







Drawing from the wealth of data provided by the BES project (Equitable and Sustainable Well-being), this publication analyses gender, generational, territorial, and educational inequalities, also taking into account the combination of multiple characteristics to identify the most disadvantaged groups in terms of well-being.

# More than 60% of well-being indicators

in Northern Italy regions and in Toscana exceed the national average, with peaks around 75% in Veneto, Bolzano, and Trento. In other central regions, at least half of the indicators are above the national average, while in Southern Italy fewer than half reach this threshold

# Over one in three young women

aged 25-34 holds a degree, compared to one in four young men. Women's educational paths are marked by better outcomes, with lower early leavers rates and higher skills. However, women still face widespread disadvantages in the labour market

### 93.9% of young adults aged 25-34

use the internet regularly, compared to just 57% of those over 55. In terms of lifestyle, young people are less sedentary than those over 55 (26.8% vs. 45.8%), though smoking is more common among the young (26.9% vs. 14.4% of those over 55)

# 56.7% of young adults aged 25-34

with low educational attainment in the South and Islands is at risk of poverty. The intersection of multiple inequality factors allows for identifying the most disadvantaged groups, highlighting the significant impact of educational attainment on wellbeing indicators

#### Introduction

In 2010, Istat has launched the BES project to measure Equitable and Sustainable Well-being<sup>1</sup>. Each year, the BES Report<sup>2</sup> examines recent trends, long-term developments, and inequalities across a set of 152 indicators divided into 12 domains<sup>3</sup>. For some BES indicators, comparisons can be made with the EU-27 average, allowing for Italy's position within the European context to be evaluated, therefore shedding light on critical areas or points of strength.

Since its launch, the BES project has provided indicators broken down by individual and contextual characteristics that enable the measurement of inequalities among social groups and regions and their monitoring over time. The National Recovery and Resilience Plan (PNRR) also recognises that substantial disparities in territory, gender, and generation hinder cohesion and growth, setting the reduction of these disparities as a cross-cutting goal across its six missions.

The analyses presented here also shed light on intersectional social inequalities, meaning disparities that impact specific subgroups within the population, deeply affecting their quality of life but only becoming apparent when considering intersections of multiple factors of vulnerability, such as gender, age, education, and territory.

Strong inequalities persist territorially. Regions in the North show well-being values above the national average, while the South and Islands still face marked disadvantages, particularly in the domains of Work and Life Balance and Social Relationships.

Most indicators also reveal a female disadvantage, with women significantly penalised in the labour market, both in quantitative and qualitative terms. The female employment rate is markedly lower, while non-participation

<sup>&</sup>lt;sup>1</sup> https://www.istat.it/en/statistical-themes/focus/well-being-and-sustainability/

<sup>&</sup>lt;sup>2</sup> https://www.istat.it/en/statistical-themes/focus/well-being-and-sustainability/the-measurement-of-well-being/bes-report/

<sup>&</sup>lt;sup>3</sup> Health; Education and training; Work and life balance; Economic well-being; Social relationships; Politics and institutions; Safety; Subjective well-being; Landscape and cultural heritage; Environment; Innovation, research and creativity; Quality of services.





and involuntary part-time rates are higher. Due to the specific structure of male employment, men, in contrast, exhibit a higher rate of fatal occupational injuries or injuries leading to permanent disabilities.

Considering indicators by education level is essential, given the strong connection between education and quality of life. Higher educational attainment generally corresponds to higher levels of well-being and greater resilience against vulnerabilities arising from the combination of multiple discriminating factors. Investing in human capital is one of the primary protective factors against economic hardship. The poverty risk for graduates is more than halved compared to the total population rate. Economic distress also varies significantly by region, with poverty risk at its lowest among graduates in the North and highest among those with low education in the South and Islands.

#### 1. Regional Inequalities

Analysing the differences in well-being between regions in a country with a complex and varied geography as Italy is crucial for understanding development challenges or potentials and guiding public policy. One of the main objectives of the EU is to reduce the gap between the development levels of its regions, promoting harmonious growth and strengthening economic, social, and territorial cohesion. This objective is pursued through the cohesion policy, the EU's primary investment strategy aimed at the structural modification of the economic context of regions<sup>4</sup>.

This analysis offers an interpretation of regional inequalities through the 112 BES indicators (which cover all domains), most of which have been updated to 2023, and provide detailed territorial data.

In Figure 1, the differences in standardised units (s.u.)<sup>5</sup> for the 112 indicators are presented for each region, with the vertical line, set at zero, representing the reference value for Italy for the most recent year available.

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<sup>&</sup>lt;sup>4</sup> https://www.istat.it/wp-content/uploads/2023/06/FOCUS-POLITICHE-DI-COESIONE-13-06-2023.pdf

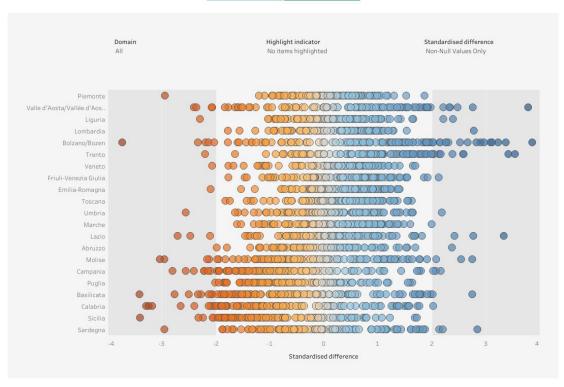
<sup>&</sup>lt;sup>5</sup> In order to make indicators with different units of measurement, order of magnitude and variability comparable, a linear transformation was carried out by calculating, for each indicator, the differences with respect to the average value for Italy, expressed in terms of the variability observed among all the Italian regions (units of standard deviation - u.s.d.). In order to ensure that the values obtained can be read in terms of well-being, the polarity of the indicators was taken into account in the transformation, to highlight the most critical or most favourable situations in the different regions.





Figure 1. Differences in Bes indicators compared to the Italian average, by region and domain. Latest year available (standardised units) (a)

BES Forum OCSE Roma 11/2024



Source: Istat, Bes Indicators

(a) For greater usability of the Figure see the dashboard.

The territorial disparities in the levels of well-being among the regions reflect the lack of convergence in development levels, with Northern regions generally positioned advantageously, clustering above the national average (right-hand side of the figure), while those in the South and Islands are situated below (left-hand side of the figure).

For all Northern regions and Toscana, at least 60% of the indicators show values above the national average, reaching around 75% for Veneto and the autonomous provinces of Bolzano and Trento. In contrast, for all other Central regions at least half of the indicators have values exceeding the national figure. However, in the regions of the South and Islands, the percentage of indicators with values better than the national figure is always below 50%. Nonetheless, there are significant distinctions, with the proportion exceeding 40% in Abruzzo, Molise, and Sardegna, while in Campania, Puglia, and Sicilia it reaches 25% at most.

The disadvantage of the South and Islands is more pronounced in the domains of Health, Education and Training, Landscape and Cultural Heritage, and particularly in the domains of Work and Life Balance, and Social Relationships. Regarding work, for instance, in Campania, Basilicata, Calabria, and Sicilia, nearly all indicators report values below the national average, while in Piemonte and Lombardia all indicators are above the average. In terms of social relationships, Campania, Puglia, and Sicilia consistently show lower values than the national average, whereas in the two autonomous provinces of Bolzano and Trento, Veneto, and Emilia-Romagna, all values are higher than the Italian average.

In the domains of Politics and Institutions, Safety, Subjective Well-Being, Environment, Innovation, Research and Creativity, the picture is geographically less polarised. Notably, in the Safety domain, most indicators from the South and Islands (excluding Campania and Puglia) show values better than the national average, while Emilia-Romagna, and especially Lombardia and Lazio, present much more negative data. Regarding Subjective Well-Being, no defined territorial pattern emerges, with Lombardia and Calabria having all indicators at levels better than the national average, while Umbria, Marche, Puglia, and Sicilia have none. In relation to the Innovation domain, for all regions in the South and Islands, most indicators record values below the national average, but





this is also true for Piemonte, Liguria, Umbria, and Marche, while for Lombardia and Lazio, five out of six indicators are above the average.

By analysing the values that deviate most from the average, we can highlight strengths and weaknesses among the regions. Overall, the highest values are principally concentrated in the two autonomous provinces of Trento and Bolzano. Conversely, the lowest values are more dispersed among the regions, although they are particularly concentrated in the South and Islands. Specifically, noteworthy positive aspects for the autonomous province of Bolzano include the proliferation of agritourism farms, four indicators of satisfaction (including satisfaction with public transport services and satisfaction with life), three health-related aspects (smoking habits, multi-chronicity, and severe limitations), the low share of over-qualified employees, and high social participation. For instance, the proliferation of agritourism farms in Bolzano was 46.1 per 100 km² in 2022, a value five times higher than the national figure and over 20 points higher than Toscana, which follows in the ranking (24.5 per 100 km²). In terms of life satisfaction, Bolzano stands out compared to the rest of Italy, with nearly two out of three individuals rating their overall life satisfaction between 8 and 10, compared to a national average of 46.6%.

Salute | Istruzione e formazione | Lavoro e conciliazione dei tempi di vita | Benessere economico | Relazioni sociali | Politica e istituzioni | Sicurezza Benessere soggettivo Paesaggio e patrimonio culturale Ambiente I Innovazione, ricerca e creatività I Qualità dei servizi Soddisfazione per la propria vita 2023 60 20 Liguria Provincia Autonoma di Trento Veneto Umbria Lazio Abruzzo Molise Valle d'Aosta/Vallée d'Aoste Lombardia Provincia Autonoma di Bolzano/Bozen Friuli-Venezia Giulia Campania Puglia Sardegna Italia Piemonte Emilia-Romagna Toscana Marche 3asilicata Calabria

Figure 2. Well-being indicators, by domain and region. Latest year available

Source: Istat, Bes Indicators

Note: For the interactive version of the figure, please consult the web version of the publication (in Italian).

The autonomous province of Trento stands out particularly for the availability of urban green spaces, volunteer activities, generalised trust, and use of libraries. For example, nearly one-third of the inhabitants of the autonomous province of Trento visited a library at least once in 2023, while in other regions, this percentage often does not even reach 15%, and in Molise and Campania, it is around 5%.

Valle d'Aosta, Molise, and Sardegna each emerge for a specific environmental aspect: the production of electricity from renewable sources, the availability of urban green spaces, and air quality, respectively. For instance, in Sardegna, the percentage of measurements for fine particulate matter (PM<sub>2.5</sub>) exceeding the health reference threshold was only 12.5% in 2022, while in other regions (Trento, Bolzano and Veneto), it was 100%.





Lazio distinguishes itself positively for the density and significance of its museum heritage and the percentage of employed individuals with a university education in scientific and technological professions. Lombardia stands out for the number of public transport kilometres offered in provincial capital municipalities (11,244 in 2022, compared to the Italian average of 4,696).

Among the more critical situations<sup>6</sup>, four indicators can be cited for Calabria: irregular water distribution, income inequality, regular internet users, and, most notably, severe material and social deprivation. The percentage of individuals in Calabria reporting at least 7 out of 13 indicators of material and social deprivation was 20.7% in 2023, more than double that of any other Italian region (excluding Campania). Molise experiences significant environmental pressure due to the high influx of urban waste into its landfills (including waste from outside the region), with a figure (77.1% of total waste produced in the region) that exceeds the Italian average by four times. In both Molise and Basilicata, the rate of hospital-related migration to other regions is also high: 30.4% and 28.4% of residents respectively travel to another region for hospitalisation, against an Italian average of 8.3%. However, while Molise also sees considerable inflows indicating geographic mobility primarily driven by the small size of the territory, the same cannot be said for Basilicata. Basilicata also stands out for a greater perception of job insecurity: the percentage of employed individuals who believe it is likely they will lose their job and not find another is 8.8%, more than double the national figure.

Two aspects in Campania are particularly problematic: in 2022, nearly a quarter of residents reported significant difficulty making ends meet (compared to a national average of 6.9%), and 8.8% of families indicated great difficulty accessing three or more essential services (versus 4.9% at the national level).

It is worth highlighting five other indicators with poorer well-being values compared to the average: the impact of forest fires in Sicilia (with 9.8 per thousand of the regional territory affected in 2022, compared to a national average of 2.4 per thousand), the unmet need for medical examination in Sardegna (which affected 13.7% of the population in 2023, compared to 7.6% of the national average), severe housing deprivation in Piemonte (the percentage of individuals living in overcrowded housing or in dwellings lacking certain services and with structural problems was 10.8% in 2022, more than double the rate for Italy), pickpocketing in Lazio (which recorded 13.6 victims per 1,000 people in 2023, compared to a national average of 5.1), and the rate of occupational injuries in Umbria (16.7 per 10,000 employees in 2022, versus 10 at the national level).

#### 2. Gender Inequalities

Gender equality is a fundamental human right, and achieving it is an objective to be pursued for both individual well-being and its impact on economic and social welfare. Equal opportunities for men and women promote economic growth, strengthen democracy, and improve social cohesion, benefiting the entire community. This principle is at the core of Goal 5 of the United Nations Sustainable Development Goals (SDGs)<sup>7</sup>, which aims to achieve gender equality and empowerment for all women and girls. However, despite progress made in recent years, gender inequalities remain evident in our country across many spheres of life. Data from the BES framework allow for the precise identification of areas where the differences between men and women are most pronounced. For most well-being indicators (79), data disaggregated by sex<sup>8</sup> are available and updated to 2023 (or 2022). To study gender differences across various dimensions and highlight areas of greater concern, a comparison was made between the values of each indicator in the female or male population and the values it

<sup>&</sup>lt;sup>6</sup> With regard to the university transition indicator, the Bolzano figure is underestimated due to the high number of young people enrolling and graduating at foreign universities.

<sup>&</sup>lt;sup>7</sup> https://www.istat.it/en/statistical-themes/focus/well-being-and-sustainability/sustainable-development-goals/sdgs-report/

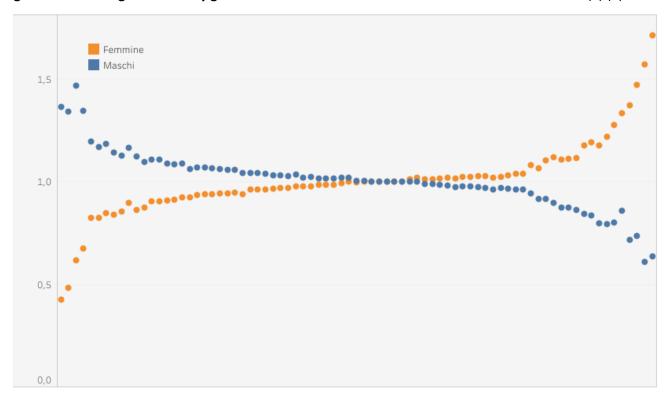
<sup>&</sup>lt;sup>8</sup> Excluded from this analysis are those framework indicators that are highly relevant to the study of well-being but specifically refer to the condition of women (e.g. indicators of violence against women), for the analysis of which please refer to the BES Report.





assumes in the total population (Italy). This makes it possible to identify measures where substantial parity between the sexes is observed (23 indicators), which are close to the average value (value 1 in Figure 3), and to distinguish those where the condition of women is significantly better than that of men (24 indicators with values greater than 1 for women) from those where, conversely, men experience better living conditions (32 indicators with values greater than 1 for men). At the two extremes of the figure, where the distance between these two ratios is greatest, the gender gap is wider.

Figure 3. Well-being indicators by gender. Year 2023. Ratio of females to total and males to total (a) (b)



Source: Istat, Bes Indicators

Note: For the interactive version of the figure, please consult the web version of the publication (in Italian).

The first two observations to be made concern, on one hand, the persistent greater number of indicators that show a disadvantage for women and, on the other hand, the slightly larger gap when there is a disadvantage for men. Focusing on the indicators that highlight a better condition for women compared to men, most of them fall within the domains of Health and Education and Training.

Regarding the domain of Education and Training, it is primarily the indicators centred on the youth component that reveal a female advantage. This is due both to the lower prevalence of early school leavers among girls (7.6% compared to 13.1% for boys) and to the smaller percentage of low performers, i.e., female students in their final year of lower secondary school who have not reached at least a sufficient level of literacy competence (33.9%; 42.9% for boys). Furthermore, a higher proportion of young women enrol in university for the first time in the same year they obtain their diploma (the cohort specific rate for girls is 58.2%, while for boys it is 45.2%), and the percentage of young people aged 25-34 with a degree or other tertiary qualifications is also higher for women (37.1%; 24.4%).

The investment in female education in past decades has resulted in a female advantage even among adults: among people aged 25-64, the share of those who have obtained at least a diploma is higher for women (68%;

<sup>(</sup>a) Ratio adjusted to vary between 0 and 2 being symmetrical with respect to value 1.

<sup>(</sup>b) The index takes into account the polarity of the indicators and thus values greater than 1 indicate a well-being advantage.





62.9% for men). Moreover, women use libraries more than men (14% compared to 10.7%), and the greater investment in education also translates into a higher female presence among knowledge workers (24%; 14.9%) and in cultural and creative occupations (3.7%; 3.3%). However, it is worth noting, again concerning the domain of Education, that there is a greater presence of young women who are neither employed nor engaged in education or training (NEET, 17.8%; 14.4%).

Giovani che non lavorano e non studiano (NEET)

15

10

5

Maschi Femmine Maschi e femmine

Figure 4. Well-being indicators by gender. Latest available year.

Source: Istat, Bes Indicators

Note: For the interactive version of the figure, please consult the web version of the publication (in Italian).

Regarding the Health domain, women generally have healthier lifestyles. The percentage of women with excess body weight is lower (36.1% compared to 53.5% of men), as is the percentage of women who smoke (16.4%; 23.6%) and those who engage in risky alcohol consumption (9.8%; 21.8%). Additionally, a higher proportion of women have an adequate diet, consuming at least 4 servings of fruits and/or vegetables daily (18.5%; 14.4%). Among young women, there are also lower mortality rates due to traffic accidents (the age standardised rate for girls aged 15-34 is 0.2 per 10,000 inhabitants, compared to 1.1 for their male peers). However, it should be emphasised that other measures within the Health domain show men in a better position. The share of sedentary men, who do not engage in any physical activity, is lower (the age standardised rate per 100 individuals is 31.2%, compared to 37.1% among women). The percentage of men who forgo necessary healthcare services is also lower (6.2% compared to 9.0% of women). Finally, elderly men are less frequently affected by multimorbidity and/or severe limitations in daily activities compared to their female counterparts (40.9%; 54.7%).

The male advantage in well-being primarily concerns the domains of Politics and Institutions and Work and Life Balance. All indicators related to the presence of women in political representation and at the top of institutions indicate a persistent gender gap, which appears particularly pronounced when considering the top positions in decision-making bodies<sup>9</sup> (only 21.3% of these positions are held by women) and local political bodies (only 24.1% are women). In the Italian Parliament, female representation is limited to 33.7%, whereas, thanks to regulatory interventions in this area, it rises to 43.1% on the boards of publicly traded companies.

<sup>&</sup>lt;sup>9</sup> Italian embassies abroad, Constitutional court, Magistrates' Governing Council (including magistrates who participate in the functioning of the Body), and some Independent Administrative Authorities (for Communications, Antitrust, Data protection, Consob - Italian Securities and Investments Board).





Despite better performances in the Education and Training domain, women remain significantly disadvantaged in the labour market, both in quantitative and qualitative indicators. In the Work domain, there are six indicators where the gap favouring men is particularly marked. Firstly, the female employment rate is significantly lower (56.5%; 76%), while both the rate of labour market non-participation (18%; 12.3%) and the incidence of involuntary part-time work (15.6%; 5.1%) are higher among women. Indicators related to job quality also indicate better conditions for men: fewer men report job insecurity (3.7%; 4.7% for women), and the rate of overqualified workers is lower for men (25.4%; 29.4% for women). However, due to the characteristics of the male occupational structure, men have a higher rate of fatal work accidents and permanent disabilities (13.6%; 5.3%).

The difficulties in entering the labour market also expose women to a higher risk of living in poor households, affecting 20% of women compared to 17.8% of men, or living in conditions of severe material deprivation (5%; 4.5%).

Finally, among other indicators showing a greater distance between men and women, some in the Safety domain stand out: men are more frequently victims of robberies (2.3 compared to 0.6 per 1,000 inhabitants) and homicides (0.7 compared to 0.4 per 100,000 inhabitants). Conversely, women more often perceive insecurity when walking alone in the dark: while nearly three-quarters of men feel safe walking alone in the dark in their neighbourhoods (72.4%), only just over half of women do (52.1%).

#### 3. Educational Inequalities and Intersectional Inequalities

The level of education has a significant impact on individuals' well-being across its many dimensions, including lifestyle, social relationships, political participation, economic conditions, consumption, health status, cultural engagement, participation in the labour market, and work-life balance.

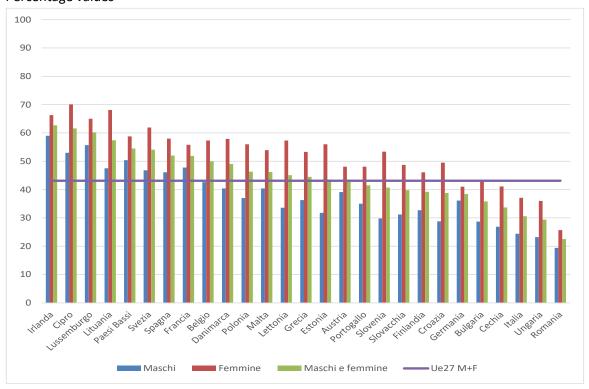
Since the 1960s, participation in the school system has gradually increased, with a growing share of generations obtaining a high school diploma. Transitioning to university, especially obtaining a tertiary qualification, has proven more challenging, still heavily influenced by individual factors, previous academic performance (previous qualifications, grades), living context, and family characteristics. However, compared to the European context, Italy lags in education, particularly regarding the proportion of graduates. Overall, in 2023, 21.6% of the population aged 25-64 held a tertiary qualification (only above Romania and far from the EU27 average of 35.1%), while 44% had a high school diploma (equal to the EU27) and 34% had only completed lower secondary education (compared to 20% in the EU27).

Also, for younger generations, the proportion of those aged 25-34 with a tertiary qualification in Italy is low (30.6% compared to 43.1% in the EU27 and only higher than Hungary and Romania); the differences between men and women are significant, with one in three young women holding a tertiary qualification compared to one in four young men.





Figure 5. Graduates and other tertiary degrees (25-34 years) in EU27 countries by gender. Year 2023. Percentage values



Source: Eurostat

Note: For the interactive version of the figure, please consult the web version of the publication (in Italian).

The analysis presented here examines a subset of 29 well-being indicators<sup>10</sup> for individuals aged 25 and older, disaggregated by the highest level of education attained, divided into three broad categories: "Low," referring to education up to lower secondary school diploma (or middle school diploma, ISCED<sup>11</sup> 0, 1, 2); "Medium," referring to having a high school diploma (ISCED 3, 4); and "High," encompassing any tertiary qualification (ISCED 5, 6, 7, 8).

To measure inequalities in education, similar to the approach taken for gender, the ratio of the value that each indicator assumes at the three education levels (low, medium, high) is calculated against the value it holds for the total population aged 25 and older. This results in indicators positioned in the upper part of the figure denoting an advantage in well-being compared to the average data for the country, while those in the lower part indicate a disadvantage.

The analysis of inequalities by education level is further enriched by examining additional dimensions such as territory (North, Centre, South and Islands) and gender or age (25-34, 35-54, 55 and older), with the aim of highlighting how these dimensions of inequality intersect with one another.

Most indicators present a strong gradient based on educational attainment, underscoring the increasingly positive association with measures of well-being as education level rises (Figure 6). There are, however, three indicators out of 29 that indicate a deterioration in well-being as education level increases (right-hand side of the figure). These are subjective perception indicators, including the presence of signs of decay in one's living area, satisfaction with public transport services, and dissatisfaction with the landscape of one's living

<sup>&</sup>lt;sup>10</sup> The selection of indicators aims to identify a subset of these to cover all domains and to allow disaggregation not only by educational level but also by other dimensions of interest (gender, geographical breakdown and age group).

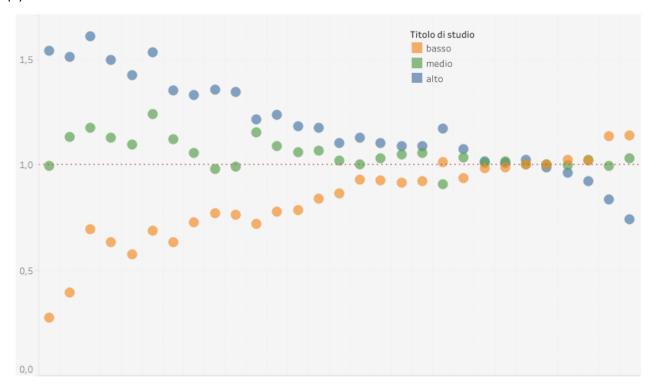
<sup>&</sup>lt;sup>11</sup> https://uis.unesco.org/en/topic/international-standard-classification-education-isced





environment. It is evident that these reflect a mismatch between reality and expectations, which particularly disappoints individuals with higher levels of education.

Figure 6. Well-being indicators by educational qualification for the population aged 25 and over. Year 2023. Ratio of population with high, medium, low educational qualifications to total population aged 25 and over (a) (b)



Source: Istat, Bes Indicators

(a) Ratio adjusted to vary between 0 and 2 being symmetrical with respect to value 1.

(b) The index takes into account the polarity of the indicators and thus values greater than 1 indicate a well-being advantage. Note: For the interactive version of the figure, please consult the <u>web version of the publication</u> (in Italian).

For some subjective indicators, there are no significant differences according to the level of education, all being around the equilibrium point, i.e. the national average. These are indicators of satisfaction with the environment and leisure, trust in the police, fire brigade and Italian parliament, and mental health.

For the other indicators, the disparities by level of education are more pronounced and tend to be very large. In general, there is a contrast between those with upper secondary or tertiary education, who are in an advantaged situation, and those with low education; in some cases, average levels of education are close to the equilibrium line because they are close to national averages.

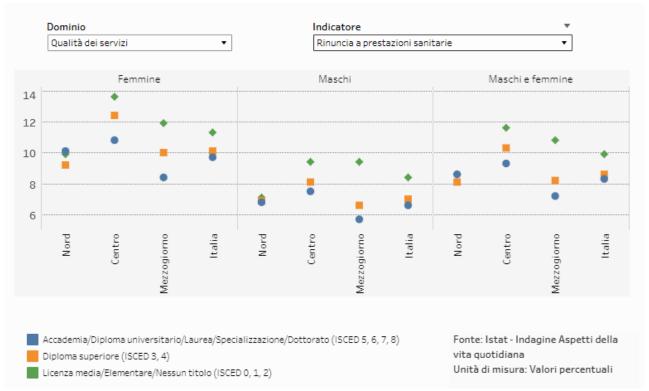
Among the indicators in the middle part of Figure 6 that show clear, albeit small, differences are concern about climate change and the landscape deterioration, unmet need for health services, perceived safety when walking alone in the dark and satisfaction with one's own life.

9.9% of people with low educational attainment forgoes a health service that they would have needed, while the figure is just over 8% for people with medium educational attainment. Looking at the territorial and gender differences together, it can be seen that in the central regions the indicator increases, especially for women with a low level of education, who in 13.6% of cases experienced an unmet need for a medical examination, while in the South and Islands it reaches a minimum among men with a high level of education, who in 5.7% of cases had to give up a visit or an examination that they would have needed. In the North, there are no differences according to educational level, with a lower than average percentage of unmet need for medical examinations (8.4% compared to 9.1% for Italy as a whole).





Figure 7. Well-being indicators by gender, geographical breakdown and educational qualification for the population aged 25 and over. Year 2023 (a)



Source: Istat, Bes Indicators

(a) For greater usability of the Figure see the dashboard.

Concern for climate change and greenhouse effect affects, on average, 7 out of 10 people, but this concern is lower among those with low education (66.3%) compared to those with high or medium education (76.2% and 73.2%, respectively). Women with high education in the North and Centre are particularly concerned (78%), while those with low education in the South and Islands show less concern (63%, regardless of gender).

On the left-hand side of Figure 6, the gap between low education on one side and high or medium education on the other tends to widen, affecting indicators related to labour market and economic conditions, cultural participation, life-long learning, as well as health and social relationships.

The widest gap by educational attainment among the indicators considered pertains to life-long learning (11.6% on average), which benefits those with high educational attainment (25.2%), much less those with low educational attainment (3.2%), despite a greater need for training among this population group. Gender differences are, in fact, negligible, while regional disparities are significant, indicating a lower prevalence of life-long learning in the South and Islands (8.7%) compared to the North and Centre (around 13%).

Another indicator with significant inequalities based on educational attainment is cultural participation, which, on average, concerns 31.7% of individuals; however, among tertiary graduates, it is more than double (64.6%), 36.5% among high school graduates, and only 12.5% among those with at most a secondary school diploma. Moreover, cultural participation outside the home peaks at 71.5% among women graduates in the North but drops to 8.7% among women in the South and Islands with at most a lower secondary school diploma.

Education is one of the primary protective factors against economic difficulties. In the domain of Economic well-being, the risk of poverty affects, on average, 17.7% of individuals aged 25 and older, but for tertiary graduates this risk is more than halved (6.9%), while for those with at most a secondary school diploma, it rises to over

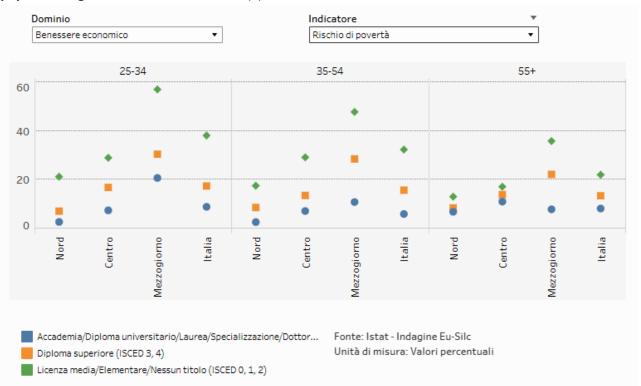




25%. Economic hardship is also highly differentiated by territory, as in the North the risk is below 10% (3.6% if university graduates), while in the South and Islands it rises to 30.8% (40.7% if with low education). Considering gender differences, the most disadvantaged group consists of women with low education residing in the South and Islands, among whom the risk of poverty reaches 42.7%.

Analysing age groups, it emerges that, despite minor differences in the risk of poverty among young individuals aged 25-34 (18.6%), adults (18.2%), and those over 55 (17.1%), a low level of education penalises younger generations more than others (37.8% compared to 32.0% and 21.7%, respectively). The differences by age are less pronounced when educational attainment is high (around 8% among the elderly and young, 5% in the middle age group). Consequently, there is a wider gap in education within the 25-34 age group. Moreover, regional differences compound the disparities related to education, even when considering age groups, with a higher risk of poverty in the South and Islands, which rises to 56.7% among young adults with low educational attainment.

Figure 8. Well-being indicators by age group, geographical breakdown and educational qualification for the population aged 25 and over. Year 2023 (a)



Source: Istat, Bes Indicators

(a) For greater usability of the Figure see the dashboard.

Within the labour market<sup>12</sup>, human capital plays an extremely positive role: possessing a higher level of education not only increases participation but is also a decisive factor in enhancing employment chances, especially for women, even in more disadvantaged contexts. The employment rate for university graduates (84.3%) and high school diploma holders (73.4%) is well above the average value for Italy (69.1%), while for those with low education, it drops to 54.2%. Furthermore, even in the South and Islands, being a graduate (82.5% compared to 59% of men with low education) and particularly being a female graduate (71.8% compared to just 21.8% of less educated women) provides a significant advantage regarding employment outcomes and reduces the gap with employed individuals of equal education in other regions of the country.

<sup>&</sup>lt;sup>12</sup> https://www.istat.it/it/files/2023/10/Report-livelli-di-istruzione-e-ritorni-occupazionali.pdf (in Italian)





Investment in human capital also positively affects some health indicators. The avoidable mortality rate varies significantly by education level, standing at 39.6 deaths per 10,000 residents in the population with very low education (elementary school diploma or less)<sup>13</sup>, while it decreases to 20.3 in the population with the highest education level (university degree or higher). Among lifestyle factors, the indicator for physical inactivity shows significant heterogeneity by education level, favouring those with higher education: only 17.9% of those with a high educational attainment are sedentary, followed by 29.1% of those with medium education, and it exceeds half among the less educated (55.6%). There is a pronounced territorial gradient, highlighting the significant disadvantage of the South and Islands, where, furthermore, gender disparities compound those related to education and territory.

The education gap also translates into a significant digital divide<sup>14</sup> in terms of users who regularly access the internet. Those with low education are particularly disadvantaged, especially if they are older (aged between 55 and 74 years). Regular internet use is widely prevalent among those with a high level of education (94.4%) and also among high school graduates (87.6%), but remains limited to just over half of those with low education (53.3%). The disadvantage is especially pronounced among those aged 55 and older with low education, particularly if residing in the South and Islands (33.6%).

25.8% of the population aged 25 and older believes that their situation will improve over the next five years; this proportion rises to 39.8% among tertiary graduates and is only 16.3% among those with low level of education. The education gap is slightly more pronounced among women, with a difference of over 25 percentage points between female graduates and less educated women, while the difference is about 21 percentage points among men. The latter report higher levels of optimism regarding their future situation, especially in the North, both among graduates (44.4% compared to 39.8% of female graduates) and among those with at most a middle school diploma (21.8% compared to 14.1% of women with the same education level).

The joint analysis of the factors defining the main differences between population groups also highlights the relative weight that each factor can assume. In the domain of Work and life balance, for example, the indicator regarding the percentage of involuntary part-time workers not only denotes a strong disadvantage for women but also shows a significant effect of education among them. Among men, however, the phenomenon is not only much less pronounced but also shows little differentiation by educational level. In summary, for this indicator, there is a strong gender difference, while the education level is only relevant for women.

Another area where the weight of differences in education is very relevant but only for one gender is the satisfaction with friendships, in the Social Relationships domain. The differences in education are particularly wide among women regarding satisfaction with friendships, with the percentage of very satisfied individuals exceeding 27.5% in the North and the Centre, while among women with a lower educational attainment, it stands at 18.9% and 15.9%, respectively. The South and Islands are worthy of a separate discussion, where satisfaction levels are generally lower, partly due to the significant drop in satisfaction among women with low levels of education, while men and women with high levels of education are on an equal footing.

#### 4. Inequalities by Age: Focus on Young Adults

Based on the indicators selected for the analysis by educational attainment, a subset of 26 well-being indicators for individuals aged 25 and older has been examined by age group, disaggregated into three broad age classes:

<sup>&</sup>lt;sup>13</sup> Only for this indicator the educational qualification is classified into four categories instead of three, which is why it is not represented in Figure 6.

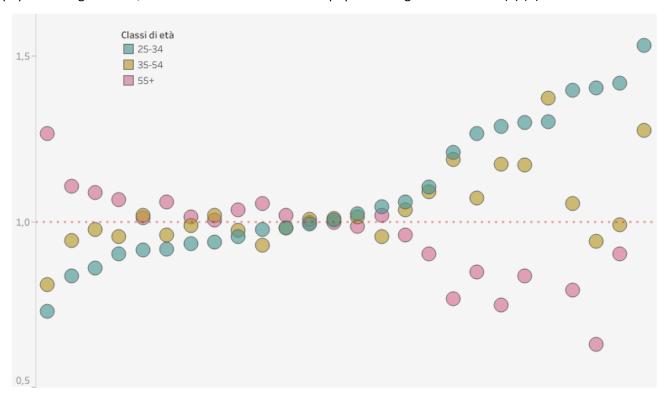
<sup>&</sup>lt;sup>14</sup> The digital divide refers to the inequality of access to, use of and skills in the use of digital technologies between different segments of the population. This inequality can be determined by factors such as income, age, level of education, geographical location (urban or rural) and the availability of technological infrastructure. The digital divide affects opportunities to participate in modern economic, social and cultural life and can exacerbate existing inequalities, hindering digital and social inclusion.





25-34 (young adults), 35-54 (adults), and 55 years and older (mature and elderly population). The indicators cover all domains. In order to be compared and to highlight age inequalities, the ratio between the value that each indicator assumes in the three age classes and the value it assumes in the total population aged 25 and older has been calculated. As a result, indicators that are positioned in the upper part of the figure denote an advantage in terms of well-being compared to the average figure (total population age 25 and over), while those in the lower part indicate a disadvantage.

Figure 9. Well-being indicators by age group for the population aged 25 and over. Year 2023. Ratio of population aged 25-34, 35-54 and 55 and over to total population aged 25 and over (a) (b)



Source: Istat, Bes Indicators

(a) Ratio adjusted to vary between 0 and 2 being symmetrical with respect to value 1.

(b) The index takes into account the polarity of the indicators and thus values greater than 1 indicate a well-being advantage. Note: For the interactive version of the figure, please consult the <u>web version of the publication</u> (in Italian).

The figure shows a strong age gradient for the indicators considered and allows us to identify the measures for which there is substantial parity between generations (there are 7), as they are close to the average value (value 1 in the figure). It also defines those for which the condition of young adults (aged 25-34) is significantly better (11 indicators with values greater than 1) and those for which, on the contrary, young adults experience worse well-being conditions (8 indicators with values less than 1).

In detail, younger individuals are naturally more optimistic about future prospects, with 55% reporting that their situation will improve in the next five years (this proportion is 11.1% among those aged 55 and older). The percentage of people who had to forgo necessary healthcare services increases with age: 5.3% among young adults aged 25-34, compared to 9.2% and 10.1% for adults and those over 55, respectively. Life-long learning in the four weeks preceding the interview is higher among young adults (19.4% compared to 7.3% among those aged 55 and older); moreover, cultural participation characterises more the young adults, with 44.5% attending cultural events outside the home, compared to 23.7% of older adults. Satisfaction with friendships is also





significantly higher among young adults, with 28.4% expressing being very or somewhat satisfied with their social circle (17.7% among those over 55).

The digital divide is evident, highlighting the gap between young adults and the older population regarding engagement with new technologies: the percentage of regular internet users reaches 93.9% among those aged 25-34, while it remains at 57% among older individuals. In terms of lifestyle, young adults are more active, with a lower rate of inactivity (26.8%), which rises to 45.8% among individuals aged 55 and older.

Conversely, on the left side of Figure 9, indicators reveal the disadvantages faced by younger generations compared to others. Among lifestyle factors, a clear risk factor is smoking, which affects 26.9% of young adults, a figure that is quite similar in the adult population (24.2%), compared to 14.4% among those over 55.

For young people, the place where they live presents challenges, leading to increased dissatisfaction. Dissatisfaction with the landscape of their living area rises to 23.4% among those aged 25-34, compared to less than one in four individuals aged 55 and older. Furthermore, young adults, who are more frequent users of public transport (as seen on the right side of the figure), also express lower satisfaction with public transport services: 21.4% rate their experience with these services positively, with a score of 8 out of 10 or higher, compared to 27.3% of individuals aged 55 and older.





### Glossary

Adjusted ratio: the ratio between the indicator value for a given category and the national average (e.g. high educational attainment / Italian average), taking into account the polarity of the indicator (if negative, the inverse ratio is used) and adjusting values greater than 1 (subtracting its inverse from the value 2). The adjustment is introduced to make the ratios symmetrical with respect to parity, so that if, for example, for one indicator with a positive polarity, the value in the category considered is twice that of Italy, while for another, also with a positive polarity, the value is half that of Italy, the two adjusted ratios will be in a symmetrical position with respect to the parity line (ratio=1) and can be correctly compared. By construction, after adjustment, the ratios are between 0 and 2.

**Highest level of education attained**: 'Low' is lower secondary education (ISCED 0,1,2); 'medium' is upper secondary education (ISCED 3,4); 'high' is any tertiary education (ISCED 5,6,7,8).

**ISCED**: The International Standard Classification of Education (ISCED) is UNESCO's international standard system for classifying programmes of study and related qualifications. The use of internationally agreed and consistent definitions makes it possible to compare the education systems of different countries.

**Polarity (of an indicator):** the direction of the relationship that exists between the value of the indicator and well-being: the polarity is positive if, as the value of the indicator increases, well-being increases; it is negative if, as the value of the indicator increases, well-being decreases

**Standardised difference (or standard deviation units)**: difference between the value of an indicator for a given region or autonomous province and the average value for Italy (both calculated in the most recent year available), expressed in standardised units.

**Standardised unit (or unit of standard deviation, u.d.s.):** unit of measurement compared to the standard deviation of regional values (excluding Trentino-Alto Adige/Südtirol, but including the two autonomous provinces of Bolzano/Bozen and Trento) for the last available year.





### **Methodological Annex**

#### 1. Standardised differences from the Italian average

To enable a homogeneous comparison of values assumed by different indicators across different regions, the differences in regional values from the Italian average were standardised by dividing them by the regional variability, measured in terms of standard deviation:

$$standdiff_{j,i} = \frac{x_{j,i} - ITA_j}{\sigma_i},$$

where  $x_{j,i}$  is the value for the indicator j (with  $1 \le j \le 112$ ) for region i and for the last available year (usually 2023),  $ITA_j$  is the Italian average for indicator j and  $\sigma_j = \sqrt{\frac{1}{\#Reg}\sum_{i \in Reg} \left(x_{j,i} - \mu_j\right)^2}$  is the standard deviation of the  $x_{j,i}$ 's with respect to  $\mu_j$ ,  $\mu_j$  being the average over i of the  $x_{j,i}$ 's. If indicator j is negatively polarized, the sign of the ratio is flipped. The region set Reg includes the Autonomous Provinces of Trento and Bolzano, but excludes the Trentino-Alto Adige region as a whole. The differences calculated in this way are expressed in standardised units, or standard deviation units (s.d.u.)

For the computation of standardised differences some conventions are applied:

- in the case of missing values for the Autonomous Provinces of Trento or Bolzano (e.g. Great difficulty in making ends meet, Illegal building rate), the data for the region of Trentino-Alto Adige (if available) are considered;
- in the case of missing values for some (but not all) regions (e.g. Severe housing deprivation, Coastal bathing waters) the standard deviation is computed solely based on the available regional data.

In addition, some indicators are excluded from the calculation, namely:

- all indicators that do not have a regional breakdown (e.g. Absolute poverty, Women in decision-making bodies);
- indicators for which no updates are currently available after 2021 (Sexual violence on women, Erosion of farmland from urban sprawl, Population at risk of flood);
- indicators that measure a change (Mobility of Italians with tertiary degree);
- indicators with absolute values that cannot be compared between regions because they depend on specific characteristics (demographic, climatic, etc.) of the region (e.g. Domestic material consumption, Consecutive dry days).

The method of standardized differences relative to a specific reference (e.g., national average, specific target, etc.) is a modified application of z-scores, already used in official statistics (see for example OECD 2022, Istat SDGs 2023, Istat BesT 2023).

The set of all standardised differences

$$\{standdiff_{j,i} \mid 1 \le j \le 112, \quad i \in Reg\}$$

comprises 2,346 values, almost all of which (99.3%) fall between -3 and 3, and approximately 95% fall between -2 and 2. Given the distribution of the differences, we can classify as anomalies, and deserving further analysis, those differences greater than 2 or less than -2

#### 2. Adjusted ratios

To measure disparities between men and women, the more and less educated, and young and old individuals, index numbers were calculated as the ratio of the indicator value for a specific category to the national average (e.g., females/Italian average). For negatively polarized indicators, the inverse ratio was calculated.





However, this method produces a measure that is not symmetric around 1 and has no upper limit, potentially leading to misinterpretations in graphical representations. To address this issue, when the ratio (considering the indicator's polarity) exceeds 1, it has been adjusted by subtracting the inverse ratio from 2. By construction, after this adjustment, ratios fall between 0 and 2. Moreover, a ratio and its inverse, after the adjustment, are symmetrically positioned relative to the equality line (ratio=1), allowing for accurate comparisons of different ratios.





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