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***Income inequalities in the Polish subregions
and their implications for the well-being
of inhabitants***

Summary

The neoclassic economic model assumes that individual's utility level depends on individual's or her family's absolute income. Homo economicus does not compare his income with the income of others. However, number of recent studies suggest the existence of a negative impact of income inequality on the level of subjective well-being. Using the data from Social Diagnosis 2011 the paper aims at measuring the relation of income inequalities in Polish subregions and the level subjective well-being of their inhabitants. The results of the study are not conclusive and do not provide strong arguments either for rejecting or accepting the hypothesis of the negative effect of social inequalities in subregions on subjective well-being.

Key words: income, income inequalities, social comparison, happiness, subjective well-being, satisfaction with life, quality of life, Poland, subregions

Introduction

In *The Theory of Moral Sentiments*, Adam Smith [1759, 1982] pointed out that people are more likely to sympathize with our joy than with our sorrow, and therefore we praise our richness and conceal our poverty. Karl Marx [2006] showed that our desires and pleasures are rooted in society, which is why we measure their achievement in relation to society, and if so, they are of social, relative nature. “Our wants and pleasures have their origin in society; we therefore measure them in relation to society (...) Since they are of social nature, they are of a relative nature” [Marx 2006; 33] and he adds: “it is self-evident that wages can only be said to be high or low as compared with a standard by which to measure their magnitude” [22]. The *Social Limits to Growth* Hirsch [2005] drew our attention to positional goods that are consumed by those who are higher in the social hierarchy. The important characteristics of positional goods, is that they bring the utility of consumption partly because they are available only to a few. “In the *Trial of Inequality*” Jean-Jacques Rousseau [1956, 48] wrote: “Each one began to consider the rest, and to wish to be considered in turn; and thus a value came to be attached to public esteem. Whoever sang or danced best, whoever was the handsomest, the strongest, the most dexterous, or the most eloquent, came to be of most consideration; and this was the first step towards inequality, and at the same time towards vice. From these first distinctions arose on the one side vanity and contempt and on the other shame and envy; and the fermentation caused by these new leavens ended by producing combinations fatal to innocence and happiness.” Each of these great scholars and many others (e.g. Veblen 2008, Duesenberry 1952) sees the role social comparisons play in the process of evaluation of our situation. Despite strong evidence of the impact of comparisons on individuals in most economics textbooks dominates belief that the welfare of an individual is determined by the individual situation (material) and the relative position has no significant role. Of course, today’s economists are aware of the fact that man has a relative position, but their works are mainly based on the atomistic utility model.

Many researchers emphasize that the distinction between the absolute and relative grasp of utility has significant implications for the perception of an individual’s well-being. If utility depends on relative consumption, the growth of one’s consumption, leads to externalities in the form of reduction of relative consumption of others [Luttmer 2005; Frank 2007; Michoń 2013]. Additionally, the distinction of absolute and relative sources of utility can be observed in the discussion on (measurement) poverty. Understanding how inequalities affect the social well-being might play a significant role in the discussion on the redistribution of income and the objectives and instruments of social policy.

Social comparisons

More than half a century ago, Leon Festinger [1954] published his famous and prominent paper on social comparisons. Nowadays, the theory of social comparison is very extensive and used in various areas of scientific inquiry. Let's focus on the most important elements of social comparison theory from the perspective of the paper's goal. What does social comparison theory tell us about the impact of other people on our subjective well-being? First, in many situations, people compare each other, and, as suggested by some studies, sometimes we do it completely unconsciously. Secondly, an individual compares themselves mostly with people he or she knows; who represent that person's reference group. Thirdly, the reference group consists of people who are in some way important to the individual and who belong to the "same league", i.e. siblings, friends, neighbours, colleagues, parents. Fourth, upward comparison (e.g. with those who earn more than we do) may result in two ways: reduction of subjective well-being and/or by increasing the motivation to climb higher in the social (income) hierarchy. Fifth, downward comparison, (e.g. with those earning less than we do) increase the level of life satisfaction. Sixth, income level evaluation depends on the results of social comparisons. Seventh, in addition to comparison with others, we compare ourselves to the past (temporal comparison).

The perception of inequalities

Psychologists point to the fact that man uses cognitive schemas, simplifications that make easier our daily functioning. One of these schemes; availability heuristic, understood as a tendency to formulate judgments on the basis of readily available information makes people think that people of high status are likely to overestimate the number of members of their group and assess society as "rather" egalitarian. Meanwhile, individuals representing people with low status are convinced that the number of poor people in society is much higher than it is in fact, and they are convinced that they live in a country of large inequalities. Thus, the reference group affects how the person perceives the social stratification [Evans, Kelly, Kolosi 1992]. The rich and successful see others as rich and successful, and the poor, conversely, perceive others as poor. People tend to carry their own social status to others. Man categorizes the collected information always when it is only possible. Information about social status is usually readily available, so that it forms a basis for cognitive categorizing [Hollander, Howard, 2000]. Social position also plays an important role in shaping the identity of the individual. We think of ourselves through the prism of how we assess our place in a group.

People with similar attributes act and even think differently when the situation around them is changing. Durkheim was one who found that Protestants are less likely to commit suicide when they live in a catholic country than when living in protestant countries, and Coleman said that poor children learn better when getting into

a school for children of the middle class than when they go to school for poor children [Carter 1991]. What does this mean in the context of income inequalities and their relation to welfare? One does not have to experience inequalities that occur at the macro level, but certainly we are affected by the daily experience resulting from direct contact with our environment.

Income inequality and well-being

Using panel data in his research Luttmer [2005] noted that the decline in the individual's (household's) income led to a reduction in the level of declared happiness. This result is in line with the traditional economic model. But it is not true, in case of the next Luttmer's conclusion [2005]: an increase in income in the neighbourhood (while one's income remains unchanged) also led to a decline in happiness of the individual. In both cases, i.e. when the personal income fell and when it remained unchanged but neighbours earned more; Luttmer observed a strong negative impact of the change on individuals' happiness.

The relationship between inequality of income and the level of subjective well-being depends, as suggested by Alesina et al. [2004], on the level of concerns for inequalities and the belief that individual effort can move people up the income ladder (social mobility). In this model, the attitude towards inequality and perceptions of mobility act as a buffer, or more formally: a mediating variable. When we consider that income inequality is a desirable/acceptable phenomenon, and at the same time we believe that everyone can climb up the social ladder if only the person makes sufficient effort and/or because of her talent, the presence of income inequality may even contribute to the growth of human happiness. On the other hand, those who prefer equality and are concerned that climbing up the social ladder is extremely difficult, almost impossible, experience a decrease of subjective well-being when faced with high levels of income inequalities. In accordance with the views Europeans are culturally unhappy about inequalities while Americans are more favorable to them [Alesina et al. 2004] (and this despite evidence that social mobility in the U.S. is lower than in most OECD countries). Simultaneously, the authors state that income inequalities are important for individual's happiness if they pose a threat to the future situation of the individual. Thus, income inequality in the United States seems more threatening to the happiness of relatively wealthy persons. There is a lot of risk that they will experience a deterioration of their situation (lower place in the social hierarchy). In Europe, inequality affects mainly the poor, who do not see their chances to improve their relative position [Alesina et al. 2004].

Reflecting on the mechanisms of how the income inequality affects individuals' subjective well-being Simone Schneider [2012] directed our attention to the cognitive processes associated with the perception of inequality. Analysing the responses of German respondents the author points out that it's not so much the perceived level of inequality, but its legitimacy, which is important for individuals [Schneider 2012].

To put it another way: if we perceive income inequality but assess it as well-deserved, or if the mechanism leading to the formation of inequality is seen as a fair one; the existence of inequality will not have a strong impact on our well-being. A study conducted by Schneider points out that it is not about objective differences in income levels that are important for our subjective well-being, but it is how we perceive the (estimated) inequality [Schneider 2012]. We see here a reference to the distinction between distributive and procedural justice, which represents an important topic in the studies of organizational behaviour.

Verme [2011] examined the relationship between inequality of income and life satisfaction at the country level. Stipulating that the results may be misleading due to numerous methodological limitations, the author suggested the existence of a negative impact of income inequality on the level of satisfaction with life. Studying Latin America Graham and Felton [2006] came to the conclusion that income inequalities have a very significant impact on well-being. The authors pointed out the lack of correlation between the average income in the country (and in particular cities) and the well-being of its residents (with the exception of the smaller, poorer cities). The relationship between inequality of income and happiness was also studied by Gandelman and Porzecanski [2013]. Using data from Gallup World Poll they found that differences in the level of happiness are less vivid than the differences in income inequality, and according to the authors this represents proof for a decreasing utility of income [Gandelman, Porzecanski 2013]. Clark [2003] used the British panel data to explore the consequences of the income distribution in the reference group for life satisfaction of the full-time employed. The conclusions of the study: as the average income of the reference group grows, the individual's well-being decreases, and at the same time well-being is positively correlated with the level of inequality in the reference group. Clark [2003] also noted that the acceptance, if not sympathy, for income inequality is greatest among those whose incomes were the most diverse in the past three years, and those who are experiencing the fastest growth of income. Oshio and Kobayashi [2011] scrutinized the relationship between income inequality and happiness in Japan. They concluded that people living in areas with large inequalities are, on average, relatively less happy. However, this relationship turns out to be only moderately important, and it is much stronger for those less fortunate and those whose employment status is unstable [Oshio, Kobayashi 2011].

Study

The source of the data used in the study is an integrated database of Social Diagnosis 2011 [Rada Monitoringu Społecznego 2011] and the report of the Social Diagnosis 2011 [Czapiński, Panek 2011].

Dependent variables:

- The average life satisfaction in the subregion; the answer to the question: “How do you feel about your life as a whole, could you say it was...”. Likert’s scale ranges from 1 to 7, where 1 means “delighted” and 7 - “terrible”.
- The average level of happiness in the subregion, the answer to the question: “Taken all together, how would you say things are these days? Would you say that you are...”. Likert’s scale ranges from 1 to 4, where 1 is “very happy” and four “unhappy”.

The average level of life satisfaction and happiness was controlled for: age, labour market status, gender and level of education.

Dimensions of quality of life [Czapiński, Panek 2011, 356]:

- *social capital* - the activity for the local community, participation in the local elections in 2010 (in 2009 the share of the general elections in 2007, in 2007 the share of the local elections in 2005, the share of the EU referendum) voluntary participation in the community meetings, a positive attitude to democracy, membership in the organizations and fulfilling functions in them, the belief that most people can be trusted;
- *psychological well-being* - a sense of happiness, the evaluation of all existing life, depression, the assessment of the past year;
- *physical well-being* - the intensity of somatic symptoms, serious illness in the past year, the degree of disability, severity of stress-related health;
- *social well-being* - no feelings of loneliness, the feeling of being loved and respected, the number of friends;
- *life stress* - the sum of six categories measured stress experiences in the following areas: finance, labor, contacts with the authorities, raising children, relationships in marriage, ecology (flat, neighborhood).

Independent variables

The main independent variable is income inequality. In the study I have used two measures of income inequality at the level of the subregion: the Gini coefficient and the coefficient of variation (90/10) compared to income of extreme income groups: 10% of the highest and lowest paid. Average monthly household income per equivalent unit obtained in the last three months prior to the survey was used to calculate the income inequality. The use of equivalence scales make it possible to measure the impact of the size and demographic characteristics on the household’s level of needs [Panek 2011, 45]. The scale of equivalence was calculated for every household and it indicates how much we need to decrease or increase household’s income, to make it possible to meet the needs on the same level as the household standard benchmark [Panek 2011, 45].

Statistical analysis was performed at the level of 58 subregions (NUTS3). The NUTS level 3 are subregions, in which the size of population ranges between 150,000 and 800,000 (except for Warsaw subregion).

Income inequalities in Polish subregions

Transition period in Poland was accompanied by rising income inequalities among Polish households. Analyzing the data on Gini coefficient provided by the World Bank [World Bank 2013] we find that after 1989: (1) the level of inequality in Poland in 1989 was relatively high (Gini = 0.269), (2) inequality increased between 1992 - 2004 (Gini coefficient in 2004 was 0.359), (3) starting from 2005 the Gini coefficient for the Polish has been decreasing (in 2011 Gini = 0.327). According the Social Diagnosis data also the income inequality measured by the coefficient of variation has been decreasing [Panek 2011].

The level of income inequality in 58 Polish subregions are shown in Table 1

Table 1 Income inequality at the household level in Polish subregions and happiness, life satisfaction and selected measures of quality of life.

Subregion	Social well-being*	Pathologies *	Social capital*	Physical well-being*	Psychological well-being*	Life stress*	Average happiness**	Average life satisfaction**	Gini **	Decile variation 90/10**
Bialski	-0,12	0,03	-0,04	0,07	-0,14	-0,1	2,13	2,89	0,36	4,59
Białostocki	0,12	-0,02	-0,07	-0,06	-0,11	-0,09	2,17	2,92	0,26	4,08
Bielski	-0,06	0,05	-0,02	0,17	0,03	0,13	2,16	2,85	0,20	2,60
bydgosko-toruński	0,09	-0,14	0,03	0,01	0,21	-0,04	2,00	2,55	0,32	3,58
Bytomski	0,06	0,12	-0,21	0,28	0,1	0,43	2,03	2,79	0,30	4,21
chełmsko-zamojski	0,1	0,1	0,07	-0,14	-0,09	0,13	2,17	2,88	0,31	3,56
ciechanowsko-płocki	0,01	-0,06	-0,05	-0,08	-0,16	-0,14	2,17	2,96	0,34	4,34
Częstochowski	0,05	0,06	0,06	0,04	0,04	0,06	2,12	2,81	0,27	3,07
Elbląski	-0,04	0,08	-0,09	0,17	0,19	0,33	2,08	2,70	0,27	3,75
Etcki	-0,06	-0,02	0,07	0,07	-0,13	0,09	2,16	2,83	0,25	3,61
Gdański	0,06	-0,07	0,08	0	0,09	-0,22	2,08	2,71	0,32	4,21
Gliwicki	0,01	-0,04	-0,05	-0,14	-0,08	-0,23	2,14	2,82	0,34	3,08
Gorzowski	-0,13	-0,01	-0,01	-0,22	0,04	-0,09	2,02	2,80	0,29	3,54
Grudziądzki	-0,02	0	-0,07	-0,12	-0,16	0,06	2,12	2,89	0,30	3,97
Jeleniogórski	0,15	0,05	0,09	-0,04	-0,03	0,13	2,13	2,77	0,34	3,73
Kaliski	0,1	-0,08	-0,02	0,05	0,19	-0,09	2,03	2,74	0,25	3,70
Katowicki	0,07	-0,19	-0,02	-0,09	-0,01	-0,01	2,06	2,87	0,46	3,99

Kielecki	-0,15	0,04	0,02	-0,04	0	0,01	2,09	2,71	0,27	3,50
Koniński	-0,1	-0,01	-0,14	-0,01	-0,02	0,11	2,11	2,83	0,29	4,16
Koszaliński	-0,16	0,09	-0,07	0,03	-0,15	-0,02	2,20	2,93	0,31	4,53
Krakowski	0,03	0,05	0,04	0,04	0,08	0,02	2,12	2,78	0,29	3,82
Krośnieński	0,05	0,05	0,06	-0,12	0,07	0,1	2,15	2,71	0,29	3,71
legnicko- głogowski	0,11	0,03	-0,03	0,01	0,17	-0,05	2,10	2,76	0,27	3,56
Leszczyński	-0,01	-0,05	0,04	-0,16	0,11	0,12	2,03	2,70	0,28	3,68
Lubelski	0,01	-0,03	0,1	0	-0,05	-0,31	2,14	2,79	0,40	4,05
Łomżyński	-0,03	0,05	-0,14	-0,01	-0,13	-0,03	2,17	2,93	0,34	4,42
Łódzki	-0,02	0,11	-0,15	0,11	0,07	0,11	2,10	2,83	0,33	3,76
Nowosądecki	0,2	0,21	-0,1	0,1	0,13	0,27	2,05	2,65	0,32	3,54
Nyski	0	0,06	-0,16	0,09	-0,05	0,1	2,14	2,79	0,31	4,39
Olsztyński	-0,26	0	-0,07	0,11	-0,16	-0,07	2,20	2,99	0,27	3,69
Opolski	0,01	-0,09	0,06	0,04	-0,07	0,1	2,15	2,95	0,28	3,44
ostrolęcko- siedlecki	-0,01	0,07	-0,06	0,1	-0,08	0,19	2,14	2,85	0,30	3,87
Oświęcimski	-0,01	-0,01	0,04	-0,32	-0,11	-0,06	2,16	2,79	0,25	3,52
Piński	-0,17	-0,09	0,14	-0,04	-0,14	0,32	2,13	2,92	0,26	3,28
Piotrkowski	-0,04	0,03	0,04	-0,16	-0,19	-0,25	2,17	2,92	0,25	3,27
Poznański	-0,01	-0,13	0,03	0,07	0,16	-0,05	2,05	2,62	0,32	3,84
Przemyski	0,01	0,21	-0,15	0,07	0,09	0,09	2,10	2,87	0,35	3,79
Puławski	0,17	0,05	0,14	-0,03	-0,01	0,07	2,07	2,89	0,31	3,58
Radomski	-0,05	-0,04	-0,01	-0,19	-0,21	-0,13	2,20	2,92	0,28	3,88
Rybnicki	0,15	-0,03	0	-0,01	0,08	0,05	2,09	2,74	0,29	3,33
Rzeszowski	0,22	0,01	0,2	0,06	-0,08	-0,15	2,18	2,91	0,30	4,42
sandomiersko- jędrzejowski	-0,13	0	0,06	-0,05	-0,25	-0,09	2,20	2,95	0,26	3,16
Sieradzki	-0,05	0,17	0,03	-0,19	-0,22	-0,01	2,11	2,93	0,37	3,59
Skierniewicki	0,06	0,15	-0,16	0,02	0,03	0,04	2,13	2,76	0,26	3,54
Słupski	0,11	0,11	0,01	0,1	0,17	0,41	2,01	2,64	0,34	4,11
Sosnowiecki	-0,07	0	-0,16	-0,04	-0,03	-0,11	2,14	2,80	0,27	3,41
Stargardzki	-0,03	-0,1	0,1	0	0,09	-0,15	2,06	2,57	0,31	4,76
Starogardzki	-0,02	-0,08	0,02	0,02	0,12	-0,03	2,06	2,84	0,30	3,51
Suwalski	-0,05	-0,01	0,06	-0,04	-0,27	0,14	2,24	2,93	0,32	3,81
Szczeciński	-0,05	-0,18	-0,02	0,08	0,08	-0,12	2,11	2,76	0,28	3,43
Tarnobrzeski	0,07	0,01	-0,05	-0,01	-0,11	-0,03	2,16	2,94	0,28	3,85

Tarnowski	0,09	0,04	-0,01	0,03	0,09	0	2,10	2,73	0,36	3,99
Tyski	-0,08	0,01	-0,12	0,17	0,16	0,1	2,05	2,62	0,41	4,86
Wałbrzyski	-0,17	-0,06	-0,06	-0,15	-0,27	-0,15	2,22	2,95	0,27	3,34
Warszawski	0,01	-0,06	0,19	0,09	0,05	-0,05	2,12	2,79	0,35	5,07
Włocławski	-0,1	0,2	-0,25	0,06	0,01	0,16	2,11	2,83	0,26	3,98
Wrocławski	-0,04	-0,07	0,05	-0,08	0,01	-0,17	2,10	2,81	0,31	4,32
Zielonogórski	0,01	-0,12	-0,06	-0,2	-0,05	-0,1	2,16	2,77	0,31	4,17

* Source of data: the report "Social Diagnosis 2011"; ** calculations based on the database Social Diagnosis 2011, when calculating the average level of happiness and satisfaction with life; covariant were: age, education, gender, labor market status, marital status.

The greatest income inequality measured by the Gini coefficient was observed in the subregion of Katowice (Polish: katowicki) and the lowest in the subregion of Bielsko-Biała (Polish: bielski). When the inequality was measured with the coefficient of decile variation (90/10) the greatest inequalities were observed in the Warsaw subregion (Polish: warszawski) and the smallest again in Bielsko-Biała subregion.

The average well-being were controlled for: age, sex, level of education, labour market status and marital status, and it turned out to be the happiest people live in Bydgoszcz-Toruń subregion (Polish: bydgosko-toruński), and the least happy residents are those of the subregion of Suwałki (Polish: suwalski). Residents of the Bydgoszcz-Toruń subregion turned out to be on average most satisfied with their life. At the opposite extreme were people of the subregion of Olsztyn (Polish: olsztyński).

Inequalities and welfare

A review of previous studies showed that there are reasons to expect a relationship between the level of income inequality and the well-being of people living in the subregion. However, Spearman correlation test results point to the lack of that relationship. The level of subjective well-being (a measure of: happiness, life satisfaction) was found to be weakly correlated with the size of inequality (Gini; 90/10), but these correlations were found to be statistically significant. Additionally a sign of the correlation was opposite than expected: increasing inequality increased mean happiness and satisfaction with life in the subregions. Spearman correlation values between average happiness and satisfaction with life, and the Gini coefficient were as follows: -, 247 ($\alpha = 0.062$), and -, 127 ($\alpha = 0.343$) and the ratio 90/10 were as follows: -, 054 ($\alpha = 0.687$) and -, 071 ($\alpha = 0.596$). Similarly, no statistically significant correlation was observed between all dimensions of quality of life and the inequality of income in subregions. Interesting results appeared while calculating the correlation between the median/average income in the subregion and the average happiness / satisfaction with life for its residents. The higher the income (mean, median), the happier the respondents (correlation scores happiness/average income -, 334 $\alpha < 0.05$;

happiness/ median income -, 29 $\alpha < 0.05$, satisfaction with life / average income -, 378 $\alpha < 0.01$, satisfaction with life / median income - 396 $\alpha < .01$).

Discussion and concluding remarks

The results of the study show no association between happiness, life satisfaction, and selected measures of quality of life and inequality of income at the level of Polish subregions. At the same time we observe that the level of subjective well-being is positively correlated with the average/median income. Does this mean that income inequality does not have a negative impact on the welfare of the Poles? Not necessarily. There are several potential explanations for that.

First, in the case of studies cited earlier ie. Luttmer [2005], a decrease in subjective well-being was followed by an experience of a decrease in income (while the level of income in neighbourhood was constant), or if the absolute income remained unchanged, while others (neighbours become relatively richer). Thus, in absolute terms the situation of the respondents deteriorated or at best remained unchanged. The situation in Poland in 2011 was different, the average real income had been growing for more than a decade and at the same time income inequality decreased [Panek 2011]. Thus, on average, we observe a situation where both the relative and absolute position of many people has been improving. It can be assumed that the negative effect of comparisons with other people, at least partially, has been offset by positive impact comparisons over time (temporal comparison). Such an assumption is in line with what is written by other authors [eg Alesina et al. 2004]: income inequality plays an important role for individual happiness if it poses a threat to the future situation. This leads to the recommendation to use panel data in future studies.

Second, the relatively low level of income inequality observed for the subregion. Based on previous studies [eg, Kurowska 2011; Wilkinson, Pickett, 2011], we can say that the Gini coefficient for both the countries and the regions is typically in the range of 0,2-0,6. If you believe that the value of 0.3 or less indicates a low level of inequality, it turns out that more than half of the Polish subregions (32 out of 58) experience low levels of inequality, and most of the rest (24) at most moderate level (less than 0.4) , and in only two subregions, Tychy and Katowice Gini coefficient exceeds 0.4.

Thirdly, it is clear from the literature review and data presented in recent years, that income inequality in Poland has been, at least for some time, decreasing. It is therefore possible that in the year 2011, the year of the data used in this study, we observe the positive effects of the change.

Fourth, if comparisons are to explain the effects of social inequality on the happiness of an individual, it is possible that the data analyzed at the subregional level is too vague. The chances that the level of inequality will be reflected in the level of happiness increase if the analysis will be conducted at the level of village, settlement or neighbourhood.

Summing up: the results do not give a definitive answer to the question: whether in Poland there is a relationship between inequality of income and happiness/satisfaction with life. Further research is needed, preferably using panel data collected for relatively smaller areas than the subregions.

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Streszczenie

W ekonomii neoklasycznej zakłada się, że użyteczność jednostki zależy od poziomu jej (ewentualnie jej rodziny) dochodu absolutnego. *Homo economicus* nie porównuje swojego dochodu z dochodem innych. Jednakże w ostatnim czasie opublikowano wiele badań sugerujących istnienie negatywnego wpływu nierówności dochodowych na poziom subiektywnego dobrostanu. Wykorzystując dane z Diagnozy Społecznej 2011, w tym artykule stawiam sobie za cel pomiar wpływu nierówności dochodowych w polskich subregionach na subiektywny dobrostan ich mieszkańców. Wyniki badania nie przemawiają ani za odrzuceniem ani za przyjęciem hipotezy o negatywnym wpływie nierówności dochodowych w subregionach na poziom subiektywnego dobrostanu.

Słowa kluczowe: dochód, nierówności dochodowe, porównania społeczne, szczęście, subiektywny dobrostan, satysfakcja z życia, jakość życia, Polska, subregion