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Classical determinants *versus* new dynamics: explaining happiness in Germany's post-COVID era¹

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Abstract

This article examines whether classical socio-economic determinants – GDP per capita, migration background, population density, and city rankings – still explain subjective well-being in Germany, the largest economy in Europe, and how alternative dynamics gained relevance after COVID-19. Using data from the *Glücksatlas* and regression analyses for the 40 largest cities, the study finds no significant effects of classical factors. Instead, resilience, social support, and institutional trust emerge as central influences. The results highlight the stabilizing role of Germany's welfare system and point to a broader shift in happiness research toward psychological and institutional dimensions.

Keywords: Europe, Germany, subjective well-being, happiness determinants, post-COVID dynamics, institutional trust.

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Klasyczne determinanty kontra nowe dynamiki: uwarunkowania szczęścia w Niemczech w erze post-COVID

Streszczenie

W artykule przeanalizowano, czy klasyczne uwarunkowania społeczno-ekonomiczne – takie jak PKB per capita, pochodzenie migracyjne, gęstość zaludnienia oraz rankingi miast – nadal wyjaśniają subiektywny dobrostan w Niemczech, największej gospodarce europejskiej, a także w jaki sposób alternatywne dynamiki zyskały na znaczeniu po pandemii COVID-19. Wykorzystując dane z *Glücksatlas* oraz analizy regresyjne obejmujące 40 największych miast, badanie nie wykazało istotnych efektów czynników klasycznych. Zamiast tego kluczowe okazują się odporność psychiczna, wsparcie społeczne i zaufanie do instytucji. Wyniki podkreślają stabilizującą rolę niemieckiego systemu opieki społecznej oraz wskazują na szersze przesunięcie w badaniach nad szczęściem w stronę wymiarów psychologicznych i instytucjonalnych.

Słowa kluczowe: Europa, Niemcy, subiektywny dobrostan, determinanty szczęścia, dynamika post-COVID, zaufanie do instytucji

1. Introduction

Over the past decades, studies on subjective well-being have multiplied, supported by large-scale survey programmes such as the *Glücksatlas* in Germany (Raffelhüschen et al. 2024a,b; 2025), the largest economy in Europe, and the *World Happiness Report* at the international level (Helliwell et al. 2022). These studies have generated global attention and informed policy debates on life satisfaction (Helliwell et al. 2022: p. 7–9).

Despite this situation, the extent, to which these global insights apply to Germany, remains unclear. While international studies have identified broad patterns, national dynamics remain less well understood. The motivation for this article stems from the lack of a clear understanding of factors, which drive life satisfaction in Germany. Especially since the COVID-19 pandemic, it is uncertain whether traditional determinants such as income or urbanisation still explain subjective well-being. International evidence suggests that new determinants, such as psychological resilience, social connectedness, and institutional trust, may now play a stronger role (Helliwell et al. 2021: p. 7–8; Bargain, Aminjonov 2020: p. 2–3). Migration also shapes well-being dynamics. Studies demonstrate both positive and negative effects for migrants and natives, highlighting integration challenges and income aspirations (Bartram 2011: p. 57–76; Hendriks, Burger 2021: p. 1–23). In Germany, with its significant migration history, these dynamics are particularly relevant when considering shifts in explanatory power.

This leads to the **central research question of this study**: to what extent do classical socio-economic factors still explain subjective happiness in Germany, and which alternative dynamics have gained relevance in the post-COVID era? The originality of this study lies in the systematic processing of international research findings in the field of happiness research and their applicability to German cities. City-based analyses remain scarce in the literature. In particular, systematic city-level evidence for Germany in the

post-COVID era remains scarce, leaving a significant gap in understanding how local socio-economic dynamics shape subjective well-being.

This article's aim is to provide empirical evidence on whether classical socio-economic determinants, such as GDP per capita, migration background, population density, and objective city rankings, explain differences in life satisfaction in Germany. In pursuit of this aim, the study applies correlations, regional comparisons, and regression models to test the explanatory power of these determinants for Germany's largest cities. In this context, it also evaluates factors that have gained relevance in connection with the COVID-19 pandemic and, by drawing on insights from Germany as an advanced European economy, establishes a link to broader European debates on the future of happiness research.

2. Theoretical framework and literature review

2.1. Classical determinants of happiness

Early findings in happiness research showed a correlation between individual perceptions of happiness and income. In 1974, Easterlin demonstrated that wealthy individuals within a society tend to exhibit higher levels of happiness. At the same time, his studies also showed that a long-term increase in national income has no positive effect on the average level of happiness in a society. These findings, which later became known as the Easterlin paradox, suggested that relative income and adaptive expectations may offset the positive effects of higher absolute wealth (Easterlin 1974: p. 89–100; 118–120).

In 2008, Stevenson and Wolfers challenged Easterlin's findings. While they agree that the relative level of wealth is important, they also point out that there is a correlation between GDP per capita and happiness levels and that there is no clear evidence of a satiation point, at which additional income would no longer generate higher levels of happiness. These theories are based on large-scale analyses of data from the Gallup World Poll and the World Values Survey. These data were not available at the time of Easterlin's research (Stevenson, Wolfers 2008: p. 3–7). The work of Stevenson and Wolfers suggests that, in the long term, income is a factor influencing the complex dynamics of individual well-being.

Migration is also considered as a factor influencing a country's level of happiness. Bartram argues that additional income trends arising from migration can lead to greater life satisfaction among the native population. At the same time, migrants demonstrate lower levels of life satisfaction despite similar income and health conditions, largely due to higher income aspirations (Bartram 2011: p. 57–76). Hendriks and Burger noted additional correlations between migration and the happiness factor. People who are dissatisfied in their home country have a significantly stronger tendency to migrate to another country. The happiness level of migrants rises in the first few years after migration, but then the increase in happiness levels flattens out. Happier countries are more often the destination of migration. The correlations between migration and a country's happiness level are highly context-dependent and complex in nature (Hendriks, Burger 2021: p. 1–23).

Other factors considered as key influences in traditional happiness research include urbanisation and population density. The effects on life satisfaction are mixed. High-density urban environments are associated with stress and lower life satisfaction. On the other hand, urban regions offer better job opportunities, better educational facilities, and greater social mobility. Glaeser, Kolko, and Saiz argue that cities promote economic prosperity and individual productivity (Glaeser et al. 2001: p. 27–31). In contrast, Okulicz-Kozaryn shows that the “objective standard of living,” which is usually higher in cities, is not necessarily linked to subjective satisfaction, highlighting the complex relationship between city structures and life satisfaction (Okulicz-Kozaryn 2013: p. 433–436). This underscores the limitations of examining life satisfaction in the context of urbanisation and population density. Classical determinants like income, GDP, migration, and urbanisation create the theoretical basis for assessing whether such indicators still matter for happiness in the post-COVID era.

2.2. Critiques and limitations of classical approaches

Traditional influencing factors such as income, population density, or quantified quality of life (measured by an index) often fail to explain differences in life satisfaction between unequal cities. One reason for this lies in the difference between an objective assessment of an individual's living conditions and their emotional well-being. While higher incomes seem to correlate with a better life situation, emotional well-being appears to stagnate at a certain point. In highly developed countries, and even in highly developed cities such as those in Germany, income is a limited explanatory factor (Kahneman, Deaton 2010: p. 16489–16493; Deaton 2008: p. 53–72). The effect of diminishing marginal utility of income appears to be particularly strong in self-perceived happiness (Jebb et al. 2018: p. 33–38).

Studies conducted in the USA have demonstrated that in years with low-income inequality, the population was happier on average than in years with high inequality. One reason for this is that people perceive society as less fair when inequality is high. Another reason is that in times of greater inequality, trust in the system and its structures is lower. Losses in happiness could not be explained by declining household incomes. The dynamics correlated solely with perceived fairness and trust (Oishi et al. 2011: p. 1095–1098).

A common criticism of happiness evaluation is related to the fact that an individual's happiness depends on factors that often cannot be easily reflected in an economic indicator. One of the most important factors is housing and living conditions. The affordability of housing and real estate, and the living conditions associated with a high standard of living, are important factors in individual happiness. Especially in metropolitan areas, this has a strong influence on quality of life and is not directly reflected in traditional economic indicators such as GDP per capita or population density. Such influencing factors help to understand why classic economic indicators and factors such as those described in section 2.1 hardly account for happiness dynamics (Florida et al. 2013: p. 618–621).

2.3. New explanatory approaches in the post-COVID period

Since the COVID-19 pandemic, the landscape of happiness research has evolved. While traditional factors like income and education remain relevant, the range of influenc-

ing factors has expanded since the pandemic. As a result, factors that once received little or no attention are now central to research. Topics such as mental health and resilience, social connectedness, and trust in institutions have become key elements in determining happiness levels (Helliwell et al. 2021: p. 7–8).

Mental health and social connectedness have played a key role since the restrictions during the COVID-19 pandemic. An urban environment can either support or hinder these aspects. In urban regions, there are more opportunities for social interaction, but stress and isolation also occur more frequently. In particular, in post-pandemic years, there has been a growing awareness that mental health can better explain correlations in life satisfaction than income-based indicators alone (Layard et al. 2014: p. F726–F728). Since social dynamics have changed fundamentally in a short period of time due to lockdowns and social distancing, the increase in anxiety, loneliness, and depression can be easily measured, and the effects on one's own happiness factor can be easily assessed. In line with this, it was also found that people with strong social connections and greater psychological resilience demonstrated significantly more stable life satisfaction (Kämpfen et al. 2020: p. 1).

Another influencing factor that has gained importance since the COVID-19 pandemic is institutional trust. The pandemic has shown that trust in governments, health organisations, and political decision-making processes has a direct impact on subjective well-being. Countries with a higher level of trust in government institutions experienced a smaller decline in happiness levels (Bargain, Aminjonov 2020: p. 2–4; Devine et al. 2021: p. 274–276; Helliwell et al. 2021: p. 13–15). Trust in institutions has a similar dynamic to relative income. It is a matter of social comparison and the feeling of inequality that can affect a society's happiness factor (Easterlin 1974: p. 89–92; Oishi et al. 2011: p. 1095–1097; Stevenson, Wolfers 2008: p. 1–5).

International studies support the validity of these statements. The World Happiness Report 2021 states that increased mortality rates and the decline in GDP are only partly responsible for the negative development within happiness indexes. More significant were levels of trust and the strength of social safety nets (Helliwell et al. 2021: p. 7–15). The OECD came to similar conclusions in 2020, stating that health, social relationships, and civic engagement have gained in importance (OECD 2020: p. 18–22).

Studies conducted in next year demonstrated that happiness levels in countries with strong institutional trust and resilient communities returned to normal more quickly after initial declines than in countries where this was absent (Helliwell et al. 2021: p. 13–15). This indicates that research in the post-COVID era should incorporate social capital, psychological well-being, and governmental competence into its models for subjective happiness research.

3. Methodology and data

To adequately address the research question, the empirical strategy follows a step-by-step approach. First, bivariate analyses are conducted to identify simple correlations

between traditional socioeconomic indicators (GDP per capita, migration share, population density, and the objective city ranking) and subjective well-being scores. In the second step, regional differences are examined using an ANOVA to test whether the four regions, northern, eastern, southern, and western Germany, account for systematic variation. In the final step, multivariate regression models are estimated to assess whether the level of happiness can be explained by the classical indicators.

The analyses in this article are based on data from the *Glücksatlas*, which is one of the most recognised surveys in the field of happiness research in Germany. The survey was launched by Deutsche Post and is supervised by economists and social scientists at the University of Freiburg. It focuses in particular on regional differences, looking at federal states and the 40 largest cities in the country. The life satisfaction of respondents is recorded on a 10-point scale. In addition to assessing their life satisfaction, respondents also provide further socio-economic and structural information such as income level, health, employment, and demographic characteristics. The survey design allows a closer focus on regional happiness levels (Raffelhüschen et al. 2024b: p. 2–7).

All statistical analyses were conducted using R (version 4.5.1; R Core Team 2025). The software was used to calculate the bivariate correlations, perform the ANOVA for regional differences, and for the multivariate regression models.

To compare which factors are responsible for the level of happiness in Germany, this study analyses the 40 largest German cities, which together comprise the majority of the country's urban population. By focusing on the largest cities, the analysis can rely on representative and reliable information on GDP per capita, migration shares, population density, and objective city rankings. Consequently, the 40 largest cities in Germany constitute a scientifically solid basis for examining the determinants of happiness in an urban context. The *Glücksatlas* provides directly comparable annual information, which enables robust statistical analyses of GDP per capita, migration shares, population density, and the objective city ranking. It also analyses whether there are regional differences between the levels of happiness in northern, eastern, southern, and western Germany. In order to be able to analyse a correlation with a multivariable set of indicators, the happiness levels of the cities are compared with the "objective city ranking" provided by the *Glücksatlas*. The "objective city ranking" is a combination of 45 (the number may vary depending on the year) individual variables. The dimensions considered here include housing, infrastructure, healthcare, education, family, security, and environmental quality. The variables are quantified, aggregated into a single index, and then presented in a ranking of the 40 largest German cities (Raffelhüschen et al. 2024b: p. 5). This aggregation of multidimensional variables into a single indicator enables a systematic comparison of the quality of life between German cities. Together, the analysis and comparison between classical determinants of happiness and the relationship between "objective city rankings" and self-perceived happiness constitute the quantitative analysis presented in this article. The results are presented in Chapter 4.

4. Results of the quantitative analysis

This section presents the empirical results of the quantitative analyses. The findings are structured step by step, beginning with bivariate correlations of classical socio-economic determinants, followed by regional comparisons and multivariate regression models.

Table 1: Results for classical determinants of happiness (bivariate analyses).

| Variable ² | Method/ Test procedure | Correlation coefficient / Result | Interpretation / Reason for non-significance |
|--|-------------------------------------|---|--|
| GDP per capita ³ | Linear regression | $\beta = 1.27\text{e-}06$ $p = 0.614$ $R^2 = 0.007$ | No significant correlation; economic output does not predict subjective happiness |
| Share of population with a migration background ⁴ | Pearson correlation ⁵ | $r = -0.082$ $p = 0.621$ $r^2 = 0.007$ | No significant linear correlation between migration share and happiness index across cities. |
| Objective city ranking (based on 45 indicators) ⁶ | Spearman correlation | $\rho = 0.13$ $p = 0.408$ | No significant association between the objective quality of life and happiness score |
| Population density ⁷ | Pearson correlation | $r = -0.12$ $p = 0.469$ | No significant association between urban density and subjective happiness |

Source: the authors' own calculations.

Various methods were used to evaluate the impact of classic influencing factors and objective city rankings on the happiness levels of the population in German cities. The influence of GDP per capita was evaluated using a linear regression model. The results demonstrated no significant effects on the level of self-perceived happiness ($\beta = 1.27\text{e-}06$, $p = 0.614$, $R^2 = 0.007$). This suggests that the economic strength of a city has no direct influence on the happiness levels of its population. An analysis was also conducted to determine whether the number of people with a migrant background influences the level of happiness. This was analysed using a Pearson correlation. However, no significant linear relationship was found here either ($r = -0.082$, $p = 0.621$, $R^2 = 0.007$). The objective city ranking based on 45 influencing factors was examined using the Spearman correlation. Again, no significant correlation was found ($\rho = 0.13$, $p = 0.408$). Whether population density influences the level of happiness was also evaluated using a Pearson correlation. Again, no correlation could be established ($r = -0.12$, $p = 0.469$). In summary, it was found

² Source: Happiness Index Glücksatlas (see: Raffelhüschen et al. 2024b).

³ Source: Gemeinsames Statistikportal 2025.

⁴ Due to the absence of current data on the proportion of migrants in Chemnitz, the city was not included in the analysis.

⁵ For Pearson correlations, r^2 indicates the proportion of variance explained by the linear association

⁶ Source: Raffelhüschen et al. 2024b.

⁷ Source: DeStatis, Statistisches Bundesamt 2025.

that none of the variables tested had explanatory power. To control for potential regional dynamics that might overshadow the influencing factors, the 40 cities are divided into four regions: north, east, south, and west⁸ then reviewed again in relation to their regionality. The first step is to check whether there is a general correlation between happiness and the region, in which the city is located. The results are presented in *Table 2*.

Table 2: Results for regional differences in happiness (one-way ANOVA)

| Variable | Method/Test procedure | Correlation coefficient / Result | Interpretation / Reason for non-significance |
|--|-----------------------|-----------------------------------|---|
| Happiness Score by Region (North, East, South, West) | One-Way ANOVA | $F(3, 36) = 0.754$ $p = 0.527$ | No significant difference in happiness across the four German regions |

Source: the authors' own calculations.

A comparison between the regions was made using a one-way ANOVA. The results demonstrated no significant differences between the four regions ($F(3, 36) = 0.754$, $p = 0.527$). It can therefore be concluded that a city's happiness factor does not depend on the region. Using multivariable analyses, the influencing factors from *Table 1* are examined in *Table 3(a,b)* below in relation to the region to determine their influence on the happiness factor in Germany.

Table 3a: Results for classical determinants and regional affiliation (multiple regression).

| Variable | Method/Test procedure | Correlation coefficient / Result | Interpretation / Reason for non-significance |
|--|----------------------------|--|--|
| GDP per capita | Multiple Linear Regression | $F(4, 35) = 0.57$ $p = 0.684$ R^2 (Multiple) = 0.061 R^2 (Adjusted) = -0.046 | Not significant. Neither GDP nor Region significantly explains variation in happiness levels. |
| Share of population with a migration background ⁹ | Multiple Linear Regression | $F(4, 34) = 1.227$ $p = 0.318$ R^2 (Multiple) = 0.126 R^2 (Adjusted) = -0.023 | Not significant. Neither the share of the population with a migration background nor regional affiliation significantly explains happiness differences |

⁸ For the regional analysis, the 40 largest cities are grouped:
North (6 Cities): Bremen, Hamburg, Lower Saxony, Schleswig-Holstein;
East (8 Cities): Berlin, Brandenburg, Mecklenburg-Western Pomerania, Saxony, Saxony-Anhalt, Thuringia;
South (7 Cities): Baden-Württemberg, Bavaria;
West (19 Cities): Hesse, North Rhine-Westphalia, Rhineland-Palatinate, Saarland.

⁹ Detailed regression calculation on the share of the population with a migration background in *Table 3b*. Due to the absence of current data on the proportion of migrants in Chemnitz, the city was not included in the analysis.

| | | | |
|--|----------------------------------|---|--|
| Objective city ranking (based on 45 indicators) | Multiple Linear Regression | $F(4, 35) = 0.88$ $p = 0.484$ R^2 (Multiple) = 0.092 R^2 (Adjusted) = -0.012 | Not significant. Neither the objective city ranking nor regional affiliation significantly predicts happiness. |
| Population density | Multiple Linear Regression | $F(4, 35) = 0.76$ $p = 0.556$ R^2 (Multiple) = 0.080 R^2 (Adjusted) = -0.025 | Not significant. Neither population density nor regional affiliation significantly predicts differences in happiness levels. |

Source: the authors' own calculations.

Table 3b (appendix): Detailed results of the multiple linear regression on the share of the population with a migration background.

| Predictor | β (Estimate) | SE | t-value | p-value |
|---------------|--------------------|---------|---------|---------|
| (Intercept) | 7.023 | 0.172 | 40.803 | < 0.001 |
| Migration (%) | -0.00834 | 0.00582 | -1.433 | 0.161 |
| Region: North | 0.221 | 0.179 | 1.238 | 0.224 |
| Region: South | 0.286 | 0.202 | 1.414 | 0.167 |
| Region: West | 0.322 | 0.151 | 2.132 | 0.040 |

Source: the authors' own calculations.

In order to analyse the influencing factors that we had already examined in *Table 1*, together with the region, we set up a multivariable regression model for all four influencing factors in *Table 1*. This allowed us to analyse per capita GDP in relation to the four regions, into which the cities were divided. Here, too, the analysis demonstrated no significant influence on the level of happiness ($F(4, 35) = 0.57$, $p = 0.684$, $R^2 = 0.061$, adjusted $R^2 = -0.046$). This reinforces the finding that the economic power of a city does not significantly influence the level of happiness of its inhabitants. The analysis of the happiness factor based on the proportion of the population with a migration background and the region also showed no correlations ($F(4, 34) = 1.227$, $p = 0.318$, $R^2 = 0.126$, adjusted $R^2 = -0.023$). The same was true for the objective city ranking ($F(4, 35) = 0.88$, $p = 0.484$, $R^2 = 0.092$, adjusted $R^2 = -0.012$) and population density ($F(4, 35) = 0.76$, $p = 0.556$, $R^2 = 0.080$, adjusted $R^2 = -0.025$), no significant correlations with self-perceived happiness could be identified.

The results of the quantitative analysis demonstrate that many of the classic socio-economic factors have no measurable influence on the well-being of the German population when comparing within Germany. Neither GDP per capita, the proportion of the population with a migration background, the objective city ranking, nor population density had a significant influence on the happiness level of the inhabitants of the largest cities in Germany. Neither bivariate correlations, regression models, nor multivariable approaches, including regionality, were able to identify any significant influences. Taken

together, the results indicate that traditional indicators of happiness research provide little explanatory power for differences in well-being among Germans.

5. Discussion

5.1. Explaining the null results

The results of the quantitative analyses reveal that classic factors influencing happiness (such as GDP per capita, the share of migrants in the population, population density, and the objective city ranking) are insufficient to explain the happiness levels of the German population. None of these factors had a significant influence on the well-being of the inhabitants of the 40 largest German cities. This null result is highly relevant, as it suggests that historically identified factors influencing happiness in industrialised nations are not of central importance, at least in an urban context.

One reason for this dynamic seems to be the relatively homogeneous baseline standard of living in Germany. Infrastructure, economic conditions, and social systems are at a relatively high level everywhere in urban areas in Germany. Looking at the raw data of the analysed indicators, a certain variance between cities can be seen, whereas in other countries, the differences between cities seem even more pronounced. More importantly, the base level that all cities can provide is relatively high. This suggests that social capital, cultural values, and personality traits become the central influencing factors on happiness levels once a basic standard of living is secured (Moro-Egido et al. 2022: p. 2010–2014).

Beyond this structural homogeneity across German cities, a second explanation for the null results lies in the one-dimensionality of the traditional variables themselves. Indicators such as migration share or population density capture structural dimensions, but overlook qualitative aspects like integration, neighborhood cohesion, or public space quality, which are more relevant for subjective well-being. The same can be said about the influencing factor of population density. Although this indicator represents an important structural dimension of urban life, it cannot represent the wide range of quality characteristics that make up the cityscape. Cities with comparable population densities can generate different levels of life satisfaction through influencing factors such as quality of public spaces, mobility options, environmental conditions, or neighborhood networks (Okulicz-Kozaryn 2013: p. 433–436). A recent academic paper also shows that GDP alone appears insufficient and may need to be complemented by broader indicator frameworks that include psychological, institutional, and ecological dimensions (Agrawal et al. 2025: p. 69–74).

The lack of correlation between the objective city ranking and life satisfaction is particularly interesting. While the analysis of other influencing factors may be criticised as too one-dimensional to capture complex dynamics, this indicator – with its 45 variables covering a wide range of dimensions of urban quality – appears particularly well suited to explaining population's life satisfaction. The absence of these correlations supports newer scientific approaches, according to which social resources, cultural values, and

forms of social capital have the most central influence on an individual's well-being in the long term (Moro-Egido et al. 2022: p. 2015–2018).

The results of the analyses of German cities suggest that traditional influencing factors are losing their ability to explain happiness dynamics. However, the zero result should not be understood as an absence of determinants overall, but rather as an indicator that the well-being of the population is based more strongly on psychological, socio-structural, and institutional factors. This trend was particularly accelerated by the COVID-19 pandemic.

5.2. New dynamics in the post-COVID era

The COVID-19 pandemic has had various effects on the German population's subjective perception of happiness. Both short- and long-term dynamics must be considered and distinguished to gain insights. Particularly concerning the long-term consequences of the pandemic on the factors influencing happiness levels, research is still in its early stages due to the relatively short period of time since the outbreak of the pandemic (Moro-Egido et al. 2022: p. 2010–2014).

The first studies examining the impact of the COVID-19 pandemic on Germans' levels of happiness were conducted between 2020 and 2021 and were based on data from the German Socio-Economic Panel (SOEP). The population's life satisfaction demonstrated surprising resilience to the pandemic and the restrictions that came with it. The population's happiness levels showed only a slight decline. There were even cases where a slight increase was recorded, which could be explained by vaccination rates, regional infection levels, and the stringency of interventions. This once again highlights the importance of proportionality. Although the situation has objectively deteriorated, the perception of being better off than other regions has had a positive effect on people's sense of happiness. It was also striking that in cases of stricter interventions, life satisfaction declined only very marginally (Finne et al. 2025: p. 4–8). This dynamic indicates that the mental framework that is built up in the population is more crucial for well-being than material possessions or even living conditions.

However, other studies came to different conclusions regarding the level of happiness among the population and found a temporally bounded decline in happiness levels. Among the working population, a significant decline in satisfaction levels with regard to financial situations was observed. Additional stress at work and financial uncertainty were also noted. However, these effects were short-lived, and self-perceived happiness levels soon recovered (Schmidtke et al. 2021: p. 1–3). A national panel study conducted at a later date, covering the years 2019 to 2023, came to similar conclusions. Life satisfaction among employees and self-employed individuals declined at the beginning of the pandemic, but recovered quickly. However, this study points out that happiness levels have not yet returned to pre-pandemic levels (Peters et al. 2025: p. 2–7). These results do not seem to contradict the general trend that financial situation is not a decisive factor in subjective well-being. Although a short-term dip in happiness levels is to be expected when financial pressure arises, these levels recover quickly. This indicates that the de-

cline in self-perceived happiness is driven more by psychological stress than by actual financial losses, thereby lending further support to the argument that monetary factors are not the decisive drivers of subjective well-being.

Another interesting dynamic can be observed in the area of religious institutions. The level of self-perceived happiness among religious people is higher than among non-religious people. Although the difference is not large, it can be measured very consistently. During the early stages of the COVID-19 pandemic, the level of happiness among people who regularly attend religious institutions was higher than among those who do not. The happiness levels of religious people have equaled those who do not attend church institutions. This decline in subjective well-being can be attributed primarily to the reduction in social interactions, particularly in religious institutions that were temporarily closed. Religious organisations often have institutional as well as informal interpersonal support networks, which have been severely restricted during this period (Steinmann et al. 2024: p. 1–5). The fact that attendees of religious institutions exhibit higher levels of life satisfaction, which converge with those of non-churchgoers when they lose the opportunity to attend services, strongly suggests that interpersonal relationships are one of the most important factors influencing happiness.

Another study demonstrated that the absence of a basic level of social support is a significant predictor of a decline in happiness levels. The research also showed that the presence of a basic amount of social support systems was a good predictor of the life satisfaction of the respondents 14 months later (Mao et al. 2024: p. 2–3). This publication demonstrates that social support systems are important for life satisfaction. The influence of social support systems also shows parallels to monetary factors. When insufficient, it leads to a decline in self-perceived happiness. However, at a certain point, additional amounts no longer seem to have a strong influence on people's life satisfaction.

In general, the pandemic period seems to have contributed to a shift in the key factors influencing the population's level of happiness. Traditional socioeconomic indicators such as income, employment status, or urban structure appear to be less relevant in stressful situations, such as during the pandemic. Subjective happiness was more closely associated with psychological resilience, trust in public institutions, and the availability of support networks. The COVID-19 pandemic can therefore be seen as a type of stress test that demonstrated that happiness factors in industrialised nations are less dependent on marginal differences in the availability of material goods and more on non-material factors that can often be classified as interpersonal (Helliwell et al. 2022: p. 41–46).

Summarizing the findings of the various studies, the impression arises that the COVID-19 pandemic had a certain negative impact on the level of life satisfaction among the German population, but this impact was less than many had expected. Among other things, adaptive mechanisms, social support, and institutional trust were responsible for the lower-than-expected negative impact. The pandemic highlights the importance of these social dynamics. The findings indicate that traditional socioeconomic factors do not play the central role in today's German society that their significance in traditional happiness research suggests.

5.3. Paradoxical development, higher happiness despite pessimistic future expectations

Since the decline during the COVID-19 pandemic, happiness in Germany has recovered steadily year by year. This contrasts with the relatively low level of optimism about the future. While subjective well-being suggests that the inhabitants of Germany have an increasing level of satisfaction with their current living conditions, surveys demonstrate that the German population's expectations for the future are rather pessimistic. This tension between the current happiness factor and future perspectives, which are expected to be rather negative, needs to be examined more closely. Insights from this dynamic can help to develop an understanding of the German population's subjective perception of life satisfaction in the post-COVID era.

The following table presents the life satisfaction of the German population, as measured by the *Glücksatlas*, compared with the proportion of the population that looks forward to the next 12 months with hope and optimism. The *Glücksatlas* is contrasted with the Allensbach survey, which is the most important German survey on the topic of optimism about the future.

Table 4: Life satisfaction and optimism in Germany 2020–2024.

| Year | <i>Glücksatlas</i> life satisfaction (0-10) | Allensbach – Population ¹⁰ with hopes for the coming year (%) |
|--------------------|---|--|
| 2020 ¹¹ | 6.74 ¹² | 39 |
| 2021 | 6.58 ¹³ | 41 |
| 2022 | 6.86 ¹⁴ | 28 |
| 2023 | 6.92 ¹⁵ | 34 |
| 2024 | 7.06 ¹⁶ | not published |

Source: the authors' own calculations.

After the pandemic caused life satisfaction among the population to fall from 6.74 (2020) to 6.58 (2021), the satisfaction level rose again to 6.86 in 2022. The positive trend continued in the following two years, rising to 6.92 (2023) and 7.06 (2024). In contrast, in 2020, 39% of the population was optimistic about the coming 12 months. The proportion rose slightly to 41% in the following year (2021). Due to the situation in Ukraine,

¹⁰ For all subsequent – data from the Allensbach Report (<https://www.ifd-allensbach.de/>). The figures from the Allensbach study for the same year may vary between different sources, as the surveys are conducted at different times within the year, resulting in different outcomes.

¹¹ Until 2022, the *Glücksatlas* was still published by Deutsche Post, which meant that the source and place of publication were different.

¹² Source: SKL *Glücksatlas* 2020 (see: Deutsche Post 2020).

¹³ Source: SKL *Glücksatlas* 2022 (see: Universität Freiburg 2022).

¹⁴ Source: SKL *Glücksatlas* 2022 (see: Universität Freiburg 2022).

¹⁵ Source: SKL *Glücksatlas* 2023 (see: Universität Freiburg 2023).

¹⁶ Source: SKL *Glücksatlas* 2024.

the proportion of the population that was optimistic about the future fell to 28% in 2022. This figure rose to 34% in the following year (2023), which still represents a small proportion of the population in relation to the perceived level of happiness. Optimism about the future is generally characterised by fluctuations and current events, but the positive trend in life satisfaction is not reflected in the Allensbach study on optimism about the future.

Studies conducted by the European Commission painted an even more negative picture. In spring 2024, the Eurobarometer demonstrated that only 12% of Germans believed that the overall situation in the country would improve in the coming year. 43% expected the situation to deteriorate. Another 43% expected the situation to remain unchanged. With regard to the country's economic performance, only 14% of respondents said they expected the situation to improve. 45% of respondents said they expected the country's economic situation to deteriorate. 38% expected it to remain stable. Even with regard to the financial situation of private households, only 14% of respondents expected the situation to improve. While 23% expect the situation to become worse, 61% of respondents do not expect any major changes in their financial situation. At neither the national nor the household level did Germans demonstrate confidence in a better future (European Commission 2024: p. T29–T33).

An international study by the OECD about the situation in 2022 revealed similar dynamics. The study addresses concerns about the future, reporting that almost 80% of Germans are somewhat or very concerned about their financial situation and general well-being over the next one to two years. This represents one of the strongest increases in concern levels among all OECD countries since the onset of the pandemic in 2020 (OECD 2023: p. 1).

The years 2022 to 2024 presented a picture characterised by a rise in the happiness level of the German population, but also marked by concerns about the future.

The divergent dynamics between the rising happiness factor and the low level of optimism about the future can be understood by distinguishing between the two different evaluation dimensions of current well-being and future-oriented expectations. When the perceived happiness in life is quantified, as in the *Glücksatlas*, for example, it is mainly determined by present influences. Factors such as family, health, and social relationships are decisive in this regard. These factors are relatively stable, as shown in the surveys. The presence of social and institutional support structures has a stabilising effect and promotes happiness (Kahneman, Deaton 2010: p. 16489–16493; Diener et al. 2018: p. 2–4). In contrast, expectations for the future are more strongly influenced by macro-level uncertainties. These include, for example, geopolitical conflicts, inflation, climate change, or political instability. These factors are beyond the direct control of an individual and therefore do not have a direct and strong influence on a person's general well-being (Beckmann, Geiger 2025: p. 3–4). Trust in government institutions and social protection may help explain why the often pessimistic outlook for the future does not strongly affect overall happiness levels. Research suggests that populations in countries with robust social systems, such as Germany, tend to be more resilient in terms of life

satisfaction, even when their expectations for the future are rather negative (Bargain, Aminjonov 2020: p. 2–3).

This buffering effect is also observable in the German case, helping to explain why current happiness levels are rising while perceptions of the future remain pessimistic. Empirical data show that satisfaction with one's own life is strongly influenced by interpersonal relationships and social capital. These characteristics have demonstrated a high degree of resilience during the pandemic. Studies show that individuals with strong social networks and community support are less affected by negative external events and have more stable levels of happiness (Helliwell et al. 2021: p. 7–8; 13–15). Moreover, findings suggest that expectations for the future are influenced by other factors. The degree of optimism about the future is strongly dependent on media coverage. If the media portrays risks and dangers, the evaluation of the present and the future becomes asymmetric (Mazur 2006: p. 151–152, 172).

The coexistence of rising happiness levels and increasing pessimism can be explained by a difference between micro-level evaluation of the present (social support, stable living conditions, and institutional safety nets) and macro-level assumptions about the future (shaped by crises, uncertainty, and relative comparisons). This brings a new perspective to the findings that have already emerged in the previous chapters. It has already been demonstrated that monetary and material factors do not play the predominant role that has historically been assumed. The fact that a negative future expectation as an emotional component does not have a central influence on happiness levels further emphasises the importance of interpersonal and institutional variables.

5.4. The role of social security in Germany

The relatively stable levels of happiness among the German population during the COVID-19 pandemic can be attributed in part to stable and functional social systems. The fact that social security systems have a positive effect on the average well-being of the population as a whole is not a new finding and was already known before the COVID-19 pandemic. Unlike purely economic determinants, such as GDP per capita or unemployment figures, social protection systems offer a constant buffer against the psychological consequences of external shocks. Easterlin, one of the central figures in the history of happiness research, stated in 2013 that full employment and social safety nets are among the few macro-level strategies that can be consistently associated with higher levels of self-perceived life satisfaction. Economic growth, on the other hand, does not have this direct correlation (Easterlin 2013: p. 1, 11–15).

This thesis is supported by other studies on mental health during COVID-19, some of which identify financial worries as the strongest predictor of declining happiness. These findings underscore the importance of social security for well-being, helping to explain why negative future expectations play only a limited role, when trust in the welfare system provides a reliable safety net in times of economic strain (Kämpfen et al. 2020: p. 1–7).

Later studies also supported this assessment. Social spending, such as on the health-care system and poverty reduction, correlates positively with the average well-being of the population. Direct unemployment benefits, on the other hand, have adverse effects (Nordheim, Martinussen 2020: p. 1, 10–16). Germany's social system, with its relatively generous coverage of healthcare costs and universally accessible pension system, is a stabilising factor, especially during times of crisis such as pandemics or economic shocks.

An OECD study demonstrates that the German population's satisfaction with its social protection mechanisms is fundamentally higher than satisfaction in France or the United Kingdom. Although satisfaction with the system is not overwhelmingly high in Germany, its general legitimacy has a significantly stronger standing among German citizens than in the two comparison countries. A socially perceived sense of fairness and representation in politics promotes trust in institutions, which is a predictor of subjective well-being (OECD 2024: p. 29–31, 61–64).

Welfare systems have a rather ambivalent relationship with the happiness levels of the population. Recipients of social benefits, especially unemployment benefits, demonstrate a significantly lower level of life satisfaction. Even in cases of phased receipt of work-related social benefits, the phases, in which state assistance must be claimed represent the unhappier ones. This implies that social systems, as a safety net for a large part of the population, have a positive effect on happiness levels, but can have the opposite effect on social benefit recipients. This is probably due to the stigma and psychological stress associated with receiving these benefits (Nivorozhkin, Promberger 2025: p. 705–711).

A study from China reveals that the positive effects of social systems are not limited to a particular cultural region or appeal only to nations with long-established, wealthy populations. Similar results were found in China, where social security systems increased subjectively perceived happiness, and factors such as fairness and trust in state organisations also had positive effects (Li, He 2022: p. 2–4, 8–10). The fact that a country with a very different cultural, historical, and economic background to Germany was able to demonstrate the same effects on happiness levels reinforces the significance of this influencing factor on the happiness index. The independent generation of the results under completely different circumstances is a strong indication of the psychological effectiveness of the influencing factor.

In summary, it can be stated that the German social welfare system, as a safety net for the population, has a positive effect on people's happiness levels. Social welfare systems are relevant factors influencing happiness dynamics. Germany demonstrates that these social assistance systems can have ambivalent effects on individuals' happiness levels within a population. The overall effect on well-being is positive. Especially in times of crisis, such as during the COVID-19 pandemic, the positive effects on the population's self-perceived level of happiness become clear. In Germany, the relatively strong social systems may have been an important stabilising factor contributing to the relatively small decline in happiness during the pandemic.

6. Conclusions, limitations, and further studies

The quantitative analysis, based on the 40 largest German cities, indicates that traditional variables offer only limited explanatory power for well-being. The lack of significant correlations confirms that these factors cannot influence subjective happiness in the German city-level context. This underscores the growing relevance of psychosocial and institutional factors. The COVID-19 pandemic, in particular, was a stress test that demonstrated that resilience, social connectedness, and trust in institutions are more decisive for the population's level of happiness than marginal changes in material or monetary resources. The paradoxical coexistence of rising levels of happiness among the German population and low optimism about the future suggests that current life satisfaction in Germany is more closely linked to stable micro-level factors such as family, health, and social support than to expectations for the future. Prospects are primarily shaped by uncertain macro-level factors such as geopolitical crises, inflation, and environmental problems. Social systems appear to be an important contextual factor shaping population happiness. Strong social protection buffers individual well-being against external shocks.

The results of this research contribute to the academic debate by showing that classic influencing factors are losing relevance in happiness research, while psychological and institutional dimensions are gaining explanatory value. These findings highlight the need to re-evaluate the happiness research framework, especially in advanced economies. From a policy perspective, the results demonstrate how important it is to strengthen mental health, promote social resilience, and build trust in institutions. Investments in the healthcare system, community support systems, and the legitimacy of political institutions are crucial in improving the population's happiness level. The key limitation of this article lies in its exclusive focus on the 40 largest German cities. While this approach ensures high data quality and comparability within urban contexts, it restricts the generalisability of the findings. Rural areas and smaller municipalities, which together account for a substantial share of the German population, are not covered by this analysis. The determinants of happiness in these regions may differ systematically from those in metropolitan areas, as social dynamics, economic opportunities, and access to public services are often shaped by different structural conditions. As a result, the present analyses cannot capture the full heterogeneity of life satisfaction determinants across Germany. Future research should therefore broaden the empirical scope to include rural and semi-urban areas in order to provide a more comprehensive understanding of happiness dynamics. In addition, two further directions appear essential. Firstly, long-term studies should be conducted to track the development of classical and new determinants over time. Secondly, comparative international studies should examine whether the German example is representative and whether the dynamics in other economies are similar, or if these are national dynamics that cannot be transferred and thus do not form a basis for general statements. Such research is crucial for understanding happiness levels in the post-COVID era and can provide important insights for political strategies that focus on well-being in times of crisis.

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➔ References:

AGRAWAL Shruti, SHARMA Nidhi, AGRAWAL Rohit, IAZZOLINO Gianpaolo, BRUNI Maria Elena (2025), *Beyond GDP: A Triple Helix Framework for a Happiness Economy*, "Social Indicators Research", vol. 179. DOI: 10.1007/s11205-025-03604-y

- BARGAIN Olivier, AMINJONOV Ulugbek (2020), *Trust and compliance to public health policies in times of COVID-19*, "Journal of Public Economics", vol. 192. DOI: 10.1016/j.jpubeco.2020.104316
- BARTRAM David (2011), *Economic Migration and Happiness: Comparing Immigrants' and Natives' Happiness Gains From Income*, "Social Indicators Research", vol. 103. DOI: 10.1007/s11205-010-9696-2
- BECKMANN Joscha, GEIGER Martin (2025), *Expectations and the transmission of international uncertainty: Evidence from cross-country survey data*, "Macroeconomic Dynamics", vol. 29, e57. DOI: 10.1017/S1365100524000397
- DEATON Angus (2008), *Income, Health, and Well-Being around the World: Evidence from the Gallup World Poll*, "Journal of Economic Perspectives", vol. 22, no. 2. DOI: 10.1257/jep.22.2.53
- DEVINE Daniel, GASKELL Jennifer, JENNINGS Will, STOKER Gerry (2021), *Trust and the Coronavirus Pandemic: What are the Consequences of and for Trust? An Early Review of the Literature*, "Political Studies Review", vol. 19, issue 2. DOI: 10.1177/1478929920948684
- DESTATIS, Statistisches Bundesamt (2025), *Städte (Alle Gemeinden mit Stadtrecht) nach Fläche, Bevölkerung und Bevölkerungsdichte am 31.12.2024*, <https://www.destatis.de/DE/Themen/Laender-Regionen/Regionales/Gemeindeverzeichnis/Administrativ/05-staedte.xlsx> (23.09.2025).
- DEUTSCHE POST (2020), *Glücksatlas 2020. Kernbotschaften*, <https://group.dhl.com/content/dam/deutschepostdhl/de/media-relations/assets/dp-gluecksatlas-2020-kernbotschaften-a4.pdf> (30.12.2020).
- DIENER Ed, LUCAS Richard E., OISHI Shigehiro (2018), *Advances and Open Questions in the Science of Subjective Well-Being*, "Collabra: Psychology", vol. 4 (1). DOI: 10.1525/collabra.115
- EASTERLIN Richard A. (1974), *Does Economic Growth Improve the Human Lot? Some Empirical Evidence*, in: *Nations and Households in Economic Growth*, Elsevier. DOI: 10.1016/B978-0-12-205050-3.50008-7
- EASTERLIN Richard A. (2013), *Happiness, Growth, and Public Policy*, "IZA Discussion Paper", no. 7234, Institute for the Study of Labor (IZA), Bonn.
- EUROPEAN COMMISSION (2024), *Public opinion in the European Union: Eurobarometer report*, Directorate General for Communication, Publications Office, Luxembourg.
- FINNE Emily, NOWAK Anna Christina, RAZUM Oliver (2025), *Regional COVID-19 measures and effects on subjective well-being in Germany: observing trends over time with data from a large population survey*, "Frontiers in Public Health", vol. 13. DOI: 10.3389/fpubh.2025.1523691
- FLORIDA Richard, MELLANDER Charlotta, RENTFROW Peter J. (2013), *The Happiness of Cities*, "Regional Studies", vol. 47. DOI: 10.1080/00343404.2011.589830
- GLAESER Edward L., KOLKO Jed, SAIZ Albert (2001), *Consumer city*, "Journal of Economic Geography", vol. 1. DOI: 10.1093/jeg/1.1.27
- GEMEINSAMES STATISTIKPORTAL (2025), *Bruttoinlandsprodukt, Bruttowertschöpfung in den kreisfreien Städten und Landkreisen der Bundesrepublik Deutschland 1992 und 1994 bis 2023, Berechnungsstand Februar 2025*, <https://www.statistikportal.de/de/veroeffentlichungen/bruttoinlandsprodukt-bruttowertschoepfung-0> (27.11.2025).
- HELLIWELL John F., LAYARD Richard, SACHS Jeffrey, DE NEVE Jan-Emmanuel, AKNIN Lara B., WANG Shun (2021), *World Happiness Report 2021*, Sustainable Development Solutions Network, United Nations.
- HELLIWELL John F., LAYARD Richard, SACHS Jeffrey, DE NEVE Jan-Emmanuel, AKNIN Lara B., WANG Shun (2022), *World Happiness Report 2022*, Sustainable Development Solutions Network (SDSN).

- HENDRIKS Martijn, BURGER Martijn J. (2021), *Happiness and Migration*, in: K.F. Zimmermann (ed.), *Handbook of Labor, Human Resources and Population Economics*, Springer International Publishing, Cham. DOI: 10.1007/978-3-319-57365-6_178-1
- JEBB Andrew T., TAY Louis, DIENER Ed, OISHI Shigehiro (2018), *Happiness, income satiation and turning points around the world*, "Nature Human Behaviour", vol. 2. DOI: 10.1038/s41562-017-0277-0
- KAHNEMAN Daniel, DEATON Angus (2010), *High income improves evaluation of life but not emotional well-being*, "Proceedings of the National Academy of Sciences U.S.A.", vol. 107, no. 38. DOI: 10.1073/pnas.1011492107
- KÄMPFEN Fabrice, KOHLER Iliana V., CIANCIO Alberto, BRUINE DE BRUIN Wändi, MAURER Jürgen, KOHLER Hans-Peter (2020), *Predictors of mental health during the Covid-19 pandemic in the US: Role of economic concerns, health worries and social distancing*, "PLoS ONE", vol. 15 (11). DOI: 10.1371/journal.pone.0241895
- LAYARD Richard, CLARK Andrew E., CORNAGLIA Francesca, POWDTHAVEE Nattavudh, VERNOIT James (2014), *What Predicts a Successful Life? A Life-Course Model of Well-Being*, "The Economic Journal", vol. 124, issue 580. DOI: 10.1111/econj.12170
- LI Na, HE Mang (2022), *Social Security Satisfaction and People's Subjective Wellbeing in China: The Serial Mediation Effect of Social Fairness and Social Trust*, "Frontiers in Psychology", vol. 13. DOI: 10.3389/fpsyg.2022.855530
- MAO Yanhui, CHEN Junpeng, LIU Xinqi, DANG Junhua, SCHIÖTH Helgi B. (2024), *Social support predicted subsequent subjective well-being during the COVID-19 pandemic: a prospective study*, "BMC Public Health", vol. 24. DOI: 10.1186/s12889-024-18473-2
- MAZUR Allan (2006), *Risk Perception and News Coverage Across Nations*, "Risk Management", vol. 8. DOI: 10.1057/palgrave.rm.8250011
- MORO-EGIDO Ana Isabel, NAVARRO María, SÁNCHEZ Ángeles (2022), *Changes in Subjective Well-Being Over Time: Economic and Social Resources do Matter*, "Journal of Happiness Studies", vol. 23. DOI: 10.1007/s10902-021-00473-3
- NIVOROZHKIN Anton, PROMBERGER Markus (2025), *MeansTested Welfare Benefits and Subjective WellBeing Through Time: Does Clients' Life Satisfaction Recover?*, "Social Policy & Administration", vol. 59, no. 5. DOI: 10.1111/spol.13078
- NORDHEIM Oda, MARTINUSSEN Pål E. (2020), *Happiness and the role of social protection: how types of social spending affected individuals' life satisfaction in OECD countries, 1980–2012*, "Journal of International and Comparative Social Policy", vol. 36, issue 1. DOI: 10.1080/21699763.2019.1601586
- OECD (2020), *How's Life? 2020 Measuring Well-being, How's Life?*, OECD Publishing, Paris.
- OECD (2023), *Risks That Matter 2022 – Germany*. OECD Publishing, Paris.
- OECD (2024), *Content or Discontent? Perceptions of Social Protection in France, Germany and the United Kingdom*, OECD Publishing, Paris. DOI: 10.1787/57b4436c-en
- OISHI Shigehiro, KESEBIR Selin, DIENER Ed (2011), *Income Inequality and Happiness*, "Psychological Science", vol. 22, issue 9. DOI: 10.1177/0956797611417262
- OKULICZ-KOZARYN Adam (2013), *City Life: Rankings (Livability) Versus Perceptions (Satisfaction)*, "Social Indicators Research", vol. 110. DOI: 10.1007/s11205-011-9939-x

- PETERS Eileen, POHLMAYER Merle, BUSCHOFF Karin Schulze (2025), *Diverging Paths? The Impact of the COVID-19 Pandemic on Subjective Well-Being of the Solo Self-Employed and Employees in Germany (2019–2023)*, "Social Indicators Research", vol. 180. DOI: 10.1007/s11205-025-03640-8
- RAFFELHÜSCHEN Bernd, HÖFER Max, RENZ Timon (2025), *SKL-Glücksatlas Sonderstudie 2025-03: Städteranking 2025*, Institut für Finanzwissenschaft und Sozialpolitik, München.
- RAFFELHÜSCHEN Bernd, HÖFER Max, RENZ Timon (2024a). *SKL-Glücksatlas Sonderstudie 2024-02: Glücksgebiete in Deutschland*, Institut für Finanzwissenschaft und Sozialpolitik, München.
- RAFFELHÜSCHEN Bernd, HÖFER Max, RENZ Timon (2024b). *SKL-Glücksatlas Sonderstudie 2024-03: Städteranking 2024 – Von Overperformern und Underperformern*, Institut für Finanzwissenschaft und Sozialpolitik, München.
- SCHMIDTKE Julia, HETSCHKO Clemens, SCHÖB Ronnie, STEPHAN Gesine, EID Michael, LAWES Mario (2021), *The effects of the COVID-19 pandemic on the mental health and subjective well-being of workers: An event study based on high-frequency panel data*, "IZA Discussion Paper Series", no. 14638.
- STEINMANN Jan-Philip, KRÖGER Hannes, HARTMANN Jörg, ENTRINGER Theresa M. (2024), *Did Religious Well-Being Benefits Converge or Diverge During the Early Stages of the COVID-19 Pandemic in Germany?*, "Journal of Happiness Studies", vol. 25. DOI: 10.1007/s10902-024-00818-8
- STEVENSON Betsey, WOLFERS Justin (2008), *Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox*, "Brookings Papers on Economic Activity", Spring 2008. DOI: 10.1353/eca.0.0001
- SKL GLÜCKSATLAS (2024), <https://www.skl-gluecksatlas.de/artikel/gluecksatlas-2024.html> (20.12.2024).
- UNIVERSITÄT FREIBURG (2022), *Deutschlands Glücksniveau erholt sich nur leicht*, <https://kommunikation.uni-freiburg.de/pm/2022/deutschlands-gluecksniveau-erholt-sich-nur-leicht> (08.11.2022).
- UNIVERSITÄT FREIBURG (2023), *Lebenszufriedenheit in Deutschland steigt 2023 leicht an*, <https://www.pr.uni-freiburg.de/pm/2023/lebenszufriedenheit-in-deutschland-steigt-2023-leicht-an> (08.11.2023).