa, Naples and Foggia, women report feeling significantly more supported than men. The opposite occurs in L'Aquila, Pistoia, and Perugia, where the gender gap in favour of men reaches 3.9, 3.5 and 3.2 points, respectively.

Table 1 – *Provinces/Metropolitan Cities with the Highest and Lowest AMPI values – Year 2022.*
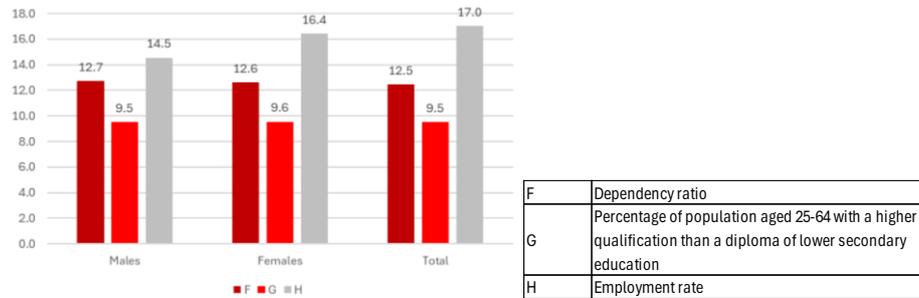
Areas	Regions	Provinces	AMPI
Islands	Sardinia	Nuoro	131.25
Islands	Sicily	Enna	122.39
South	Calabria	Vibo Valentia	121.64
North-West	Lombardy	Sondrio	121.59
South	Calabria	Reggio di Calabria	121.00
…	…	…	…
…	…	…	…
South	Campania	Naples	89.10
South	Apulia	Barletta-Andria-Trani	88.17
Centre	Marche	Pesaro and Urbino	94.17
North-East	Veneto	Rovigo	89.94
Centre	Tuscany	Prato	78.04

Source: Elaborations on PPHC data, Istat

3.3 Comparison with structural well-being indicators

To further investigate the relationship between subjective well-being and objective conditions, the AMPI was also applied to three structural indicators derived from census data: employment rate (20-64 years); dependency rate; percentage of the population aged 26-64 with at least upper secondary education. As with the subjective indicators, the first step of the analysis concerned the influence analysis. In this case, for males, females and the total population the most influential structural indicator is the "Employment rate", which shifts ranking by 14.5, 16.4, and 17.0 positions, respectively (Figure 3).

Figure 3 – *Influence Analysis of structural indicators - Year 2022.*

F	Dependency ratio
G	Percentage of population aged 25-64 with a higher qualification than a diploma of lower secondary education
H	Employment rate

Source: *Elaborations on PPHC data, Istat.*

The AMPI analysis of structural indicators reveals a territorial pattern in sharp contrast to that of subjective well-being, with the South and Islands emerging as the most disadvantaged areas. In particular, the Islands and Calabria show the lowest levels of structural well-being, especially among the male population, whereas in other southern regions women tend to experience worse conditions (Figure 4).

Figure 4 – *Maps of AMPI Structural Indicators - Year 2022.*
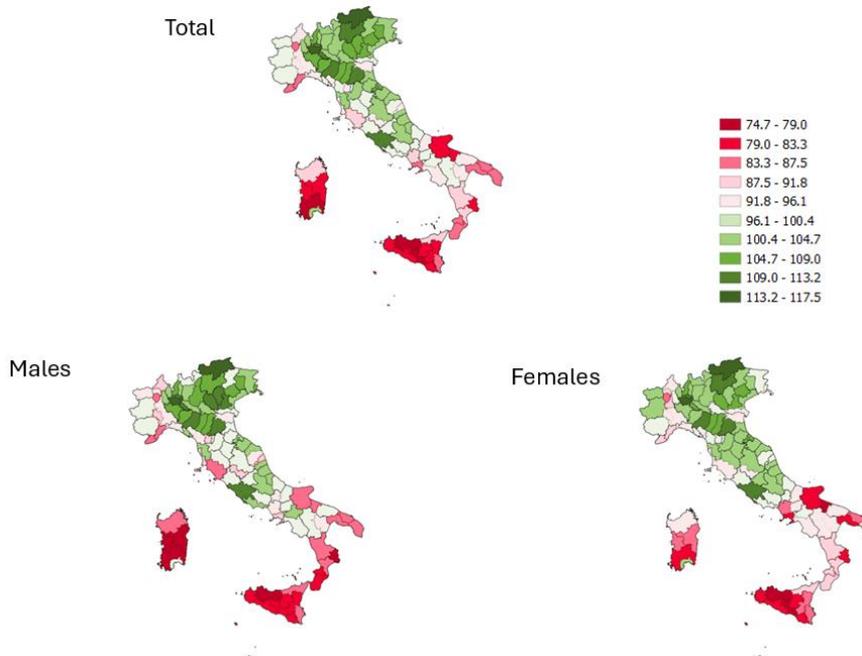
Source: *Elaborations on PPHC data, Istat.*

The highest levels of structural well-being are observed in the North-East, in Lombardy, and in Rome. In the North-East, only 3 out of 22 provinces (Trieste, Rovigo, and Ferrara) record AMPI scores below 100 (Table 2).

Table 2 – *Provinces with Highest and Lowest AMPI values – Year 2022.*

Areas	Regions	Provinces	AMPI
North-West	Lombardy	Milano	115.63
North-East	Trentino-Alto Adige	Bolzano/Bozen	115.27
North-East	Emilia-Romagna	Bologna	112.00
North-East	Emilia-Romagna	Parma	111.17
Centre	Lazio	Rome	111.11
…	…	…	…
…	…	…	…
South	Campania	Crotone	79.21
Islands	Sicily	Agrigento	79.08
Islands	Sicily	Palermo	77.83
Islands	Sardinia	South Sardinia	77.26
Islands	Sicily	Caltanissetta	77.08

Source*: Elaborations on PPHC data, Istat.*

In North-West Italy, only Lombardy and the province of Novara score above the national average. In the Centre, 13 out of 22 provinces fall below the Italian average, with a notable 7.4-point gap between Rome (111.1) and the next highest-ranking province in the Centre, Pesaro-Urbino (103.7).

In the South and Islands, only Pescara, L'Aquila, Cagliari, and Teramo score above the national average (AMPI > 100). Pescara ranks as the top province in the South, though it is preceded by 25 sub-regions from the Centre-North. The range between the highest (Milano) and lowest (Caltanissetta) AMPI scores across all Italian provinces is 38.5 points.

Interestingly, some provinces in the Centre-North also exhibit critical conditions. Biella ranks 91st out of 107 provinces, making it the lowest-scoring province in this macro-region. Furthermore, Turin and Genoa are the only metropolitan cities in the Centre-North with AMPI scores below 100.

The gender gap in objective well-being is also pronounced in several provinces. In Gorizia, Caserta, and Barletta-Andria-Trani, men report significantly higher levels of well-being than women, with gender gaps of 11.5, 7.7, and 7.1 points, respectively.

Summing up, comparison of AMPI structural values with AMPI subjective values reveals a counterintuitive pattern: populations with higher levels of socio-economic well-being do not consistently report corresponding levels of subjective well-being. This misalignment suggests the need for a more nuanced territorial analysis, and possibly taking into account many more factors such as petty crime

(e.g., home burglaries and theft), the ratio of foreigners on the resident population and environmental vulnerabilities (e.g. earthquakes, floods), expectations and cultural norms for what constitutes a "satisfying life", to gain a more comprehensive understanding of local conditions.

4. Summary remarks and outlook for the future

The inclusion of subjective well-being measures in the Permanent Population and Housing Census represents a major step forward in Italy's ability to monitor equitable and sustainable well-being across territories on an annual basis. The initial analyses reveal a complex and heterogeneous landscape, with patterns that challenge conventional expectations based solely on economic or structural indicators, suggesting that perceived well-being is influenced by local contexts and does not necessarily align with structural socio-economic conditions (Becchetti L., 2021). As for the subjective well-being, notwithstanding the lack of a clear territorial pattern, it can be clearly observed that regions traditionally seen as models in terms of welfare policies and efficiency of public services show lower levels of satisfaction than areas (such as the South and the Islands) which appear to be more disadvantaged compared to the Centre-North when considering structural indicators. Moreover, the gender analysis highlights regionally differentiated patterns, even though in the Centre-North women generally report a lower perception of subjective well-being compared to men, while the opposite is true in the South and the Islands.

The application of the Adjusted Mazziotta-Pareto Index (AMPI) to subjective well-being dimensions has revealed noteworthy territorial disparities, with provinces in Southern Italy and the Islands often reporting higher subjective well-being than areas socio-economically more disadvantaged. Conversely, the analysis of structural well-being indicators confirms a clear North-South divide, with Northern and Central regions consistently outperforming Southern regions and the Islands, underscoring the persistence of territorial inequalities in economic and educational dimensions.

The coexistence of low structural well-being and higher levels of perceived well-being in several southern provinces underscores the need to complement traditional socio-economic indicators with subjective measures in order to provide a more comprehensive and accurate representation of quality of life at the local level. Furthermore, future studies should also investigate the relations between reported well-being and variables (such as age and citizenship) which previous analyses have shown to have an impact on subjective well-being, as well as the municipality size. Indeed, evidence from other analyses on large cities reveals non-negligible differences in subjective well-being between the capitals and the other municipalities

of the respective metropolitan cities (Istat, 2025). This suggests that exposure to the highly competitive and stressful environments typical of major urban centres may affect perceptions of subjective well-being.

Finally, as the set of question on subjective well-being is now part of the PPHC, it will be possible to track the evolution of these subjective indicators over time, providing valuable evidence for policymakers interested in promoting a more equitable and sustainable well-being across the country.

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