

# **Benefits of Participatory Planning: The connection between Happiness and Citizen Participation**

A quantitative study analysing the influence of subjective Happiness and other factors on Citizen Participation and Planning Participation

## **Summary**

Participatory planning is agreed to be a good alternative to top-down methods of spatial planning. But in practice, it is not properly implemented, because the positive outcomes are not clearly stated. In this quantitative study, Planning Participation is compared to citizen participation and analysed by using a large-scale dataset, collected from the European Social Survey (ESS). The data analysis, using multiple linear regressions, looks at Citizen Participation, the influence of Happiness and Trust in Institutions and other factors, such as socio-economic characteristics. Moreover, it includes spatial data, comparing living environment and different European countries. Additionally, it studies the importance of specific types of citizen participation, like voting and demonstrating, in regards to an individual's happiness. This study finds that Citizen Participation, Happiness and Trust in Institutions have a reciprocal relationship, which is especially noticeable when comparing countries. The most explanatory factor of Citizen Participation is education, which is a contested outcome because based on previous research Citizen Participation cannot be increased simply by extending education, which means it is not reciprocal. There is a spatial difference in Citizen Participation, Happiness and Trust in Institutions within Europe. They are higher in the northern countries of Europe and lower in the East and South, which is in line with the expectations. The relationship between different types of citizen participation and happiness is weak but existent. The three-way relationship between Citizen participation, Happiness and Trust in institutions needs to be taken seriously, because it has the power to decrease but also increase the social inequality prevalent in many (non-) European Countries.

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## Introduction

### Background

Participatory planning means including people in decision-making processes in the field of spatial planning. When Participatory Planning is compared to Citizen Participation, including people in decision-making processes in the field of politics, it is seen as a valuable and needed part of a functional democracy. Nonetheless, research reveals that while functional democracy is the popular state that society aims for, Citizen Participation plays only a reduced role and is not given enough attention yet. How come that the same concept is not properly applied to other areas of the way we built our society? There is a general consensus on the importance of the involvement of citizens in planning issues (Innes, 2004), but it seems as though there is not a consensus on how or why to implement it more in our daily life. There is, among other things, a need to grasp the bigger picture and clarify the beneficial outcomes Participatory Planning can have on individuals involved in it. This can be focused on changes (positive or negative) on individual factors like political interest, specific cultural attitudes or general well-being.

The inclusion of an individual's happiness as an explanatory variable for different social or economic phenomena has become an important challenger to conventional reasoning, including the focus on economic factors like employment or income. Even much so, that the new science of happiness emerged in the past years (Ballas, 2013) and handbooks about studying happiness have been released (see for example David, Boniwell, and Conley Ayers, 2013). In addition to this, global data on happiness is summarised and analysed in the World Happiness Report every year since 2012<sup>1</sup>.

In the 8th World Happiness Report, six determinants for a happy society are being introduced. Next to *GDP per capita*, *healthy life expectancy*, *social support*, *freedom*, and *generosity*, the factor of *absence of corruption* is found (World Happiness Report, 2020). This absence of corruption is reflected in the way citizens perceive their country and institutions. This absence of corruption is reflected in the way citizens perceive their country and trust in society and institutions which Helliwell, Layard, Sachs, De Neve (2020) also positively connect with happiness on the national level. In their paper, it is stressed that the trust people have in their country and its institutions should be high to maximise happiness within that society. It is therefore important to gain more insight into how this trust in institutions arises, and how it relates to societal processes that can be influenced or used by government or policymakers to generate more overall happiness.

One way of generating more trust in institutions is the implementation of citizen participation (Martela, Greve, Rothstein, Saari, 2020). One of the arguments for this implementation is, if more people are taking part in decision making, the decision-makers are more likely to be well informed since more interest and viewpoints are being considered. This leads to decisions that are favoured by many - thereby creating a general feeling of

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<sup>1</sup> For the newest version, see <https://worldhappiness.report/ed/2021/>.

belonging and content in a society (Baum, 2015). Baum also stressed the benefits for individuals - they feel purposeful and useful when their interests are being heard and implemented in the decision making. Moreover, they enhance their skills of decision making and knowledge acquirement, and they have the possibility to build relationships with government officials and people in their communities or cities. A more general argument to implement citizen participation can be "extended citizenship", people's right to take part in democracy goes along with the responsibility of doing it, which is why it should be encouraged. Not only citizen participation, but also political participation can be powerful, as seen in recent elections in countries across Europe and the United States of America. The people "left behind" living in "places left behind" voice their discontent with their current situations by voting for anti-political establishment parties (Koeppen, Ballas, Edzes, Koster, 2021; Rodríguez-Pose, 2018), which changes the political environment in many European countries.

Looking at participation in the practice of planning, it has become more visible and more discussed in the past years. Planning scholars, as well as practitioners, have found the environment not as controllable as presumed in the past century. Because of the fast and dynamic changes in the built- and social environment, planning issues are being locally addressed, self-governed and adaptive (De Roo & Voogd, 2019). Here the argumentation is similar to the one for citizen participation, as mentioned above. Better-informed decision-making leads to well-liked and appropriate planning opportunities, that do not harm the already existing structures but i.e., are being sustainable. According to this the smaller the spatial scale and the stakeholders involved, the more communicative and participatory a planning process should be.

If the theory that citizen participation, as a way of generating trust in institutions, can increase an individual's happiness on a national scale (Helliwell et al., 2020), it is of great importance to see whether this is true on an individual level and if the relationship goes both ways. Increasing the amount of participatory planning, by decentralising governmental decision-making, could have a positive effect, not only on the physical planning outcomes but additionally on the happiness of individuals.

### Research problem

To be able to confidently push forward this proposition of decentralising planning practices to increase the happiness of individuals, there needs to be proof of the correlation between participation and happiness. Decentralised participatory planning as a concept and its implications are difficult to quantify if it is not implemented on a large scale, which it isn't in most European countries, for example, post-socialist countries are struggling (Poljak Istenić & Kozina, 2020). Therefore, this research follows the premise that participatory planning is comparable to citizen participation as they share the same principles and therefore both indirectly - through trust in institutions - positively influence the general happiness of citizens in a country. Since participatory planning is applicable on

the small-scale and local level, citizen participation and its relation to happiness are analysed on the individual level to give a representative overview of the ongoing processes. Additionally, this analysis includes spatial information and looks at the geographies of discontent to further analyse if and how specific parts of citizen participation correlate to "places that don't matter". Moreover, individual socio-economic information of individuals are included in the research analysis, to explore how much subjective happiness actually accounts for the level of citizen participation and can consequently be attributed to Participatory Planning. Therefore, the aim and main research objective of this study are to connect Planning Participation to an individual's happiness level by using data on Citizen Participation and to compare trends in different European countries.

All this leads to the main research question of this thesis:

- *"How is citizen participation, and thus participatory planning, influenced by individual happiness in European countries".*

In order to answer the main research question, the following sub-questions have been defined:

- "What is the nature of the relationship between citizen participation and happiness, trust in institutions, and the individuals' socio-economic background?"
- "Which factors play a role in explaining the spatial difference in the amount of citizen participation between EU countries?"
- "By which type of citizen participation is the individual's happiness most influenced?"
- "What can the connection between citizen participation and happiness imply for planners and policymakers in terms of decentralising planning processes and implementing more participatory planning?"

### Structure of Thesis

The theoretical framework builds the foundation for this research. Explanations and definitions for the main concepts, happiness and citizen participation as well as participatory planning are given. Additionally, earlier research and theories about these concepts give an overview of what to expect in the data analysis and the results. The subsequent section, the methodology, explains the research method, the data collection process, the data analysis scheme and covers the data quality and limitations. Results are presented in the following section, and the paper concludes with a short conclusion and recommendations for future research and implementation of the findings of this paper.

## Theoretical framework

Citizen participation can be defined as the inclusion of citizens in societal governance decision processes, the extension of one's citizenships (Baum, 2015). Baum (2015) argues that "citizen participation" is interchangeable with "community participation". He also regards the concept of community as very complex and difficult to embed in such an analysis because communities tend to be hard to define and measure. Therefore, this research concentrates on *individual's citizen participation*, which is defined by the accumulation of active voting, contact with government officials, being a member or working for a party or organisation, signing petitions or participating in legal demonstrations. By increasing citizen participation, Fung (2015) argues, efficacy of regulation and provision of public goods can be increased and services and outcomes in areas like health or education that soften the lines between public and private, social and individual be supported. He also finds citizen participation to be a solution to social injustice. On an individual level, substantial research has been done, and Pancer (2014) summarised the impact as follows. Citizen Participation gives adults more confidence in themselves, in their decision making and in overcoming difficulties in life. When participating, their physical and mental health is increased, they have fewer illnesses such as depression and they even live longer. The youth benefits by also being healthier, getting higher self-esteem and connecting to their community, being socially responsible and having higher respect for diversity. It is also said that these effects, can last a lifetime (Pancer, 2014).

While Citizen participation has been considerably researched, little is known about the impacts of participation within the spatial planning practice. It has been found that Participatory Planning has positive social outcomes like trust, legitimacy and higher social capital (see Innes, 2004; Koontz and Thomas, 2006). The environmental outcomes are largely positive, but it remains unclear which way of decision-making process leads to the best environmental outcomes and if they are related to the social outcomes (Koontz and Thomas, 2006). Despite its positive effects, a few problems with participatory planning are widely recognized and criticised. Kahila-Tani, Kytta, Geertman (2019) summarized these in their research on the benefits of online Public Participation Geographical Information Systems (PPGIS) tools. They advocate for these PPGIS tools because planners lack knowledge about usable methods in planning practice. Their research also reveals that the participation data is not properly used by planners in the end. Another big criticism of participatory planning is the trend of small elitist, educated groups participating, while the broader variety of population is not regarded and therefore does not benefit. This could be changed by implementing PPGIS tools. This is also in line with Innes' (2004) argumentation, indicating that participatory planning should only be applied if all stakeholders benefit, want to participate and no other traditional processes of decision making can deliver the solutions needed. In general, research has been focused on the outcomes of participatory planning on a wider scale, as mentioned before, not particularly on the individual level. This research focuses on the impact of citizen participation on multiple individual characteristics such as

happiness, socio-economic background, trust in institutions and spatial characteristics, as described in the following paragraph.

Using the term *happiness* to measure well-being has been contested in recent research (Diener, Lucas, Schimack and Helliwell, 2009). As Theofilou (2013) stated, it can not fully grasp the quality of life, which includes objective factors such as income and level of education in addition to the subjective assessment of one's own life. Nevertheless, subjective happiness gives additional information about how people perceive, deal with and evaluate their circumstances which can shed a light on the importance of certain aspects in social issues (Diener et al, 2009). Thus, the subjective evaluation of people's life will be addressed as an *individual's happiness* in this research.

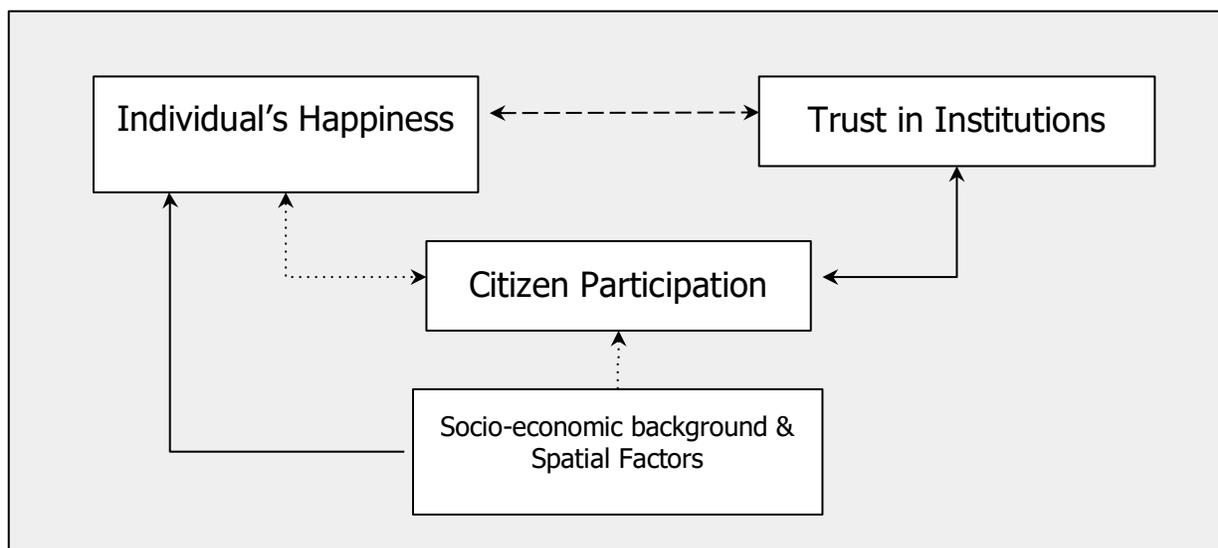
It is known for a long time that individual characteristics like socio-economic background, more specifically income, influence an individual's happiness (Diener and Biswas-Diener, 2002; Deaton, 2008). This is also true on a national level. Since happiness is strongly correlating/correlated with per capita national income, are people in poorer countries generally more at risk to be unhappy than people in richer countries (Deaton, 2008). The *Geographies of discontent* look at areas where people tend to be less happy, due to spatial factors like the region's unemployment rate, which are leading to specific societal outcomes, like voting behaviours (Rodríguez-Pose, 2018). On an individual level, education as an explanatory variable for the happiness of an individual has been contested (Kim, 2017). Kim (2017) concluded that, for certain regions in the world, the level of education is explanatory, like East Asia but not for others, like Europe. It is not the amount of formal education that correlates significantly with happiness but specifically the inclusion of non-formal education like work-related learning or arts and culture (Michalos, 2008). Further, subjective health is related to healthcare services, wealth and ageing but not particularly to well-being (Deaton, 2008). The connection between an individual's subjective happiness and the society, or the outcomes for society, have recently been researched, for example by Ross, Talmage and Searle (2018). They argue that happy individuals have a stronger sense of community, when including neighbourhood characteristics and demographics. Following their theory, a more connected neighbourhood increases the happiness level of the people living there and therefore leads to more social capital and participation. Also, Brereton, Clinch and Ferreira (2008) stress the importance of including spatial factors in research of subjective happiness. spatial characteristics of the living environment of the individual and high unemployment in a country or region, play a role in their political participation, for example in voting behaviour for certain parties (see Koeppen, Ballas, Edzes, Koster, 2021; Rodríguez-Pose, 2018).

People are happier in societies where the quality of life is relatively equal (Helliwell, Layard, Sachs, De Neve, 2020). They explain that trust in society and the government plays a significant role in the wellbeing of the individual. *"It is the higher levels of social and institutional trust that are especially important in raising happiness and reducing inequality."* (World Happiness Report, 2020, p. 6). Martela, Greve, Rothstein, Saari, (2020) explain that

this trust in society and institutions, which is high in Nordic countries, can be achieved by democratic quality, minimizing corruption, allowance of a free press, educating citizens and ensuring a high share of citizen participation and thereby creating a society with high social cohesion and trust (see also Baum, 2015). Other scholars also find that this distrust in society and institutions can partly explain political participation and views as well as voting behaviour (Heatherington, 1998; Levi and Stoker, 2000). But this amount of existing citizen participation as a whole can only be partly explained by processes like social cohesion, especially looking from a *society driven* perspective (Hooghe, 2011).

Logically, we can summarize that trust in institutions makes a happy society on a big scale, and trust in institutions can be achieved through high citizen participation. What is not known yet, is whether the relationship between trust in institutions, citizen participation and happiness is in fact reciprocal and if it is true on an individual level. Can citizen participation also be explained by an individual's subjective happiness? Or is it solely based upon individual characteristics like socio-economic background and the trust in institutions that also influence happiness? What does this imply for policymakers and urban planners? How much do these individual and spatial factors account for the amount of citizen participation and more specifically which types of citizen participation (voting, working for a party, signing petitions, contact to officials, etc.) do they have the biggest effect on? These questions will be attempted to be answered in this research.

Figure 1. Conceptual framework of connections of citizen participation, trust in institutions, the individual's happiness and socio-economic background. Source: made by the author, 2021



The conceptual model (Figure 1) shows the connections between the underlying theories on which this research is based upon. As explained in the theoretical framework is the relationship between society's happiness and the trust in institutions reciprocal on a national level. This research attempts to find whether this holds on the individual level as

well, which is why the connection is dashed. Citizen Participation can enhance trust in institutions, and therefore they influence each other. If one is high, the other is high as well (Martela, Greve, Rothstein, Saari, 2020). It is also known that the spatial context is affecting the happiness of an individual (Koeppen, Ballas, Edzes, Koster, 2021; Rodríguez-Pose, 2018). The dotted lines show the connection between citizen participation and the socio-economic background and spatial factors, which as previously mentioned influence happiness, and therefore possibly also the amount of citizen participation. The dotted line with two arrows between citizen participation and an individual's happiness stands for the assumed reciprocal relationship.

## **Methodology**

### **Research Method and Data Collection**

To understand the underlying processes and to quantify and define the relationship between participation and happiness on a big scale, including spatial and individual factors, this research uses quantitative data analysis and spatial analysis based on the previous theoretical framework. Participatory planning and its outcomes are difficult to quantify and compare in a way that can give results on a greater scale because it is more commonly implemented in small scale projects with few stakeholders, which is very place-sensitive (De Roo & Voogd, 2019). As mentioned before, this research, therefore, uses citizen participation as the dependent variable in the main analysis, including the main independent variables happiness and trust in institutions, as well as spatial factors and socio-economic backgrounds as explanatory variables. A second analysis sheds light on the relationship between the types of citizen participation and happiness. By using an accessible and large secondary dataset with high quality, citizen participation and its types are both analysed using *multiple linear regressions* in SPSS. Similar techniques for this multi-level analysis have been done previously by Koepen et al. (2021) concerning voting behaviour, as well as in other happiness studies including socio-economic background or spatial factors (see for example Liberini, Redoano and Proto, 2017).

This secondary dataset analysed to answer these questions is taken from the European Social Survey (ESS, 2018) which is a European Research Infrastructure Consortium (ERIC). Being a cross-national operating longitudinal survey, measuring attitudes of residents in different countries, requires specific attention to careful and precise translation and interpretation. For each round of the ESS (the newest being Round 9, 2018) the methodology for the round is explained in the Survey specifications, which all countries need to follow (ERIC, 2018). The data is gathered by face-to-face interviews in all countries. It is published to be used after a simple and free registration procedure for non-profit usage. Additional to the regression analysis, information of this dataset is used to map the differences between the countries in the Geographic Information System (GIS), ArcMap. Means of Citizen participation, Happiness and Trust in Institutions for all countries are

calculated and compared. By visualising these, trends will be visible and possible correlations can be expected.

### Variables and Data Analysis

The total number of responses in the dataset is 46 276. These cases include information of individual respondents aged 15 and over, within private households, chosen by cross-section sampling from 27 different countries (EU-members and non-members). In the survey round 9, Greece, Malta, Luxembourg and Romania did not participate. The following non-EU countries - Switzerland, the United Kingdom and Norway are included in the analysis as data is available

Table 1 includes an overview of the variables, their names and labels as well as their measurement for the main regression, with Citizen Participation as the dependent variable. The responding question asked in the survey, and further details can be found in a more elaborate version of this table in Appendix A. In the left column, the variables are bundled into five general categories: Citizen Participation, Individual's Happiness, Trust in Institutions, Socioeconomic Background and Spatial Factors.

Table 1. A simple overview of variables going into the main regression answering the research question.

	Variable Label	Categories	Measurement
<b>Citizen Participation</b>	Total Citizen Participation* <b>(dependent)</b>		Scale 1-6
<b>Happiness</b>	How happy are you?		Scale 1-10
<b>Trust in Institutions</b>	Total Trust in Institutions*		Scale 1-10
<b>Socioeconomic Background</b>	Gender	Male, Female	Binary
	Total Net Income	1st decile, 2nd decile, 3rd decile, 4th decile, 5th decile, 6th decile, 7th decile, 8th decile, 9th decile, 10th decile	Nominal
	Subjective general health	Very good, Good, Fair, Bad, Very bad	Ordinal
	Years of full-time education		Ratio
<b>Spatial Factors</b>	Domicile, respondent's description	A big city, Suburbs or outskirts of a big city, Town or small city, Country village, Farm or home in the countryside	Nominal

	Country	Austria, Belgium, Bulgaria, Switzerland, Cyprus, Czechia, Germany, Denmark, Estonia, Spain, Finland, France, United Kingdom, Croatia, Hungary, Ireland, Iceland, Italy, Lithuania, Latvia, Netherlands, Norway, Poland, Sweden, Slovenia, Slovakia	Nominal
* these two variables have been re-coded and calculated by the author. Details can be found in Appendix A.			

The following variables are chosen to represent citizen participation in the different countries. As previously mentioned, citizen participation can be *voting behaviour* (Voted last national election), *Personal contact to government* (Contacted politician or government official last 12 month), *Actively working for a party* (Worked in a political party or action group last 12 month), or *actively working for another organisation* (Worked in another organisation or association last 12 month), *signing petitions* (Signed petition last 12 month) as well as *taking part in (legal) demonstrations* (Taken part in a lawful public demonstration last 12 month). The ratio variable *total citizen participation* is re-coded from the variables above, counting their adding scores for each individual, which means the value lies between 0 and 6 (see Appendix A).

*Subjective Happiness* is measured on a 1 (extremely unhappy) to 10 (extremely happy) scale, thereby is a ratio variable. It will act as an explanatory variable for citizen participation, thus being independent. It needs to be acknowledged that, based on the subjectivity of the concept of happiness, it is usually measured on an ordinal scale, but other researchers used happiness measured happiness on a scale successfully in their studies before (see Koeppen, Ballas, Edzes, Koster, 2021). The last main independent variable *trust in a country's institutions* is a ratio variable, on a scale from 0 (No trust at all) to 10 (Complete trust) re-coded from 5 different questions about trust in the country's parliament, the legal system, the police, politicians and political parties. Other socio-economic explanatory variables taken from the ESS are *gender*, included as a dummy, *household net income*, an ordinal variable, displayed in deciles, *subjective general health*, measured on an ordinal scale from 1 (very good) to 5 (very bad), *years of full-time education* measured in years, thereby a ratio variable. Additionally, spatial variables *country* and *Living environment* (nominal, big city to countryside) are included in the regression model as dummies.

Furthermore, to explore the relationship between each type of citizen participation (*voting behaviour*, *personal contact to government*, *actively working for a party*, or *actively working for another organisation*, *signing petitions*, *taking part in (legal) demonstrations*) and subjective happiness individually, another regression is being performed, with happiness as the dependent variable and all types of citizen participation as dummies (see Table 2). This

explores the relationship between these variables and answers the third sub-question, which type of citizen participation has the biggest explanation power for an individual's happiness.

Finally, the last sub-question (impact on policy) is answered in the discussion by interpreting the results and referring back to the theoretical framework.

Table 2. A simple overview of variables going into the second regression answering the third sub-question of the research.

	Variable name	Measurement
<b>Happiness</b>	How happy are you?	Scale, 1-10
<b>Types of Citizen Participation</b>	Voted last national election (corrected for people not eligible to vote)	Binary
	Contacted politician or government official last 12 month	Binary
	Worked in a political party or action group last 12 month	Binary
	Worked in another organisation or association last 12 month	Binary
	Signed petition last 12 month	Binary
	Taken part in a lawful public demonstration last 12 month	Binary

### Quality and Ethical Considerations

The origin of the dataset as explained in the data collection section reassures the ethical considerations for this research need to be concerning the data analysis. Data collection has been ethically unproblematic. For the analysis, it needs to be clear which variables I changed (see Appendix A) and be addressed in the discussion, for example, some data could have been lost through re-coding, which makes the result weaker. This dataset needs to be carefully treated when handling it in SPSS to not tamper with the information, creating wrong outputs, which could be interpreted differently.

## **Results**

### Citizen Participation and its factors

In Table 3 the descriptive statistics of variables that went into the regressions are shown. Citizen Participation is low in general, most respondents are participating by one and two types of citizen participation when 6 is the maximum. In many cases, they vote and additionally participate differently. 71.5 per cent say they *voted in the last elections*, which is

high compared to the total turnout of the European parliament elections in 2019 which was 50.66 per cent. There, the participation was country dependent as well, with greatly differing numbers. For instance, in Belgium, 88.47 per cent voted while in Slovakia only 22.74 per cent voted (European Parliament, 2019). The second most used type of participation is *signed petition*, with roughly a quarter of the respondents saying “yes” to participating. The mean for *total citizen participation* is 1.40 with a Standard deviation of 1.187. The means for *total citizen participation* in the different countries, included in the analysis, have been mapped using GIS (Figure 2). The spatial differences are quite clear. The highest participation can be found in the Scandinavian countries (dark green), while the west and the south are participating moderately (green). The lowest participation (light green) can be found in the eastern European countries, like Bulgaria, Hungary or Poland.

Table 3. Descriptive statistics of variables put in regressions, including nominal/ordinal variables and their categories as well as binary variables (marked B).

Variable	Categories	Valid Percent	Mean	Std. Deviation	Minimum	Maximum	Total N
Total Citizen Participation			1.40	1.187	0	6	46276
Citizen Participation Types (B)	Voted last election	71.5					46276
	Contacted Politician	15.5					
	Worked for a party	4.0					
	Worked in another organisation	16.0					
	Signed petition	25.3					
	Taken part in demonstration	7.6					
How happy are you?			7.44	1.896	0	10	46099
Total Trust in Institutions			4.77	2.15	0	10	44242
Gender	Male	46.3					46276
	Female	53.7					
Total Net Income	Deciles						37370
Subjective General Health	Very Good	23.6					46220
	Good	42.5					
	Fair	26.1					
	Bad	6.5					
	Very Bad	1.3					
Years of full-time education			13.06	4.19	0	60	45634
Domicile	A big city	19.9					46239
	Suburbs or outskirts of big city	11.1					
	Town or small city	31.2					
	Country Village	31.9					
	Farm or Countryside	5.9					

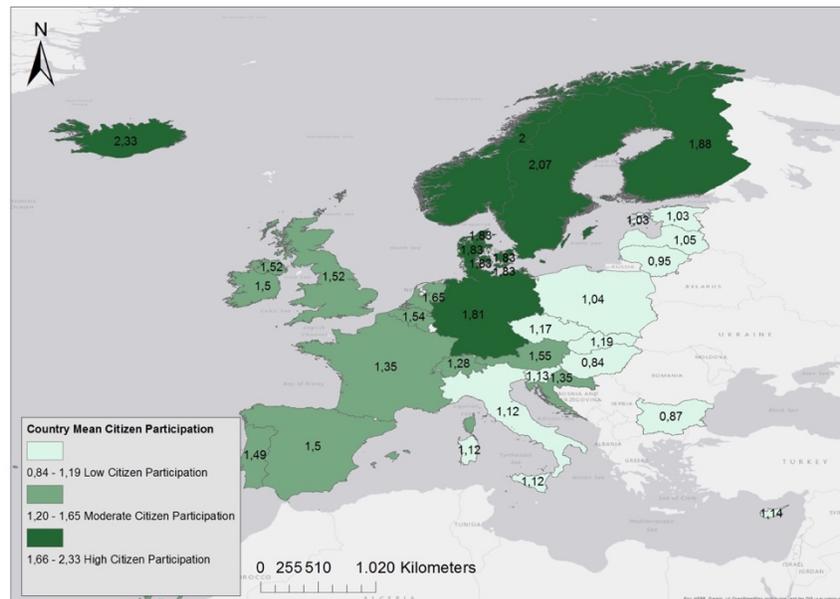


Figure 2. Country Mean Citizen Participation of Countries in analysis. Map made by the author (2021)

The descriptive statistics for *how happy are you?* the mean of all respondents is 7.44 with a standard deviation of 1.896, which is a high mean compared to the World Happiness Report (2020), in a list of 153 countries, this number would score spot number 7, right up the alley with Finland, Denmark, Switzerland, Iceland, Norway and the Netherlands. The calculation for that report is more complicated whereas this happiness indicator was asked by a single question and gives more of a momentary insight into the individual. Nevertheless, other studies regarding happiness and its explanatory variables used this single-question indicator successfully before (see for example Koeppen et al., 2021). Within the European countries, huge differences can be detected, as visible in Figure 3a, a map showing the mean happiness in the European countries participating in the ESS (2019). It displays that Happiness is highest in Denmark with 8.38, and lowest in Bulgaria with a mean of 5.55. Here, the same pattern as for citizen participation is visible. The highest scores are found in the Scandinavian countries and the west of Europe. The lowest scores can be found in the southeast.

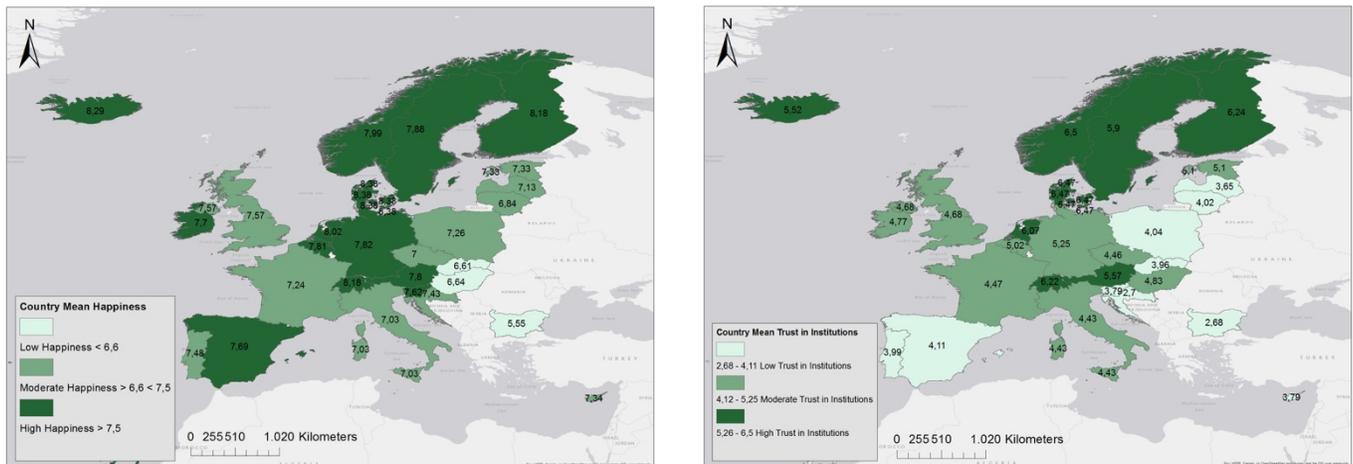


Figure 3. Country Mean Happiness (a-left) and Trust in Institutions (b-right) of Countries in analysis. Map made by the author (2021)

The second main explanatory variable *trust in institutions* seems to follow the same pattern as citizen participation as well. In Figure 3b, the mean of trust in institutions in European countries is displayed. As predicted, trust in institutions is high in Scandinavian countries whereas it is lower in the south and the east of Europe.

The coefficient table of the main regression for testing the relationship between the dependent variable *total citizen participation* and the multiple explanatory variables is shown in Table 4 below. The second regression, looking at the relationship of types of citizen participation and happiness is shown in Table 5. By using the method “enter”, all variables are put in the model at once. Both models are significant and can be found in Appendix A and B, including their model summaries and corresponding ANOVAs ( $p=0.000$ ). The explained variance of the changes in the dependent variable of the main regression model was 0.124. The R-Squared of the second regression was 0.025. There were no problems concerning multicollinearity. The significance level for all variables discussed has been set at 5%. First, I will discuss the results of the main regression, regarding the factors influencing citizen participation.

The first main variable *how happy are you?* has a significant relationship with citizen participation ( $t=9.272$ ). The happier an individual, the more likely they are to participate. This is in line with Liberini et al. (2017) who previously connected happiness as a variable to voting behaviour. The second main variable trust in institutions as well has a significant relationship with the dependent variable ( $t=6.573$ ). Citizen participation is higher, where the individual has more trust in the institutions of the country and the EU. This corresponds to the findings of Martela et al. (2020) who say that to increase trust in institutions, citizen participation needs to increase as well. This means, the relationships between happiness and

trust in institutions on the one hand and citizen participation, on the other hand, are reciprocal. The implications of this finding are addressed in the discussion.

Considering the spatial factors influencing citizen participation, it becomes clear that the second most significant variable is Poland ( $t=-16.466$ ), which has a negative relationship with Citizen participation. This is a dummy variable, which means this shows the relation to citizen participation in comparison to a reference category, in this case, Germany. If a respondent is living in Poland, they are participating 0.474 less than if they would live in Germany. Germany was left out of the analysis by SPSS and is therefore used as the automatic reference category. Although automated, Germany as a reference category is plausible because it shows high scores in Citizen Participation, Happiness and Trust in Institution, but it is not the highest. In general, are the regression coefficients for the country dummies in line with the expected differences based on the descriptive maps addressed above. More countries with negative relationships with citizen participation in comparison to Germany are for example Bulgaria ( $B=-0.525$ ), Hungary ( $B=-0.647$ ), Lithuania ( $B=-0.657$ ) and Italy ( $B=-0.309$ ). It is quite visible in Figure 2 that exactly these countries are shaded in a lighter colour of green, thereby indicating their low citizen participation. As for the second spatial variable *domicil*, the reference category was set to country village, automated by SPSS. In comparison to this reference category, respondent living in a big city or in a town/ small village participate significantly less. The difference between living in a country village to suburbs or outskirts of a city seems to be not significant. Interesting, however, is the significant positive relationship between living on a farm or in the countryside and citizen participation. Further discussion and relation to the literature can be found in the discussion part of this paper.

The variable most explanatory for the amount that an individual participates is the *years of full-time education* ( $t=41.134$ ) a socioeconomic variable. Education has been positively related to happiness (Michalos, 2008) and to voting behaviour (Lindgren, Oskarsson, Persson, 2019) before. In terms of planning participation, is also in line with the findings of Kahila-Tani, Kytta and Geertman (2019), who say that one of the biggest issues of it is the exclusive participation of a small group of educated and elitist people. This can also be related to the findings of the level of income in the main regression. The *total net income 1<sup>st</sup> decile* category of the net income of the respondents is negatively related to citizen participation if the 7<sup>th</sup> decile of the total net income is the reference category. More negative correlations can be found with the 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> decile, making the 7<sup>th</sup> decile the turning point. The 9<sup>th</sup> decile has a positive correlation to citizen participation with the 7<sup>th</sup> decile being the reference category. This validates the assumption of Kahila-Tani et al. (2019) stated above. The reference category for *subjective health* was set to the category Health=good. In comparison to respondents with self-acclaimed good health, respondents with very good health participate significantly less, whereas respondents doing worse, fair, bad and very bad, participate significantly more.

Table 4. Coefficient table of main regression. Method: Enter. Dependent variable: Total Citizen Participation, excluded variables as reference categories: Domicil: country village; Total net income 7<sup>th</sup> decile; Health=good; Country=Germany, table made by SPSS, exported.

		Coefficients <sup>a,b</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
st1	(Constant)	.562	.047		12.036	.000		
	Total Trust in Institutions	.022	.003	.036	6.573	.000	.820	1.219
	Years of full-time education completed	.064	.002	.227	41.134	.000	.809	1.236
	Gender	.035	.012	.014	2.876	.004	.986	1.014
	How happy are you	.035	.004	.051	9.272	.000	.802	1.247
	domicil=A big city	-.116	.019	-.036	-6.248	.000	.756	1.323
	domicil=Suburbs or outskirts of big city	-.030	.020	-.008	-1.488	.137	.771	1.296
	domicil=Town or small city	-.061	.015	-.023	-4.003	.000	.713	1.403
	Domicil=Country village (reference)	.	.	.	.	.	.000	.
	domicil=Farm or home in countryside	.082	.032	.013	2.549	.011	.885	1.130
	Total Net Income - 1st decile	-.354	.029	-.080	-12.378	.000	.585	1.709
	Total Net Income - 2nd decile	-.227	.027	-.057	-8.453	.000	.549	1.820
	Total Net Income - 3rd decile	-.208	.027	-.051	-7.730	.000	.569	1.758
	Total Net Income - 4th decile	-.191	.026	-.048	-7.283	.000	.560	1.787
	Total Net Income - 5th decile	-.137	.026	-.034	-5.219	.000	.572	1.748
	Total Net Income - 6th decile	-.071	.026	-.018	-2.703	.007	.571	1.751
	Total Net Income - 7th decile (reference)	.000	.000	.000	.000	1.000	.000	.000
	Total Net Income - 8th decile	-.017	.026	-.004	-.665	.506	.570	1.754
	Total Net Income - 9th decile	.111	.027	.026	4.029	.000	.605	1.653
	Total Net Income - 10th decile	.044	.027	.011	1.639	.101	.575	1.739
	health=Very good	-.059	.016	-.020	-3.697	.000	.824	1.213
	health=Good (reference)	.	.	.	.	.000	.	.000
	health=Fair	.090	.015	.033	5.902	.000	.800	1.251
	health=Bad	.150	.027	.030	5.548	.000	.856	1.169
	health=Very bad	.121	.056	.011	2.173	.030	.950	1.052
	Austria	.008	.047	.001	.170	.865	.925	1.081
	Belgium	-.141	.039	-.019	-3.613	.000	.895	1.117
	Bulgaria	-.525	.052	-.053	-10.047	.000	.899	1.112
	Switzerland	-.130	.049	-.014	-2.639	.008	.919	1.089
	Cyprus	-.474	.142	-.017	-3.337	.001	.989	1.011
	Czechia	-.414	.048	-.045	-8.673	.000	.923	1.083
	Denmark	.131	.056	.012	2.360	.018	.942	1.062
	Estonia	-.677	.105	-.032	-6.474	.000	.985	1.015

Germany (reference)	.	.	.	.	.	.	.
Spain	-.029	.025	-.007	-1.163	.245	.737	1.358
Finland	.115	.054	.011	2.120	.034	.937	1.068
France	-.291	.021	-.084	-13.785	.000	.656	1.525
United Kingdom	-.188	.022	-.053	-8.752	.000	.661	1.512
Croatia	-.139	.068	-.010	-2.036	.042	.949	1.054
Hungary	-.647	.052	-.064	-12.568	.000	.935	1.069
Ireland	-.192	.071	-.014	-2.698	.007	.954	1.048
Iceland	.344	.214	.008	1.608	.108	.996	1.004
Italy	-.309	.025	-.072	-12.341	.000	.718	1.393
Lithuania	-.657	.078	-.042	-8.384	.000	.970	1.031
Latvia	-.566	.094	-.030	-6.022	.000	.977	1.023
Netherlands	-.103	.034	-.016	-2.989	.003	.865	1.156
Norway	.251	.057	.023	4.428	.000	.939	1.065
Poland	-.474	.029	-.092	-16.466	.000	.792	1.263
Portugal	.067	.044	.008	1.505	.132	.904	1.106
Sweden	.333	.042	.041	7.938	.000	.899	1.112
Slovenia	-.468	.089	-.026	-5.254	.000	.977	1.023
Slovakia	-.444	.062	-.036	-7.166	.000	.951	1.051

a. Dependent Variable: Total Citizen Participation

b. Weighted Least Squares Regression - Weighted by Analysis weight

### Types of Citizen Participation and Happiness

First, it has to be recognized that the explanatory power of this model is very weak. The independent variables (Types of Citizen Participation) only explain 0.025 of the variance in the dependent variable (Happiness). Nonetheless, it is significant, therefore worth discussing. The coefficient table of the regression between Happiness as a dependent variable and Types of citizen participation can be found in Table 5 below.

Table 5. Coefficient table of second regression. Dependent variable: How happy are you? Independent variables: Types of citizen participation.

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	7.086	.017		422.346	.000
	Voted in last election dummy	.279	.020	.066	14.171	.000
	Contacted Politician Dummy	.119	.026	.023	4.553	.000
	Worked for a party	-.014	.048	-.001	-.284	.777
	Worked in another organisation dummy	.500	.026	.097	19.304	.000
	Signed petition dummy	.266	.022	.061	12.216	.000
	Taken part in demonstration dummy	-.091	.035	-.013	-2.605	.009

a. Dependent Variable: How happy are you

All types of citizen participation have a significant relationship with happiness, besides *working for a party*. The highest explanatory power has the variable *working for another organization* ( $t=19.304$ ). Respondents answering "yes" to this question are 0.5 happier than people saying "no". This is followed by the variable *voted in last election*, ( $t=14.171$ ) and *signed petition* ( $t=12.216$ ). The only variable with a significant negative correlation with happiness is *taken part in a demonstration* ( $B=-0.91$ ).

### Discussion and recommendations

The conceptual model, shown at the beginning of this paper (see Figure 1), displays the assumed relationship between Happiness, Trust in Institutions and Citizen Participation. Following the data analysis, this research shows the reciprocal relationships between the three concepts. This is in line with the expectation, as Martela, Greve, Rothstein, Saari (2020) already found a relationship between trust in institutions and citizen participation. The factor of happiness explaining the amount of citizen participation sheds new light on these processes. If citizen participation is now the stand-in for planning participation, it can be assumed that this relationship is possibly reciprocal as well, however, this assumption needs clarification and proper research in the future. Logically, this circular relationship, between happiness, trust in institutions and citizen participation can lead to a positive spiral, but also a negative one. In the best case, it has the power to lift societies happiness, by increasing citizen participation, and trust in institutions. The same can now, on a small scale, be said about planning participation. Stakeholder's happiness increases, by implementing participation and therefore trusting the process and the government. On the other hand, it can, in the worst case, lead to a downward spiral, increasing the already high social injustice, letting educated and rich people decide over the faith of people with a lower socioeconomic status. The data shows less participation of poorer residents as well as less educated citizens, which means that people that participate decide for these non-included people as well. Planning cities or regions for exactly these elitist people will increase spatial inequality as well. This is why planners need to realise how important the inclusiveness of planning projects and the process is.

As this research shows, Citizen Participation is influenced by many factors, first and foremost the level of education and income, as well as in which country people live. This finding corresponds with but is also challenged by Lindgren, Oskarsson and Persson (2019)'s research, which found that education as a mitigator to encourage political participation is not significant. It can narrow the turnout gap between high status and low-status people, but that only works in egalitarian countries, with high turnout rates like Sweden. This means, only trying to prolong the years people are being educated might not work as a method to increase citizen participation or planning participation to foster individual's happiness. The countries with more liberal and social governments like the Scandinavian countries also show a higher rate of citizen participation, trust in institutions and happiness (Martela, Greve, Rothstein, Saari, 2020). This high level in these countries,

also visible in the displayed maps, also affected the mean trust in institutions and happiness that went in the regression, because this was not country-specific. Therefore, excluding Scandinavian countries in the analysis would probably lead to a smaller significance of trust in institutions and happiness with citizen participation, here further research could be done. Generally speaking, many differences in countries can be explained by how many citizens participate. The exact factors going into these dynamics need to be further analysed and countries compared specifically, also including regional data. Interestingly, regional differences, in terms of urban-rural dynamics, measured as the living environment of the respondents, are in line with previous research of Rodriguez-Pose (2018) and Koeppen et al. (2021). Their research declared that in "places that don't matter", people tend to participate more, in terms of voting. The present study found similar results. The data shows people participate more in rural areas, and people with worse subjective health also participate more. These are the findings of the previously named studies. The only factor not lining up is the income, since "places that don't matter" include low economic power regions, with low income. In this research, they participate less, not more. This could be due to the inclusion of other types of citizen participation besides voting. Dalton (2017) describes this as the participation gap, defined as the trend of less voting participation in lower social status groups but higher participation in higher social status citizens, mostly through political activism like protesting and contacting government officials instead of voting. He argues that this leads to a non-effective and representative government.

Due to the weakness of the explanatory power of the model researching the relationship between the types of citizen participation and happiness, this research cannot specifically give recommendations on how and what type of citizen participation can be increased to start this upward spiral. Nonetheless, it can confirm, that there is a significant relationship between the two, which needs to be studied further, especially regarding the participation gap, including variables on the background of citizens participating in different ways. Especially concerning how to implement this finding in planning participation. Like previously addressed, outcomes of participatory planning are mostly studied on a large-societal scale, but including individuals benefits in research, can bring this type of planning process more attention.

Reflecting on this research, it needs to be acknowledged that citizen participation does not equal planning participation. Although similar in intention, participation in spatial planning is done on a smaller scale, on a more exclusive note, with fewer large implementations than politics. But one could argue that this is because the wide range of society is not being educated in the effect spatial planning can have not only on the built environment but also on societal processes, like social inclusion. As there is no big-scale data available on planning participation, this research was limited to citizen participation data but should be repeated specifically including large-scale data on planning participation. This could be included in the next round of the ESS as an additional question, for example, to compare across countries. Additionally, it should be kept in mind, that all these relationships

are purely correlational and not causal. Surely, they can influence each other, but they do not cause the existence of the other. Moreover, other socio-economic variables could be implemented in this analysis, including employment, age and political orientation. Alternatively, it could be researched if including residents in planning issues changes their level of subjective happiness and trust in institutions over time, in a longitudinal study.

## Conclusion

The main objective of this research was to find a correlation between Planning Participation and Happiness on an individual level and to compare different European Countries. The data on Citizen participation, used alternatively to data on Planning Participation, is positively influenced by the happiness of an individual in different European countries. This can lead to a positive spiral or a negative spiral, depending on how inclusive citizen participation is implemented. The same goes for participatory planning. It is important to include the wide range of society. Other factors positively influencing the amount of citizen participation are socio-economic, like education and income. Some of spatial nature, like rural areas, where inhabitants are participating more than in big cities. There is a big difference between countries in Europe, liberal and more egalitarian countries like Sweden, Finland, Denmark and Norway score higher on citizen participation, Happiness and Trust in institutions than the south of Europe for example. The relationship between specific types of citizen participation and individual's happiness needs further and more detailed investigation. Nonetheless, they do correlate, and it is crucial to continue the search on how to implement participatory planning processes and reach as many different people as possible in spatial planning action.

Concluding, if spatial planning processes are continued as it is now, centralised and top-down, it will be highly problematic, and social inequality will continue to grow. This research shows that currently, people that participate in society are educated, healthy, rich, happy and have trust in the institutions. As Dalton (2017) and also Fung (2015) put it, the government cannot act efficiently if only a part of the society's voices is heard. The role of the planner is to step in and create chances, like education, for the ones that don't have trust in the institutions or have lower social status. Then, it might be possible to not only positively impact the built environment we are living in, but also society as a whole, and thereby individuals.

Finally, further research could be done on participatory planning and the influence of participating in it on individual characteristics like well-being.

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## Appendix

- A. Overview of variables: names and labels in Dataset, used for statistical analysis. Including measurement and exact questions used in the survey (ESS, 2018).

	Variable Name	Variable Label	Measurement	Survey question
dependent				
<b>Citizen Participation</b>	vote	Voted last national election (corrected for people not eligible to vote)	Nominal (yes/no)	Some people don't vote nowadays for one reason or another. Did you vote in the last [country] national election in [month/year]?
	contplt	Contacted politician or government official last 12 month	Nominal (yes/no)	There are different ways of trying to improve things in [country] or help prevent things from going wrong. During the last 12 months, have you done any of the following? Have you... ..contacted a politician, government or local government official?
	wrkprty	Worked in a political party or action group last 12 month	Nominal (yes/no)	There are different ways of trying to improve things in [country] or help prevent things from going wrong. During the last 12 months, have you done any of the following? Have you... ..worked in a political party or action group?
	wrkorg	Worked in another organisation or association last 12 month	Nominal (yes/no)	There are different ways of trying to improve things in [country] or help prevent things from going wrong. During the last 12 months, have you done any of the following? Have you... ..worked in another organisation or association?
	sgnptit	Signed petition last 12 month	Nominal (yes/no)	There are different ways of trying to improve things in [country] or help prevent things from going wrong. During the last 12 months, have you done any of the following? Have you... ..signed a petition?
	pbldmn	Taken part in lawful public demonstration last 12 month	Nominal (yes/no)	There are different ways of trying to improve things in [country] or help prevent things from going wrong. During the last 12 months, have you done any of the following? Have you... ..taken part in a

				lawful public demonstration?
	totalcp	Overall citizen participation (r-coded scores from variables above)	Ratio	re-coded
independent				
<b>Individual's Happiness</b>	happy	Subjective Happiness	Ordinal	Taking all things together, how happy would you say you are?
<b>Spatial Factors</b>	country	Country of respondent	nominal	Automatically generated
	domicil	Living Environment of area	nominal	Which phrase on this card best describes the area where you live?
<b>Socio-economic background</b>	hinctnta	Household Total Net Income, organized in deciles	ordinal	Using this card, please tell me which letter describes your household's total income, after tax and compulsory deductions, from all sources? If you don't know the exact figure, please give an estimate. Use the part of the card that you know best: weekly, monthly or annual income.
	health	Subjective general health	ordinal	How is your health in general? Would you say it is ...
	edyurs	Years of full-time education completed	ratio	About how many years of education have you completed, whether full-time or part-time? Please report these in full-time equivalents and include compulsory years of schooling.
<b>Trust in Institution</b>	totaltrst	Total trust in country's institutions (Median of variables (Trust in country's parliament, Trust in legal system, Trust in the police, Trust in politicians, Trust in political parties)	Ratio	Using this card, please tell me on a score of 0-10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust. Firstly... ...[country]'s parliament?/the legal system?/the police?/politicians?/political parties?

B. Main regression: dependent variable *Total Citizen Participation*, method "enter"

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,353 <sup>a</sup>	,124	,123	1,063

C.

a. Predictors: (Constant), Slovakia, Total Net Income - 2nd decile, Cyprus, Iceland, Slovenia, Estonia, Lithuania, Latvia, Ireland, Croatia, Norway, Denmark, Hungary, health=Very bad, Finland, Bulgaria, Gender, Switzerland, Austria, Czechia, domicil=Town or small city, Portugal, Sweden, Belgium, health=Bad, Total Net Income - 9th decile, Netherlands, Poland, Total Net Income - 5th decile, health=Very good, Total Net Income - 6th decile, Spain, domicil=Farm or home in countryside, Italy, Total Net Income - 8th decile, Years of full-time education completed, Total Net Income - 3rd decile, domicil=Suburbs or outskirts of big city, Total Trust in Institutions, How happy are you, Total Net Income - 1st decile, United Kingdom, health=Fair, domicil=A big city, Total Net Income - 10th decile, France, Total Net Income - 4th decile

D.

E.

**ANOVA<sup>a,b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5723,697	47	121,781	107,860	,000 <sup>c</sup>
	Residual	40252,269	35651	1,129		
	Total	45975,966	35698			

F.

a. Dependent Variable: Total Citizen Participation

b. Weighted Least Squares Regression - Weighted by Analysis weight

c. Predictors: (Constant), Slovakia, Total Net Income - 2nd decile, Cyprus, Iceland, Slovenia, Estonia, Lithuania, Latvia, Ireland, Croatia, Norway, Denmark, Hungary, health=Very bad, Finland, Bulgaria, Gender, Switzerland, Austria, Czechia, domicil=Town or small city, Portugal, Sweden, Belgium, health=Bad, Total Net Income - 9th decile, Netherlands, Poland, Total Net Income - 5th decile, health=Very good, Total Net Income - 6th decile, Spain, domicil=Farm or home in countryside, Italy, Total Net Income - 8th decile, Years of full-time education completed, Total Net Income - 3rd decile, domicil=Suburbs or outskirts of big city, Total Trust in Institutions, How happy are you, Total Net Income - 1st decile, United Kingdom, health=Fair, domicil=A big city, Total Net Income - 10th decile, France, Total Net Income - 4th decile

G.

**Coefficients<sup>a,b</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Collinearity Statistics	
		B	Std. Error	Beta	t		Tolerance	VIF
1	(Constant)	,562	,047		12,036	,000		
	Total Trust in Institutions	,022	,003	,036	6,573	,000	,820	1,219
	Years of full-time education completed	,064	,002	,227	41,134	,000	,809	1,236
	Gender	,035	,012	,014	2,876	,004	,986	1,014
	How happy are you	,035	,004	,051	9,272	,000	,802	1,247
	domicil=A big city	-,116	,019	-,036	-6,248	,000	,756	1,323
	domicil=Suburbs or outskirts of big city	-,030	,020	-,008	-1,488	,137	,771	1,296
	domicil=Town or small city	-,061	,015	-,023	-4,003	,000	,713	1,403
	domicil=Farm or home in countryside	,082	,032	,013	2,549	,011	,885	1,130
	Total Net Income - 1st decile	-,354	,029	-,080	-12,378	,000	,585	1,709
	Total Net Income - 2nd decile	-,227	,027	-,057	-8,453	,000	,549	1,820
	Total Net Income - 3rd decile	-,208	,027	-,051	-7,730	,000	,569	1,758
	Total Net Income - 4th decile	-,191	,026	-,048	-7,283	,000	,560	1,787
	Total Net Income - 5th decile	-,137	,026	-,034	-5,219	,000	,572	1,748
	Total Net Income - 6th decile	-,071	,026	-,018	-2,703	,007	,571	1,751
	Total Net Income - 8th decile	-,017	,026	-,004	-,665	,506	,570	1,754
	Total Net Income - 9th decile	,111	,027	,026	4,029	,000	,605	1,653
	Total Net Income - 10th decile	,044	,027	,011	1,639	,101	,575	1,739
	health=Very good	-,059	,016	-,020	-3,697	,000	,824	1,213
	health=Fair	,090	,015	,033	5,902	,000	,800	1,251
health=Bad	,150	,027	,030	5,548	,000	,856	1,169	
health=Very bad	,121	,056	,011	2,173	,030	,950	1,052	
Austria	,008	,047	,001	,170	,865	,925	1,081	
Belgium	-,141	,039	-,019	-3,613	,000	,895	1,117	

Bulgaria	-,525	,052	-,053	-10,047	,000	,899	1,112
Switzerland	-,130	,049	-,014	-2,639	,008	,919	1,089
Cyprus	-,474	,142	-,017	-3,337	,001	,989	1,011
Czechia	-,414	,048	-,045	-8,673	,000	,923	1,083
Denmark	,131	,056	,012	2,360	,018	,942	1,062
Estonia	-,677	,105	-,032	-6,474	,000	,985	1,015
Spain	-,029	,025	-,007	-1,163	,245	,737	1,358
Finland	,115	,054	,011	2,120	,034	,937	1,068
France	-,291	,021	-,084	-13,785	,000	,656	1,525
United Kingdom	-,188	,022	-,053	-8,752	,000	,661	1,512
Croatia	-,139	,068	-,010	-2,036	,042	,949	1,054
Hungary	-,647	,052	-,064	-12,568	,000	,935	1,069
Ireland	-,192	,071	-,014	-2,698	,007	,954	1,048
Iceland	,344	,214	,008	1,608	,108	,996	1,004
Italy	-,309	,025	-,072	-12,341	,000	,718	1,393
Lithuania	-,657	,078	-,042	-8,384	,000	,970	1,031
Latvia	-,566	,094	-,030	-6,022	,000	,977	1,023
Netherlands	-,103	,034	-,016	-2,989	,003	,865	1,156
Norway	,251	,057	,023	4,428	,000	,939	1,065
Poland	-,474	,029	-,092	-16,466	,000	,792	1,263
Portugal	,067	,044	,008	1,505	,132	,904	1,106
Sweden	,333	,042	,041	7,938	,000	,899	1,112
Slovenia	-,468	,089	-,026	-5,254	,000	,977	1,023
Slovakia	-,444	,062	-,036	-7,166	,000	,951	1,051

H.

a. Dependent Variable: Total Citizen Participation

b. Weighted Least Squares Regression - Weighted by Analysis weight

I.

J.

**Excluded Variables<sup>a,b</sup>**

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
					Tolerance
1	domicil=Country village	, <sup>c</sup>	.	.	,000
	Total Net Income - 7th decile	,000 <sup>c</sup>	,000	1,000	0,000E+0
	health=Good	, <sup>c</sup>	.	.	,000

K.

**Excluded Variables<sup>a,b</sup>**

Model	Collinearity Statistics	
	VIF	Minimum Tolerance
1	domicil=Country village	,000
	Total Net Income - 7th decile	6865243334406,244
	health=Good	,000

L.

a. Dependent Variable: Total Citizen Participation

b. Weighted Least Squares Regression - Weighted by Analysis weight

c. Predictors in the Model: (Constant), Slovakia, Total Net Income - 2nd decile, Cyprus, Iceland, Slovenia, Estonia, Lithuania, Latvia, Ireland, Croatia, Norway, Denmark, Hungary, health=Very bad, Finland, Bulgaria, Gender, Switzerland, Austria, Czechia, domicil=Town or small city, Portugal, Sweden, Belgium, health=Bad, Total Net Income - 9th decile, Netherlands, Poland, Total Net Income - 5th decile, health=Very good, Total Net Income - 6th decile, Spain, domicil=Farm or home in countryside, Italy, Total Net Income - 8th decile, Years of full-time education completed, Total Net Income - 3rd decile, domicil=Suburbs or outskirts of big city, Total Trust in Institutions, How happy are you, Total Net Income - 1st decile, United Kingdom, health=Fair, domicil=A big city, Total Net Income - 10th decile, France, Total Net Income - 4th decile

M. Second regression. Method: Enter. Dependent variable: How happy are you? Independent variables: Types of Citizen Participation

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,158 <sup>a</sup>	,025	,025	1,873

N.

a. Predictors: (Constant), Taken part in demonstration dummy, Voted in last election dummy, Contacted Politician Dummy, Worked for a party, Signed petition dummy, Worked in another organisation dummy

b. Dependent Variable: How happy are you

O.

P.

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4153,828	6	692,305	197,419	,000 <sup>b</sup>
	Residual	161634,035	46092	3,507		
	Total	165787,864	46098			

Q.

a. Dependent Variable: How happy are you

b. Predictors: (Constant), Taken part in demonstration dummy, Voted in last election dummy, Contacted Politician Dummy, Worked for a party, Signed petition dummy, Worked in another organisation dummy

R.

S.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	7,086	,017			422,346	.000
	Voted in last election dummy	,279	,020	,066		14,171	.000
	Contacted Politician Dummy	,119	,026	,023		4,553	.000
	Worked for a party	-,014	,048	-,001		-,284	.777
	Worked in another organisation dummy	,500	,026	,097		19,304	.000
	Signed petition dummy	,266	,022	,061		12,216	.000
	Taken part in demonstration dummy	-,091	,035	-,013		-2,605	.009

T.

a. Dependent Variable: How happy are you